Cough disorder: an allegory on DSM-IV

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The DSM-IV is more a reliable descriptive nomenclature than a valid classification of diseases

The *Diagnostic and statistical manual of mental disorders*, third edition (DSM-III), published by the American Psychiatric Association in 1980, sought to define psychiatric syndromes in a way that increased the reliability of psychiatric terminology and diagnoses between practitioners and nations. The DSM-III's introduction cautioned that, with regard to aetiology, it was a "generally atheoretical" document. The subsequent edition, the DSM-IV, published in 1994, went further, and cautioned specifically against diagnoses being applied in a "cookbook" fashion. Despite these warnings, conversion of the description of psychiatric disorders to discrete disease entities has not only occurred but, I believe, has also become problematic. Here, I present an allegory of a boy with "cough disorder" to illustrate.

It was time for the annual post-prandial Christmas dinner nap. A niece was coughing on inhaled lemonade. Dreams are often allegorical; it had been a busy year, and I started to dream.

"Cough disorder" — a dream

A mother came into my consulting room with her son. "He's got cough disorder", she declared. She'd read the symptoms on the internet: "a short, repetitive noise coming from the throat associated with the expulsion of air from the lungs".

This was, indeed, true. The website had quoted the DSM-IV. That is, the fourth edition of the *Diagnostic and statistical manual of human noises* published by the American Phoniatric Association.

"He's clearly got cough disorder, and he needs Suppressalin cough suppressant", the lad's mother said. Suppressalin had been advertised via a link on the "Help for Parents of Kids with Cough Disorder" website. The young chap himself broke into a succession of hacking coughs as if to emphasise the problem, at which point his mother widened her eyes and slowly and firmly nodded, to emphasise the obviousness of the diagnosis. One that, presumably, was now even more clearly in need of the advertised pharmacotherapy.

I sighed. That is, I "exhaled in concert with slight laryngeal constriction, following a deep diaphragmatic inhalation", making a "soft, rather low-pitched noise", and this occurred "in a situation of frustration, tension, tiredness or boredom". (I noticed my noise, recognised I was in a situation of frustration, and recalled research showing I'd just stimulated my vagus nerve to maintain autonomic nervous system equilibrium.)

I coughed, but it was the "ah hem" subtype; the "short, sharp, double noise emanating mainly from the larynx without significant pulmonary air expulsion". This is not normally considered a pathological cough, although I noted the lad's mother raised an eyebrow. I knew my "ah hem" cough was the prelude to my well worn (and weary) noise-educative spiel to parents of coughing kids.

"Well yes, he does cough; I totally agree with you there", I said, to get mum on side, and noticed a slight easing of her wary defensiveness. "But you see 'cough disorder' doesn't tell us very much. It is not really a diagnosis but a description of behaviour." She was starting to resume the wary defensive posture; the boy uttered a quick succession of coughs. I decided to look grave and said how concerning his coughing was, and that it was very important we thoroughly investigated it. She said the parents' help website had indicated that Suppressalin was exactly what was needed, but I noticed she was now less certain, and I made a "hmmm" sound in a particular way, to indicate understanding and empathy, but also that I knew more. I was, after all, the doctor. I sensed she seemed willing to listen to the spiel.

"Cough disorder is simply a description, a starting point", I said. "We have to find out why your young man here is coughing. Cough disorder can have many causes, and, for some children, several causes can combine." I went on to describe inhaled objects, drinks down the wrong way, asthma, croup, bronchitis, pneumonia, pharyngitis (the tickly throat cough), postnasal discharge, and rarer, more serious causes, such as throat and lung cancer, pneumothorax, bronchiectasis, silicosis and congestive cardiac failure. It could be a reaction to dust or cold dry air; there is always an environmental context. And, it could even be something as mild as a frequent habitual "ah hem" cough to try to gain attention.

