




# Evaluation of the Prevalence of Factitious Disorder and Its Demographic and Clinical Characteristics in Psychiatric Inpatients in Iran; A Cross-Sectional Study

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Received: 22 Jan 2024

Published: 12 Jun 2024

## Abstract

**Background:** Diagnosing factitious disorder (FD) poses significant medical challenges; delays impact patient care and costs. Cultural factors of each country also affect illness and behavior disorders. This study examines the prevalence, demographics, and clinical features of factitious disorder patients in Iranian psychiatric hospitals.

**Methods:** This cross-sectional study reviewed patient data from three psychiatric hospitals in Tehran from 2017 to 2022, confirming FD diagnoses by psychiatry faculty. Inclusion criteria were the diagnosis of FD according to ICD-10 in the last five years. We recorded demographic data, main stressors, symptoms and diagnoses and analyzed them with SPSS-25. Data are presented as numbers and percentages and compared between groups by chi-square test.

**Results:** A total of 17 cases with the diagnosis of factitious disorder were investigated in 5 years (4.315 per 10,000 patients). The highest frequency age range was between 20-30 years, and most of them were male. Our results showed that in only 7 cases, there was initial suspicion of factitious disorder or factitious disorder imposed on another (factitious disorder by proxy). Most of the patients had psychiatric comorbidities, among which the most common comorbidity was substance use disorder and cluster B personality disorder. Among the evidence of suspicion for the diagnosis of factitious disorder in 65% of cases was a history of multiple previous hospitalization and more than 40% of the cases were based on the pattern of repeated symptoms.

**Conclusion:** This study showed that FD is underdiagnosed, and more attention is needed to the signs of this diagnosis in the assessments. Also, the clinical features showed that treatment should account for comorbid disorders.

**Keywords:** Factitious Disorder, Psychiatric Inpatients, Munchausen Syndrome

**Conflicts of Interest:** None declared

**Funding:** None

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**Cite this article as:** Asadi Sh, Haji Azizi A, Soraya Sh, Faramarzi M, Seddigh R, Asadi A. Evaluation of the Prevalence of Factitious Disorder and Its Demographic and Clinical Characteristics in Psychiatric Inpatients in Iran; A Cross-Sectional Study. *Med J Islam Repub Iran.* 2024 (12 Jun);38:67. <https://doi.org/10.47176/mjiri.38.67>

## Introduction

Factitious disorder (FD) is defined as a condition in which a person voluntarily produces symptoms or illness and acts as if they are ill without an external gain (1). FD is divided into three types “FD with predominantly psychological signs and symptoms”, “FD with predominantly

physical signs and symptoms,” and “FD with combined psychological and physical signs and symptoms”. FD of the caregiver is classified under the title of “unidentified FD” (2). The prevalence of FD is about 1.3% in one year and most of the cases were related to neurology and der-

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### ↑What is “already known” in this topic:

Diagnosing FD is one of the serious medical challenges. Delays in diagnosis can cause a heavy burden for the patients, families and the medical team. No studies have investigated the prevalence, demographics, and clinical features of this disorder in Iran.

### →What this article adds:

The number of cases with FD diagnosis is much lower than expected. Considering that only 17 cases of FD were diagnosed in 5 years, which means 4.315 per 10,000 patients. the most common comorbidity was substance use disorder and cluster B personality disorder. the most common evidence in patients was a history of multiple previous hospitalizations.

matology (3). Some studies have reported that patients with FD referred to the psychiatric department were up to 8%, and the majority of them were women with an average age of 36.2 years. The most common symptoms include lack of adequate treatment response, worsening of symptoms at the discharge time, symptoms disappearing immediately after admission to the ward, and difficult communication with the medical staff and other patients during hospitalization (4). Delays in diagnosis can cause a heavy burden for the patients, families and the medical team. Therefore, one of the most important measures in dealing with these patients is early identification and avoiding invasive diagnostic and therapeutic measures (5). On the other hand, the demographic characteristics of patients with FD have not been sufficiently determined. Patients with FD usually suffer from several psychiatric disorders that require specialized attention. Statistical studies show a significant relationship between FD and borderline personality disorder, depressive disorders, abuse in childhood and drug abuse (6). It seems that the effective treatment in FD is to focus on co-occurring psychological disorders. According to the papers about the possibility of poor prognosis and suicide attempt in patients with factitious disorder, physicians should always consider the risk of suicide in patients (7).

