

## Research Paper

# Evaluating the Causes and Consequences of Leaving the Hospital With Personal Consent in Patients of the Emergency Department



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## ABSTRACT

**Background:** Studies show that leaving the hospital with personal consent is increasing. This phenomenon has unpleasant and sometimes irreversible consequences. This study aims to investigate the causes and consequences of leaving the hospital with the personal consent of patients referred to the emergency department of hospitals affiliated with Qom University of Medical Sciences in 2021.

**Materials and Methods:** In this descriptive-analytical study, 345 patients were selected who, with personal consent, left the emergency department of selected hospitals affiliated with Qom University of Medical Sciences in 2021. The study data were collected via a questionnaire and a checklist. The questionnaire comprised demographic variables, patient-related factors, personnel-related factors, and hospital-related factors. The checklist of the consequences included questions about leaving the hospital with personal consent. The data were analyzed using descriptive and inferential statistics in SPSS software, version 20.

**Results:** Of 345 patients included in the study, 55.9% were male and the mean age of patients was 47.1 years. The most important reasons for leaving the hospital with personal consent were as follows: personal reasons (22.9%), fear of continuing treatment (11.9%), preference to continue the treatment in other medical centers (9.3%), the suggestion of other hospital staff (35.1%), not having the desired doctor (27%), nurses' suggestion (19.4%), lack of care (20.4%), and inadequate hospital space and facilities (14.0%). The consequences of leaving the hospital with personal consent in this study included re-admission and hospitalization (10.3%), mortality (3.4%), heart disease (0.87%), and mental disorders (0.57%).

**Conclusion:** After identifying the reasons for leaving the hospital with personal consent and highlighting the irreparable human and financial consequences, these causes should be eliminated to prevent irreparable and unfortunate consequences. Such causes include personal reasons, fear of continuing the treatment, and lack of care. Fixing the causes requires proper planning and effective actions.

### Keywords:

Hospital discharge, Informed consent, Emergency services

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## 1. Introduction

Leaving the hospital before a physician deems it advisable is called leaving against medical advice [1]. Moreover, leaving the hospital with the patient's consent is a defined process during which the patient voluntarily leaves the hospital without completing the course of treatment, despite the recommendations of the treatment team (physician and paramedic) [2]. The terms discharge against medical advice and leave against medical advice are used when a patient leaves the hospital with personal consent [3]. As one of the five important functional indicators of treatment with various reasons that causes incomplete treatment of the disease and irreparable human and financial consequences, leaving against medical advice is an important quality indicator to assess the patient's management in the Emergency Department (ED) [4].

Worldwide, a total of 2% of all hospital discharges are with personal consent, and one study has reported leaving the hospital with personal consent up to 25.9% [5]. In the United States, leaving the hospital with the patient's consent and incomplete treatment is one of the most important and serious problems and its rate is estimated to be 2% [6]. In a study by Robinson et al., patients who left a treatment center against medical advice accounted for 24.4% of all ED revisits [7]. According to another study, leaving the hospital with the personal consent of patients in Saudi Arabia was 4% [8]. Statistics of hospital discharges with personal consent in Iran in 2013, 2014, 2015, 2016, and 2017 were  $11.21 \pm 1.9$ ,  $7.02 \pm 0.92$ ,  $6.4 \pm 1.03$ ,  $4.57 \pm 0.66$ , and  $11.34 \pm 1.74$ , respectively [9]. In a study conducted by Bidgoli in Kashan City, Iran, comparing hospital discharges with personal satisfaction in young and old people, young people in the age range of 20-59 years and the elderly over 60 years old were included. The rate of hospital discharge with personal satisfaction was 28.11% in elderly patients and 71.88% in young patients [10]. The main reasons for leaving the hospital with the personal consent of patients can be dissatisfaction with the provided care, increased feeling of recovery, financial problems, lack of access to skilled and committed doctors, lack of advanced medical services, lack of essential medical equipment, overcrowding, and crowded treatment centers, dissatisfaction with the medical staff, dissatisfaction with the hospital environment, failure to achieve a satisfactory result of the treatment, and the prolongation of patients' stay [5]. In another study, important reasons for leaving the hospital with patients' satisfaction were financial constraints, family problems, dissatisfaction with the hospital and