I had the lad's mother's attention now, and the lad himself had also stopped coughing and was listening. I said that his cough may not need Suppressalin (although I acknowledged that, for some kids, Suppressalin is very beneficial, and they may need it for many years). We went on to look collaboratively for what was causing the cough. Even dad came to the next consultation. I also had an informative telephone discussion with the child's teacher, who told me how the boy generally stopped coughing by morning recess.

The problem with the DSM

The astute reader may by now have guessed that my "dream" is an allegory about attention deficit hyperactivity disorder (ADHD), and that, by corollary, the "DSM of human noises" is the *Diagnostic and statistical manual of mental disorders* published by the American Psychiatric Association, currently in its fourth edition.[1] The DSM is sometimes referred to as psychiatry's bible. However, like the Bible, it should be mainly read as descriptive, not literal, truth.

The problem dates primarily from 1980 and the publication of the DSM-III. At the time, psychiatric terminology suffered from a different problem — psychiatrists using the same labels for different conditions; in particular, schizophrenia, which was overdiagnosed in the United States compared with Europe (and Australasia).[2] The DSM-III devised "operationalised criteria" — lists of symptoms to define descriptive "disorders", so that everyone would at least know what behaviour was being described when a term like "schizophrenia" was used. Reliability is a necessary step on the road to validity. The DSM-III brought about a more reliable nomenclature and a more robust definition of syndromes, a vital prerequisite for psychiatric nosology (the branch of medical science dealing with the classification of diseases) to advance. However, the DSM-III was not meant to be read as a valid classification of diseases, even though it aspired towards that goal. Diagnoses in other areas of medicine also vary in

levels of understanding of aetiology (eg, migraine is still a syndromal diagnosis, and hypertension is a diagnosis based on deviance from normative dimensions); however, the level of scientific knowledge is more advanced in many other areas, and many disease states are well understood. Psychiatry is not so far advanced.

A further complicating factor in psychiatry is the, as yet, unresolved mind–brain problem,[3] and that for such a social species as *Homo sapiens*, the psychosocial and intersubjective domains, including narrative and meaning, are not easily accessed by symptom checklists. The DSM-III and DSM-IV attempt to address this with their multi-axial approach to a range of factors, such as personality, concomitant medical disorders, psychosocial stressors and level of functional impairment, as well as the "V-code" diagnoses — codes used to indicate problems that aren't clinical disorders — such as "parent–child relational problem".

Further complicating nosology is the issue of multicausality and equifinality — syndromal end states may comprise a clustering of individuals with quite different aetiologies for similar presenting symptoms. This is implied in the DSM introductions, with the DSM-III purporting to take a "generally atheoretical stance" with respect to aetiology, and the advice in the DSM-IV that it is "not to be used in a cookbook fashion". Despite these warnings, all too often, collections of symptoms classified as disorders tend, in practice, to be thought of as disease entities in their own right. This is less problematic for severe psychotic disorders such as schizophrenia and manic-depressive psychosis (now called bipolar-I disorder in the DSM-IV), which likely represent underlying brain disease. However, I do think that it is problematic with what used to be called "neuroses", and symptoms that overlap with temperament, personality and responses to stress and trauma, where the interactions of brain, mind, body, relationships and environment are multidirectional.

So the problem is not so much with the DSM itself, but with the way it is often used pre-emptively.

My allegory on ADHD could apply to "conduct disorder", "oppositional defiant disorder", "school refusal", "autism spectrum disorder" or, particularly in the US, the controversial "paediatric bipolar disorder"[4] which, although it is not defined in DSM-IV, can be argued reflects an overly reductionist "neo-Kraepelinian" approach[5] that common use of the DSM tends to foster. A similar problem occurs with anxiety, depression and adult "bipolar spectrum disorders". The problem of seeing all depressive states as homogeneous, differing only in severity, has been raised previously.[6]

