

## Reappraisal

## Whither DSM–V?

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**Summary**

The DSM–V development process started with a grand ambition to provide a ‘paradigm shift’ in psychiatric diagnosis, based initially on the identification of biological markers. This is clearly unattainable, and so energy has now been diverted into developing other major changes, including the development of dimensional ratings and the formal diagnosis of prodromal and subthreshold disorders. It is argued that this process could lead to false positive

‘epidemics’ with harmful excessive treatments. The better, more modest, alternative is to reassess the text descriptions of the disorders and join with ICD–11 in creating a single nested system for both DSM–V and ICD–11.

**Declaration of interest**

A.F. was Chair of the DSM–IV Task Force

Well before the formal start of work on DSM–V in 2007, the American Psychiatric Association, with support from the National Institute of Mental Health, attempted to develop a research agenda that would support the development of a classification system in psychiatry based on biological markers. The goal was a bold one: to promote research that might replace our superficial descriptive method of diagnosis with one based on aetiological understanding.<sup>1</sup> There was a series of 12 research planning conferences,<sup>2</sup> each of which reviewed the literature in a given diagnostic area. One important focus was to determine whether there was sufficient evidence to allow for the inclusion of biological tests for any of the DSM–V diagnostic criteria sets.<sup>3–5</sup>

Not surprisingly, the disappointing conclusion of all this effort was that there are no biological markers even remotely ready for inclusion in DSM–V. The good news is that the remarkable revolutions in neuroscience, molecular biology, and genetics of the past three decades have given us great insights into the functioning of the normal brain. The bad news is that our understanding of psychopathology is fairly primitive and may remain so for some time. With apologies to Tolstoy’s *Anna Karenina*, it appears that normal brains tend to be normal in more or less the same way, while the causes of psychopathology are likely to be wildly and heterogeneously complex. Although there have been many tantalising putative biological findings for particular disorders, all reflect no more than group mean differences and none has achieved anything close to the needed sensitivity and specificity to qualify as a diagnostic test. Thus, it is obvious that our field lacks the fundamental understanding of pathogenesis that will be required before we can take the next meaningful step forward towards a paradigm-shifting aetiological model of diagnosis.<sup>6</sup>

**Dimensions augment categories**

With this failure behind them, the DSM–V Task Force did not give up hope that they could make fundamental paradigm shifts in other ways. The first was to augment the traditional DSM categorical model of psychiatric diagnosis with dimensional ratings.<sup>7</sup> It has long been realised that the mental disorders described in our diagnostic system are fuzzy sets that lack clear boundaries between themselves and with normality. The traditional DSM (and ICD) categorical approach is necessarily forced to carve nature at awkward joints and loses much information in the process. Indeed, I was an early fan of dimensional diagnosis and had hoped it could begin to play a larger role in DSM–IV.<sup>8</sup>

However, we were forced to admit then what the DSM–V Task Force is likely to rediscover now: that it is almost certainly

premature to include an extensive dimensional approach to diagnosis in an official nomenclature. There are two reasons for this. First, there is no widely tested and accepted system of dimensional diagnosis. Although we still know very little about which specific dimensions are being proposed for DSM–V, it is clear that they are being created in an *ad hoc* way that is unlikely to inspire confidence. The second problem is practical. It is clear that busy clinicians find burdensome the added work of rating dimensions. They tend to ignore the few that are already included in DSM–IV (i.e. severity ratings and the 100-point Global Assessment of Functioning scale). Diagnosis of dimensions will be a harder task for clinicians and the clinical utility of the diagnostic system (identified as a core feature in the plans for ICD–11) will be correspondingly low. Introducing a botched dimensional system prematurely into DSM–V may have the negative effect of poisoning the well for their future acceptance by clinicians even when evidence supporting their use has become much more solid. Dimensional diagnosis remains an appealing idea whose time has not yet arrived.