the treatment process, lack of companionship for the patient, and poor staff communication with the patient [3]. Other factors are also involved in quitting with patients' consent, including variables related to service providers, hospitalization and withdrawal stages, clinical experience, gender, patient's age, type of insurance, medical history, and history of alcohol and drug use [1]. Factors such as poor economic status, lack of insurance coverage, male gender, and young age are involved in the patient's decision to leave with personal consent [11]. Factors such as marital status, patients' personal needs, education, length of stay, type of ward, being in a religious minority, insurance, feeling of well-being, social support, belief in traditional medicine, urban or rural life, or the place of residence are connected to leaving the hospital with personal consent [10, 12]. The results of a study showed that the rate of voluntary leave on evening and night work shifts was higher than the morning work shift, which is mostly because of the lack of special visits of an oncologist in outpatients in the ED [13].

Most of the patients who leave the hospital with personal consent return to the hospital with more severe complications. Also, most of these patients are diagnosed with cardiopulmonary diseases [11]. The consequences of leaving the hospital with patients' consent include increased risk of side effects, readmission in the ED and hospitalization, and negative impacts on health, which also have forensic and socio-economic consequences. [4]. Leaving the hospital with patients' consent can be the strongest predictor of readmission of patients in the first 15 days after voluntary discharge, along with increased costs and mortality rates [14]. Patients who leave the hospital voluntarily are directly at risk of readmission and death [8]. In patients who voluntarily refuse to continue treatment and leave the hospital with personal consent, the probability of readmission, complications of the disease, mortality rate, and morbidity, disruptions in the process of patient recovery, follow-up expert advice, the workload for emergency personnel, disproportionate use of resources, costs, and challenges to the ethical issues of healthcare providers may increase [15].

Other consequences of leaving the hospital with personal consent encompass increased costs for the patient and the healthcare system, incomplete treatment, and medical interventions, especially in patients with serious illnesses [10, 16]. The risk of death and readmission of patients who leave the hospital voluntarily is 40% higher compared to patients who complete their hospital treatment. The readmission rate for these patients in Canada is estimated at around 10%, while in other countries it is reported in the range of 3.7% to 24.4%. This rate is

reported to be 0.8% to 2.2% in the United States, while 3% for the mentally ill and 20% in the ED in Iran [12]. In the study conducted by Nilay Kumar in the United States, readmission of patients was directly related to the voluntary discharge or leaving the hospital, and the mortality rate increased almost 10-fold in these patients. The readmission of these patients increases the workload on the healthcare system as well [11]. EDs provide acute medical care and the patient's decision to admit or leave the hospital must be made within a limited time [17]. Leaving with the personal consent of patients can be a debilitating and serious problem in medical centers and hospitals. It can also increase the potential for problems in medical centers [4, 18].

Considering the importance of leaving the hospital with personal consent, identifying the causes and consequences, and preventing irreversible damages, this study aims to investigate the causes and consequences of leaving the hospital with personal consent in the emergency departments of selected hospitals affiliated with [Qom University of Medical Sciences, Qom City, Iran](#), in 2021.

## 2. Materials and Methods

This was a descriptive-analytical study. The statistical population included patients who had left the selected hospitals in Qom City, Iran, in 2021 with personal consent. After receiving the code of ethics from the Ethics Committee in Research and obtaining the referral letter of the Research Department from Qom University of Medical Sciences, we referred to the emergency rooms of selected hospitals, including the ED of Shahid Beheshti Hospital and the ED of Nekouei-Forghani-He-dayati Hospital. Based on the percentage determination formula in the community and considering the percentage of new hospitalization in the study of Obada Hasan et al., the sample size was equal to 345 with a 5% error, and the  $\alpha$  level of 5% is equal to 345 people. It should be noted that sampling was continued until the sample size was completed. A separate questionnaire and checklist of causes and consequences of leaving the hospital with personal consent were used to collect data. The questionnaire related to the reasons for leaving the hospital with personal consent included demographic variables (n=19), patient-related factors (n=14), personnel-related factors (n=5), and hospital-related factors (n=13).

