Discharge against medical advice in emergency department of a general hospital in Tehran

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ABSTRACT: Patients with against medical advice (AMA) discharge, are exposed to the risk of getting inadequate treatment and readmission. In this present study we studied AMA discharge rate and its reasons in addition to evaluating the effect of a consultation program on AMA discharge rate in Shohada-e-Tajrish hospital in Tehran. In two comparable consecutive periods of 12 weeks between Feb. and Jul. 2010, patients who decided to sign out of the emergency ward of Shohada-e-Tajrish hospital in Tehran Against medical advice (AMA), were invited to participate in this study. During the first period, a questionnaire was used to interview the participants for their reasons to leave the hospital. In the second period, the patients were also consulted by a physician and a trained nurse before discharge. AMA discharge rate and reasons of discharge was compared between the two study periods. Among 12843 patients who referred to the emergency department, 1516 patients (11.8%) were discharged with self-consent (Against Medical Advice). The main reasons for leaving the hospital against medical advice were: feeling better (78%) and looking for better care in another center. In the intervention group, 1178 of 14001 patients left the hospital against medical advice and the AMA discharge rate dropped to 9.41%. The main reason behind this decision was still feeling better which dropped to 84.4% of patients. However, the second most frequent reason (looking for better service in another hospital) slightly increased. AMA discharge poses a serious problem which may be addressed and decreased by properly educating the patients on the associated risks. More studies on the outcome of AMA discharge including quantitative studies are necessary to clarify all aspects of this risky phenomenon in emergency wards.

Keywords: against medical advice; Emergency department; Hospital; self discharge

INTRODUCTION

Against medical advice discharges is regarded as a highly prevalent problem of health care quality, representing as much as 2% of global hospital discharges (Albert and Kornfeld, 1973; Aliyu, 2002). Studies have shown that patients may withdraw consent and leave the hospital for both medical and social reasons (including personal, family, or financial issues; conflicts with staff; dissatisfaction with hospital care, environment, or treatment interventions and misunderstandings based on communication failure underlying medical, cognitive, and psychiatric issues) (Anis et al., 2002; Ding et al., 2007). Against medical advice discharges often involve complex matters (e.g. doctor-patient communication, informed consent, and underlying medical and psychiatric issues) (Duñó et al., 2003). It is reported that in teaching medical centers the rate of AMA discharges tend to be higher (Farber Post et al., 2006; Fiscella et al., 2007). Patients who have left AMA are at risk of inadequate treatment and have higher readmission rates and higher risk of mortalities (Fiscella et al., 2007; Green et al., 2004). Urgent hospitalization rate has been observed to be highest in the first nine days after AMA discharge (Farber Post et al.,
Readmission of patients discharged against medical advice leads not only to greater financial burden on the health care system (Hatamabadi and Mohammadi, 2008; Holden et al., 1989) but also to delays in investigation and treatment of acute illnesses that may lead to higher mortality (Hwang et al., 2003). Understanding why patients choose to leave the hospital AMA has obvious importance because of the potential to identify those at higher risk and therefore intervene earlier to prevent excess morbidity, mortality, and health care costs. Using 30-day readmission data, the cost of readmission due to AMA discharge has been calculated at 56% higher than expected from the initial hospitalization (Berg and Dhopesh, 1996). Several predictors of discharge against medical advice have been repeatedly identified. Patients who have left the hospital against medical advice tend to be younger, to be male, to have Medicaid or to be uninsured, to come from a lower socioeconomic class and also lack a primary care physician (Albert and Kornfeld, 1973; Holden et al., 1989; Miller and Rollnick, 2002). Holden et al found that medical patients seen early by a consultation- liaison psychiatrist were less likely to sign out AMA (Miller and Rollnick, 2002). As the first interface between a medical facility and patients EDs play a key role in delivering healthcare service to target population. According to the results of two previously conducted studies in Iran, as a result of greater gap between the quality of care in teaching and non teaching hospitals, AMA discharge in Iran is a more frequent problem as compared to other studies (Fiscella et al., 2007; Green et al., 2004). The present study was conducted in one of the teaching hospitals in the city of Tehran to address this issue and to analyze the impact of intervention on AMA discharge rate among emergency department patients.

**MATERIAL AND METHODS**

This semi experimental study was conducted in the emergency department of Shohada-e-Tajrish Hospital, a 350-bed general teaching hospital in the north of Tehran-Iran which is affiliated to Shahid Beheshti University of medical sciences and health services. All patients between 18 to 70 years old who were transferred to the emergency department by ambulances of Tehran Emergency Medical Service and who wanted to leave AMA between February and July 2010 were include in this study. Patients who were younger than 18 and older than 70 years old, patients on illicit drugs and those transported to other centers for other reasons were excluded from the study. In the first phase which lasted for 12 weeks, with reference to previous studies, a questionnaire was used to interview the patients and gather their demographic data as well as their reasons for AMA discharge.

In the second phase which lasted for another 12 weeks, a physician was in charge of consulting the patients and their families and giving them a detailed description of the disease including treatment options and potential side effects and risks associated with AMA discharge. The study was approved by the medical ethics committee of Shahid Beheshti University of medical sciences and health services and an oral consent was part of subject enrolment.

