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ORIGINAL ARTICLE

Binge eating in adults with mood disorders: Results from the International Mood Disorders Collaborative Project

Hanna O. Woldeyohannes[a], Joanna K. Soczynska[a,b], Nadia A. Maruschak[a], Kahlood Syeda[a], Ida K. Wium-Andersen[a], Yena Lee[a], Danielle S. Cha[a,c], Holly X. Xiao[a], Laura A. Gallaugher[a], Roman M. Dale[d], Mohammad T. Alsuwaidan[a], Rodrigo B. Mansur[a], David J. Muzina[e], Andre F. Carvalho[f], Jeanette Jerrell[g], Sidney Kennedy[a,b,c], Roger S. McIntyre[a,b,c,h,*]

[a] *Mood Disorders Psychopharmacology Unit, University Health Network, Toronto, ON, Canada*
[b] *Department of Psychiatry, University of Toronto, Toronto, ON, Canada*
[c] *Institute of Medical Science, University of Toronto, Toronto, ON, Canada*
[d] *Cleveland Clinic, Cleveland, OH, USA*
[e] *Turn2Health Solutions, Willoughby, OH, USA*
[f] *Translational Psychiatry Research Group and Department of Clinical Medicine, Faculty of Medicine, Federal University of Ceara, Fortaleza, Brazil*
[g] *Department of Neuropsychiatry, University of South Carolina School of Medicine, USA*
[h] *Department of Pharmacology, University of Toronto, Toronto, ON, Canada*

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Summary A post hoc analysis was conducted using data from participants ($N = 631$) with a DSM-IV-TR defined diagnosis of major depressive disorder (MDD) or bipolar disorder (BD) who were enrolled in the International Mood Disorders Collaborative Project (IMDCP) between January 2008 and July 2013.

It was determined that 20.6% of adults with mood disorders as part of the IMDCP fulfilled criteria for binge eating behaviour (BE). A higher percentage of individuals with BD met criteria for BE when compared to MDD (25.4% vs. 16%; $p = 0.004$) Univariate analyses indicated that individuals with a mood disorder (i.e., MDD or BD)

* Corresponding author at: University of Toronto, Head, Mood Disorders Psychopharmacology Unit, University Health Network, 399 Bathurst Street, Toronto, ON, Canada M5T 2S8. Tel.: +1 416 603 5279; fax: +1 416 603 5368.
E-mail address: roger.mcintyre@uhn.ca (R.S. McIntyre).

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and BE had greater scores on measures of anxiety severity ($p = 0.013$) and higher rates of lifetime and current substance dependence, lifetime alcohol abuse ($p = 0.007$, $p = 0.006$, and $p = 0.015$, respectively), Attention Deficit Hyperactivity Disorder (ADHD) ($p = 0.018$) and measures of neuroticism ($p = 0.019$). Individuals with a mood disorder and concurrent BE had lower scores on measures of conscientiousness ($p = 0.019$). Individuals meeting criteria for BE were also significantly more likely to be obese (i.e., BMI $\geq 30\,kg/m^2$) (50% vs. 25.5%; $p < 0.001$).

Binge eating is common amongst adults utilising tertiary care services principally for a mood disorder. The presence of BE identifies a subset of adults with mood disorders who have greater illness complexity as evidenced by course of illness variables and comorbidity. Screening for BE amongst individuals with mood disorders is warranted; parsing neurobiological substrates subserving non-homeostatic eating behaviour amongst individuals with mood disorders is a future research vista.

Introduction

Binge eating disorder (BED) is the most common eating disorder among adults in the United States [1]. The essential feature of BED is excessive consumption of food ingested during a subjective state of feeling both out of control and distressed without compensatory, purgatory behaviour [2]. Binge eating disorder is more commonly observed in females, individuals who are overweight/obese, and individuals with mental disorders [3]. The epidemic of obesity reported during the past two decades in adults as well as paediatric populations provides the basis for hypothesising that the lifetime incidence of BED may also be increased. Results from clinical and epidemiological studies indicate that major depressive disorder (MDD) and bipolar disorder (BD) are the most common mental disorders amongst individuals with BED [3].

Cross-sectional and longitudinal studies indicate that obesity, notably morbid obesity, is a medical comorbidity that is significantly more common in adults with MDD and BD when compared to the general population [4—6]. The high rate of obesity in mood disorder populations has a complex and heterogeneous aetiology including, but not limited to, a high rate of chaotic eating patterns (e.g., BED). Abnormal ingestive behaviour in adults with mood disorders is associated with a more complex mood disorder presentation and greater burden of illness [7]. For example, results from the recently published Mayo Clinic Bipolar Biobank study reported that, when adjusting for obesity, BED is associated with suicidality, psychosis, mood instability, anxiety disorder comorbidity, as well as substance abuse comorbidity in adults with BD [7].

The considerable overlap in the prevalence of mood and binge eating disorders suggests that there are likely discrete, yet overlapping, pathogenetic substrates. The foregoing notion regarding a putative common pathogenetic substrate is aligned with the Research Domain Criteria (RDoC) matrix insofar as discrete phenomenology may be subserved by non-discrete substrates. Herein, we sought to compare individuals with a mood disorder (i.e., MDD or BD) and binge eating behaviour (BE) to individuals with a mood disorder without BE on socio-demographic, clinical, and patient-reported quality of life, cognitive and functional measures.

Methods

A total of 1861 individuals consented to be a part of the International Mood Disorders Collaborative Project (IMDCP) between January 2008 and July 2013. The IMDCP is a multi-site, international, naturalistic, cross-sectional study of individuals who sought psychiatric and/or treatment evaluation in tertiary care specialised centres [i.e., The Mood Disorders Psychopharmacology Unit (MDPU) located at the University Health Network, University of Toronto, and Cleveland Clinic Center for Mood Disorders Treatment and Research at Lutheran Hospital]. Both the MDPU and the Cleveland Clinic Center are academic specialty mood disorder research-intensive programmes that also provide clinical service to adults (i.e., 18—87 years) with MDD or BD. While the MDPU is exclusively an outpatient programme, the Cleveland Clinic Center for Mood Disorders Treatment and Research offers both outpatient and inpatient services. Data for the analysis herein is restricted to data collected at the MDPU.

Exclusion criteria for entry into the IMDCP are an inability or unwillingness to provide informed

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