# Whither the Psychosis-Neurosis Borderline

## Ian Kelleher\*,1 and Mary Cannon<sup>2</sup>

<sup>1</sup>National Centre for Suicide Research & Prevention of Mental III-Health, Karolinska Institutet, Stockholm, Sweden; <sup>2</sup>Department of Psychiatry, Royal College of Surgeons in Ireland, Education and Research Centre, Beaumont Hospital, Dublin, Ireland

\*To whom correspondence should be addressed; National Centre for Suicide Research & Prevention of Mental III-Health, Karolinska Institutet, Granits vag 4, 17177 Stockholm, Sweden; tel: +46 8-524 800 00, fax: +46 8-31 11 01, e-mail: iankelleher@rcsi.ie

#### Background

The landscape of psychosis research has changed dramatically over the past 15 years. Simply put, psychotic symptoms are far more common than had previously been considered.<sup>1</sup> What is more, hallucinations and delusions, the classic symptoms of "madness proper" (psychosis), have emerged as relatively common features of a wide variety of (nonpsychotic) mental disorders. These findings have led to a blurring of traditional diagnostic boundaries between psychosis and neurosis and a questioning of established nosological constructs.

## **Psychosis vs Neurosis**

The breakdown of traditional divisions between psychosis and neurosis has been on the horizon for some time. Claridge, for example, in 1972, argued that psychotic symptoms, rather than being qualitatively distinct from neurotic symptoms, represented extremes of cognitive and personality characteristics.<sup>2</sup> There is now much evidence that psychotic symptoms are a common feature of neurotic disorders,<sup>3-5</sup> and recent population research has demonstrated substantial covariation of mood and psychotic symptoms.<sup>6-8</sup> Indeed, in 2 independent community studies, we recently found that a large majority of young people who reported psychotic symptoms had at least 1 nonpsychotic Axis-1 psychiatric disorder,<sup>5</sup> demonstrating that where psychotic symptoms occur, they do so more commonly in the context of neurosis than of psychosis proper. In fact, psychotic symptoms were shown to be strong markers of risk for multimorbid neurotic disorders, with their prevalence increasing in a dose-response manner with the number of Axis-1 disorders.<sup>5,9</sup> Psychosis, then, rather than being distinct from neurosis, can, in fact, reflect important features of, and inform about, neurotic psychopathology.

In the current issue, findings of Marwaha coworkers raise further diagnostic questions, this time principally in relation to boundaries between mental and personality disorders.<sup>10</sup> The authors found strong associations between mood instability and psychosis, cross-sectionally and longitudinally. Given that mood instability is the core feature of borderline personality disorder, so named due to the idea that it exists on the "borderline" between neurosis and psychosis, it is perhaps not surprising to see a relationship with psychosis. However, as with the broadening psychopathologic associations with psychotic symptoms, mood instability, rather than being pathognomonic of borderline personality disorder, has recently been highlighted as a relatively common feature of many mental disorders, including depressive, anxiety, and behavioral disorders.<sup>11-13</sup> Furthermore, although it is the chronic and persistent nature of mood instability in borderline personality disorder that supposedly separates it from mental disorders/Axis-I psychopathology, in fact, recent research has shown remission rates at least as high as in most depressive and anxiety disorders. Gunderson et al, for example, showed that in a 10-year cohort study, 85% of individuals with borderline personality disorder went into remission and just 12% relapsed.<sup>14</sup> The strong interrelationships emerging between psychosis, neurosis, and mood instability, together with the ebb and flow of diagnoses over time, force us to question established ideas about traditional divisions and distinctions right across the psychiatric diagnostic spectrum.

The challenges to traditional diagnostic boundaries are not unique to psychiatry. Other areas of medicine are also experiencing shifts in how diseases are categorized—reconceptualizing coronary artery disease as an inflammatory disorder, for example, or diabetes as a vascular disease. Similarly, there are shifts in understanding the complex interrelationships between physical disorders—hypertension, for example, may be a feature of renal artery stenosis, aortic coarctation, or pheochromocytoma without undermining the validity (and individuality) of these diseases. These other areas, however, have the benefit of a better understanding of underlying

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molecular mechanisms. Molecular research may also help to tie seemingly disparate psychobehavioral constructs together in psychiatry. In this regard, the US National Institute of Mental Health's Research Domain Criteria (RDoC) initiative is promising. However, updates of our diagnostic practices cannot wait for developments in this area.

## Etiology

Marwaha et al also raise important issues around etiology: They found that mood instability played an important role in the relationship between child sexual abuse and psychosis. The relationship between childhood abuse and both psychosis and borderline personality disorder is well established.<sup>15-20</sup> Findings of Marwaha coworkers suggest that mood instability may be an important factor linking both. This is especially interesting, given that recent research has demonstrated a very strong relationship between psychotic symptoms and suicidal behavior.<sup>21-24</sup> It is possible that mood instability may also play an important role in this relationship. Further research on topic this will be valuable.

## **Developmental Perspectives**

The strong relationship between mood instability and psychosis is also interesting, given that both have important developmental features—whereas, mood regulation is typically more of a challenge in childhood than adulthood, children are also far more likely to report psychotic experiences.<sup>25</sup> In the context of normal social development, children and adolescents accomplish greater control over their reactions to the environment and therein learn to regulate their moods. Similarly, as children and adolescents develop, psychotic experiences also become less common. Is this socialization of the brain, which is connected to mood regulation and impulse control, also tied to the cessation of psychotic symptoms? There is already preliminary evidence that psychotic symptoms are associated with poorer impulse control.<sup>26</sup> Further research will be necessary to address this.

# Where to From Here?

Aside from pointing out weaknesses in our current diagnostic system, the complex relationships emerging between the varying (psychotic and nonpsychotic) symptoms of psychopathology also point to potential avenues for development. Would a dimensional approach to psychopathology do more justice to clinical psychiatry? Fitting our patients into single neat diagnostic boxes looks increasingly unsustainable. A dimensional approach, recognizing the presence of a myriad of symptoms, each present to varying degrees along continua, would certainly allow a more nuanced and specific approach to the individual. This, however, must be balanced against the problems of an unwieldy system. A dimensional approach also raises concerns for treatment research—with so many possible configurations, and with these varying intrapersonally over time, how do we develop evidence-based treatments for whole populations?

An alternative to a fully dimensional approach would be to maintain categorical diagnoses but to include, within the formulation of these diagnoses, a dimensional approach to a number of coexisting symptoms (such as emotional instability).<sup>27</sup> In fact, this approach is catered for in Section 3 of Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), which details "emerging measures and models" and diagnoses or dimensions that require further research before consideration for adoption into Section 2. This approach would facilitate treatment-and treatment research-for said symptoms in their own right. However, even with this approach, it is important to consider that symptoms that co-occur with one diagnosis may not have the same clinical significance or treatment response as the same symptoms that occur in the context of another diagnosis. For example, emotional instability that occurs in the context of a generalized anxiety disorder may not respond to the same treatment as emotional instability in the context of a psychotic disorder.

## Conclusion

Traditional diagnostic boundaries in psychiatry are falling away, revealing far more complex—and interconnected—pictures of mental illness. This is not an affront to our current diagnostic structures; rather, it is an important development, paralleling advances in other areas of medicine. What is increasingly clear is that so called "psychotic" symptoms are, in fact, important features of mental illness across the (nonpsychotic and psychotic) diagnostic spectrum and require further clinical and research attention. Our challenge is to integrate these developments into modern models of mental illness in order help build a more accurate evidence base for treatment.

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