In his 2005 presidential address to the Royal Australian and New Zealand College of Psychiatrists (RANZCP), Boyce referred to a "dumbing down" of psychiatry by using the DSM for simplistic "cookbook" diagnoses. He also referred to the pharmaceutical industry's pervasive influence in medical research and medical education.[7,8] In psychiatry, this influence often supports a reductionist biomedical model of human emotional and behavioural problems, rather than the systemic biopsychosocial model upheld by the RANZCP. A simplistic cookbook approach to the DSM would, indeed, seem to be in industry's interests, as behavioural symptom clusters get reified to disease states, and marketing to both the medical profession and the public can support a "pill for every ill" approach.[9] Such marketing finds fertile ground — in a busy world, the siren call of such simplicity in diagnosis and treatment is appealing to both the public and the medical profession.

Such misapplication of psychiatric nosology was predicted two decades ago as the rise of "biologism",[10] and eloquently expressed by Lipowski in his 1988 presidential address to the Canadian Psychiatric Association as the rise of "mindless psychiatry".[11] (Lipowski also noted the perils of the other extreme — "brainless psychiatry" — in which all psychopathology is seen in only psychosocial terms, something this essay is not advocating.) DSM-associated biomedical reductionism has been noted by many American psychiatrists.[12]

In contrast, an alternative approach to psychiatric nosology proposes the "four perspectives of psychiatry" ("disease, dimension, behaviour, life story"),[3] which is a more radical multi-axial approach than the DSM axes and seeks to balance the neo-Kraepelinian disease approach with the "neo-Meyerian" focus on biopsychosocial case formulation.[13] It was described in a course at the recent American Psychiatric Association annual meeting titled "Going from the bio-bio-bio model forward to bio-psycho-social reasoning".[14]

Where disorders most likely fit the disease model, as with the psychoses, there are promising proposals to refashion the upcoming fifth incarnation of the DSM — the DSM-V — to move beyond the descriptive approach and attempt to base psychiatric classification on underlying causes.[15] Further changes proposed include greater emphasis on dimensional measures (eg, to look at subsyndromal risk factors for depression and possible prodromal psychotic symptoms, like suspiciousness, that may aid early detection), rather than categorical measures (such as currently, when meeting sufficient criteria indicates disorder, and below that implies no disorder) to better reflect clinical reality. On the other hand, the head of the former DSM-IV taskforce has expressed strong concern that such moves are premature, would "flood the world with . . . false-positive patients" who "would pay a high price" in stigma and by being overmedicated and, with respect to problems like excessive Internet use, that expansion of criteria in the DSM-V would further "inappropriately medicalise behavioural problems".[16]

Despite, or even because of, this problematic nosology, psychiatry remains a complex but compelling and rewarding profession that requires time, and experience, patience and wisdom acquired through clinical and life experience in helping those who come for help. There are no short cuts, DSM or no DSM.

Return to our allegorical dream of cough disorder

The dream ended happily. The lad and his parents came to understand that cough disorder was not a diagnosis but a description, and that his real problem — mild asthma — required a different medication, and then no medication at all when his parents stopped smoking in his presence. We had tried Suppressalin at one point, but it gave only short-term relief.

The parents and I even had a more philosophical discussion about how the third edition of the DSM of human noises focused on defining human noises descriptively, at a time when some doctors talked about "cough" when they really meant "sneeze", "burp" or "hiccup", and how that was a good development back in 1980. But we also discussed how, as an atheoretical descriptive system, it generally gives no information about underlying causes, and how important the search for real causes is; this is something the family now appreciates.

During my last session with this family, there were several repetitions of "ah yes" and "hmmm" (shorter, higher pitched

subtype, usually indicative of agreement) — all, in my opinion, completely non-pathological noises, although I understand some do think them overused and claim to have medications for them.

. . . I awoke. My niece was playing happily with her Christmas presents. The cause of her coughing — inhaled lemonade — had cleared.

Competing interests

None identified.

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