Demographic and Clinical Correlates of Hospitalization Stay in Depressive Disorders

Insight From a State Psychiatric Hospital

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Authors report no conflict of interest.

BACKGROUND

- Depressive disorders are prevalent chronic and, and commonly-relapse psychiatric illnesses.
- Patients who have depressive disorders had to be hospitalized due to multiple reasons; increased length of stay (LOS) significantly affects the cost and burden on healthcare.

OBJECTIVES

- To evaluate the impact of demographic and clinical correlates on the LOS in inpatients with depressive disorders.

METHODS

- We conducted a cross-sectional study and included 94 adult patients (mean age 42y) discharged from 2018-to-2019 at Griffin Memorial Hospital.
- These patients were primarily managed for depressive disorders (major depression 70%, bipolar depression 30%) and were on antidepressants.
- The median LOS of the study sample was 11 days. Descriptive statistics were used to measure the differences between the inpatients with LOS ≤11 vs. >11 days. A logistic regression model was used to measure the odds ratio for LOS >11 days.
- All analyses were conducted using SPSS ver. 26 and statistical significance was set to a two-sided P-value <0.05.

RESULTS

Table 1. Characteristics of the study sample

Variable	Total, %	Length of Stay		P value
		<11 days, %	>11 day, %	
Age at admission				
<50 years	71.3	73.5	68.9	0.626
>50 years	28.7	26.5	31.1	
Sex				
Female	44.7	55.1	33.3	0.035
Male	55.3	44.9	66.7	
Race				
White	78.7	83.7	73.3	0.224
Non-White	21.3	16.3	26.7	
Past history				
Hospitalizations >3	53.2	51.0	55.6	0.660
Suicidal behaviors	80.7	82.6	78.6	0.632
Legal problems	75.9	70.8	77.8	0.499
Depressive disorder type				
Bipolar	29.8	30.6	28.9	0.856
Major	70.2	69.4	71.1	
Comorbidities				
Psychotic disorder	44.7	38.8	51.1	0.232
Anxiety disorders	30.9	34.7	26.7	0.402
Personality disorders	8.5	17.9	4.5	0.034
Alcohol abuse	40.4	38.8	42.2	0.735
Substance abuse	43.6	46.9	40.0	0.498
Concomitant psychotropic medications				
Antipsychotic	67.0	53.1	82.2	0.003
Mood stabilizer	40.4	36.7	44.4	0.447

Table 2. Correlates associated with length of stay >11 days

Variable	Odds ratio	95% Confidence interval		P value
		Lower	Upper	
Age at admission				
>50 years	0.57	0.15	2.21	0.414
<50 years	Reference			
Sex				
Male	8.25	1.76	38.56	0.007
Female	Reference			
Race				
White	1.31	0.26	6.60	0.747
Non-White	Reference			
Past history				
Hospitalizations >3	1.18	0.34	4.07	0.789
Suicidal behaviors	0.79	0.16	4.02	0.783
Legal problems	0.39	0.09	1.58	0.188
Depressive disorder type				
Bipolar	Reference			0.013
Major	7.19	1.53	33.84	
Comorbidities				
Psychotic disorder	4.20	0.83	21.35	0.083
Anxiety disorders	0.94	0.22	3.90	0.927
Personality disorders	4.20	0.83	21.35	0.560
Alcohol abuse	1.27	0.31	5.29	0.740
Substance abuse	0.83	0.22	3.19	0.784
Concomitant medications with antidepressants				
Antipsychotic	11.86	2.43	57.86	0.002
Mood stabilizer	1.62	0.37	7.11	0.524

- A higher proportion of patients with LOS >11 days were adults <50y age (68.9%), male (66.7%), and Whites (73%).
- Males had eight times higher odds for LOS >11 days (OR 8.25, P=0.007) compared to the females.
- Past history of the number of psychiatric hospitalizations, suicidal behaviors, and legal problems had no significant impact on the LOS for management of depressive disorders.
- There existed no significant difference in the distribution of the groups by depressive disorder types but in the adjusted regression model, major depression increased the odds for LOS >11 days by seven times (OR 7.19, P=0.013).
- Among psychiatric comorbidities there existed statistical no significant impact on the LOS but comorbid psychotic disorder (OR 4.20, P=0.083) and personality disorders (OR4.20, P=0.560) increased the odds for LOS >11 days.
- Concomitant use of antipsychotics with antidepressants increased the odds for LOS >11 days (OR 11.86, P=0.002).

CLINICAL IMPLICATION

- Our results provide a scientific reference for psychiatric management and prioritization of allocating resources due to the rising healthcare burden of depression-related hospitalizations.
- Demographic and clinical correlates (depressive disorder type and comorbidities) help us identify the patients at higher risk of extended hospital stay and develop a treatment model.
- Concomitant use of antipsychotics increases the hospitalization stay which is possible due to the greater severity of depressive disorder and comorbid psychosis. Recommend to use severity scales on regular intervals to monitor response to antidepressant.

Major depression increases likelihood of longer hospitalization stay by seven times compared to bipolar depression.

References: available on request