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disorder (BD). B-lymphoblast cell lines (BLCLs) prepared from BD patients have been used as reporter cell models in BD, revealing disturbances of Brain Derived Neurotrophic Factor (BDNF) expression and intracellular calcium signaling. BDNF provokes intracellular calcium responses, and plays a pivotal role in neural plasticity and resilience. The canonical transient receptor potential channels (TRPC) types 3 and 6, known to be hyperactive in BD, are also activated by BDNF. Additionally, olfactory neuroepithelial (ONe) cells represent a promising new neuronally-relevant stem cell-derived disease model. The role of TRPC3/6 in BDNF-evoked calcium response has not yet been studied in BLCLs or ONes.

Purpose: The purpose of this study is to explore BDNF/TRPC3/6/calcium signaling in both BLCLs and ONes, to evaluate their candidacy as study models for BD.

Methods: BDNF-induced calcium mobilization was measured in BLCLs and ONes with and without extracellular calcium, and in the presence of the capacitative cation entry inhibitor gadolinium, the BDNF TrkB receptor inhibitor K252a, the phospholipase C inhibitor U73122, and the inositol-trisphosphate receptor inhibitor Xestospongin C. TRPC3/6 and TrkB expression was confirmed by immunoblotting.

Results: BDNF-induced calcium mobilization in BLCLs and ONes was inhibited by gadolinium, EGTA, K252a, U73122 and Xestospongin C.

Significance: Our results suggest that BDNF activates intracellular calcium signaling through a TrkB-phosphoinositide signaling cascade involving TRPC3/6 in BLCLs and ONes. These cell models are a promising new method for exploring the role of BDNF disturbances in the pathophysiology of BD.

Keywords: Cell Models, BDNF, Calcium, Transient Receptor Potential Channels

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Comparable inpatient cost of bipolar disorder and schizophrenia

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Introduction: Bipolar disorder requires hospitalization in severe episodes of mania or depression therefore it is a highly costly disease to treat.

Methods: We examined inpatient service costs for patients of bipolar disorder according to DSM-4 (n = 63), and compared them with schizophrenia patients (n = 75) in the Psychiatry Clinic in a University Hospital between January 2007 and January 2008 (total n = 291 patients/year). Costs were determined by detailed examination of fiscal reports of the hospital, and were linked to individual data as hospital accommodation, inpatient visits, laboratory and psychological evaluations, prescription drugs, and ECT (Electro Convulsive Therapy) and anesthesia for single hospitalization. Cost was converted to US dollar as 1 Turkish Lira = 1.6 US $.

Results: The mean age (38.21 ± 16.01 and 39.46 ± 12.97 year), education year (10.28 ± 3.73 and 10.28 ± 11.19 year), duration of the hospitalization (33.79 ± 12.99 and 35.12 ± 18.28 day) or gender (26 women/37 men and 33 women/42 men) of the two diagnostic groups (bipolar disorders and schizophrenia respectively) were comparable.

The mean total inpatient treatment costs (883.13 ± 523.13 US $ and 876.25 ± 784.36 US $), the cost of the hospital accommodations (282.41 ± 148.26 US $ and 309.02 ± 236.83 US $), cost of the laboratory tests (202.5 ± 113.13 US $ and 173.13 ± 162.5 US $), cost of the total prescription drugs (81.25 ± 105.62 US $ and 81.88 ± 146.25 US $) did not differ between patients diagnosed with bipolar disorder and schizophrenia. ECT with anesthesia (mean number of ECT application: 11.31 ± 3.68, range 6–21) was applied to six bipolar disorder (9.5%) and seven schizophrenia patients (9.3%). The mean cost of ECT (218.75 ± 58.75 US $ and 279.71 ± 92.5 US $) and anesthesia (285.63 ± 126.25 US $ and 348.75 ± 190.63 US $) also did not differ significantly between the two diagnoses.

Second-generation antipsychotic drug use had no effect on total or drug prescription cost, duration of the hospitalization was positively related with total cost, the cost of the hospital accommodations, cost of the laboratory tests and prescription drugs in both diagnoses.

Conclusion: The inpatient cost of treatment of bipolar disorder is comparable to treatment of schizophrenia.

Keywords: bipolar disorder, schizophrenia, inpatient cost

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Patient-practitioner relationship and perception of disease: a perspective from bipolar disorder

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Bipolar disorder (BD) is a frequent, recurrent and chronic psychiatric disorder that involves a challenge on the subject of mental health. It has high personal and social prices which could be avoided if people with BD have an early diagnosis and adequate treatment; however there are many different barriers that not only prevent bipolar patients from looking for help and treatment, but also lead them to abandon their medications. Among these factors patient-healer relationship can impact on treatment adherence; this complex interaction that happens between the patient and his/her physician entails a communicative process that seeks for translation and acceptance of the experiences and perceptions in order to find the support and care pathways. The approach to patients explanatory models of disease (EMsD) allows to know their perceptions of BD (including the process of help-care seeking and treatment); understanding that may help to minimize medical confrontations, and avoid reduced help-seeking behavior and abandonment of treatments. From this referential frame we adapted a Spanish language version of the Short Explanatory Models Interview, *SEMI* (Lloyd, 1998) in order to apply it to fifty bipolar euthymic patients to obtain preliminary results of their illness's perceptions and then to do in depth interviews to get closer to the personal meaning of BD in these persons. The objectives of this qualitative study were to describe and to analyze the social and cultural process of the physician-patient relationship from the approaching of perceptions of disease in bipolar patients. We found that even when patients know and express their diagnosis of BD, they continue to perceive the problem not from a biological/medical conception but from a social/external one, perceptions that sometimes lead to a worsening in long term evolution. Apparently, a process of negotiation, adherence and acceptance exists but patients speech let us see the weight that the subjective dimension has; unfortunately this subjective component is left behind and isolated from the corporal issue of a body which is defined by his shape and his function. Since this analysis we invite to think on