**Subthreshold and premorbid disorders**

The final effort to satisfy the ambition for a DSM–V paradigm shift causes the most serious concern. The workgroups appear to be considering a number of subthreshold and premorbid disorders (e.g. minor depression, prepsychotic syndromes, mild cognitive impairment). The laudable goal of identifying these conditions as official categories is to promote early case-finding and treatment in order to reduce the lifetime burden of illness.

However, there has been little attention given to the insoluble problem inherent in any current attempt to identify those at risk for developing more severe disorders. It is simply impossible, given available knowledge, to create criteria sets that will be specific enough to avoid also identifying a large pool of false positives.<sup>9</sup> Given the unfortunate experience of the past, the ranks of the false positives would also undoubtedly be greatly enlarged by the diligent marketing efforts of the pharmaceutical industry – especially in primary care and (in the USA at least) to the patients themselves.

Consider as the most obvious example, the potentially dire consequences of a much increased prescription of atypical antipsychotics to teenagers, who not infrequently do or say strange things that might seem prepsychotic (and perhaps often while they are on drugs). Falsely identified as having a prepsychotic syndrome, they would suffer the known risks associated with these medications, including the much reduced lifespan already experienced by patients with schizophrenia.

The inclusion of subthreshold and premorbid disorders as official categories could conceivably create tens of millions of new false positive 'patients'; these would be subjected to unnecessary treatment, stigma, and difficulty getting insurance (a major issue in the US where insurance companies often exclude cover for 'pre-existing conditions'). Problems of everyday life would be imperially medicalised and psychiatric diagnosis equivalently trivialised.

The early identification and treatment of milder and premorbid conditions is a wonderful idea that unfortunately is also well before its time. There are two criteria that must be eventually be met before such diagnosis will be feasible: (1) a highly specific (almost certainly biological) screening test; and (2) a treatment with a clearly favourable risk/benefit ratio – even if it has to be given for a long period of time and for milder symptoms. Currently we have just the wrong, opposite combination of non-specific diagnostic tools and potentially dangerous treatments.

### Progress of the DSM-V revision

The ambition to be innovative has clearly led DSM-V to stray into dangerous territory. The fear that the plans for the new classification could create unfortunate unintended consequences is further heightened by the fact that its high ambition has been combined with an unfortunate penchant for secrecy, a poorly organised methodology, and an unrealistic publication date. The secrecy is pervasive. The DSM-V Task Force and Workgroup members were required to sign confidentiality agreements. The advisors to the DSM-V process are few in number and highly selected. Most problematic, there has been far too little free flow of specific information out of, or into, the Workgroups. It is a remarkable fact that the DSM-V field trials were scheduled to begin in July 2009, despite there being neither any public posting of the DSM-V proposals under consideration, nor any accounting of their empirical support from the literature reviews and secondary data reanalyses.

We still have only a vague idea of the specific DSM-V options and no idea how they will be worded. There has also been no indication of the methodology or timetable of the field trials. An open and extensive external review process is essential to avoid all the damaging ways a diagnostic system can be misused once it gets out into the real world. Unfortunately, DSM-V seems to be flying almost blind. As we discovered to our regret in doing DSM-IV, damaging and hard-to-predict unintended consequences lurk everywhere.<sup>10</sup> We had some unpleasant surprises even though our goal for DSM-IV was to be as conservative as possible, our methods were rigorous,<sup>11</sup> and our products were open for wide review.<sup>12</sup> How much more likely is it then that DSM-V will have many and serious unintended consequences, since it does not have any of these in-built protections?

### Advice

What can be done now? This seems a good time for DSM-V to take the opportunity of trimming its ambitions, improving its methods, and opening its process and products for the widest possible review. It also needs to develop realistic goals. It would be wise for us all to accept that descriptive psychiatry is a tired, old creature that has laboured long and done about as much as it can to further our field. Arbitrarily rearranging the furniture of descriptive diagnosis serves no real purpose and can be enormously disruptive to the research, forensic, clinical, educational, and administrative applications of the system.