It should be noted that numerous studies show that the cultural factors of each country can be very effective in disorders related to illness behavior. In addition to examining at the biological level, the two states of health and disease should also be examined in the socio-psychological context.

Unfortunately, research articles on FD in the Iranian population are scarce and primarily consist of a few case reports, especially in the field of psychiatric symptoms (8-10). No studies have investigated the prevalence of this disorder in Iran.

According to the above, early identification, prevention, avoidance of invasive procedure and referring the patient to psychological treatments are among the most important points of dealing with these patients. Considering the lack of study in Iran, this study was designed to investigate the demographic and clinical characteristics of FD patients in psychiatric hospitals in Iran.

## Methods

We conducted a cross-sectional study to investigate the prevalence and characteristics of FD among psychiatric patients in Iran. We collected the data from the records of patients who were admitted to three specialized psychiatric hospitals (Iran Psychiatry Hospital, Roozbeh Hospital, and Razi Psychiatric Hospital) from April 2017 to March 2022 and had a confirmed diagnosis of FD. All the cases that were given this diagnosis by a faculty of psychiatry in the initial diagnosis, diagnosis during hospitalization, and final diagnosis and whose code was recorded according to ICD-10 were included in the study. The participants were evaluated in terms of demographic data, the most important stressors of the patients, comorbidities, symptoms of the patient and how to suspect this diagnosis.

## Inclusion & Exclusion criteria

Inclusion criteria were the diagnosis of FD according to ICD-10 in the last five years.

Incomplete files and files that were not able to fill in the studied variables in the data collection form were excluded.

## Data Collection

The data were collected from the records of hospitalized patients over a period of 5 years in three specialized psychiatric hospitals in Iran.

## Data Analysis

Data were analyzed by IBM SPSS STATISTICS 22 (IBM Inc, New York, USA). Data are presented as numbers and percentages and compared between groups by chi-square test. *P* values less than 0.05 were assumed to be statistically significant.

## Results

Out of 39393 hospitalizations in 5 years, only in 17 cases the diagnosis of FD was mentioned in the initial diagnosis, diagnosis during hospitalization, and final diagnosis (0.043%). Of these cases, 59% were from Roozbeh Hospital, 23% were from Razi Psychiatric Hospital, and 18% were from Iran Psychiatry Hospital. The demographic information of the patients is shown in Table 1. The highest frequency of cases was in the third decade of life (20 to 30 years old), which accounted for about 30% of cases. After that, the fourth decade (30 to 40 years old) had the highest frequency with 23% of cases.

## Hospitalization

More than half of the patients were hospitalized between 10 and 20 days (60%). Hospitalization was voluntary in most cases (89.58%). The highest frequency of previous hospitalizations was in the range of 5-10 times, which included 47% of cases. The number of outpatient visits of patients after discharge was generally low so that about 80% of patients had 0-1 visit. The chief complaints of patients during hospitalization can be classified into several groups. Three cases had suicidal intent, and three cases had somatic symptoms such as stomach ache and headache. Six participants were referred for psychiatric symptoms, and two cases had substance use disorder. Generally, the most common psychiatric symptom was anxiety (35%).

## Diagnoses

In only seven cases, there was initial suspicion of factitious disorder or factitious disorder by proxy, and the next most primary differential diagnoses belonged to cluster B personality disorders (borderline and antisocial personality disorder) (Table 2).

Most of the patients had comorbid psychiatric diagnoses, among which the most diagnoses were substance use disorder and cluster B personality disorder (41.17% respectively) and then bipolar disorder (29.41%) and major depressive disorders (23.52%).

Among the evidence of suspicion for the diagnosis of

**Table 1.** Demographic characteristics of the participants (n=17)

Variable	Category	Frequency	Percent
Gender	Male	14	82
	Female	3	18
Marital status	Married	1	6
	Single	16	94
Education	Below middle school	6	35
	Middle school	2	12
	Diploma	4	23
	Associate	1	6
	Bachelor	2	12
Employment	Master	2	12
	Employed	1	6
	Student	5	29
	Unemployed	11	65

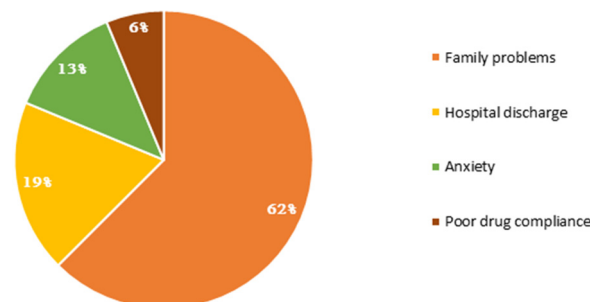
**Table 2.** Differential diagnosis of the participants

