

## Factors Influencing Discharge against Medical Advice in Internal Medicine and Surgical Wards: A Study at a Hormozgan University Hospital in 2023

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### Abstract:

**Background and Objective:** Early discharge against medical advice can elevate health risks and costs due to potential readmissions. Understanding contributing factors and implementing timely interventions could reduce early discharge incidence. This study explores reasons behind patients' decisions to leave a Hormozgan University of Medical Sciences hospital prematurely based on personal preference in 2023.

**Materials & Methods:** This descriptive-analytical, cross-sectional study enrolled 42 patients (or their companions) from internal medicine and surgical departments who completed discharge against medical advice forms in the third quarter of 2023. Following informed consent, telephone interviews using a researcher-developed questionnaire were conducted. Data were analyzed using SPSS version 27 with descriptive and analytical statistics (Mann-Whitney U test, independent T-test;  $P < 0.05$ ).

**Results:** The most frequent reasons for early discharge were: fatigue from hospital stay 16 (38.09%), feeling of recovery 15 (35.71%), inadequate hospital facilities 14 (33.33%), dissatisfaction with medical services 10 (23.81%), and physician-advised discharge at patient's request 9 (21.43%). No significant correlation was found between length of stay and discharge reasons. However, significant associations emerged between readmission and reasons related to physicians ( $P = 0.002$ ), equipment/hospital environment ( $P = 0.001$ ), and overall hospital status ( $P = 0.004$ ).

**Conclusion:** The fatigue experienced by patients and their companions as a result of extended treatment durations emerged as a significant factor contributing to early discharge. To effectively tackle this issue, it is essential to provide healthcare staff with training focused on the development and implementation of personalized treatment plans. Additionally, fostering a supportive atmosphere and offering amenities for companions could play a crucial role in decreasing the rates of early discharge. The insights gained from this study can serve as a valuable resource for hospital administrators, enabling them to pinpoint adjustable elements that can enhance the quality of care and minimize the likelihood of readmissions.

**Keywords:** Discharge against Medical Advice, Patient Satisfaction, Quality of Care, Hospital Readmission, Length of Stay

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## Background and Objective

Given the growing complexity of health systems and the different needs of patients, giving their satisfaction top priority as a basic component of service quality in the modern competitive environment is very necessary. In this context, hospitals—as vital treatment centers assigned to restore patients' health—evaluate patient satisfaction with the quality of services across many dimensions—medical, cultural, behavioral, insurance, and economic—as a major indicator of their quality and efficacy.<sup>1</sup> People's impressions of the healthcare system will be positive when treatment and health conditions meet their expectations. Performance in line with patients' expectations and goals makes them satisfied, which is a vital indication of the effectiveness of the health system.<sup>2</sup>

Patients discharged at their own desire are those who leave the hospital against advice from the attending physician before the medical staff finishes their treatment. This can be among the indicators of patient discontent with the given services or the presence of a notable and important issue in the course of therapy.<sup>3</sup> Different healthcare systems affect the frequency of discharge at the patient's own will. In the United States it is roughly 2.2%; in Canada it is roughly 1%; in Iran it has been recorded in a range between 3.3% and 10.3%.<sup>4</sup> Moreover, looking at the frequency of discharge trend at the patient's own request globally reveals a rising tendency in this respect. In this respect, 1.9% yearly increase in the number of discharges at the patient's own request in hospitals was found based on research carried out between 2002 and 2011 in the United States.<sup>5</sup>

A complex phenomena, discharge against medical recommendation is influenced by several elements including those pertaining to the patient, healthcare personnel, caring elements, and hospital-related problems.<sup>5</sup> Given that discharge against medical advice,

leaving the hospital, and incomplete treatment are among the challenges faced by healthcare systems, this issue can pose possible risks, including the risk of death for patients, or lead to readmission, incurring additional expenses for patients and hospitals.<sup>6</sup> Sources claim that the incidence of discharge against medical recommendation is related with aspects including persons' socioeconomic level, gender (male), age (younger individuals), insurance status, psychiatric condition, and substance and psychoactive drug usage.<sup>7</sup>

Knowing the elements of discharge against medical advice will enable managers of health systems create more successful strategies to stop and minimize the detrimental effects on the system of healthcare. Targeted interventions can be devised to reduce the negative consequences of such discharges by better understanding of the requirements of patients who depart the hospital against medical recommendation. This study was carried out to find the causes of discharge against medical advice among patients in the internal and surgical wards of one of the university hospitals in Hormozgan province since, from a hospital management point of view, determining the reasons for such discharges is of great relevance.

