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Diagnosis of Mental Illness Today and Tomorrow: A Literary Review of the Current Methods, Drawbacks, and Sociological Components of Mental Health with Regard to the Diagnosis of Mental Illness

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Abstract

The diagnosis of mental illness has sometimes been a controversial issue due to concerns about reliability and validity of diagnosis. Current methods focus on the categorical assessment of presented symptoms, however, the assessment of the factors leading up to and correlated with mental illness could be a more helpful tool for identifying mental illness itself. The position of this paper is that an analysis of these factors and in particular the integration of the sociological perspective could lead to a better method of diagnosis and understanding of mental illness. A brief overview of the three primary models of mental illness is discussed first followed by an analysis of literature around the benefits and drawbacks to the dominant models and diagnosis of mental illness. Following this, a continued analysis of previous literature around alternatives to categorical assessment of mental illness is explored and discussed.

Keywords: Mental Illness, Diagnosis, Alternatives, Categorical, Symptoms

Diagnosis of Mental Illness Today and Tomorrow

A literary review of the current methods, drawbacks, and sociological components of mental health with regard to the diagnosis of mental illness

Introduction

The diagnosis of mental illness has sometimes been a controversial issue due to concerns about reliability and validity of diagnosis (Brown, 1987; Rosenhan, 1973; Mirowsky & Ross, 1989a). Current methods focus on the categorical assessment of condition through presented symptoms, but unlike physical health issues, psychological problems are not discrete, presenting instead along a continuum, and often not able to be verified through quantifiable evidence. These issues make psychological problems difficult to point conclusively to causal factors in a manner similar to physical health issues (Mirowsky & Ross, 1989a). In fact, mental health symptoms can be extremely generic and are sometimes subject to interpretation by both the practitioner and the patient. There is even some concern that mental illness might not actually be a disease and instead is a sociologically constructed label of psychological conditions (Szasz, 1965). Some scientists even contend that a mental illness diagnosis can lead to stigmatization, self-fulfilling behavior, and medicalization of social deviance (Rosenhan, 1973; Scheff, 2003). Concurrently, the question is raised; is the categorical assessment of mental illness helpful in treatment, or could an assessment and scoring of the factors correlated with defined mental illness be a more helpful tool for identifying and treating poor mental health? This paper argues that tracking and scoring of the factors known to correlate and associated with poor mental health, rather than categorical diagnosis would lead to a better method of diagnosis and understanding of mental illness in individuals. A brief overview of the three primary models of mental illness is discussed first with a focus towards issues in the diagnosis of mental illness. We then look at previous literature around the benefits and drawbacks to the dominant models

and diagnosis of mental illness in general. Following this, a continued analysis of previous literature around alternatives to categorical assessment of mental illness is explored and discussed. Lastly, a proposed alternative to categorical diagnosis is proposed and future areas for research discussed.

Models of Mental Illness

A discussion of diagnosis of mental illness cannot be had without first spending time looking at the three models primarily used today to describe and define mental illness. All three models have evidence to support their position but lend completely different, and sometimes contrary, views of what shapes or defines mental illness. A brief overview of the three different models -- medical, psychological, and social -- is discussed below with regard to diagnosis and treatment of mental illness and with their respective limitations.

The Medical Model

The most prevalent model of mental illness is the medical model. Under the early medical models of mental illness, symptoms of mental illness are the manifestations of specific unseen organisms or lesions (Miroswky & Ross, 1989a). In 1965 an article was published by Schildkraut that hypothesized that certain forms of depression could be caused by a chemical imbalance in the brain. He hypothesized that some, or potentially all, forms of depression could be related to a decrease in catecholamine, particularly norepinephrine. This article would become known as the ‘Catecholamine Hypothesis’ and the basis for the updated bio-chemical medical model of mental illness that is most prevalent today.