Variable	Frequency	percent
Factitious disorder	7	41
Cluster B personality disorder	5	29
Bipolar disorder	3	18
Major depressive disorder	3	18
Obsessive-Compulsive disorder	3	18
Substance use disorder	3	18
Delusional, Psychotic, Schizophrenia	3	18
Attention deficit-Hyperactivity disorder	2	12

factitious disorder in 65% of cases was a history of multiple previous hospitalization and more than 40% of the cases were based on the pattern of repeated symptoms (Figure 1). In terms of the main stressors before hospitalization, more than 60% of stressors were family issues such as family struggles (Figure 2).

#### Family history, Medical history, and Substance history

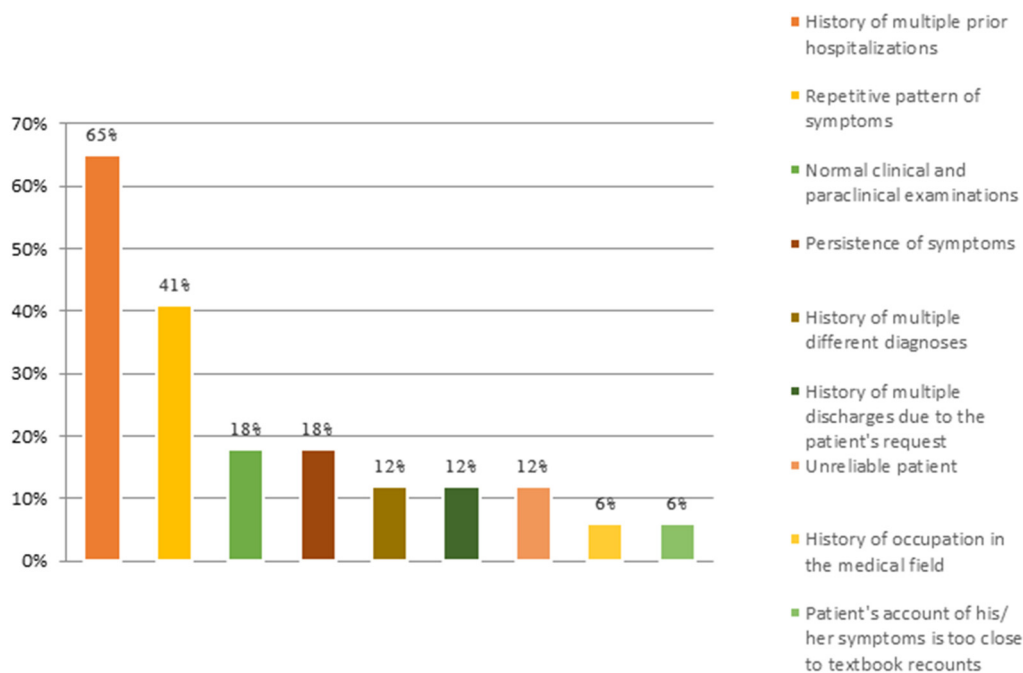
All information in these three areas is based on self-reporting of the patients (Table 3). A family history of attempted suicide was found in 3 cases.

**Figure 2.** Main stressor before hospitalization**Table 3.** Family, Medical, and Substance history of the participants

Variable	Category	Frequency	percent
Family history	Positive	10	59
	Negative	7	41
Substance history	Smoking	8	47
	Opium	6	35
	Hashish	5	29
	Methamphetamines	5	29
	Methadone	5	29
	Tramadol	4	24
	Heroin	3	18
	Crack	2	12
	Buprenorphine	2	12
	Benzodiazepines	2	12
	MDMA	1	6
	Nothing	5	29
	Medical history	Head trauma	5
Seizure		5	29
Hypothyroidism		2	12
Mitral valve prolapse		2	12
Hepatitis C		1	6
Urinary tract infection		1	6
Nothing		4	24

#### Medicines

The most frequently prescribed drugs during hospitalization were benzodiazepines, used in 13 cases, followed

**Figure 1.** Evidence which led to the suspicion of Factitious disorder

by haloperidol, used in 11 cases. At the time of discharge, the patients received different medications, such as benzodiazepines (9 cases), quetiapine (7 cases), and gabapentin and sertraline (5 cases each). Regarding the number of drugs prescribed during hospitalization, most of the patients (8 people) were treated with 3 to 5 drugs. More than half of the patients (52.94%) had a history of poor adherence to their prescribed medications.