The checklist had the consequences of leaving the hospital with personal consent including questions about leaving the hospital with personal consent that was completed during a telephone call after 15 days. The validity of the checklist questions was confirmed by the opinions of 10

experts in this field and its reliability was determined by using the test-retest method with random interviews of 15 patients who had left the hospital with personal consent along with calculating the Spearman-Brown correlation coefficient which was obtained at 89%.

To evaluate the content validity, we used the experts' point of view concerning the amount of correlation between the content of the measurement tool and the purpose of the research. The researcher-made checklist was designed using similar studies, and since the information was entered into the designed checklist by the researcher, the content validity was checked by several professors and officials in the field of hospital emergencies. To evaluate the content validity quantitatively, two relative indexes of content validity coefficient (CVR) and content validity index (CVI) were used. The CVI was calculated as the sum of the agreeing scores for each item that scored "relevant but needed to be reviewed" and "fully relevant," divided by the total number of professionals. To determine the CVR, experts were asked to review each item based on the range of necessity, usefulness, and adequacy.

The data were analyzed using the SPSS software, version 20, and descriptive and analytical statistical tests. To analyze the data, according to the type of specific purpose, hypotheses, and questions, we used descriptive statistics, the Chi-square test, independent and multiple logistic regression tests, and the sample size formula.

## 3. Results

As [Table 1](#) shows, emergency hospital discharge was higher among men (55.9%), individuals with university education (48.7%), freelancers (46.15%), and mostly on the morning shifts (55.1%).

[Table 2](#) shows the reasons for patients, and staff hospitals leave the hospital ED with personal consent. The most important causes regarding the patients are personal reasons (n=79, 22.9%), preference to continue treatment in other centers (n=32, 11.9%), feeling well (n=32, 9.3%), dissatisfaction with the doctor (n=27, 7.8%), and high hospital costs (n=20, 5.8%). Among the most important reasons related to the staff are the suggestion of other hospital staff (n=121, 35.1%), the absence of the desired physician (n=93, 27%), and the suggestion of nurses (n=67, 19.4%). In addition, the most important causes related to the hospital are the lack of medical care (n=70, 20.4%), inadequate space and facilities of the hospital (n=48, 14%), low quality of services (n=42, 12.2%), lack of cleanliness in the ward (n=34, 9.9%),

**Table 1.** Demographic characteristics

Variables	Characteristics	No. (%)
Gender	Male	193(55.9)
	Female	152(44.1)
Education	Illiterate	21(6.1)
	Primary	62(18.0)
	Secondary	94(27.2)
	University	168(48.7)
Occupation	Housekeeper	86(24.9)
	Freelancer	127(36.8)
	Employed	62(18.0)
	Retired	27(7.0)
	Unemployed	46(13.3)
Work shift	Morning	190(55.1)
	Evening	93(27.0)
	Night	62(18.0)

dissatisfaction with medical services ( $n=33$ , 9.6%), and the lack of improvement ( $n=29$ , 8.5%). [Figure 1](#) demonstrates the unfortunate and irreparable consequences of leaving the hospital ED against medical advice with the personal consent of the patients.