The bio-chemical medical model does have several limitations, the greatest is an inability to show causality based on chemical imbalance. One could equally argue that the chemical imbalances could be symptomatic of a disorder rather than the cause. Even Schildkraut

concluded in his article, “It is not possible, therefore, to confirm definitively or to reject the catecholamine hypothesis on the basis of data currently available.” (Schildkraut, 1965, p.522). This problem can perhaps best be seen through the approval process of medications by the FDA for psycho-pharmacology. In an article explaining the requirements for drug testing and approval by the FDA, Katz (2004) discusses how the mechanism of action (MOA) of a drug is secondary to drug approval. Instead the FDA focuses on the treatment in the reduction or elimination of the symptoms, without the need for an understanding of the MOA of the drug. Katz continues to explain how a complete understanding of the pathophysiology of a disease is necessary to rely on a drug’s effect and states, “This knowledge is not available for any neurologic or psychiatric condition with which the Agency deals, nor is it available for any of the treatments approved (or regulated) by the Agency.” (Katz, 2004, p.315). This combined with federal labeling laws (21 C.F.R. § 201.57) results in any drug used in the treatment of psychological conditions carrying labeling stating, “the mechanisms of action are not fully understood”, underscoring the lack of evidence or support of the bio-medical model of mental illness even today.

Crucial to the argument for the bio-medical model is several assumptions. The first is that the mind and mental functions can be reduced to biological functions of the brain. The second is a universality of the brain, in that like other organs in the body, culture and social context does not affect it (Horwitz, 2003). Thus a bio-medical model must be able to separate physiological and genetic factors from environmental and cultural influences. Primarily studies are done through the use of adoption studies, twin studies, and linkage studies. Horwitz (2003) argues that the results of these types of studies have been inconclusive with the exception of limited evidence of genetic causes of some forms of schizophrenia and bipolar disorder. So

while some psychological disorders have shown physiological evidence correlated with mental illness, most do not; continuing to leave definitive evidence to support a bio-medical model.

The argument that mental illness does not fit with the medical model is not new having been discussed in detail in the controversial book, *The Myth of Mental Illness*, by Dr. Thomas Szasz (1961). In the first edition and later revisions, Szasz argues that psychiatrists diagnose and label people, "disabled by living", as mentally ill. Fundamentally, Szasz argues that people's mental health is transitional based on the experiences of everyday life. By labeling transitory behaviors and emotions, people are pronounced as being sick for reactions that are normal and part of the human condition. He continues to say that it is a logical error to equate mental health with physical health and that most mental health conditions are really issues with emotions and behaviors. This line of thinking actually is very consistent and in line with that of another big name at the time, psychologist B.F. Skinner. Skinner believed that the inner workings of the mind were not as important as the environment, experiences, and consequences of behavior (Skinner, 1974). Skinner treated the mind as a 'black box', not concerned with the processes within, and instead focused on the inputs and outputs using direct observation. Thus Skinner also saw people as not being mentally ill but instead simply responding to stimuli and experiences with no observable evidence to support the medical disease model of mental illness.

The Psychological Model

The second most prevalent model of mental illness focuses on the psychological state of individuals. The debate of whether our psychological state is shaped from experiences or by biological influences has been a deeply debated topic in psychology for decades[1]. Foundational

[1] For a historical and philosophical look at the topic of the Nature vs Nurture debate, see *Beyond Versus: The Struggle to Understand the Interaction of Nature and Nurture* by James Tabery, MIT Press, 2014.

figures in the field of psychology (such as Locke and Skinner) argue that we are nothing more than our experiences. Meanwhile evolutionary figures (such as Darwin, Lorenz, and Frisch) argue we are more influenced by our genes. In the words of Eleanor Gibson (1994), the debate over nature versus nurture is a "hobgoblin". She argues that nature and nurture are inseparable and that one cannot attribute causality to either one. Instead that to distinguish between the two along a dimensional scale ignores that the there is always interaction between the two. Today most scientists believe that the issue is not nature versus nurture but that it is a combination of the two factors (Gibson, 1994). However, the psychological model of mental illness takes the perspective that mental health is largely shaped more by environmental and experiential influences rather than biological ones.

Like the medical model, the psychological model has the limitation of focus on treatment, reduction, or elimination of symptoms. However, the psychological model looks to explain an underlying reason for the thoughts, behaviors, and emotions through environmental or experiential causes rather than biological ones. Several different schools of thought exist in this process with little agreement or scientific evidence to support one approach conclusively. That said, pioneering work in behaviorism by Watson and Skinner in the 1960s showed evidence that learning, emotions, and much behavior, can be modified and regulated through environmental and experiential stimuli (Skinner, 1974). These pioneering studies established the field of behaviorism in Psychology and lead to several psychological models and treatment techniques.

