

NIMH Mad Libs

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INSTRUCTIONS: *A fictitious, familiar, yet incomplete NIMH press release appears below. Choose one term from each parenthesis to fill in each blank. You may select answers that reflect the positions of NIMH and/or assumptions of the biomedical model (listed first in each parentheses), or alternative answers based on science and/or reality (listed second). It's up to you!*

On the Verge of Revolutionizing Precision Medicine by Hopefully Transforming Diagnosis

Since the publication of DSM-III in 1980, biomedical research has demonstrated that mental health problems are _____ (disorders of brain circuits¹; psychological problems with largely unknown biological causes). Indeed, it has become an NIMH mantra to describe mental disorders as _____ (brain disorders²; caused by the complex interaction of biological, psychological, and environmental factors). Advances in neuroimaging and other cutting-edge biomedical technologies have revolutionized our understanding of the brain, thereby _____ (“completely alter[ing] the way we approach diagnosis³”; having no effect on how diagnoses are made) and leading to _____ (the development of safer and more effective biological treatments; no meaningful advances in biological treatments⁴). Mental health outcomes in the United States have _____ (improved; worsened⁵) alongside NIMH’s support of biomedical theories and treatments in preference to evidence-based psychosocial approaches. To illustrate, dramatic increases in the use of “antidepressant,” “antipsychotic,” and stimulant medications have witnessed a _____ (decrease; marked increase⁶) in the prevalence of Americans on federal disability for the mental disorders these medications treat. Newer antipsychotic, antidepressant, and “mood stabilizing” medications are _____ (more effective; no more effective⁷) than first-generation versions of these drugs discovered by accident in the 1950s. Mental health stigma has _____ (improved; not improved⁸) as Americans have come to adopt our position that mental health problems are biologically based brain diseases. One mental disorder listed in DSM-IV, Rett’s Disorder, has even been conclusively shown to have a biological cause.⁹ As a result, Rett’s Disorder has been _____ (heralded as proof in principle that mental disorders are biologically based diseases; removed from the DSM-5 as a mental disorder and reclassified as a genetic disorder¹⁰).

Despite these developments, reliance on the DSM diagnostic system is limiting our progress. Now that DSM-5 has been published, it is clear that DSM diagnoses are _____ (not valid¹¹; neither reliable nor valid^{11, 12}). Mental disorders are diagnosed based solely on symptoms, and objective laboratory measures for DSM diagnoses do not exist. In the rest of medicine, symptom-based diagnosis is not credible and has been largely replaced by diagnosis based on objective laboratory tests. Our declaration that DSM diagnoses lack validity because they cannot be diagnosed with objective tests has been previously asserted by _____ (“anti-psychiatry” forces who “don’t want to improve mental healthcare”¹³; well-informed critics whom we have spent half a century vilifying as “anti-psychiatrists” for making this same point¹⁴). Given that the DSM system provides the foundation for nearly all mental health diagnosis, billing, coercive treatment, forensics, and research in the United States, its lack of validity is a serious problem for _____ (biomedical researchers only¹⁵; our entire mental health system). Our admission that DSM diagnoses do not have established biomarkers _____ (dictates that we redouble our efforts to discover the biological causes of mental health problems rather than consider the consequences of pursuing a failed paradigm; directly contradicts our long-standing position that mental disorders are brain disorders with recognized biological causes¹⁶).

Patients with mental disorders deserve better. That’s why NIMH has launched the Research Domain Criteria (RDoC) project. We are committed to _____ (demonstrating that mental disorders are real medical diseases that can be diagnosed with objective laboratory measures¹¹; meeting the needs of Americans with mental health problems). Although science has not advanced to the point where a neuroscience-based classification is possible, we must nevertheless proceed as if genetics and neuroscience will someday inform diagnosis.¹⁷ Therefore, _____ (we are funding the creation of a new diagnostic system that will hopefully lead to the discovery of as-

yet unknown biological causes¹⁷; mental health problems may not be brain diseases after all). The RDoC initiative assumes that psychological problems are disorders of brain circuitry, and that the tools of clinical neuroscience will identify dysfunctions in neural circuits.¹⁸ This initiative will support research designed to achieve the failed goal of DSM-5: “translat[ing] basic and clinical neuroscience research relating brain structure, brain function, and behavior into a classification of psychiatric disorders based on etiology and pathophysiology.”¹⁹

RDoC is a necessary first step toward precision medicine in which assessment of “molecular signatures, neuroimaging patterns, [and] inflammatory biomarkers”²⁰ may lead to “cures” for “brain diseases” like depression and anxiety disorders.²¹ Understanding the true nature of mental health problems will require contributions from many sources, such as _____ (“genomics, epigenetics, electrophysiology, animal models, [and] clinical psychiatry”²²; scientists from a variety of disciplines who study biological, psychological, and environmental contributions to mental health problems). Given that we estimated the arrival of “biodiagnosis” and “treatment of core pathology” in 2015,²³ the need to uncover the biological causes of mental disorders is urgent if we are to retain our credibility.

The NIMH is optimistic that additional decades of biomedical research following the RDoC project will _____ (renew dwindling pharmaceutical industry interest in psychiatry²⁴ and bolster psychiatry’s image as a clinical neuroscience discipline²⁵; perpetuate the opportunity cost associated with dramatically underfunding empirically supported psychosocial approaches). Our confidence is based on the track record of biomedical research in the modern DSM era, which demonstrates that we are _____ (currently; perpetually²⁵) “on the verge”²⁶ / “on the cusp”²⁷ / “on the brink”²⁸ / “on the threshold”²⁹ / “facing a tipping point”³⁰ of transformative breakthroughs that might revolutionize mental health treatment. Under the leadership of biological psychiatrist Thomas Insel, the NIMH is committed to a future in which all patients with mental disorders undergo expensive biological testing administered by psychiatrists in medical settings to facilitate the use of personalized biological treatments provided by psychiatrists.

The RDoC initiative is symbolic of the NIMH’s commitment to disproportionately support biomedical research over evidence-based psychosocial approaches like cognitive-behavioral therapy that are often at least as effective as medications in the short term and more effective in the long term, have no adverse biological effects, are less expensive, and are strongly preferred by patients. Psychological scientists are en-

couraged to submit grant proposals for the RDoC initiative, provided that their research facilitates the “power of biology to identify illnesses linked to pathophysiology” and “the development of more specific [biological] treatments.”¹⁷ Psychologists interested in having their research supported by NIMH in the current funding climate must understand that _____ (“to be a leading clinical psychologist, you have to know cognitive science, you have to know the biological basis of behavior, you have to know neuroscience, you have to know a fair amount of genetics”³¹; psychological research is not valued unless it is intended to demonstrate the biological underpinnings of psychological processes). We leave it to the profession of psychology to deal with the consequences of our virtual requirement that psychological scientists must conduct neuroscience research if they wish to be supported by the NIMH.

Although three decades of NIMH biomedical research funded by billions of taxpayer dollars have failed to discover reliable biomarkers, produce safer and more effective biological treatments, or improve mental health outcomes, we are confident that additional decades of biomedical research will validate our faith in this approach. Indeed, we have just allocated \$40 million in 2014 to the BRAIN initiative, which focuses on “advancing our technological capabilities for understanding how circuits of interacting neurons function to create behavior, with the ultimate goal of improving our scientific foundation for the diagnosis and treatment of brain disorder.”³² The NIMH looks forward to a future in which advances in biomedical research lead to biological tests and cures for brain diseases. In the meantime, we ask that individuals with mental health problems who have difficulty accessing safe, effective, and affordable interventions wait patiently while neuroscientists go about their work.

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