#### Mental State Examination (MSE)

MSE is recorded based on the initial clinical history. Good cooperation was seen in 47.36% of the patients. The most reported mood state was depressive/dysphoric mood, with 58.82% of the cases, followed by euthymic mood (41.17%). There were no reports of elevated mood or irritability. Appropriate affect was found in 45.45% and speech was normal in 57.89%. One case showed restricted affect and two cases were inappropriate. The form of thought was mostly logical (70.58%), but delusions, self-injury and suicidal ideas (15% each) were found in thought content. The perception of most patients was normal (63.15%), 5 cases had auditory hallucinations, and 2 cases had visual hallucinations. More than half of the cases attributed their symptoms to a psychiatric disorder and considered themselves sick (52.94%), while the judgment of most patients (70.58%) was normal.

#### Discussion

The primary findings of this study indicate that the number of cases with FD diagnosis is much lower than expected. Considering that only 17 cases of factitious disorder were diagnosed in 5 years, which means 4.315 per 10,000 patients, the low number of this diagnosis becomes more evident. This is while the prevalence of this disorder in hospitalized psychiatric patients is reported to be 8%, based on the study by Catalina and colleagues. In this study, first, the criteria for suspicion of factitious disorder were developed and then the hospitalized patients were evaluated. In the mentioned study, re-evaluation was done with special attention to FD diagnosis. Therefore it may include cases that were not initially noticed for this diagnosis (4). Also, in the study by Gregory and Jindal in 2006, 100 patients admitted to the psychiatric ward were examined and 6 cases had a final diagnosis of FD (prevalence 6%) (11). On the other hand, in the studies by Schrader and his colleague in 2019, the prevalence of FD disorder based on the data from the Central Norwegian Patient Registry was reported to be about 0.0026%, which is close to our findings (12). Also, in the study by Dalaleh et al. (2014), the prevalence of this disorder was reported to be 50 percent over 10 years. In their study, as in our study, only individuals with psychiatric symptoms were evaluated (13). The most important point about factitious disorder in the field of psychiatry is to cope with it with more abstract and subjective information than in other medical fields. The main basis for the diagnostic process of the disease in psychiatry is the patient's statements, so it is very difficult to confirm the validity of the information that the patient has expressed and the symptoms that he has shown. Unlike other fields in the medical field,

which have more objective information, the probability of diagnosing a discrepancy in the patient's statements and symptoms is higher. The low prevalence of this disorder in our study indicates a need for greater attention in education and perhaps a curriculum change. Another contributing factor could be the inclination of psychiatrists to consider diagnoses other than FD, which itself may have various reasons, such as the challenging treatment of patients with this diagnosis. Additionally, diagnosing FD requires ruling out other medical and psychiatric disorders, which are inherently time-consuming and may also contribute to low cross-sectional prevalence. As reported by Herbert Fliege and colleagues, 65% of the physicians underestimated their knowledge of factitious disorder (3). Another thing is that due to the specialization of the three centers studied in this study and referral of some patients with this disorder to non-psychiatric hospitals, it is necessary to study in general centers. Patients with FD, probably due to avoid the stigma of psychiatric illness or have a medical chief complaint, are more often hospitalized in non-psychiatric departments (14).

In the initial diagnosis, 7 cases of FD were diagnosed. Among the reasons for this issue, recurrent hospitalization of patients with similar symptoms at a psychiatric center, along with the availability of past psychiatric histories and previous actions during the early stages of hospitalization, as well as consistent visits by a designated psychiatrist across multiple hospitalizations, are all mentioned. In other cases, visits during past hospitalizations were primarily conducted by various faculty members, which delayed the diagnosis of the FD.

Among the cases, 14 were male, and 3 were female which indicate a higher prevalence of the disorder in males. This finding is contrary to the findings of previous studies, which can be the result of more beds for men in the hospitals studied in this article. The present study showed that the average age of the patients is 32.7 which is consistent with the findings of previous studies (4, 6, 15, 16).

Contrary to the Catalina study, which found that the most common sign in patients was lack of response to treatment, worsening of symptoms as the discharge time approached, disappearance of symptoms immediately after admission to the ward, and intense relationship with the medical staff and other patients during hospitalization, in the cases examined in this study, there was only one case that had exacerbation of symptoms with the knowledge of the approaching discharge time, and another case that had resolution of symptoms with the presence in the crowd (4). 65% of the cases of suspicion of FD in this study were composed of multiple hospitalizations in line with Gregory and Jindal (11), and also repeated patterns of symptoms in 41% of cases were reported, which could be consistent with this finding in previous studies that invention of new psychological symptoms that had not been experienced in the past was less common in this type of disorder (4). Given that hospitalization history has the most important role in the early diagnosis of FD, the need to develop an integrated, accurate and nationwide hospital records system can be a significant help in the more accu-

rate diagnosis.