One of the most popular treatments in mental health is that of Cognitive Behavioral Therapy (CBT). CBT takes the theory that mental illness is caused by underlying cognitive distortions and maladaptive behaviors. The theory states that by changing these underlying thoughts and behaviors, mental health can be achieved. CBT is a well-researched treatment

approach to mental illness, and has been shown to be particularly effective in treatment for anxiety and depression disorders (Tolin, 2010). A recent meta-analysis further supported CBT as more effective compared to traditional treatments, including medications, as evidenced by reduced symptoms (Watts et al., 2015). This would lend evidence to support mental illness might best be treated as behavioral (psychological) issues, rather than a medical issue.

Still, despite long standing scientific evidence that mental illness may best be treated and explained as behavioral issues, the psychological model of mental illness appears to have gradually fallen out of favor to the medical model. One reason for this could be the increasing pressure on providers to use the American Psychiatric Association's Diagnostic and Statistical Manual (DSM) for diagnosis of mental illness. The DSM has gone through several versions since introduction, with the DSM-III becoming the standardized tool in the use of diagnosis of mental illness shortly after its introduction. A DSM diagnosis is frequently required by third-party payers (insurers) for billing, as is a diagnosis for use in reporting by governments. These policy based requirements may have led even adamant believers in the psychological model of mental illness to be forced to adopt the medical model for clinical and research procedures (Brown, 1987).

In 1973, Rosenhan published the seminal article, "On Being Sane, in Insane Places". In it he made several observations around the treatment of the mentally ill but most importantly he proposed that a diagnosis of mental illness is a label of social deviance. This article and the work of Scheff in 1975 would help to develop the sociological perspective and models of mental illness. From the sociological model, mental illness is not a disease but a violation of social norms and moral standards (Scheff, 1975). Mental illness is viewed as an involuntary non-conformance rather than a choice. The sociological model shows evidence that mental illness

could be both a socially constructed and socially contributed (stress) phenomenon rather than a disease or psychological condition.

It should be noted that a major distinction between the sociological model and that of the medical and psychological model is the role of the individual in their mental illness. Both the medical model and the psychological model of mental illness place responsibility, or even blame, on the individual; either through biology or behavior respectively. While the medical model never changed this view, the publishing of *Social Learning Theory* by psychologist Albert Bandura established the first evidence that behaviors of mental illness could be shaped by society (1977). While the earlier behavioral theories of learning argued that all learning was the result of associations formed by conditioning, reinforcement, and punishment, Bandura's social learning theory proposed that learning can also occur by observing the actions of others (Bandura, 1977). Today psychologists accept social learning theory as a source of many human behaviors, including mental illness, by most psychologists. This shift in the psychological community shows that there is a greater acceptance of the importance of the sociological model in mental illness and that further exploration and research is needed.

Methodology

It is clear from an understanding of the three models of mental illness and their limitations that a focus on symptoms -- exhibited thoughts, feelings, or behaviors -- is not an ideal method for assessment of mental health. Additionally, when viewed from a sociological perspective, there appears to be many issues around the diagnosis of mental illness in general. These issues might point to the need for another method of diagnosis of mental illness or measurement of mental health. One alternative method could be the assessment of the genetic,

environmental, physiological, and even sociological factors known to correlate with poor mental health. If common or discrete factors related to poor mental health were able to be identified and correlated with various psychological conditions, these factors could then be used to help diagnosis those associated conditions. Thus, someone exhibiting many factors statistically correlated to a particular psychological condition could be just as easily diagnosed with the condition by these factors rather than generic symptoms[2]. Since these factors need not necessarily be discrete, they can overlap, or even contradict allowing for assessment along the broad spectrum of the human condition. Additionally, based on statistical analysis of these factors, an index along a continuum of mental health could be established allowing for quantifiable observation of mental health without categorical 'bright-lines'.

