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Research report

Psychiatrists' perceptions of potential reasons for non- and partial adherence to medication: Results of a survey in bipolar disorder from eight European countries

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ABSTRACT

Background: Partial/non-adherence to medication by patients with bipolar disorder is associated with exacerbation of symptoms, neurocognitive decline and increased risk of suicide and has a major influence on patient outcomes. Understanding psychiatrists' views on the causes and management of non-adherence are vital to address adherence problems effectively.
Methods: A 15-question survey was conducted of 2448 psychiatrists treating patients with bipolar disorder in eight European countries to ascertain their perceptions of the level and causes of non-adherence, and their preferred methods by which to assess it.
Results: A majority of patients (57%) were estimated to be partially/non-adherent. Three in four psychiatrists responded that most patients who deteriorated after stopping medication were unable to attribute this to non-adherence. An irregular daily routine/living circumstance affecting adherence was considered the most important reason for patients discontinuing medication. Only 4% of psychiatrists deemed intolerable side effects had led to most patients stopping their medication; 11% responded that drug/alcohol consumption may have impacted on adherence to medication for the majority of patients.
Limitations: The survey was not distributed to all psychiatrists in the countries and the impact on the results, of any difference in the demographics of the respondents with respect to the population of psychiatrists across the eight countries, is not known.
Conclusions: Partial/non-adherence remains a considerable problem amongst patients with bipolar disorder. There is a need for increased knowledge concerning partial/non-adherence at the level of the clinician–patient interaction, to reduce its impact and bring about improved clinical outcomes.

1. Introduction

Medication adherence is a considerable problem in the management of chronic conditions (Nunes et al., 2009) and is a particularly significant issue in illnesses where the benefits of medication, and the consequences of non-adherence to treatment, are not readily apparent to patients. For instance, in serious mental disorders such as bipolar disorder, in which adherence to medication is required to prevent symptom recurrence and achieve the optimum outcomes for patients, partial or non-adherence to medication is common (Velligan et al., 2003), with 41% (range 20–66%) of patients believed to be non-adherent during long-term (>1 year) maintenance treatment (Scott and Pope, 2002).

Partial or non-adherence to medication has been shown to be a significant contributor to symptom recurrence, increased hospitalisation rates and increased suicide rates (Colom et al., 2005; Hassan and Lage, 2009; Lage and Hassan, 2009; Velligan et al., 2009). It can also negatively affect other aspects of patients' lives such as their capacity to work and their relationships with family and friends. A study recently conducted in the United States indicated that non-adherence in patients with bipolar disorder can also negatively impact their employers through increased indirect costs due to absence, short-term disability, and workers' compensation. (Bagalman et al., 2010)

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There are numerous potential reasons for non-adherence by patients with bipolar disorder, such as a previous history of non-adherence, denial of illness, comorbid substance abuse, lack of patient insight, fear of medication side effects (Velligan et al., 2009), cognitive impairment (Martinez-Aran et al., 2009), and comorbidity with personality disorders (Colom et al., 2000). Determining psychiatrists' perceptions on the extent, burden and potential causes of non-adherence by patients with bipolar disorder is an important element in developing a more comprehensive understanding of adherence problems in this disease (Vieta, 2005) and what can be done to address this issue.

This survey was designed to canvas the opinions of psychiatrists treating patients with bipolar disorder across eight European countries and ascertain their perceptions of potential reasons for partial and non-adherence to medication amongst their patients. This manuscript describes the methodology and findings of the bipolar disorder survey of psychiatrists.

2. Methods

The bipolar disorder survey of psychiatrists was developed in collaboration with a steering committee comprised of a group of European psychiatrists with a background of research publications on adherence problems in patients with bipolar disorder.

The survey comprised 15 questions and required approximately 15–20 min to complete (Table 1). The surveys were completed anonymously; individual patient data were not collected. The survey was distributed to psychiatrists across eight European countries (Austria, France, Germany, Italy, Spain, Switzerland, Turkey, and United Kingdom) between November 2009 and January 2010.