I would suggest a redirection of the ambitions for DSM-V in two directions. Most important would be the integration of DSM and ICD into one nested system,<sup>13</sup> with DSM-V providing the

criteria sets and ICD-11 providing easier-to-use clinical prototypes. Having two similar but competing diagnostic systems creates great and unnecessary confusion around the world. The publication date for ICD-11 has been postponed until 2014 and the proposed DSM-V publication date of 2012 appears increasingly unrealistic – so if there were a will, a way might be found in time to integrate the two systems. I would also suggest that attention be shifted away from the goal of making radical changes to the criteria sets of DSM-V and towards that of systematically improving its text. The current text format is uninviting and requires extensive updating. Particularly needed are expanded sections on what is known of the biology of each of the disorders and refinement of the sections on the impact on diagnosis of developmental, gender and cultural factors. We must accept that the real paradigm shift in psychiatry can come only as we succeed in gradually understanding at least some forms of psychopathology in a fundamental and explanatory way. A most promising approach to this is being launched by the National Institute of Mental Health (NIMH) in the US. It will coordinate interdisciplinary resources in an effort to document the value of various biologically based 'research domain categories'. Hopefully, the NIMH effort will gradually allow us to base psychiatric diagnosis on aetiology, not mere descriptive similarity. Of course, it will take years to make progress in just a few areas and decades to accomplish a fully aetiological diagnostic system. Meanwhile, the DSM-V that is rushing toward us now will certainly not constitute a paradigm shift, whatever its aspirations, and may create havoc in its path.

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### References

- 1 Kupfer D, First M, Regier D (eds). *A Research Agenda for DSM-V*. American Psychiatric Publishing, 2002.
- 2 Kupfer D, Regier D, Kuhl E. On the road to DSM-V and ICD-11. *Eur Arch Psychiatry Clin Neuroscience* 2008; **258** (suppl 5): 2–6.
- 3 Koob G. The neurobiology of addiction: a neuroadaptational view relevant for diagnosis. *Addiction* 2006; **101**: 23–30.
- 4 Sunderland T, Hampel H, Takeda M, Putnam KT, Cohen RM. Biomarkers in the diagnosis of Alzheimer's disease: are we ready? *J Geriatr Psychiatry Neurol* 2006; **19**: 172–9.
- 5 Benes F. Searching for unique endophenotypes for schizophrenia and bipolar disorder within neural circuits and their molecular regulatory mechanisms. *Schizophr Bull* 2007; **33**: 932–6.
- 6 Hyman S. Can neuroscience be integrated into the DSM-V? *Nature Rev Neurosci* 2007; **8**: 725–32.
- 7 Helzer JE, Kraemer HC, Krueger RF, Wittchen H-U, Sirovatka PJ, Regier DA (eds). *Dimensional Approaches in Diagnostic Classification: Refining the Research Agenda for DSM-V*. American Psychiatric Association, 2008.
- 8 Frances A. Dimensional diagnosis of personality – not whether, but when and which. *Psychol Inquiry* 1993; **4**: 110–1.
- 9 Corcoran C, Malaspina D, Hercher L. Prodromal interventions for schizophrenia vulnerability: the risks of being 'at risk'. *Schizophr Res* 2005; **73**: 173–84.
- 10 First M, Frances A. Issues for DSM-V; Unintended consequences of small changes: the case of paraphilias. *Am J Psychiatry* 2008; **165**: 1240–1.
- 11 Widiger TA, Frances AJ, Pincus HA, Davis WW, First MB. Toward an empirical classification for the DSM-IV. *J Abnorm Psychol* 1991; **100**: 280–8.
- 12 Task Force on DSM-IV. *DSM-IV Options Book: Work in Progress 9/1/99*. American Psychiatric Association, 1991.
- 13 First M. Harmonization of ICD-11 and DSM-V: opportunities and challenges. *Br J Psychiatry* 2009; **195**: 382–90.