To explore this hypothesis an analysis of literature related to diagnosis of mental illness through categorical assessment, the dominant model in use today, against alternatives was performed. Initial research focused on authors associated with each of the three models of mental illness. From there, an evaluation of citations of these works was performed across academic databases in the fields of medicine, psychology, and sociology. Searching of medical databases primarily focused on the subfield of psychiatry and neuroscience although no effort was made to restrict queries to these areas. Search terms typically included the following words and phrases: **categorical assessment, diagnosis, DSM, limitations, measurement, mental illness, and mental health**. Search results were then sorted by relevance as determined by the various databases. Additionally, since the topic of criticisms of the DSM has grown during the

[2] It should be noted that even a strong correlation and ability to match a psychological condition from factors would not establish causality for these factors in poor mental health. However, if treatments for factors can be shown to cause therapeutic effects, it would be the first step in conclusively identifying causes of mental illness.

process of the creation and publication of the DSM 5 several books on this topic were additionally evaluated.

Literary Review

Benefits of the Categorical (DSM) diagnosis method. There are several benefits to a categorical diagnosis system such as the American Psychiatric Association's DSM. The most important is the standardization of communication between providers, clients, and institutions. Because categorical diagnosis is binary, either present or not, it makes some tasks easier such as decisions on payment for services, or whether a subject should be included in a research group. There is also argument that through standardization of criteria in research, peer replication and review is simplified and less prone to errors or conflicting results. However, many of these benefits could be possible with other assessment methodologies as well and are not exclusive to categorical assessments.

Problems with Categorical (DSM) diagnosis. The DSM has not been without criticism as both a tool for the diagnosis of mental illness and as a tool for defining of psychological conditions. Even the earliest editions showed signs of problems with validity and reliability, as pointed out by Rosenhan (1973). However, some recent studies of the reliability of the DSM-IV have indicated that it has shown some reliability in diagnosis of anxiety and mood disorders (Brown et al., 2001). However, there still appears to be a lack of scientific evidence of the validity of diagnosis when compared to competing diagnostic tools such as the International Classification of Disease, version 10 (ICD-10). This is further evidenced in how diagnosis can create conflict between providers, institutions, and public health policy. Even as early as the

DSM-III, Brown (1987) found that mandatory use of categorical assessment led to problems with inter-rater reliability, "beating the system" with selective diagnosis, and joking or arguments about inclusion of certain behavioral conditions as disorders among providers. He noted that clinicians and supervisors frequently complained about the effect of billing and governmental policies requiring DSM diagnosis codes as unduly influencing medical decisions. Several clinicians stated frustration that they often had to make decisions based on social factors, such as coding to allow someone to receive treatment from a provider, following strict procedures, or even altering a diagnosis to prevent repercussions to clients.

Criticism of Diagnosis in General. The latest edition of the DSM has driven the most controversy with several books denouncing it from several positions. Although there has been much criticism, a majority of it focuses on the concept of medicalization popularized by Peter Conrad (2007). Conrad argues that the medical community, and in particular the American Psychiatric Association, have engaged in the defining and labeling of deviant behavior as a medical problem. He argues this shifts deviance into a medical issue which needs to be treated in the name of health, creating a new form of social control. While this concept is not a new accusation, remembering that Szasz first proposed this decades earlier, what Conrad suggests is that the rate of inclusion of new disorders and the labeling of common human conditions has increased exponentially and is partially driven by connections between the drug industry and those involved in the creation of the DSM (Conrad, 2007).

Perhaps the most impressive critic of the expansion of the DSM and opponent to the process of medicalization is M.D. Frances Allen. Allen was the chair-person for the task force that produced the fourth edition of the DSM (DSM-IV). As someone intimately familiar with the

DSM and the process of its creation, Allen argues that the new DSM 5 takes medicalization to the extreme with characterization of common human conditions as mental illness that require medical treatment. He contends that, despite massive amounts of criticizing and rising concerns about medicalization voiced to the APA, the DSM 5 was published with several disorders he proposes will encapsulate common life conditions. In his book he cites several of these new disorders and how they fit everyday situations. For instance he says that grief will become "Major Depressive Disorder", memory issues seen in the elderly become "Mild Neurocognitive Disorder", and loss of temper in children is a "Disruptive Mood Dysregulation Disorder". He points to people with gastronomical gluttony as being diagnosed with the new "Binge Eating Disorder", and even shows that merely being worried about becoming ill will lead to a diagnosis of "Somatic Symptom Disorder".