Surveys were completed online or paper copies were distributed to psychiatrists for completion separately. The surveys were either made available at an open congress or delivered to psychiatrists via a third party agency or Janssen personnel. Psychiatrists who completed the survey offline received a pack containing the survey, pre-paid envelope and letter explaining the aims of the survey. Completed surveys were returned directly and blinded to a third party agency for data analysis. The respondents were not compensated in any way for completing the survey.

In addition to the gender, age and practice setting of the respondents the survey contained questions related directly to the issue of partial or non-adherence in bipolar disorder outpatients they had seen in the preceding 3 months. The following levels were used to assign categories of patient adherence to treatment: adherent ($\geq$90% recommended treatment dose), partially adherent ($\geq$30%–$<$90% recommended treatment dose), non-adherent ($<$30% recommended treatment dose). The averaged estimates for non-, partial and full adherence were calculated as the arithmetic mean of the rates that respondents entered for each category.

Respondents were asked to estimate the proportion of patients (seen by them during the previous 3 months) affected by potential contributors to partial or non-adherence according to one of the three groupings: $<$20% of patients, 20–50% of patients, and $>$50% of patients.

3. Results

The demographics of the respondents to the survey are shown in Table 2. A total of 2448 psychiatrists across eight countries completed the survey. The majority of participants were working either in a tertiary care/referral setting (32%) or hospital-based psychiatrists (29%).

The most common method of assessing medication adherence by their patients was asking them directly or by asking patient's relatives or friends (Table 3). The option of not formally addressing adherence in their patients was selected very infrequently and was excluded from the analysis.

Psychiatrists (n=2352) estimated that 57% of their patients were partially or non-adherent to the medication they were prescribed (Fig. 1).

Around one-fifth of the psychiatrists estimate that most patients show, or have shown, poor or a lack of awareness of their illness (Fig. 2).

Of the potential reasons for their patients discontinuing medication, an irregular daily routine or life circumstances and patients feeling better were the most important. 11% of the psychiatrists believed that drug and alcohol consumption may have impacted on adherence to medication for most of their patients while worsening symptoms and intolerable side effects were considered to influence non-adherence in most patients by only 6% and 4% of psychiatrists, respectively.

4. Discussion

The bipolar disorder survey provides insight to the perceptions of 2448 psychiatrists across eight European countries on the extent, burden and potential causes of non-adherence by their patients with bipolar disorder. The large sample size of the survey was intended to capture the perceptions of a broad and representative cross-section of psychiatrists treating patients with bipolar disorder across European countries, but was not designed to explore the extent to which differences in terms of gender, age, location and practice setting (including specialists in bipolar disorder) influenced their responses.

Taking a course of prescribed medication in the required doses at the appropriate time is the most widely accepted definition of treatment adherence. Since adherence is rarely an 'all or nothing' phenomenon, individuals may be partially or intermittently adherent and there is considerable variation on how this should be defined (Lingam and Scott, 2002); however, upper and lower limits for the levels of adherence have recently been recommended, to increase comparability across studies (Velligan et al., 2009). Arbitrary levels were chosen to assign categories of patient adherence to treatment in this survey. While the threshold for considering patients with bipolar adherent in this survey is higher than that used elsewhere, the level of partial or non-adherence estimated in this study (57%) was, nevertheless, within the range reported in other studies (Velligan et al., 2009), but higher than other psychiatrist-based reports of partial or non-adherence to medication by bipolar disorder patients in specialized centres (Colom et al., 2000; Baldessarini et al., 2008). While psychiatrists consider adherence to be important, they favour a subjective approach to assess adherence, by asking patients explicitly, over potentially more accurate methods such as monitoring drug plasma levels or the use of adherence assessment scales (Table 3). Given that physicians' clinical judgments about adherence are considered to be relatively less reliable than other methods of assessment, the extent of medication partial and non-adherence among patients may be underestimated. While psychiatrists also estimated that a considerable proportion of their patients may not have stopped medication altogether ($>$5 consecutive days) without consulting them, a number of psychiatrists perceived that most of their patients had done so (data not shown).

While friends, families and carers of patients are relied on to provide information on the levels of adherence, 35% of psychiatrists estimate that this group, as well as healthcare professionals are needed to remind most of their patients to take their