## Materials and Methods

This study is a cross-sectional descriptive-analytical one. The study population comprised all patients who left the hospital early in the second quarter of 1402 in the internal and surgical departments of one of the Hormozgan University of Medical Sciences after completing the discharge form with personal consent. The 110-bed government hospital under investigation had 73 patients from the internal and surgical departments completing the discharge form with personal consent, of which 42 indicated their

willingness to engage in the study (convenience sample).

Interviews done over the phone following the patient's discharge gathered the data. Either the patient or their friend, the interviewee took part willingly at the discharge. Following the phone call with the interviewee, the call's goal and the knowledge that the patient's comments will be used just for the study without revealing their identify were clarified. Additionally obtained for participation in the study was verbal permission from the patient.

Two areas—face validity and content validity—were investigated using the comments of two professors from the Health Information Management sector and five professors from the Health Services Management profession. Regarding qualitative content validity, the academics' views on the relevance, clarity, and need of every question were examined and the questions that required change were changed. The questionnaire was given to 25 patients to ascertain dependability; following data collecting, Cronbach's alpha coefficient was computed to find internal consistency of the questions. The Cronbach's alpha for the whole questionnaire turned out to be 0.86, suggesting reasonable and good dependability of this instrument. Although the respondent was free to voice their thoughts and arguments, the questionnaire asked for a yes or no based on personal inclination regarding the grounds for discharge. Using descriptive and analytical statistics (Mann-Whitney and independent T-test), the entered data into SPSS version 27 were examined with a P-value of less than 0.05.

## Findings

The present study was carried out in the second quarter of 2023 in the internal and surgical departments of a public hospital in order to assess the reasons of release against medical recommendation. With 57.15% of

the study participants being women and 40.48% of the age range 30–39 years, most of the participants in the study were From the surgical department, 52.38% of the patients comprised. Less than two days were spent by 57.15% of them, and 52.38% of them claimed to have been readmitted to the hospital following their shorter stay.

Table 1's results show that the most often occurring causes of patients' discharge with personal satisfaction were either tiredness of the patient or their friends from remaining in the hospital (38.09%) 16, recovering (35.71%). 15 from elements linked to patients; shortage of facilities (33.33%), 14 from elements linked to hospital environment and equipment, discontent with medical treatment (23.81%) 10, and discharge upon patient request in line with attending physician advice (21.43%) 9 from elements connected to physicians. None of the patients indicated procedural issues at the hospital as the reason behind their discharge with personal satisfaction.

A notable correlation existed between gender and discharge reasons based solely on personal consent, specifically concerning factors related to other healthcare personnel (P-value = 0.050), while no significant disparity was detected between males and females regarding other discharge reasons with personal consent. Furthermore, across the internal and surgical departments, no statistically significant difference was observed in the reasons for release at the patient's request between the two departments (P-value > 0.05) (Table 3).

While in the context of readmission a significant relationship was found between physician-related reasons (P-value = 0.002), hospital equipment and environment (P-value = 0.001), and also the hospital's condition (P-value = 0.004), no significant relationship was observed between the length of hospital stay and any of the reasons for discharge against medical advice (P-value > 0.05) (Table 4).