**Statistical analysis**

The statistical analysis was carried out using the SPSS 12 software the chi-square test was used to compare the qualitative variables. All p-values less than 0.05 were considered significant.

**RESULTS**

A total of 12843 patients were admitted at the emergency department(ED) of Shohada hospital during the first phase (12 weeks) of the study and 14001 patients were admitted during the second phase. Figure (1) shows the distribution of referring patients during both study phases, the difference between the numbers of patients admitted in each phase was not statistically significant. The crude AMA discharge number for the first phase of the study was 1516 patients (out of 12843) and AMA prevalence in this phase before our intervention was 11.8%. The mean age of AMA patients was 42.38 years and most of them were male (67.34%). The most common reason for AMA discharge before intervention as stated by the participants was feeling better (78%), Of the 14001 patients who were admitted during the intervention phase, 1178(9.41%) patients left the hospital AMA. Details of AMA discharge including the reasons in each phase of the study are presented in Table 1. Prevalence of AMA in our patients significantly decreased after the intervention (P=0.00). (Table 1) The most common reason of AMA discharge in the intervention phase by far was also Feeling better (85.97%)


**DISCUSSION**

As compared to the 2% globally reported AMA discharge rate (Albert and Kornfeld, 1973; Aliyu, 2002), AMA discharge rate in this hospital was considerably high and amounted to 11.8% of all patients who were admitted to the emergency department. The figure was reduced to 9.41% by intervention (consultation). Few studies have addressed AMA discharge in the ED and those conducted in developing countries such as Iran are anecdotal. In Shirai et al study, (20.2%) patient referring to the emergency department were discharged AMA. ( Fiscella et al., 2007) In a large study on 100,000 patients with acute myocardial infarction, AMA discharge patients had a 40% higher risk of death or readmission due to myocardial infarction or unstable angina within two years after AMA discharge (Moy and Bartman, 1996). The most common cause of AMA discharge in this study was by far feeling better which is consistent with almost all other studies however, the Shirai study stresses on Lack of health insurance which was found more frequently in patients discharged AMA as an important cause for this behaviour (Fiscella et al., 2007). Motivational interviewing, which relies on the principle of patient-centered interviewing, helps physicians to examine decisions through the particular perspective of the patient which could also help with improving chronic disease outcomes by focusing on communication skill with patients (Onukwugha et al., 2010; Schlauch et al., 1979). There are few studies focusing on improvement of physicians’ communication skills to reduce AMA discharge, particularly in developing countries. Despite being a fore runner in this kind of study in Iran, failing to categorize the patients based on their reasons for admission or more demographic details, not following them up after AMA discharge and disregarding patients’ psychological factors seem to be the week points of this study. As part of the discharge process, patients had to sign a statement denoting that their decision to leave AMA was reached after consultation with their physician, without being subjected to coercion and with a full understanding and appreciation of the risks, benefits, and alternatives of the decision (Schlauch et al., 1979). Previously published literature mentions the role of psychological mechanisms in discharge AMA and it is generally accepted that improving patients’ preconceptions about hospitalization and possible related complications reduces the risk of AMA discharge. Two studies found that anxiety and anger might actually mask the feeling of helplessness in AMA discharge (Shirani et al., 2010; Taqueti VR, 2007). Physicians’ recognition and appreciation of patients’ concerns, can improve trust in relationship between physicians and patients. Based on the results of this study, the prevalence of AMA discharge in Iran is nearly 7 times the figure reported in other studies which are mainly conducted in developed countries. Thus a multicenter interventional study focusing on the underlying causes of admission and patient characteristics is justified for planning to resolve this problem in Iran.

Summary:

1-AMA discharge is a frequent condition in the ED.
2-Consulting intervention may significantly reduce AMA discharge.

<table>
<thead>
<tr>
<th>AMA discharge causes</th>
<th>Before Number/ Percent</th>
<th>After Number/ Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling better</td>
<td>1192(78)</td>
<td>995(84.4)</td>
</tr>
<tr>
<td>Tendency to refer to a better center</td>
<td>117(7.71)</td>
<td>50(4.24)</td>
</tr>
<tr>
<td>Lack of expert physicians</td>
<td>6(.3)</td>
<td>24(2.03)</td>
</tr>
<tr>
<td>Not having tendency to hospitalization</td>
<td>135(8.9)</td>
<td>35(2.98)</td>
</tr>
<tr>
<td>Lack of suitable services</td>
<td>31(2.04)</td>
<td>30(2.54)</td>
</tr>
<tr>
<td>Ward being over crowded</td>
<td>35(2.3)</td>
<td>19(1.6)</td>
</tr>
<tr>
<td>Need to hospitalization in special units such as ITU or CCU</td>
<td>32(2.1)</td>
<td>18(1.52)</td>
</tr>
<tr>
<td>Other reasons</td>
<td>21(1.38)</td>
<td>7(0.5)</td>
</tr>
<tr>
<td>Total AMA Discharge</td>
<td>1516(100)</td>
<td>1178(100)</td>
</tr>
</tbody>
</table>


Figure 1. Distribution of referring patients during both study phases (patient/week)

REFERENCES


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