EDITORIAL

The disorder of disorders in current nosology

A notable aspect of nosology in English is the dichotomy between diseases and disorders, which is not replicated to the same extent in other languages. The custom appears to stretch back to at least the mid-19th century, and a cursory search on Pubmed identifies articles about, e.g., “functional” (Powell, 1847), “constitutional” (Mackenzie, 1852) as well as “nerve” disorders (Jones, 1856). The practice to denote a particular medical condition as either a disease or a disorder was traditionally based on whether the observed functional changes could be verified or not by any structural changes of tissues, i.e., whether an “objective” pathological change could be established.1

Although this explanation makes sense, one would expect that the proportion of disorders would decrease relative to the medical diseases, due to the continuous innovations of sophisticated analytic technologies. This seems not to be the case, at least not when one compares the 10th edition introduced in 19942 with the new ICD-11 to be released in 20183. It is also intriguing that the prevailing focus in the general literature is more about medical disorders and less about medical diseases (Figure 1). There may be several possible explanations.

The great majority of the new disorders are sub-diagnoses that fall under the general domain of mental disorders. “Someone” decided around the mid-forties that “m. disorder” should be adopted as a preferred term rather than “m. disease” (Figure 2). The anecdotal explanation is that this term is more value-neutral and likely less stigmatizing, although undersigned have failed to find the source or veracity of this claim. The debate in psychiatry communities about new diagnoses, definitions, and sub-specialty nosology has been ongoing for some time4, and the debate appears to still remain fierce and contentious.5,6

One of the controversial issues among professionals and laypeople alike is the authenticity of the rapid rise of disorders, particularly within the domains of anxiety, personality, psychiatric, and mood disorders (Figure 3).

Controversy of mental diseases/disorders aside, one may conclude that a consideration of “political correctness” is a factor when new medical conditions are discovered and assigned a name. The observation may explain partly why the new ICD-11 lists multiple medical conditions as a disorder, although they today can be diagnosed by objective indicators of pathology. One may argue that the names of some medical conditions are so engrained that a name change is unwarranted. Alternatively, one may argue that it does not really matter which term is used as long as it is understood by all stakeholders. Consequently, one may identify conditions such as rheumatoid arthritis, type 1 diabetes, and coeliac disease being labeled as autoimmune disorders in some sources and as autoimmune diseases in others. Likewise, the plethora of genetic mutations inherited from a parent’s genome or acquired in utero are in some sources labeled as a genetic disorder and elsewhere as a genetic disease. (Figure 4)

Does it really matter? I believe it does, because the English “disorder” is a bland, featureless, nondescript neutral term. One consequence is that the translation of “disorder” into other languages opens for confounding by cultural biases secondary to societal values and preferences. As an example, we have in dentistry the diagnosis temporomandibular disorders or “TMD” (TMD is actually a corrupted version of the ICD-coded condition named temporomandibular joint disorders (K07.6), but nobody uses the acronym TMJD). The authoritative diagnostic tool was developed by the international RDC-TMD consortium and translated into 21 languages.3 One would think that all the translations would have adopted the equivalent of “disorder.” Yet, this is not the case, as many instead describe the condition as a “dysfunction,” in many circumstances, reflecting their national ICD-10 translation term established by their respective health authority. As a side effect, one may find scholarly papers about the same medical condition containing “temporomandibular disorder”* in the title (n = 479) or “temporomandibular dysfunction” (n = 120; mark the plural in disorders and the singular in dysfunction), predominantly authored by researchers with a non-English background.

To further elaborate on the consequences of using a nondescript term such as “disorder,” I can share some of our experiences with translating the RDC-TMD into Norwegian in the mid-nineties. We considered the best equivalent to “disorders” as “forstyrrelser.” Back-translated, it may signify also “disturbances” or “derangements.” We considered using “lidelser,” but this word in Scandinavian signifies a dimension of suffering, which is not necessarily apparent in TMD-patient situations. Moreover, the term “tilstander” could also have been possible, a term that was actually adopted in a white paper in 2014 on TMJ surgery, drafted by the Norwegian health authorities. The best back-translation of this Norwegian term, however, is “state” or “condition” and not “disorder.”

Moreover, in the official translation of the ICD-10 approved by the Norwegian health authorities, all three terms are used...
FIGURE 1  Frequency of the occurrence of the terms "medical disease*" and "medical disorder*" in the English literature in the period between 1900 and 2000 (last year of registration).
Source: Google Books nomogram viewer

FIGURE 2  Frequency of the occurrence of the terms "mental disease*" and "mental disorder*" in the English literature in the period between 1800 and 2000 (last year of registration).
Source: Google Books nomogram viewer

FIGURE 3  Frequency of the occurrence of mental disorder terms in the English literature in the period between 1900 and 2000 (last year of registration).
Source: Google Books nomogram viewer

FIGURE 4  Frequency of the occurrence of "autoimmune," "genetic," and temporomandicular "diseases" or "disorders," respectively in the English literature in the period between 1800 and 2000 (last year of registration).
Source: Google Books nomogram viewer
interchangeably for various conditions defined as disorders in the English translation. For example, Bipolar affective disorder (F31.9) is described as _lidelse_, Nonorganic sleep disorders (F51) is _forstyrrelser_, and Other disorders of peripheral nervous system (G64) is _tilstander_. There is no pattern for the use of the three terms relative to medical subfield or the severity of symptoms or prognosis. I suspect that the example is not unique to the Norwegian translation, although I have not come across a publication that systematically compares ICD-10 codes in English versus other language. However, a cursory review of some online ICD codifications shows analogous variable translations, e.g., in French, (anomalies, troubles, affections, or lesions) German, (Störungen or Krankheit) Dutch, (stoornissen or aandoeningen), and Swedish, (störningar or rubbingar). The use of the different terms in the different languages seems to be random, like it is in the Norwegian translation. I suspect therefore that the differences in national adaptation of medical terms reflect the respective level of health services, possibly also including health economy considerations estimated by actuaries in national or private health insurance bodies. One may also speculate whether the prevailing concepts of disease, i.e., essentialistic or nominalistic differ among cultures, societies, and national health authorities.

The variable translations of "disorder" that can be identified for multiple medical conditions found in ICD-10 will likely also be the situation for the upcoming ICD-11. I am concerned that the risk for misunderstandings in future scholarly publications seems likely, and perhaps even for conduct of international trans-cultural research, e.g., within the EU Horizon program. One may therefore question whether naming new medical conditions as "disorder nn" is sustainable in light of a need and wish for health research being conducted on a global scale and not only by researchers and clinicians having English as their principal language. Further, to minimize confusion, editors of medical journals in English and non-English language alike, may consider implementing a policy in the instructions to authors to always include the ICD code in future manuscripts for publication.

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ENDNOTES
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