**Table 1- Frequency of participants based on gender, age, ward, length of hospitalization, and readmission**

<i>Reasons</i>	<i>Reasons for discharge with personal consent</i>	<i>Yes (%)</i>	<i>No (%)</i>
<i>Physician</i>	<i>1. Dissatisfaction with medical services (lack of trust in the physician)</i>	<i>10 (23.81%)</i>	<i>32 (76.19%)</i>
	<i>2. Discharge with personal consent per treating physician's recommendation</i>	<i>9 (21.43%)</i>	<i>33 (78.57%)</i>
	<i>3. Insufficient attention by the physician</i>	<i>8 (19.04%)</i>	<i>34 (80.96%)</i>
	<i>4. Inappropriate behavior of the physician</i>	<i>1 (2.38%)</i>	<i>41 (97.62%)</i>
	<i>5. Failure to provide adequate explanations about the patient's condition to the patient and companions</i>	<i>9 (21.43%)</i>	<i>33 (78.57%)</i>
<i>Other Medical Staff</i>	<i>1. Inappropriate/ disrespectful behavior toward the patient or companions</i>	<i>2 (4.76%)</i>	<i>40 (95.24%)</i>
	<i>2. Requesting unnecessary items for the patient from companions by staff</i>	<i>2 (4.76%)</i>	<i>40 (95.24%)</i>
	<i>3. Lack of sufficient attention to the patient and companions (emotionally)</i>	<i>4 (9.52%)</i>	<i>38 (90.48%)</i>
	<i>4. Irresponsibility of staff</i>	<i>0</i>	<i>42 (100%)</i>
	<i>5. Suggestion by a staff member to transfer the patient to a private hospital</i>	<i>3 (7.14%)</i>	<i>39 (92.86%)</i>
<i>Patient</i>	<i>1. Feeling recovered</i>	<i>15 (35.71%)</i>	<i>27 (64.29%)</i>
	<i>2. Fatigue of the patient or companions due to hospital stay</i>	<i>16 (38.09%)</i>	<i>26 (61.91%)</i>
	<i>3. Dislike of hospital food</i>	<i>0</i>	<i>42 (100%)</i>
	<i>4. Having a dependent family member at home requiring care</i>	<i>8 (19.04%)</i>	<i>34 (80.96%)</i>
	<i>5. Patient or companions' belief in avoiding hospitalization</i>	<i>8 (19.04%)</i>	<i>34 (80.96%)</i>
	<i>6. Family issues</i>	<i>3 (7.14%)</i>	<i>39 (92.86%)</i>
	<i>7. Being a student or employed</i>	<i>7 (16.67%)</i>	<i>35 (83.33%)</i>
	<i>8. Lack of insurance coverage</i>	<i>1 (2.38%)</i>	<i>41 (97.62%)</i>
	<i>9. High hospital costs or financial inability</i>	<i>5 (11.90%)</i>	<i>37 (88.10%)</i>
	<i>10. Prolonged hospital stay</i>	<i>3 (7.14%)</i>	<i>39 (92.86%)</i>
	<i>11. Family insistence</i>	<i>5 (11.9%)</i>	<i>37 (88.1%)</i>
	<i>12. Lack of a companion</i>	<i>2 (4.76%)</i>	<i>40 (95.24%)</i>
	<i>13. Patient's restlessness</i>	<i>8 (19%)</i>	<i>34 (81%)</i>
	<i>14. Previous unpleasant experience</i>	<i>5 (11.90%)</i>	<i>37 (88.10%)</i>
	<i>15. Long distance from home to hospital</i>	<i>3 (7.14%)</i>	<i>39 (92.86%)</i>
	<i>16. Having a young child</i>	<i>5 (11.90%)</i>	<i>37 (88.10%)</i>
	<i>17. Fear of surgery</i>	<i>1 (2.38%)</i>	<i>41 (97.62%)</i>

<i>Hospital Equipment &amp; Environment</i>	1. <i>Inappropriate location of the ward</i>	0	42 (100%)
	2. <i>Poor ventilation</i>	0	42 (100%)
	3. <i>Unsanitary conditions</i>	0	42 (100%)
	4. <i>Lack of facilities</i>	14 (33.33%)	28 (66.67%)
	5. <i>Inappropriate physical space of the ward/hospital</i>	0	42 (100%)
	6. <i>Lack of welfare facilities</i>	0	42 (100%)
	7. <i>Outdated/defective equipment</i>	0	42 (100%)
<i>Hospital Processes</i>	1. <i>Lack of bed coordination in the ward</i>	0	42 (100%)
	2. <i>Overcrowded ward (high number of patients)</i>	0	42 (100%)
	3. <i>Inappropriate nurse-to-patient ratio</i>	0	42 (100%)
	4. <i>Hospital mismanagement</i>	0	42 (100%)
<i>Hospital Status</i>	1. <i>Long waiting list for emergency/surgery patients</i>	0	42 (100%)
	2. <i>Delay in patient care/treatment</i>	3 (7.14%)	39 (92.86%)
	3. <i>Discharge for transfer to another hospital</i>	6 (14.29%)	36 (85.71%)

