

## Editorial

# Mood Disorders—New Definitions, Treatment Directions, and Understanding

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The issue of *The Canadian Journal of Psychiatry* that you have just opened is for the first time almost completely dedicated to mood disorders—not surprisingly, perhaps, because mood disorders have become a major challenge and interest for both the practising clinician and the academic researcher.

An increased life time risk for mood disorders has been reported for some time: with the definition of bipolar disorder (BD) expanded into a “spectrum,” 5% to 8% of the population may be affected (1), and major depression will shortly be competing for first place as the leading cause of disability (2). Increasingly attracted to this domain, the pharmaceutical industry continues to provide new putative mood stabilizers and antidepressants.

This issue’s 2 “In Review” articles offer an overview of the most timely concerns in regard to BDs. Dr Nassir Ghaemi, Dr James Ko, and Dr Frederick K Goodwin address 2 very pressing problems in the management of BDs: misdiagnosis and the effective treatment of bipolar depression. Systematically using their own data, they analyze the reason for the widespread underdiagnosing of BDs and identify the fact that both clinicians and patients fail to recognize important warnings of bipolarity. Involving a family member or third parties may help here, but it is also important to give greater weight to family history and antidepressant-induced manic symptoms—features the authors stress in their proposed definition of “bipolar spectrum disorder.” Fred Goodwin, the author of an authoritative textbook, *Manic-Depressive Illness* (3), has taken a major initiative in identifying the necessary improvements in diagnosis and treatment.

These authors review evidence indicating that more emphasis should be placed on mood stabilizers, and less on

antidepressants, to prevent and treat bipolar depression. They endorse the therapeutic benefit of antidepressants, but because these medications have a potentially destabilizing effect, the authors advise using them only sparingly in special situations. Because placebo has, understandably, not been included in the reviewed studies, a nagging question remains: do mood stabilizers have a demonstrable antidepressant effect in cases of acute depression, or does the difference emerge because the unrestricted use of antidepressants simply makes BDs worse?

The article by Dr JD Vanderkooy, Dr Sidney Kennedy, and Dr R Michael Bagby indicates that 5 antidepressants of different pharmacologic profiles vary in important side effects but have similar efficacy (that is, the remission rates on completion of treatment). Such findings make it imperative that we search for the therapeutic mechanisms of action beyond the traditional neurotransmitters.

Particularly promising for explaining the underlying neurobiological mechanisms is the domain of signal transduction, and Trevor Young is an eminent expert and pioneer researcher in this intriguing area. The paper by Dr Young and his coworker Yereima Bezchlibnyk reviews studies that have examined these systems in tissue from patients with BD. The authors provide an excellent overview, carefully simplifying the complexity and diversity of signal transduction pathways for the practising clinician. Their article illustrates well how the shift in focus from neurotransmitters and receptors to shared intracellular signal transduction pathways may help explain the nature of BD.

The findings on the G-proteins and the different signal transduction pathways leave no doubt that there are multiple abnormalities present in BDs and that mood stabilizers may

correct an underlying signal transduction abnormality, at times at multiple entry points. The authors' observations on the neuroprotective effects of substances that we routinely use to treat BD are of special interest. Further work in this direction offers much promise for understanding the basic mechanisms involved in both the genesis and the treatment of these disorders.

An important pillar of the concept of seasonal affective disorder (SAD) is the "latitude hypothesis": prevalence increases with latitude, as ambient light decreases. Magnusson and Stefansson earlier reported findings that contradicted the latitude hypothesis (4). They found that the prevalence rate for SAD was markedly lower in Iceland than in 3 American locations. In the study published in this issue, they search for a possible explanation by comparing residents of Icelandic and non-Icelandic descent from Winnipeg, Manitoba. This study is elegant, sophisticated, and carefully performed. Again, their results oppose the latitude hypothesis: SAD rates are found to be markedly lower in the Icelandic than in the non-Icelandic population. The authors attempt to find a possible explanation in genetic and environmental factors. However, in the literature one can find a simpler explanation: genetics plays an important role in the prevalence of most mood disorders, but the evidence for the existence of SAD itself is still missing, more than 20 years after it was proposed (5). In clinical course, genetic, and treatment studies, there is still no convincing justification for the diagnosis of an independent seasonal illness. For example, a similar light therapy benefit has been found in patients with nonseasonal depressions. Several antidepressants have been demonstrated to be equally or more effective than phototherapy for patients diagnosed with SAD. In contrast to a speculative diagnosis of SAD, the available data are, overall, more compatible with the human hibernation response that is widely present in healthy subjects, expressed to a lesser degree in milder mood disorders, and absent in more severe ones.

The studies from Scott Pat ten's group have made excellent use of the Alberta component of the National Population Health Survey (NPHS). In the studies published here, Pat ten and coworkers investigate important questions of coping and

comorbid medical conditions in major depression. The study by Jian Li Wang and Pat ten evaluates whether reported coping strategies have any moderating effects on the links between stresses and major depression. Findings suggest that in stressful situations different people use different coping strategies to moderate the effect on major depression risk. The findings also indicate a moderating effect of "expressing emotion" on the effect on stress in women. The authors' discussion solidly reviews these challenging topics.

As a follow-up to their earlier findings from the Canadian NPHS, Pat ten and Dr Lisa Gagnon have again found a higher prevalence of major depression in subjects reporting one or more long-term medical conditions. This elevation was present regardless of age, sex, degree of social support, or number of stressful life events. In their current study, data were obtained by telephone interview from a large random sample of Calgary residents. Of those having medical conditions, 21% experienced depression. The large array of conditions associated with depression is worrisome; Pat ten and associates' findings suggest potentially very important reciprocal interactions between depressive and medical conditions. We are indebted to Scott Pat ten and his team for these important but demanding epidemiological probes into Canadian communities.

All the studies reporting in this issue are remarkable, not only for their focus on important clinical issues of mood disorders but also for the impressive methodological sophistication and scholarship of their approach.

## References

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