### Exploring the DSM-based system of diagnosing mental disorders.

## Introduction

Currently in its  $5^{\text{th}}$  edition, the Diagnostic and Statistical Manual of Mental Disorders (*DSM*) is described as a "handbook" and "authoritative guide" for the diagnosis of mental disorders (1-3). It was created as an attempt to standardise psychiatric nosology, and is now a heavily influential manual referred to in the fields of scientific research, law, education and public health policy (1, 2). It is mostly utilised in the United States, although its impact easily reaches other countries via American scientific research or entertainment media based on *DSM* definitions. Clinicians use its categories of symptoms to make diagnoses, based on the symptoms presented by patients, and subsequently prescribe treatment in the form of psychotherapy or medication (4).

Though widely utilised, the *DSM* is not without controversy and backlash. There has been an increasing awareness regarding its authority and accuracy, based on scientific evidence from research studies as well as experiential evidence from clinicians, researchers and patients.

This essay aims to explore the shortfalls of the *DSM*-based diagnostic system, supported by both kinds of evidence mentioned above. It will then review some potentially harmful consequences of continued dependence on this system, before outlining several suggestions for change made by critics. Overall, it aims to provide the reader with a brief and broad range of information evaluating the effectiveness of the current *DSM*-based diagnostic system, and instil ideas for future improvement in diagnosing and navigating psychopathology.

### The increasing evidence against the DSM:

While the *DSM* is touted by its publisher, the American Psychiatric Association (APA), as a bastion of scientific empiricism, much of its development is questionable in that regard. The APA states that the *DSM* results from "unbiased research" by its Task Force and various other professionals contracted to review it. However, others argue that the *DSM* is actually more the result of unscientific opinion, speculation and socio-political agenda.

Its original edition was an attempt by earlier psychiatrists to improve the status and relevance of their field, saving it from a "crisis of credibility" and the anti-psychiatry movement (5). Some claim that the *DSM* Task Force, particularly of its 3<sup>rd</sup> edition published in 1980, was

determined to "dethrone psychoanalysts" in American psychiatry to aid in its credibility, by removing psychoanalytic input and reorganising diagnostic categories by symptoms (5, 6). These symptoms are said to be based on thorough scientific review. However, digging deeper into history shows that this is not the case. Even Robert Spitzer, chair of the *DSM-III*, admits in a documentary 27 years after publication that the Task Force made "estimates" of medical disorder prevalence "totally descriptively (7)."

The Task Force is also accused of fulfilling personal and professional agendas. As the content of each edition is decided by consensus vote, it is highly likely that the *DSM* reflects the interests of the voting members (8). A clear example of such conflicts of interest is the inclusion of self-defeating personality disorder (SDPD) in the *DSM-III*, despite only having two studies supporting its existence at that point - one of which was conducted by Robert Spitzer himself (8). Archival studies of *DSM* development have unearthed many other similar instances, showing that claims of strong empirical research and the medical model are untrue for decisions made by the Task Force (2, 7, 8). As the Task Force consists of human beings who are also Psychiatry professionals, it is understandably difficult to remove all forms of influence in the process, and the convictions behind their choices may be genuine. However, despite public criticism of this biased system, the APA refuses to adapt the process to this day (7). This implies that removing bias in creation of the *DSM*-*IV*, came away describing the process as "highly political" and "plagued by... bias and arbitrariness (5)."

Upon gaining awareness of this unscientific approach towards creating the *DSM's* contents, it becomes less surprising that its categorisation of mental disorders is inadequate for clinical or experimental application, to the point of being "scientifically meaningless (9, 10)."

As such, there are increasing numbers of clinical trials that indicate poor translation from *DSM* definitions into real-world patients. Despite some disorders being distinctly defined in the *DSM*, several recent studies have found associations between all pairs of mental disorders, and that patient symptoms regularly "cut across" *DSM* diagnostic categories (11, 12). These associations appear to exist despite the *DSM* ruling that certain conditions, for example autism and attention deficit hyperactivity disorder (ADHD), cannot be diagnosed together – ironically, twin samples have indicated a genetic overlap between these two exact conditions (13, 14).

Similar convictions are present in the experiences of the patient-facing professional community. Steven Hyman, involved in the drafting of the *DSM-V*, stated that "any clinician can tell you" their patients "do not conform" to the *DSM* (13). The general consensus is that few patients fit neatly into *DSM* categories, and instead often display mixes of symptoms attributed to different disorders in the manual. Due to the manual's structure and categorisation, giving an overall diagnosis of a specific condition is difficult compared to diagnosing patients with individual symptoms – though even this clinical judgement is inconsistent across doctors, patients and cultures.

