

Length of Inpatients Stay for Major Depression Patient's: A Study at Tirana Psychiatric Hospital

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Abstract: *This study investigates the socio-demographic and clinical factors influencing the length of hospital stay for Major Depression patients at Tirana Psychiatric Hospital. Data from 102 patients were analyzed using multiple regression analysis. Findings reveal a significant correlation between the length of hospital stay and age, severity of illness, and number of suicidal attempts.*

Keywords: Major Depression, hospitalization, length stay

1. Introduction

Nowadays, according to World Health Organization, depression is the leading cause of worldwide disability as well as a major contributing factor in the overall global illness burden. More than 264 million people, of all ages, in the world are momentarily diagnosed. Major Depressive Disorder it is one of the mental disorders with the highest rates of mortality from suicide (Chesney E., et al., 2014), as the second leading cause of death in 15–29-year-olds in 2016 (WHO, 2019).

It is well known that 70–90% of completed suicides are preceded by mental disorders, mostly affective disorders, and patients suffering from major depressive disorder (MDD) have an estimated 6–15% lifetime risk of suicide (Bernegger A., et al., 2015).

Like many other neuropsychiatric disorders, depression is a heterogeneous syndrome including various, recurrent symptoms and different reactions to treatment, leading to hospitalization and rehospitalization.

The length of the hospitalization measured by the number of days in the hospital, is undeniably influenced by the clinical state and the treatment response, but may also be an indication of the effective management of the patient and the quality of the care he receives.

As reported by many authors, long, unnecessary hospitalization is not recommended, therefore psychiatrists must provide efficient treatment to reduce the useless duration of the latter.

Few studies analyzed the factors influencing the hospitalization period of patients suffering from depression. There is evidence that socio-demographic factors such as age, gender, education, marital status, loneliness as a social and psychological factor and especially some clinical factors such as the severity of the episode, the presence comorbidities and somatic pathologies, the treatment response, may influence the patients' state regression and the relapse recurrences. Based on this evidence, the study

hypothetically analyses these factors categorized as socio-demographic and clinical ones and their influence on the duration of the hospitalization of patients diagnosed with major depression.

Aim and method

This paper, which is part of a larger clinical study, aims to explore the impact of socio-demographic and clinical factors on the length of the hospitalization of patients, diagnosed with major depression (MD), at the Psychiatry Service – Tirana University Hospital Centre "Mother Theresa".

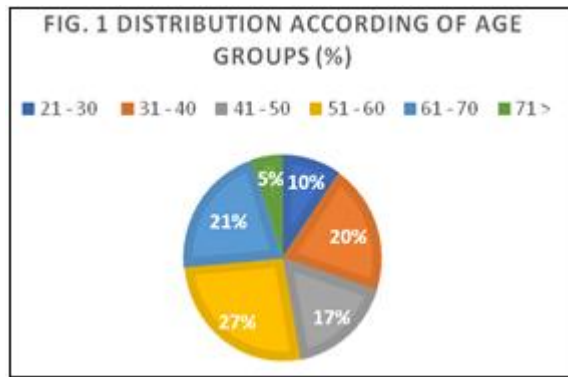
The clinical files of 102 patients hospitalized in Psychiatric Service, Tirana University Hospital Centre "Mother Theresa" (UHCMT) and diagnosed with MD, were carefully collected, analyzed and studied. The timeframe of the study was January 2019 - December 2019. To analyze the data, it is used descriptive statistic, multiple regression, and Pearson Correlation, using version 20 of SPSS. The data were collected carefully, preserving confidentiality and anonymity. The patients' data are only used for academic and research purposes.

2. Results

Socio-demographic characteristics of the patients (tab. 1).

102 patients, part of the stratified clinical population of the psychiatric hospital of Tirana, were included in this study. 72.5% (n=74) of the study sample were females and 27.5% (n=28) were males. There was an obvious unequal gender distribution with the prominence of females but since gender comparison is not an aim of this study, this did not comply an issue for the analysis.

26.5% of the total sample was 51-60 years old, followed by 61-70 years old (21.3%) and 31-40 years old (20.5%) (Fig. 1).



As demonstrated in the graph, the longest hospitalization period corresponds to the age group of 51-60 years old. It is also seen a significant positive relationship between the length of hospitalization and the ($r=.56, p<0.01$). It implies that this factor has an important impact on the days a patient remains hospitalized. Hence, from the analysis results that, the shortest stay of hospitalization lasted 4 days and the longest was 27 days.