Previous studies have stated the possibility of poor prognosis and the risk of suicide in these patients, similar to our study that about 18% of the cases referred to the hospital due to suicide intent (6, 7, 11, 17-19).

Patients with Factitious disorder usually suffer from several psychiatric comorbidities (6, 13, 19). In particular, there is a significant correlation between FD and borderline personality disorder, depressive disorders, and substance use disorders (6, 11, 19-22). In this study, in line with previous studies, 41% of the participants had substance use disorder and cluster B personality disorder. In our study, major depressive disorder was reported in 23.5% of the cases, ranking third among comorbidities. However, bipolar disorder was observed in 29.41% of cases, which was a novel finding. There are limited reports of bipolar disorder being included in the differential diagnosis of factitious disorder (23), but no study has mentioned the co-occurrence of these two disorders.

In our study, the patients reported anxiety as the most common psychiatric symptom. This finding might indicate a high prevalence of anxiety disorders among this group of patients (13, 19). Depression was also a common finding, which could constitute a factitious psychological symptom (11). The mental status examination revealed depressed mood as the most important finding, in line with most studies (22, 23).

Despite previous studies reporting that most of the patients worked in the health system (6, 16), in the current study, only one case was actively working in a nursing internship. The majority of patients were unemployed and only one patient had educated in clinical psychology. This finding is contrary to other studies (6, 16), which may be due to the general employment situation in our country and the lack of supportive laws regarding the employment of patients with psychiatric disorders. Probably, the small sample size has not permitted us to have a good view of the demographic data.

Similar to our study findings, benzodiazepines are the most prescribed drugs in factitious patients. Antidepressants and antipsychotics are also among the drugs used (24). In our study, antipsychotics including haloperidol, were among the most used drugs during hospitalization, which could be due to the use of its injectable form in aggressive patients or due to the suspicion of schizophrenia diagnosis in the early stages of hospitalization.

Also, by examining the outpatient visits after discharge, it is evident that most of the patients are not available for follow-up and do not have good drug compliance, which can contribute to the chronicity of the patients' condition (13, 17). For these patients, accepting a factitious disorder is equivalent to stopping the treatment process. Therefore, they try to continue their role as a patient as soon as they are close to the diagnosis of a factitious disorder by poor drug compliance and changing the physician or treatment center. It should be noted that outpatient treatment is as important as inpatient treatment.

### Limitations

The limitations of this study include its retrospective na-

ture, which necessitates different methodologies for accurately assessing the prevalence of FD. Additionally, the small number of patients with this diagnosis, despite data collection from three psychiatric hospitals in Tehran province, makes it challenging to thoroughly analyze the study's findings. Another limitation is the lack of valid and uniform diagnostic tools due to the large number of faculty members working across the three hospitals.

### Suggestion

Considering that this data was collected from three psychiatric hospitals, it is unable to reflect the rest of the population. Therefore, a more accurate view requires surveying FD in a larger sample size and different geographical areas.

### Conclusion

Contrary to expectations, the diagnosis rate of FD in psychiatric hospitals in Iran is much lower than the prevalence reported in studies. This indicates the need for more attention to this disorder by psychiatrists. Also, the clinical features showed that comorbidities such as substance use disorders, personality disorders, and mood disorders should be considered in the treatment of these patients.

### Authors' Contributions

All the authors met the standards of authorship based on the recommendations of the International Committee of Medical Journal Editors. Material preparation, data collection, and analysis were performed by A.H.A., A.A., S.H.S., R.S., M.F., and S.H.A. The first draft of the manuscript was written by A.A. and S.H.A. (contributed as first authors), and all other authors commented on previous versions of the manuscript. All authors read and approved the final manuscript.

### Ethical Considerations

All patient data remained confidential, and no patient's name or file will be mentioned in any report. The project was approved by the ethical committee of Iran University of Medical Sciences (IR.IUMS.FMD.REC.1399.803).

### Acknowledgment

We wish to thank the Iran, Roozbeh, and Razi Psychiatric Hospital, which helped us complete this study.

### Conflict of Interests

The authors declare that they have no competing interests.

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