From this, we realise that the *DSM* is simply not as scientific as it may initially appear. It lacks objectiveness and empirical evidence in many stages of its development, from incarnation to final publication, rendering it unhelpful in the real-world diagnosis of mental disorders for many.

# The harmful consequences of dependence on the DSM-based diagnostic system:

Being such an influential manual, the content and structure of the *DSM* can result in widereaching consequences, whether intended or unintended. These consequences have been critiqued by scholars in many fields, some even going as far as to state that the *DSM* diagnostic system is "the greatest obstacle to scientific progress (15)." In this section, we will review several criticisms of this system in relation to its effects on patients and the world.

One critique of diagnostic systems in general is that they distort research, slowing progress towards the end goal of understanding psychopathology. As mentioned in the previous section, studies based on DSM criteria tend to have inconsistent results, indicating that its categorisation of mental disorders is unrepresentative of real-life populations (or more bluntly put – wrong.) With diagnosis-centred systems, researchers may split disorders into finer subtypes or stack on multiple diagnoses in order to explain these unfavourable results. In this way, research is twisted to match "bad" results, instead of critically questioning the "scientific" theory behind DSM diagnostic classification (16).

With the *DSM-III* and subsequent editions, much emphasis has been placed on framing psychopathology as a medical problem the patient *has*, rather than as a response or adaptation to their environment (5). Such research is then widely reported in the media and taught in schools, causing the socio-cultural and scientific research focus to be placed upon the

"disordered" or "dysfunctional" individuals. Clinical psychologist Mary Boyle argues that this places blame on the individual, causing adverse situations to be viewed as the consequence of a patient being "disordered" rather than as potential cause (16). This in turn negatively affects prevention efforts based on understanding of the precursors of a condition and reducing their occurrence (16).

The *DSM* is also accused of accelerating the "medicalisation of normality." Originally, "medicalisation" simply refers to when a disorder is identified, defined and treated as a medical problem. In the current context of Psychiatry, it is used by dissidents of the field to refer to giving medical diagnoses to normal behaviour, resulting in an "epidemic of mental illness (17)." Instances of potentially unnecessary medicalisation in the *DSM* are attributed to various factors, including but not limited to "Big Pharma" or pet interests of researchers, who want their work to be officially validated (7, 18-20). "Nosologomania," a term created to describe a great proliferation of mental disorders, is undeniable when considering the increase in *DSM* length from 130 pages in the original edition to 991 pages in the current one (5, 21).

This is a hotly debated issue as countries all over the world see increases in diagnoses for mental illnesses. It is also highly complicated. Increased diagnosis of mental illness and subsequent treatment may be due to reasons such as it being a quick fix for busy doctors and patients, pressure from the multi-billion-dollar pharmaceutical industry, increased public awareness of conditions that have always existed but previously went unnoticed, or simply a mix of various factors. Extreme critics go as far as to claim that some (or all) mental disorders do not actually exist, but are manmade labels meant to ostracise individuals who act or think differently.

Allen Frances, a previous chair of the *DSM* Task Force, states that the unhelpful classification of vague diagnostic labels in the *DSM* have caused overdiagnosis, overtreatment and the "medicalisation of [ordinary] unhappiness" into the various subtypes of depression (20). Some clinicians blame the *DSM* publications for significant increases of diagnoses due to expanding criteria. For ADHD as an example, this includes removing the "requirement for symptoms to cause impairment" and increasing the maximum age for diagnosis from 7 to 12 (22). Such changes have come under fire for having inadequate scientific evidence (the age criterion was changed based on a single study) or none at all (22). Additionally, the criteria are questioned for their perceived usefulness to patients – if the symptoms do not "cause impairment," why

are children being diagnosed at all? In such instances, it is no wonder that diagnoses increase, as more individuals become "eligible" for disorders under new, looser criteria.

The social effects of medicalising a condition in a manual like the *DSM* can go both ways – a generally positive example was the inclusion of post-traumatic stress disorder (PTSD) giving legitimacy to the psychological trauma of war veterans or abuse victims in social and legal contexts (6). On the other hand, a notorious example is the inclusion of homosexuality as a disorder in the first two editions of the *DSM*. Its inclusion undeniably contributed to social stigma by providing a "medical" reason for discrimination, and its removal was undoubtedly a result of changing societal convention (23). There are conditions in the *DSM* still being challenged today, such as schizophrenia, the inclusion of which is criticised for lacking scientific validity and supplementing stigmatization (24).

These examples illustrate the importance of keeping in mind the large-scale social and medical changes that could arise from editing a single *DSM* criterion. Whether positive or negative, these examples illustrate the mutual influence that medicine and society have on each other, indicating that Psychiatry should consider these complex relationships in future approaches to diagnosing mental illness.

### What hope is there for the future?

There are many theories and suggestions for moving forward from the *DSM* diagnostic system, ranging in their radicality.