In the table1 (see below), are described sociodemographic characteristics of the study group. More than half of the group was from urban area (59.3%), while 40.7% was from rural one. The major part of the study group was “unemployed” (49.4%), followed by “employed” (37.7%).

Regarding suicidal attempts, resulted that 26.7% have attempted once, 11.2% twice and 7.8% multiple times (Fig. 3).

Table 1: Socio-demographic characteristics of the study group

Demographic characteristics	Frequencies (%)
Gender	
Female	72.5
Male	27.5
Residency	
Urban	59.3
Rural	40.7
Employment	
Unemployed	49.4
Employed	37.7
Education level	
Unschooling	13.5
Elementary	37.8
High school	32.4
University	16.2
Civil status	
Married	57.5
Widowed	6.1
Single	32.3
Divorced	4.1
Loneliness	
Lonely	23.7
Not lonely	76.3

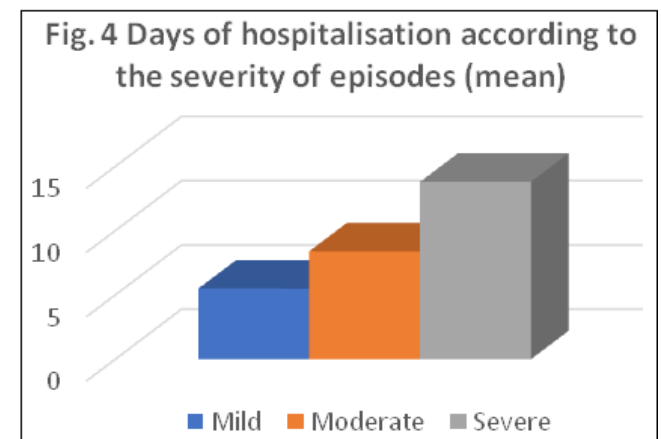
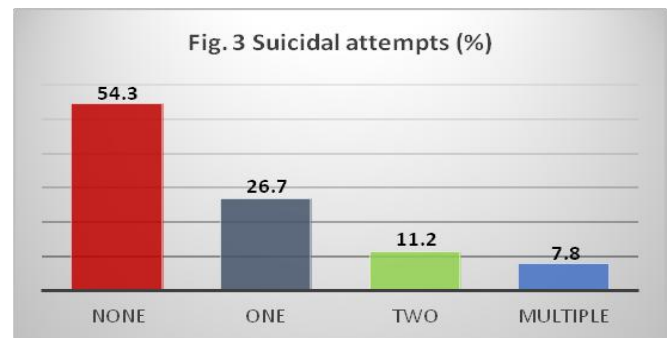
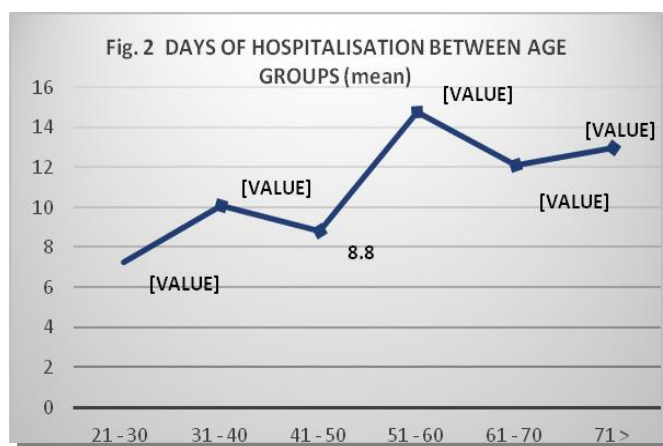


Figure 4 (above) shows the correlation between days of stay in the hospital and the severity of episodes according international classifications.

