Bipolar disorder (BD) is a chronic and severe mental disorder. It is the sixth leading cause of disability-adjusted life years in the world among people aged 15–44 [1]. BD represents a major public health problem with severe psychosocial disruptions in addition to an increased mortality [2–4]. A number of studies report that patients with acute depressive and manic symptoms, or even with subsyndromal depressive symptoms, experienced marked impairments in role functioning [5]. Besides that, BD also has significant interepisodic psychosocial impairment and has been reported to be predictive of a short time to relapse [6]. The extent to which individuals return to full functioning during euthymia has been relatively understudied [7–9].

The aim of this naturalistic cross-sectional study was to assess functional impairment in patients with BD, and particularly in 6 specific domains of functioning (autonomy, occupational functioning, interpersonal relationship, cognitive functioning, financial issues and leisure time) during clinical remission. Hence, a sample of 71 consecutive bipolar patients in remission (34 females, 37 males; aged 47.74 ± 17.34 years) and 61 healthy controls (matched for gender, age and sociocultural conditions) were enrolled in this study. Among the 71 bipolar patients, mood-stabilizing agents were the most commonly prescribed medication (80.3%), 54.9% received antipsychotics, 26.8% antidepressants and 36.6% anxiolytic sedatives. All patients were recruited from the Bipolar Disorder Program at the University of Barcelona Hospital Clinic. They met DSM-IV criteria for BD (type I or II) by the Structured Clinical Interview for DSM-IV [10]. Remission criteria were defined as a score <9 on the 17-item Hamilton Depression Rating Scale and a Young Mania Rating Scale Score <7 [11]. Functioning was evaluated by a trained research fellow using the Functioning Assessment Short Test (FAST) [12]. The study was approved by the hospital ethics committee and all subjects gave written informed consent to participate. The data were analyzed using the SPSS 12.0 version software package.

The results show that the patients had a total mean FAST score significantly higher than the controls. There were significant differences between the patients and healthy volunteers in almost all specific domains of the FAST. The largest variation and the most affected domain was occupational functioning (table 1). Cognitive functioning and autonomy were the other 2 most affected domains. A moderate impact was observed in the interpersonal relationships, and the weakest effect was found in the financial issue and leisure time domains, possibly reflecting the public mental health care environment and access to disability claims and income. Other studies have also reported high occupational disability rates of bipolar patients [13–15]. Almost 20% of the patients in this sample had a permanent disability. Of those who were employed, a quarter had lower-qualifications jobs, around 20% had lower incomes for the same jobs than nonbipolar subjects, almost 60% reported having problems in finishing their tasks promptly, and a quarter of them mentioned difficulties in achieving the expected performance. Occupational dysfunction is not only bad per se, it has also been reported to be predictive of a short time to relapse [9]. Taking care of their household, living alone, independence and taking their medication were the most frequent difficulties in the autonomy domain. This autonomy handicap might result in an increase in the level of caregiver burden [16]. Euthymic bipolar patients also reported more difficulties in concentration, memory and arithmetic abilities and, to a lesser degree, in problem solving and learning than healthy controls subjects. In our sample almost 20% of the patients experienced some degree of difficulty in handling money, financial problems are generally described during hypomanic episodes. Our study confirms the burden of the cognitive impairment as perceived by euthymic bipolar subjects over time, as recent studies point out [17–21]. Although interpersonal relationships may improve during euthymia, almost a third of our sample reported some degree of difficulty in family and social activities [22]. Partner’s stress, as well as marital and sexual satisfaction are important areas that patients identify as problematic [23]. Several factors such as stigmatization, behavioral changes, high levels of expressed emotion, carry-over effects of manic episodes, decreased income and even side effects of medication have been described as possible explanations [24–25]. Somewhat surprisingly, in this study, the differences between the patients and controls were only marginally significant in leisure time satisfaction, as opposed to other studies [26]. This area of functioning may be one of the most influenced by mood state at the time of the assessment.

The work was conducted in the Bipolar Disorders Program, Hospital Clinic of Barcelona, Barcelona, Spain.
As potential limitations, this was a cross-sectional study and the patients were enrolled from the Bipolar Disorders Program at the University of Barcelona Hospital Clinic, eventually representing a more severely affected and treatment-refractory population. In conclusion, BD carries significant overall functional impairment even during remission periods. Opinion surveys may help understand how patients live with their disorder, as well as their needs and wishes. Therapy targets should be upgraded from mere symptomatic improvement to functional recovery [27–28]. A multidisciplinary treatment [29–30] might be the best way to approach the full recovery and functioning of people with BD.

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Conflicts of Interest
Eduard Vieta has acted as a consultant, received grants or been hired as a speaker by the following companies: Almirall, AstraZeneca, Bial, Bristol-Myers-Squibb, Eli Lilly, GlaxoSmithKline, Janssen-Cilag, Lundbeck, Merck Sharp & Dohme, Novartis, Organon, Otsuka, Pfizer, Sanofi Aventis, Servier and UCB. He has been a consultant for and has received grants from the Spanish Ministry of Health, Instituto de Salud Carlos III, RETICS RD06/0011 (REM-TAP) and from the Stanley Medical Research Institute.