Some suggest a simple tightening of the current *DSM* diagnostic criteria, to address overdiagnosis and increased, unnecessary pharmaceutical treatment (20). Others, such as top research funding body National Institute of Mental Health (NIMH), emphasise the importance of uncovering the biological roots of psychopathology. They support this with the 2011 launch of the Research Domain Criteria (RDoC), which aims to fund research focusing on biological mechanisms behind disorders rather than those based on *DSM* criteria (15, 25). This approach eschews the *DSM* system of categorising and treating individuals by the mental disorders they are diagnosed with, and promotes treating them through classes of symptoms (13, 25). All this is based on the belief that biomarker identification is essential to understanding mental disorders, and researchers are largely hopeful that this new framework will eventually bring about improvement in Psychiatry.

There is great potential in the RDoC-style research, as there is increasing evidence for biologically focused theories such as a genetic basis of psychopathology (26-28). Still, even if significant biological reasons for mental disorders are discovered, there are great challenges in translating this knowledge into a new diagnostic system that will not encounter the same pitfalls of the *DSM*. This is also why the *International Classification of Diseases (ICD)*, the most well-known alternative to the *DSM*, likely shares diagnostic complications (4). As such, a more interdisciplinary and patient-centred approach may be useful.

Some critics bemoan the existence of a diagnostic system at all, and clinical psychology is said to be gradually reducing its dependence on diagnosis (16). Modification of the current diagnostic system may not be sufficient to address the *DSM*'s issues and a more radical shift may be required. Research is still unable to define a clear-cut, causal relationship between biological structure and psychiatric function in persons diagnosed with mental illness. Critics therefore state that we should accept the complex nature of each situation, treating the individual in their unique context rather than by their symptoms or perceived dysfunctions. This would require Psychiatry to face social and political issues previously ignored in favour of a purely biomedical approach, and to have more concern for non-biological factors such as culture, circumstance, language and relationships (29). Unfortunately, this would likely put even more strain on already overworked healthcare professionals and may require more material resources than are available. Still, some studies show the benefit of such suggestions even when implemented within the current diagnostic system - a combination of "structured interviewing" of patients in addition to reviewing medical records produced increased diagnostic accuracy and patient agreement (30).

# Conclusion

These critiques are not to assert that the *DSM* or diagnostic systems are completely useless. Clear categorisation is beneficial for the purposes of administration, legislation and medical record-keeping. Social categorisation is said to be an integral part of human nature, as individuals attempt to navigate increasingly complex social communities (31). Having an official diagnosis can help legitimise the experiences of individuals suffering from genuinely debilitating conditions, and some patients do benefit greatly from current methods of diagnosis and treatment.

However, even if there is great shift in psychiatric methods, public understanding of psychopathology will likely need more time to change (32). This is a significant issue as mental illness is inextricably linked to socio-cultural convention, and individuals with mental illness still live within these socio-cultural boundaries. Many mental disorders are highly stigmatised and misunderstood, and inadvertent or purposeful mistreatment from others may exacerbate various conditions.

It is debatable whether these benefits outweigh the costs of continuing with the *DSM*-based diagnostic model, and this is where issues of Psychiatry again cross disciplines, into Sociology and Philosophy. Most researchers and clinicians appear to agree that the *DSM* system is inadequate for current purposes. Therefore, it is important to aim for critical review of potential future systems and how they are utilised in healthcare settings. It is difficult to decide which is the best way forward, though one thing is clear - researchers working towards improving the diagnostic (or non-diagnostic) system of the future would need to work across various disciplines, and tread carefully.

(2477 words)