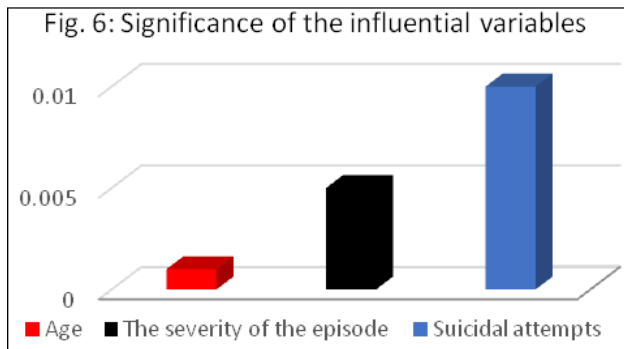
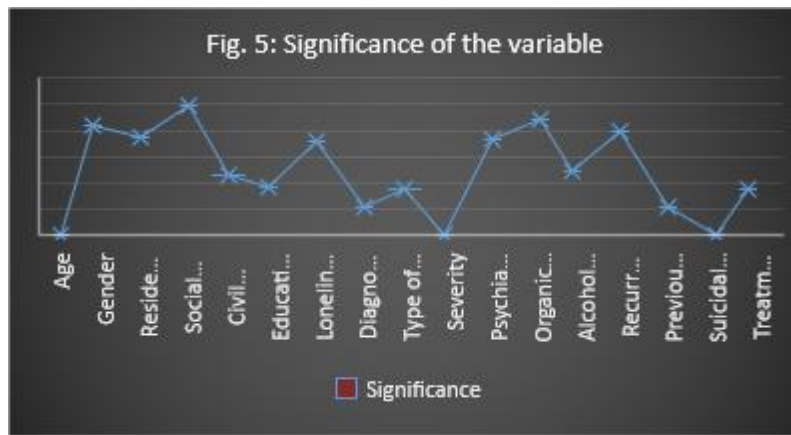
The relationship between age group and the length stay of hospitalization it is visualized below (Fig. 2):

Symptoms of depressive disorder resulted in a very weak negative correlation to duration ($r=-.15, p>0.01$). The tolerance value of 0.4 and VIF of 2.2 are too low, so this factor is automatically excluded from the possibility that it may affect the dependent variable, duration of hospitalization.



The severity of the episode shows a significant positive correlation ($r=.44, p>0.01$). $t = 2.1$ ($t>1.96$). The standard deviation of 0.4 and VIF 23.6 with a 0.92 significance emphasize the impact of the severity of the episode on the duration a patient remains hospitalized.

Suicidal attempts show a significant positive correlation ($r=.413, p>0.01$). $\beta=.36$ confirms the valuable contribution of this factor. We graphically showed the significance of all considered variables (see below Fig. 5) and the significance of all the influential variables regarding the duration of hospitalization (Fig. 6).



3. Discussion

Our results showed a female preponderance regarding hospitalization due to Major Depression, where about three quarter of study group were female. This finding is consistent with literature data and according to Savoie, et al, (2004), hospitalisation rates for women were higher, because they were significantly more likely than male patients to report their depression.

Clinical factors that influenced the duration of the hospitalization were the age when the patients has been diagnosed for the first time, depression with psychotic features, severe depressive episodes (based on the DSM V (APA, 2013)) and the recurrence of the disorder.

Beiser DG, et al (2019) in his study concluded that for every 10% increase in MD severity, the relative rate of hospitalization increases by 10% as well. While in our study the severity of depressive episode showed a positive significant relationship regarding the number of days in the hospital. Patients with severe episodes of MD resulted to stay longer in the hospital, with a mean of 13 days of staying in hospital, which is lower comparing with different studies. For example, Dimitri G., et al., (2018) refers that in their study 'the duration of inpatient treatment was strongly affected by severity and subtype of depression ranging from a mean of 15 days for moderate depression to 24 days for depression with psychotic symptoms'.

The effect of main predictors of length of stay in psychiatric hospitals vary substantially across countries and across hospitals, among patients with similar profiles, suggesting that length of hospitalization is also determined by features related to policies and practices, i.e. availability of

psychiatric hospital beds, legal frameworks for involuntary hospital treatment, availability of alternatives to hospitalization, funding mechanisms, and the culture of mental health care. (Smith P., et al., 2020), (Dimitri G., et al., 2018)

One of the most influential variables, that have the major impact on patient's hospital stay, resulted suicidal attempt. What we found in our study was that, the more suicidal attempts patients had made, the longer the hospitalization period was. Bruer RA., et al (2018) highlight that suicide it is one of many other factors that influence the decisions about who is admitted to a psychiatric bed.

4. Conclusions

The study reveals that age, severity of illness, and number of suicidal attempts significantly influence the length of hospital stay for Major Depression patients. Understanding these factors can help in effective patient management and hospital resource allocation.

5. Limitations of the Study

This is a retrospective study and to gather the data we had to filter the files, so the quantity and quality of the data directly depend on it. Considering the small study sample, the overall generalizing quality of the study is another limitation for this study.

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