Allen also raises serious concerns over the expansion of existing diagnoses in the DSM. He argues that the expansion of Attention Deficit Disorder (A.D.D.) for adults will qualify most of the population for the prescription of medications with known adverse side-effects such as loss of weight, increased blood pressure and heart rate, and anxiety. The possibility of an expansion in diagnosis with regards to increased ability to prescribe medicine was also raised by Cosgrove, Krimsky, Vijayaraghava, and Lisa Schneider in findings of strong financial ties between the pharmaceutical industry and DSM panel members. Allen (2013) hints at this same conclusion stating that the use of the medication has little to no scientific evidence to treat A.D.D. for adults and has high chances of abuse. However, Dr. Allen's greatest concern is that with the increasing diagnosis and treatment of all these new disorders, those with true psychological conditions that desperately need help will become neglected while the "worried well" patients will receive unnecessary treatments at their own behest (Allen, 2013).

Mirowsky and Ross describe another issue with the diagnosis of mental illness as the confusion between labeling symptoms of mental illness, such as thoughts and behaviors, and the labeling of the unknown and unseen cause. As an example, they argue that by diagnosing someone with schizophrenia you have not only labeled their behavior but -- in keeping with a medical model caused by disease -- also labeled the unknown cause of this disorder. They remind us that while thoughts and behaviors are real and observable, there is currently no observable evidence of the cause of schizophrenia (1989a). They continue and argue that one should disregard behaviors as attributes of the human condition similar to height, weight, or age, and not hold them representative of symptoms of illness. Stated another way, behaviors are correlated with illness but are not representative of an illness in such a way to systematically and accurately diagnosis illness. Categorizing behaviors as illness would be similar to defining and diagnosing heart disease based solely on weight, height, and age, without looking at true factors linked with causation such as blood pressure, cholesterol, diet, and lack of exercise.

As an example of how medicalization and labeling of common human conditions as psychological health issues could get out of hand, Mirowsky and Ross engage in a hypothetical thought exercise for an emergence of a new disorder called “dysprosperia”. In this exercise, they propose a group of sociologists want to describe the psychological conditions associated with poverty using a new universal term. They coin the term “dysprosperia” and eventually the term through citations might find its way into medical literature. As the term originated for simplifying communication between others in the field of sociology becomes increasingly used in the medical community, it could take on a new meaning by becoming linked to health conditions and ultimately even become a new medical disorder. Researchers would soon be able to scientifically show potential biological subtypes based on race such as dysprosperia Negra,

dysprosperia Latina. Soon several drug companies announce plans to market drugs for the disorder pending FDA approval, and while they are unable to cite evidence the drugs cure the disorder (poverty), they can "provide effective means of controlling distress, hostility, aggression, and criminal proclivities associated with it". They continue that, within 10 years, a Presidential commission would conclude that dysprosperia is one of America's greatest health problems (Mirowsky & Ross, 1989b). While this all seems clearly illogical and preposterous their predictions closely mimic events around the inclusion of female sexual dysfunction disorders in the DSM-IV and DSM 5 (Horwitz, 2003).

The most radical argument against diagnosis of mental illness came from the British author and psychiatrist, R.D Laing. In his book, *The Politics of Experience,* he challenges the entire premise of mental illness; taking a stance that what society deems mentally ill might actually be a sign of "supersanity". He continues the argument that mental illness is a social construction and proposes that the insane may actually be attuned to or aware of things society is not and it is wrong to view them as inferior, even arguing they may be superior in many ways (Laing, 1967).

Beyond Diagnosis, Problems with Labeling and Stigma. Criticisms of the DSM aside, another problem exists with categorical diagnosis of mental illness in general. As previously mentioned by several sociologists, a mental illness diagnosis can become a label with consequences (Rosenhan, 1973). It has also been argued that a mental illness diagnosis is selectively applied to the weak by the powerful, establishing a labeling of a role imposed by others. This assigned role through social influence and societal control can lead to mental illness becoming a self-fulfilling prophecy (Scheff, 1975). Evidence of this selective application of

labeling can be seen through the work of Ronson in his book, "The Psychopath Test". In it, Ronson discusses how 1 out of 100 people are estimated to qualify as a psychopath; exhibiting qualities including lack of empathy, manipulating people through charming, deceitful, seductive behavior, and exhibiting signs of delusion. Throughout the book Ronson explores the concept of high-functioning psychopaths not only avoiding a diagnosis and labeling, but actually excelling in society and being rewarded for their behavior. As an example he looks at the possibility that many of the United States Fortune 500 CEOs actually meet the criteria to be diagnosed as psychopaths. He points to how many are responsible for acts of massive fraud, corruption, and showed lack of empathy while shutting down factories and eliminating jobs (Ronson, 2012). Conversely, if someone of lesser SES were to engage in massive fraud, corruption, or displayed total lack of empathy it is more likely they would be caught and diagnosed as a psychopath. This selective application of labeling shows how inequities apply in the diagnosis of mental illness and how media and societal perspectives affect the perception of the mentally ill.

