The classification of depression: are we still confused?

James Cole, Peter McGuffin and Anne E. Farmer

Summary
Recent developments in the classification of major depressive disorder are reviewed in light of the predictions made by Kendell in the 1970s. Particularly, the institution of operational diagnoses along with the contentious issues of subdividing major depressive disorder and its characterisation on a dimensional as opposed to a categorical scale.

A history of confusion

In 1976, Robert Kendell published a seminal article in the Journal outlining the many problems (the ‘contemporary confusion’) relating to the classification of depression. Some of these, he argued, also had implications for the classification of mental illness as a whole. Farmer & McGuffin revisited and updated the issues in 1989 against the background of the Diagnostic and Statistical Manual 4th Edition (DSM–IV) and the then impending publication of the International Classification of Diseases 10th Edition (ICD–10). Now, 30 years after Kendell’s original paper and as we enter the run up to DSM–V and ICD–11, another update is timely.

In the mid-1970s the problems outlined by Kendell included how to validate diagnosis in the absence of any known pathobiological mechanism, how to subdivide depressive disorders and how to resolve uncertainty over the use of categories or dimensions. In particular, Kendell noted that the introduction of research operational criteria to define psychiatric disorders could have an impact on improving the reliability and the international standardisation of diagnosis – an issue of major importance at the time. He hoped that improving diagnostic reliability between researchers would be the first step in ensuring the validity of diagnosis, recognising that this could not be fully achieved until the aetiology of depression is elucidated. What Kendell did not foresee in 1976 was the profound effect operational definitions would have on national and international nosologies. The DSM was produced in completely operationalised format in 1980, while the World Health Organization’s ICD was produced in operationalised form for research purposes in 1993.

The operationalised approach to defining diagnostic categories has become so firmly entrenched in modern psychiatry that few who use the two classification systems routinely in research or clinical practice stop to reflect on them, let alone question their scientific veracity. Operational definitions provide a ‘top down’, rigid and explicit set of rules for making a diagnosis. This allows good interrater reliability, whereby researchers or clinicians can achieve good agreement about the presence or absence of a disorder, and it is also relatively straightforward to generate standardised diagnostic interviews with computerised scoring algorithms to apply the criteria. Alongside these strengths, however, there are crucial weaknesses that should be kept in mind.

One disadvantage of operational definitions is that individuals who do not precisely fulfil criteria are often placed in a ‘not otherwise specified’ category. In some instances, the definitions are so narrow that ragbag, ‘atypical’ categories (e.g. DSM–III psychosis not otherwise specified) can contain more individuals than ‘typical’ categories (e.g. DSM–III schizophrenia). Conversely, some definitions of disorder, for example DSM–III major depression, are broad and tend to be ‘unstable’, showing disappointing retest reliability. Operational definitions are also somewhat limited in the number and type of item included in their combinatorial rules. They necessarily focus on more positive, concrete phenomena, inevitably leaving some pathological experiences or observations unaccounted for.

One specific example of the problems the operational criteria approach can cause is when people with bipolar disorder are ‘misclassified’ as unipolar, and thus receive inappropriate treatments that can be ineffectual and in some cases harmful. This can happen when patients report clear-cut depressive episodes but only experience hypomanic periods which do not meet the threshold for bipolar disorder. Clearly, this is a situation that clinician and researcher alike strive to avoid; however, the rigidity of the operational criteria in the DSM and ICD hamper such efforts.

Another concern regarding operational criteria is the ‘obstinate challenge’ of bringing diagnoses and aetiology together. The authors of DSM–III and its subsequent versions aimed to be ‘atheoretical’, deliberately attempting to avoid including putative causal mechanisms in their classification schemes. McHugh suggests that this makes our current systems akin to bird and botanical field guides in that they enhance the accuracy of identification without explaining distinctions. In contrast, in general medicine, classification is organised around systems (respiratory, renal, etc.) and aetiologies (vascular, neoplastic, infectious, etc.).

Subdivisions and overlaps

Kendell proposed that a bipolar/unipolar subdivision of affective disorder had a persuasive research base and further supporting...
The operational approach to defining depression is categorical in that it defines cases or non-cases of disorder. However, when originally proposed by Hempel, he accepted that the individual items of psychopathology that make up each definition were dimensional, where experience ranged in severity from mild, self-limiting and present in the general population to severe, persistent and pathological. Hempel suggested that for each criterion the rater had to ask ‘does the respondent exhibit this amount of (symptom) X?’ In terms of criteria for depression, this translates as ‘has the individual experienced at least 2 weeks of unremitting low mood?’ This imposes a severity threshold on a continuous variable: in this case, mood. Thus, recognition that symptoms of mental health are continuously distributed across individuals within the general population as well as in those with disorders has been implicit since operational definitions were first proposed. However, depression is a ubiquitous syndrome that is associated with various mental disorders (schizophrenia, substance misuse, eating disorders, anxiety) along with physical disorders such as Parkinson’s disease, myocardial infarction, stroke and obesity. Not all of these different manifestations of depression respond well to antidepressant medication, suggesting that they may be aetiologically distinct. Depression also ranges in severity and symptom profile from the severe psychotic type of disorder found in bipolar illness to mild neurotic depressive symptoms associated with some personality disorders. Recent taxonomic studies exploring whether there is a discontinuity between clinical depression and subthreshold depressive symptoms have been inconclusive.

In fact, the ICD–10 classification of depression incorporates a quasi-dimensional approach, inasmuch as there are mild, moderate and severe forms which some authorities suggest have implications for treatment. For example, the UK National Institute for Health and Clinical Excellence (NICE) guidelines indicate that the preferred first line of treatment for mild depression should be psychological therapy and that drug treatment should be reserved for those with moderate or severe forms of illness.

Arguing for dimensions v. categories becomes somewhat spurious since both approaches are necessary. Certainly, there is a clinical requirement to define cases of a particular disorder, since this determines management and prognosis as well as facilitating service planning. However, defining psychopathology dimensionally probably has greater utility for basic science research especially neuropsychology and genetics. The dimensional structures of the psychopathology of unipolar depression, as well as their bipolar counterparts (L. Forty, personal communication, 2007), have already been established using multivariate statistical approaches. Thus, there is an accepted dimensional structure for depression that can provide the continuous measures required in certain spheres of research. This indicates that DSM–V and ICD–11 probably need to incorporate both categories and dimensions; not one or the other.

**Conclusions**

So what has changed over the past 30 years? Is there still confusion over the classification of depression! The answer to the first question is that the main taxonomies have not been altered drastically. An operationalised approach to diagnosis is still predominant in the main nosologies, although this may be challenged in the next revision of the DSM. The subdivision of unipolar and bipolar depression is well established by the research evidence and the melancholic definition of depression is also receiving a
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