#### 4. Discussion

Throughout the study, 9413 patients were admitted to the EDs of affiliated hospitals to Qom University, of whom 1425 patients (15.1%) left the ED with personal consent. In this study, a total of 345 patients who had left Shahid Beheshti and Forghani-Nekouei-Hedayati hospitals with personal consent were studied, of whom 193 patients (55.9%) were men. A total of 250 patients were from Shahid Beheshti Hospital and 95 patients were from Forghani-Nekouei-Hedayati Hospital. Moreover, the patients were in the age range of 18-99 years with a mean age of 47.1 years. According to studies conducted by Estabsari et al., a statistically significant relationship exists between gender, age, and patient income and leaving with personal consent [19, 20]. The highest rate of discharge was in the morning shift and they reported in a study that 51% of patients left the hospital on the morning shift with personal con-

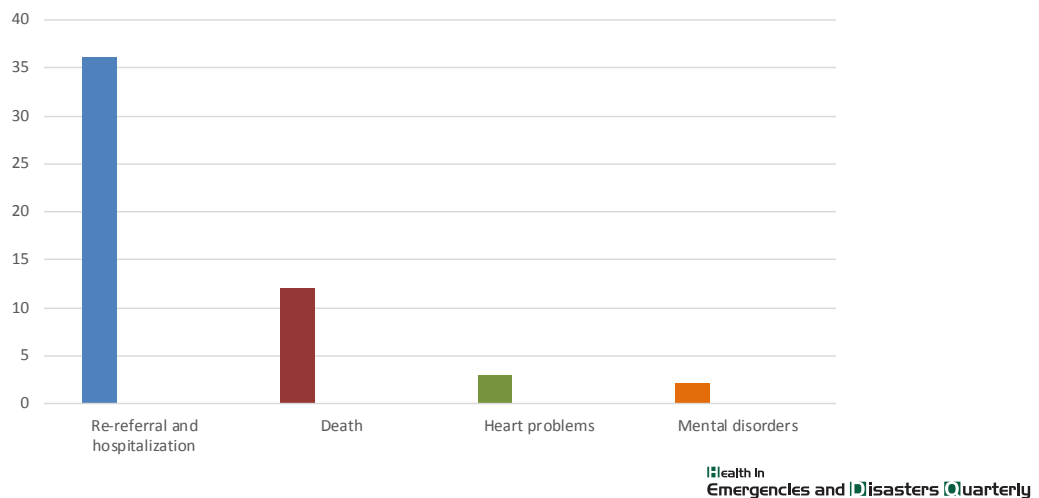
sent [20]. During the study, 4723 patients were admitted to the ED of Shahid Beheshti Hospital in Qom of whom, 741 patients (15.6%) left the hospital with personal consent. Also, 4690 patients were admitted to the emergency department of Forghani-Nekouei-Hedayati Hospital, of whom, 684 patients (14.5%) left the hospital with personal consent. In a study by Kiaraki et al., the average rate of leaving the hospital against medical advice increased by 1.9% per year [8, 15]. In another study, the rate was reported to be 4% in Saudi Arabia [15]. Mohseni et al. reported the rate at 7.9% [21], and in a study by Estabsari et al., this rate was estimated at 6.2% [22]. The findings of this research are in line with previous studies.

According to the results obtained in this study, personal reasons (22.9%), fear of continuing treatment (11.9%), preference to continue treatment in other medical centers (9.3%), feeling of recovery (9.3%), the suggestion of other hospital staff (35.1%), lack of doctor (27%), nurses' suggestion (19.4%), lack of attendance (20.4%), inadequate hospital space and facilities (14%), and poor quality of services (12.2%) were the most important reasons for leaving the hospital ED against medical advice.

**Table 2.** Frequency of reasons related to the patient, staff, and hospital to leave the hospital emergency unit against medical advice