### Bibliography

- 1. Sarmiento C, Lau C. Diagnostic and Statistical Manual of Mental Disorders: DSM-5. The Wiley Encyclopedia of Personality and Individual Differences: Personality Processes and Individual Differences. 2020:125-9.
- 2. Khoury B, Langer EJ, Pagnini F. The DSM: Mindful science or mindless power? A critical review. Frontiers in psychology. 2014;5:602.
- 3. DSM–5: Frequently Asked Questions American Psychiatric Association [cited 2021 24/01]. Available from: <u>https://www.psychiatry.org/psychiatrists/practice/dsm/feedback-and-questions/frequently-asked-questions</u>.
- Clark LA, Cuthbert B, Lewis-Fernández R, Narrow WE, Reed GM. Three Approaches to Understanding and Classifying Mental Disorder: ICD-11, DSM-5, and the National Institute of Mental Health's Research Domain Criteria (RDoC). Psychol Sci Public Interest. 2017;18(2):72-145.
- 5. Clegg JW. Teaching about mental health and illness through the history of the DSM. History of Psychology. 2012;15(4):364-70.
- 6. Decker HS. The Making of DSM-III: A Diagnostic Manual's Conquest of American Psychiatry: OUP USA; 2013.
- 7. Gornall J. DSM-5: a fatal diagnosis? Bmj. 2013;346.
- 8. Davies J. How Voting and Consensus Created the Diagnostic and Statistical Manual of Mental Disorders (DSM-III). Anthropology & Medicine. 2017;24(1):32-46.
- 9. Allsopp K, Read J, Corcoran R, Kinderman P. Heterogeneity in psychiatric diagnostic classification. Psychiatry Research. 2019;279:15-22.
- 10. Frances A. The New Crisis of Confidence in Psychiatric Diagnosis. Annals of Internal Medicine. 2013;159(3):221-2.
- 11. Plana-Ripoll O, Pedersen CB, Holtz Y, Benros ME, Dalsgaard S, de Jonge P, et al. Exploring Comorbidity Within Mental Disorders Among a Danish National Population. JAMA Psychiatry. 2019;76(3):259-70.
- 12. Grisanzio KA, Goldstein-Piekarski AN, Wang MY, Ahmed APR, Samara Z, Williams LM. Transdiagnostic symptom clusters and associations with brain, behavior, and daily function in mood, anxiety, and trauma disorders. JAMA psychiatry. 2018;75(2):201-9.
- 13.Marshall M. The hidden links between mental disorders. Nature Editorials. May 5, 2020.
- 14. Ronald A, Simonoff E, Kuntsi J, Asherson P, Plomin R. Evidence for overlapping genetic influences on autistic and ADHD behaviours in a community twin sample. Journal of Child psychology and Psychiatry. 2008;49(5):535-42.
- 15. Ghaemi SN. After the failure of DSM: clinical research on psychiatric diagnosis. World psychiatry : official journal of the World Psychiatric Association (WPA). 2018;17(3):301-2.
- 16.Boyle M. Diagnosis special issue Part 1 & 2. The Psychologist. 2007;20.
- 17. Massey A. Medicalising everyday life doesn't help anyone's mental health. The Guardian. 2019.
- 18. Davies J. Cracked: Why Psychiatry is Doing More Harm Than Good: Icon Books; 2013.
- 19.Carlat D. Unhinged: The Trouble with Psychiatry A Doctor's Revelations about a Profession in Crisis: Free Press; 2010.
- 20. Dowrick C, Frances A. Medicalising unhappiness: new classification of depression risks more patients being put on drug treatment from which they will not benefit. BMJ : British Medical Journal. 2013;347:f7140.
- 21.van Praag HM. Nosologomania: a disorder of psychiatry. World J Biol Psychiatry. 2000 Jul;1(3):151-8.
- 22.Sanders S, Thomas R, Glasziou P, Doust J. A review of changes to the attention deficit/hyperactivity disorder age of onset criterion using the checklist for modifying disease definitions. BMC Psychiatry. 2019;19(1):357.
- 23.Drescher J. Out of DSM: Depathologizing Homosexuality. Behavioral sciences (Basel, Switzerland). 2015;5(4):565-75.
- 24.Romme M, Morris M. The harmful concept of schizophrenia. Mental Health Nursing. 2007;27(2):8.



- 25.Reardon S. US mental-health agency's push for basic research has slashed support for clinical trials. Nature News. 2017.
- 26.Selzam S, Coleman JR, Caspi A, Moffitt TE, Plomin R. A polygenic p factor for major psychiatric disorders. Translational psychiatry. 2018;8(1):1-9.
- 27.Goodkind M, Eickhoff SB, Oathes DJ, Jiang Y, Chang A, Jones-Hagata LB, et al. Identification of a common neurobiological substrate for mental illness. JAMA psychiatry. 2015;72(4):305-15.
- 28.Romer AL, Knodt AR, Houts R, Brigidi BD, Moffitt TE, Caspi A, et al. Structural alterations within cerebellar circuitry are associated with general liability for common mental disorders. Molecular psychiatry. 2018;23(4):1084-90.
- 29.Boyle M, Johnstone L. Alternatives to psychiatric diagnosis. The Lancet Psychiatry. 2014;1(6):409-11.
- 30.Basco MR, Bostic JQ et al. Methods to Improve Diagnostic Accuracy in a Community Mental Health Setting. American Journal of Psychiatry. 2000;157(10):1599-605.
- 31.Liberman Z, Woodward AL, Kinzler KD. The Origins of Social Categorization. Trends in cognitive sciences. 2017;21(7):556-68.
- 32. Schomerus G, Schwahn C, Holzinger A, Corrigan PW, Grabe HJ, Carta MG, et al. Evolution of public attitudes about mental illness: a systematic review and meta-analysis. Acta Psychiatrica Scandinavica. 2012;125(6):440-52.

9