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Review

The influence of corporate and political interests on models of illness in the evolution of the DSM

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ABSTRACT

The diagnostic and statistical manual of mental disorders (DSM) is an evolving document that serves the many mental health care disciplines as the primary reference guide for classifying mental disorders. While the successive framers of the DSM have attempted to base it on scientific evidence, political and economic factors have also shaped the conceptualization of mental illness. These economic and institutional forces have reinforced the DSM's use of a medical model in understanding psychopathology. Though the scientific evidence for a medical model is mixed and evidence for other types of conceptualizations have been given less attention, the medical model provides for reliable diagnoses that allot diverse benefits to treatment providers and researchers, as well as to the pharmaceutical and healthcare industries. This article will outline the development of a medical model of mental illness, highlighting connections between this model and corporate and political interests, and will show how this model relates to the various revisions of, and developments within, the DSM. Such an analysis is especially relevant today as the field looks towards the publication of the newest revision of the DSM and attempts to understand and integrate its proposed changes into current treatment, theory, and research.

1. Introduction of the diagnostic and statistical manual of mental disorders

The diagnostic and statistical manual of mental disorders (DSM) is a constantly evolving, core document that classifies psychiatric problems. This taxonomic system serves as a starting point for how the various mental health disciplines conceptualize and treat psychopathology. The first edition of the DSM was published in 1952, though preliminary forms of professional standardization were attempted as far back as the early 1900s [20] The most current version, the DSM-IV-TR (TR = text revision), was published in 2000, and the newest version, the DSM-V, is scheduled to be published in 2013. Throughout over a half century of development, the DSM has shaped the way in which mental illness has been understood by psychiatrists, psychologists, and the public at large.

While the functional utility of the DSM, in all of its editions, meets criteria for a sound taxonomy – including a broad conceptualization, successful treatment outcomes and a broader social influence that promotes both research and intervention [10] – its early development was controversial. Further, the DSM continues to lack a broad consensus in ways that organizational documents of other professions, such as chemistry or physics, do not. Whereas taxonomies in other sciences generally develop based upon clear scientific principles within those disciplines, the formation of classes of disorders and the putative disorders within those classes are developed primarily by committee in the DSM. Consider the following illustration: the periodic table of elements was developed based on the atomic weights of different elements derived from the theoretical conceptualization of atoms and how their contents (protons, neutrons, electrons) result in different basic elements. The content of the periodic table has subsequently been the subject of rigorous scrutiny whereby the science has been cumulative and theoretically based. There has been some controversy over the impact of Mendeleev in developing the core basis of the table and its presentation, but the approach has been nearly universally adopted [13]. Now, consider an illustration from psychiatry: the current edition of the DSM (and the editions that preceded it back to 1980) was intentionally developed without a unifying theoretical basis. This was done to improve reliability as the state of the field has long been multitheoretical – that is, without any unifying theory across or within disciplines [10]. While improving reliability was highly desirable for diagnosis, and by extension, for the validity of diagnosis, this atheoretical approach to classification has led to some unusual conditions. Since the diagnostic categories in the DSM arise from planning committees who examine the existing literature regarding the

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epidemiology and pathophysiology of different psychopathological states, the conclusions derived are necessarily based on consensus rather than on a unifying set of findings from the extant research. Since this process is, by definition, not guided by a central theory, there is little in the way of an organizing framework by which diagnoses arise.

It is, perhaps, unfair to hold psychology to the same standard as natural scientific disciplines, given that its subject matter is, by nature, more highly variable and difficult to measure. But the complexity of our phenomena does not constitute a justification for abandoning all attempts at theoretical coherence; if anything, the variability of human experience demands more careful, thoughtful and creative theory, not less. One example that is apt involves the diagnosis of agoraphobia without history of panic attacks. This diagnosis has been considered extremely rare, with some even questioning its existence (i.e., McNally, 1994 [28]). Some recent evidence has emerged to suggest that this disorder may exist as a separate entity [9,42]. However, epidemiological research does not adequately address mechanisms that underlie the condition. Accordingly, while Wittchen et al. [42] note that agoraphobia without history of panic may exist separate from panic disorder, it has also been observed that among those with this diagnosis, there is often significant avoidance to prevent the experience of anxiety [3], and high anxiety sensitivity [21], both of which are strongly associated with panic disorder [34]. These clients also typically exhibit cognitive patterns similar to individuals with panic disorder [8]. Given these ambiguities, it is difficult to discern how such disorders make it through the consensus panel, but given the growth and influence of the DSM, it would be useful to understand this process and potential external influences that drive it.

