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## Internet use by patients with bipolar disorder: Results from an international multisite survey



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## ABSTRACT

There is considerable international interest in online education of patients with bipolar disorder, yet little understanding of how patients use the Internet and other sources to seek information. 1171 patients with a diagnosis of bipolar disorder in 17 countries completed a paper-based, anonymous survey. 81% of the patients used the Internet, a percentage similar to the general public. Older age, less education, and challenges in country telecommunications infrastructure and demographics decreased the odds of using the Internet. About 78% of the Internet users looked online for information on bipolar disorder or 63% of the total sample. More years of education in relation to the country mean, and feeling very confident about managing life decreased the odds of seeking information on bipolar disorder online, while having attended support groups increased the odds. Patients who looked online for information on bipolar disorder consulted medical professionals plus a mean of 2.3 other information sources such as books, physician handouts, and others with bipolar disorder. Patients not using the Internet consulted medical professionals plus a mean of 1.6 other information sources. The percentage of patients with bipolar disorder who use the Internet is about the same as the general public. Other information sources remain important.

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## 1. Introduction

Patients with serious mental illness want to learn more about their disease (Giacco et al., 2014; Griffiths and Crisp, 2013; Hallett et al., 2013). For example, patients with bipolar disorder are not satisfied with the information provided about possible medication side effects (Bowskill et al., 2007). Information seeking is increasingly recognized as a key coping strategy (Lambert and Loiselle, 2007), including by those with bipolar disorder who function at a high level (Murray et al., 2011). Patient education may improve self-management skills, increase use of medical services and improve treatment adherence for those with bipolar disorder (Druss et al., 2014; Rouget and Aubry, 2007; Vieta, 2005).

The Internet has been recognized by governmental health authorities, health systems and physicians as a transformative tool for patient education, and may be particularly useful for those with a stigmatized illness (Berger et al., 2005). A website offers an economical way to reach large numbers of patients, who can read about topics of interest on their own schedule from any location. Many health websites attract a global audience (Leon and Fontelo, 2006) and are available in multiple languages. There is considerable international investment in web-based initiatives

to improve care for bipolar disorder relating to patient education, self-management, and support forums (Bauer et al., 2013; Hidalgo-Mazzei et al., 2015; Leitan et al., 2015; Lauder et al., 2015; Nicholas et al., 2015; Parikh and Huniewicz, 2015).

One concern with online education is whether patients with bipolar disorder use the Internet. For example, the percentage of Internet users in the US general public was 84.2% in 2013 (ITU, 2014), but only 35–70% of patients with serious mental illness were reported to be Internet users, although these studies include patients with diagnoses other than bipolar disorder (Borzekowski et al., 2009; Carras et al., 2014; Record et al., 2016; Tsai et al., 2014). Another uncertainty is whether patients with bipolar disorder have the appropriate technical skills to successfully navigate the Internet (Monteith et al., 2013).

This survey project aims to better understand how patients with bipolar disorder obtain information about their illness, to characterize the patients with bipolar disorder who use the Internet, and to understand the experience of those who seek information online about bipolar disorder. Since Internet technology is widely available, and resources are used internationally, surveys were collected from many countries. This initial report will focus on two critical questions: (1) "Do you use the Internet?" and (2) "Do you use the Internet to find out about bipolar disorder?" Subsequent reports will focus on the responses to the remaining questions.

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