**Table 2: Frequency of Reasons for Discharge with Personal Consent from Patients' Perspective**

<b>Variable</b>	<b>Grouping</b>	<b>Number</b>	<b>Percentage</b>
<i>Gender</i>	<i>Male</i>	18	42.85%
	<i>Female</i>	24	57.15%
<i>Age</i>	<i>Under 20</i>	2	4.76%
	<i>20–29</i>	13	30.95%
	<i>30–39</i>	17	40.48%
	<i>40–49</i>	4	9.52%
	<i>Over 50</i>	6	14.29%
	<i>Department</i>	<i>Internal Medicine</i>	20
<i>Surgery</i>		22	52.38%
<i>Length of Stay</i>	<i>Under 2 days</i>	24	57.15%
	<i>2 days or more</i>	18	42.85%
<i>Readmission</i>	<i>Yes</i>	22	52.38%
	<i>No</i>	20	47.62%

**Table 3: Association of Reasons for Discharge with Personal Consent by Gender and Department**

<b>Reasons for discharge with personal consent</b>	<b>Gender</b>		<b>Probability value</b>	<b>Section</b>		<b>Probability value</b>
	<b>Mean ± standard deviation</b>			<b>Mean ± standard deviation</b>		
	<b>Male</b>	<b>Female</b>		<b>Internal</b>	<b>Surgery</b>	
<i>Physician</i>	1.22 ± 1.59	0.63 ± 0.92	0.306	0.76 ± 1.14	1.00 ± 1.41	0.497
<i>Other Medical Staff</i>	0.06 ± 0.23	1.22 ± 1.59	0.050	0.30 ± 1.10	0.43 ± 0.75	0.098
<i>Patient</i>	2.22 ± 2.01	2.52 ± 1.80	0.816	2.70 ± 2.03	1.81 ± 1.63	0.171
<i>Hospital Equipment &amp; Environment</i>	0.33 ± 0.48	0.33 ± 0.48	1.00	0.29 ± 0.46	0.38 ± 0.50	0.518
<i>Hospital Status</i>	0.22 ± 0.54	0.21 ± 0.50	0.954	0.19 ± 0.51	0.24 ± 0.53	0.698

**Table 4: Association of Reasons for Discharge with Personal Consent by Length of Stay and Readmission**

Reasons for discharge with personal consent	Gender		Probability value	Section		Probability value
	Mean $\pm$ standard deviation			Mean $\pm$ standard deviation		
	Under 2Days	2Days or More		Internal	Surgery	
Physician	1.04 $\pm$ 1.42	0.67 $\pm$ 1.02	0.416	1.29 $\pm$ 1.18	0.48 $\pm$ 1.25	0.002
Other Medical Staff	0.38 $\pm$ 0.71	0.11 $\pm$ 0.32	0.220	0.38 $\pm$ 0.74	0.14 $\pm$ 0.35	0.348
Patient	1.75 $\pm$ 1.32	2.90 $\pm$ 2.29	0.124	2.10 $\pm$ 1.94	2.38 $\pm$ 1.83	0.539
Hospital Equipment & Environment	0.33 $\pm$ 0.48	0.33 $\pm$ 0.48	1.00	0.57 $\pm$ 0.50	0.10 $\pm$ 0.30	0.001
Hospital Status	0.25 $\pm$ 0.53	0.17 $\pm$ 0.51	0.440	0.43 $\pm$ 0.67	0	0.004

## Discussion

This study aimed to examine the factors influencing patient-initiated discharge in the internal and surgical wards of a hospital connected with Hormozgan University of Medical Sciences during the second quarter of 2023. The research findings indicate that the predominant reasons for patient-initiated discharge were patient or companion fatigue from prolonged hospitalization, perceived improvement in the patient's condition, inadequate facilities, dissatisfaction with medical services, and discharge at the patient's request following the attending physician's recommendation.