Since the current approach is committee driven, with decisions regarding the classification of mental illness reached through consensus, it is essential to identify nontheoretical or nonscientific biases that may be corrupting the way mental illness is conceptualized. This paper will explore potential alternative sources of influence, including the economic interests of corporations such as health care and pharmaceutical companies who may be shaping the use of an implicit medical model of mental illness in the development of DSM taxonomies, and how these influences may emerge, both explicitly and implicitly, in the way committee members develop, promote, and come to a consensus on psychiatric disorders.

2. The medical model and the diagnostic and statistical manual of mental disorders

From its earliest incarnations, the DSM has been based, at least implicitly, upon a medical model of mental illness [17,20]. In a medical model, individuals who are "mentally ill" or "disordered" are viewed as having a kind of disease that manifests in particular symptoms, usually causing dysfunction and distress. This classification is analogous to the way that an individual with a cold is viewed as having a disease that is causing a distinctive set of symptoms that also lead to functional deficits [29]. Accordingly, mental illness is embedded in a normative paradigm that identifies deviations from the norm, or "mentally healthy" individuals, as disordered. These deviations from the norm are characterized by identifiable patterns of thoughts, feelings, and behaviors that are then interpreted as belonging to different classes and types of disorders, a differentiation analogous to the way that a viral cold is distinguished from a bacterial infection. A list of these groups of patterns, or "taxons", has made up the bulk of each version of the DSM, starting with the first edition. The implicit assumption of this medicalized classification system is that the causal mechanism underlying any particular collection of thoughts, feelings, and behaviors is distinctive and, therefore, important in guiding treatment of any undesirable symptoms. The DSM is the document that organizes these observations and, to a greater or lesser extent, the causal mechanisms that give rise to them [20].

The influence of the medical model, of course, predates the DSM. From early on, psychiatry and psychology have attempted to integrate with the medical professions [19] by creating disciplines centered on the diagnosis and treatment of illness. Following a medical model, it has been natural for psychologists to attribute the causes of various forms of mental illness to the presence of a disease. Although an examination of the research suggesting biological mechanisms in mental illness is beyond the scope of this paper, it has been argued that the bias towards biological concepts of mental illness has not been entirely influenced by scientific evidence [36]. Rather, biologically-based models have been influenced by economically and politically interested parties. This argument is most evident in the transition from the DSM-II to the DSM-III. Because the DSM-II was generally vague and contained terms that were untested or based upon psychoanalytic interpretations, the DSM-III shifted to a medical perspective. This was accomplished by emphasizing diagnostic categories that operationalized symptoms and emphasized reliability of diagnosis [39]. These categories were published despite an initial, and continuing, limited range of research for many of the categories and disorders [25]. This abandonment of both theory and evidence was a radical departure from what is typical in science – see, for example, Kitcher [24] who notes that significant advances in science often occur when there is a substantial change in theoretical perspective that guides research in a discipline. In this instance, the theory underlying DSM-II diagnoses was discarded but was not replaced with a new one. Several factors that explain why categories were published without empirical support are described below: a desire for therapeutic specificity; for greater professional legitimacy; economic viability; an antipathy towards psychoanalysis; and the growing power of the pharmaceutical industry [19,26].

3. The diagnostic and statistical manual of mental disorders-III and the social benefits of the medical model

3.1. Diagnostic and therapeutic specificity

The desire for therapeutic specificity refers to the search for "magic bullets", or therapies that can reliably target specific disorders. Starting with the Kevauver-Harris Amendments to the Food, Drugs, and Cosmetics Act of 1962, legislation was passed stating that pharmaceuticals must be both safe and demonstrably efficacious for specific disorders. Therefore, as psychopharmacological technologies improved, it was desirable to ensure that these would be accepted by larger governmental institutions [19]. In order to ensure this acceptance, distinctive categories of illness were preferable to prior psychoanalytic conceptualizations because such categories identified specific symptoms that could be eliminated with specific drugs. Therefore, a tautological argument was made that used results from drug research in conceptualizing the mental illness for which the drugs were created. Essentially, this argument amounts to finding the cure before the disease. For example, the original serotoninergic antidepressants were found to be helpful in reducing depression. This in turn led to the theory that depression is marked by a serotonin deficiency. However, serotoninergic antidepressants have since been discovered to be helpful in treating various other disorders, ranging from gastrointestinal symptoms to premature ejaculation [5,35]. Because serotonin is, in this way, implicated in several disorders with a wide range of symptoms, it is clear that there must be other unknown mechanisms that distinguish one disorder from another and that a "serotonin deficiency" is far from a sufficient