Variables	No. (%)
Personal reasons	79(22.9)
Fear of continuing treatment	41(11.9)
Preference to continue treatment in other centers	32(9.3)
Feeling healed	32(9.3)
Dissatisfaction with the doctor	27(7.8)
High hospital costs	20(5.8)
Previous unpleasant experience	19(5.5)
Old patients	19(5.5)
Lack of supplementary insurance	18(5.2)
Family problems	16(4.6)
Having a lot of pain	13(3.8)
Patient restlessness	12(3.5)
Prolongation of hospital stay	11(3.2)
Occupational complications	6(1.7)
Total	345(100)
The suggestion of other hospital staff	121(35.1)
Not having the desired doctor	93(27.0)
Nurses' suggestion	67(19.4)
Physician's suggestion	38(10.4)
Disrespect from hospital staff	28(8.1)
Total	345(100)
Lack of medical care	70(20.3)
Inadequate hospital space and amenities	48(13.9)
Low quality of service	42(12.2)
Lack of cleanliness in the ward	34(9.9)
Dissatisfaction with medical services	33(9.6)
Lack of improvement	29(8.4)
Dissatisfaction with medical facilities and equipment	21(6.1)
Lack of hospital contract for insurance and supplementary patient insurance	20(5.8)
Dissatisfaction with nursing services	16(4.6)
Recommendation of people with treatment experience in this hospital	14(4.1)
Additional diagnostic tests	11(3.2)
Absence of angiography	3(0.9)
Falling out of bed	2(0.6)
Total	345(100)





**Figure 1.** Consequences of leaving the hospital emergency department with patients' personal consent

Among the patients who left the hospital with personal consent, the highest average was related to free-lance work (46.15), Shiite religion (93.6), social security insurance (62.0), patients' day of referral (22.3), patients' literacy level (48.7), transfer after leaving the hospital (84.1), patients' income rate (99.4), and patient-related reasons and factors (22.9). It should be noted that in a study by Mokhtari et al., the reasons for leaving the hospital with personal consent were related to the prolongation of patients' hospital stay. The rate of discharge with personal consent and patients leaving the hospital is a major factor in increasing costs. The results of this study were in line with the studies by Hassan et al., Spooner et al., Estebansari et al., and Ravanshad et al [1, 15, 19, 22]. Patients leave the hospital for various reasons despite doctors' advice, and identifying risk factors and causes of leaving with personal consent is one of the most important steps in designing interventions in this area. Out of 345 patients who were studied, after two weeks, during the telephone call, the results were recorded as follows: 36 cases of re-admission and hospitalization, 12 deaths, 3 cases of heart diseases, and 2 mental disorders.

## 5. Conclusion

The issue of leaving the hospital with personal consent has various dimensions. The most important reasons for leaving the hospital with personal consent are as follows: personal reasons, preference to continue treatment in other centers, feeling healed, dissatisfaction with the doctor, high hospital costs, the suggestion of other hospital staff, lack of the desired doctor, nurses' suggestion, lack of sufficient care, inadequate space and welfare facilities of the hospital, the low quality of services, the

lack of cleanliness in the ward, the dissatisfaction with medical services, and the lack of improvement. According to the reasons stated about this type of discharge in this study, hospital managers can intervene to improve the quality of care in various dimensions, increase patients' awareness, prevent possible complications of discharge with personal consent, plan to reduce hospital stay, create pleasant and suitable space for patients, equip hospital treatment centers, promote proper communication between the treatment team and the patient and guarantee the presence of social workers to guide and help needy patients. Accordingly, they play an important role in reducing the discharge rate with personal consent and can prevent or minimize imposing costs and additional burdens on the patient (and the hospital), such as returning to the hospital and aggravation of the complications of the disease due to early discharge. Due to personal reasons, fear of continuing treatment, lack of care, suggestions from other hospital staff, and the absence of a doctor, a high percentage of patients leave the hospital with personal consent. These causes should be further investigated and planned actions need to be taken. It should also be noted that the consequences of that recurrence and death of the patient have the highest percentage, which leaves additional life and financial costs.

## Study suggestions

Since this study was performed during the COVID-19 pandemic, it can be conducted again after the end of this pandemic. In addition to examining the consequences of leaving the ED with the patient's consent, this research can be done in other wards as well.

## Ethical Considerations

### Compliance with ethical guidelines

The present study was extracted from the dissertation (Ethics Code: IR.MUQ.REC.1399.165).

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### Authors' contributions

All authors equally contributed to preparing this article.

### Conflict of interest

The authors declare no conflict of interest.

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