The findings of the research conducted by Shefqat and associates in a Shiraz hospital revealed that the primary reasons for release at the patient's request were, in order, hospital-related factors, medical staff-related

causes, and patient-related issues.<sup>2</sup> Furthermore, the study by Kamaladini and Saravani, done at a university hospital, revealed that patient-related difficulties constituted 80% of the reasons for release at the patient's request, while variables associated with hospital staff accounted for 16%, establishing them as the predominant causes.<sup>8</sup> Khorasani Zadeh and colleagues, in their study conducted at a hospital in Kerman, determined that 55% of discharge requests by patients were attributable to patient-related issues, whereas 45% were associated with hospital-related ones.<sup>9</sup>

In the research conducted by Ravanshad and associates at Dr. Sheikh Hospital in Mashhad, discontent with physicians and medical personnel, a preference for home care, and elevated treatment expenses were the primary factors for discharge against

medical recommendation.<sup>10</sup> Ashrafi and colleagues, in a study done at a hospital affiliated with the Social Security Organization in Tehran, identified personal issues and the decision to seek care at alternative medical facilities as the primary factors influencing discharge against medical recommendation. The researchers' findings revealed that discontent with physicians exerted no influence on patients opting for discharge against medical advice.<sup>11</sup> In the research conducted by Abu Ziad and associates at an educational hospital in Bahrain, the primary reasons for discharge against medical advice were refusal of treatment or surgery at 23.2%, prolonged waiting times for treatment at 22.2%, patients' perception of improvement at 17.7%, and the presence of a child at home, which hindered hospital stay, at 14.8%. Dissatisfaction with medical care represented a minimal fraction of the grounds for discharge against medical recommendation (1.2%).<sup>12</sup> The research conducted by Al-Khatani and Shuja in Saudi Arabia revealed that the primary reasons for discharge against medical recommendation included dissatisfaction with treatment or disagreement with the physician's diagnosis, prolonged waiting times, and financial difficulties.<sup>13</sup> Adfemi and colleagues demonstrated in their Nigerian study that financial limitations, a perceived sense of improvement, and the inclination to pursue alternative treatments, such as traditional medicine, were the predominant reasons for discharge against medical recommendation.<sup>14</sup> An analysis of pertinent studies revealed that, in addition to prevalent factors such as extended hospitalization resulting in fatigue for patients and their companions, inadequate hospital facilities, the preference for admission to a more advanced medical center, and patients' perception of improvement, discrepancies in the reasons for discharge against medical advice in these institutions were noted. These variations

may be attributed to structural and facility differences among the hospitals examined, as well as the characteristics of the patients admitted to these centers.

The current study found that over 50 percent of persons who discharged themselves from the hospital were subsequently readmitted to either this hospital or another one. Yong and his colleagues demonstrated in their study that patients who discharge themselves against medical advice face a heightened chance of readmission, resulting in elevated treatment costs for both the individual and the healthcare system as a whole.<sup>15</sup> Fifteen The research conducted by Hwang and associates indicated that the risk ratio for hospital readmission among patients discharged at their own request was around 2.5 times greater.<sup>16</sup> Sixteen Mokhtari and his colleagues assert that discharging patients with personal consent can hinder the treatment process and result in readmission. To avert this, it is essential to implement strategies such as enhancing patients' awareness of the potential consequences of treatment discontinuation, employing clinical social workers to identify and address patients' issues, formulating a structured treatment program, avoiding unnecessary extensions of the treatment duration, and fostering a conducive environment for patients and their companions.<sup>4</sup>

## Conclusion

The primary cause of patients departing the hospital prematurely is the exhaustion experienced by patients or their companions owing to the extended treatment duration, which is an area amenable to intervention. Hospitals can diminish the incidence of personal discharge by educating healthcare personnel in formulating structured treatment plans, establishing a conducive and agreeable atmosphere for patients and their companions, and conducting orientation sessions to acclimate them to hospital protocols and communication

techniques. Personal discharge may result in patient readmission and heightened expenses; hence, recognizing risk variables is crucial for hospital administrators. The findings of this study can assist managers in identifying modifiable factors and, through appropriate interventions to enhance service quality, ensure adherence to professional ethical standards, inform patients of their rights, provide psychological support via hospital social workers, oversee the thoroughness of medical records during initial patient admission by reception and ward personnel, supervise and regulate visitations, the timing of visits, and consultations, communicate treatment processes to patients by physicians, educate patients regarding the risks and

complications associated with premature discharge, and monitor welfare facilities to avert additional expenses stemming from readmission or disease exacerbation.

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