Labeling has also been linked to stigma associated with mental illness. In a study by Bruce G. Link, Francis T. Cullen, Elmer Struening, Patrick E. Shrout and Bruce P. Dohrenwend (1989) it was found that mentally ill people are discriminated and devalued by others including providers and even other mentally ill. They found that this stigma is a socialized and learned behavior from a young age and those seeking help may be aware of it prior to seeking help. This stigma and discrimination can discourage the mentally ill from seeking help as well as engage in behaviors to help deal with the stigma such as engaging in secrecy, withdrawal, or educating themselves and others to try and mitigate the stigma (Link et al.1989). This stigma can be so pervasive that providers and even those who themselves are

diagnosed with mental illness can share in the stereotyped perceptions and discrimination (Link et al., 1989).

Arguments that labeling theory and stigmatization have not been shown to be as clearly linked to mental illness also exist. This includes disagreement with the conclusion that the lower class are more readily given a diagnosis. Walter Gove (1979) showed this through evidence of greater numbers of patients being treated and receiving diagnosis in wealthier or higher SES. Gove also contented there was no evidence of experiencing lasting stigma and that those with mental illness have a condition separate from how they are labeled. In many cases the condition relates to social factors such as SES, race, gender, and access to support and services (Gove, 1979). This fact supports the argument of critics against categorical assessment of mental illness, pointing to the need for a different mechanism of diagnosis which can fully attribute for these other conditions.

The Issue of Context. Another central argument to concerns of categorical assessment of mental health is related to the context surrounding symptoms. By drawing "bright lines" and forcing a categorical assessment – mainly to assist in producing reliability in assessment -- details from context around a person's life are lost. This context can help to differentiate between symptoms of illness and symptoms normal based on normal life experiences. For instance, the death of a loved one is a severely traumatic experience, albeit a normal part of most people's lives. However, despite arguments that the providers shall take this context into account, often diagnosis of Clinical Depression will be made along with prescription of medications. Critics contend that the influential sway of the pharmaceutical industry has resulted in greater numbers of diagnoses, paving way for the prescribing of more medications

(Greenberg, 2014). While one can argue that this fault lies in providers, an increasing number of providers point to patients asking for a diagnosis or medications based on societal acceptance of the medicalization process and an increase in the direct to consumer marketing (Conrad, 2007). There is also the aspect of authority and trust that patients have in their providers allowing them to easily accept a diagnosis and recommendations for medical treatment.

Alternatives to Categorical Diagnosis. As has already been discussed, the focus of the categorical assessment and diagnosis raises many problems. While the creation and expansion of the DSM has firmly established categorical assessment of mental illness, it is not universally accepted. As early as 1989, Mirowsky and Ross were critical of categorical assessment and the DSM-III. In their paper, they express doubt that a medical model is appropriate for diagnosis of mental illness; stressing that behaviors such as depression, schizophrenia, and paranoia are human attributes similar to weight, height, and age. They go on to suggest that similar to these attributes it makes sense to index based on dimension rather than attempt to categorize based on "fuzzy and non-discrete" assessment (Mirowsky & Ross, 1989b, p.38).

Kirk and Kutchins do acknowledge that categorical assessment has benefits for governmental organizations and insurance companies in simplifying and standardizing procedures and reporting (Kirk & Kutchins, 1992). However, they question if these benefits justify the expansion and forced use for clinical assessment and treatment. Asking how the labeling of a condition has any effect on its treatment, Kirk and Kutchins, suggested that by trying to make people fit into preset boxes, providers lose the individual differences that may be critical to personalized care. Additionally, Kirk and Kutchins questioned the usefulness of categorical assessment in clinical research as well. They point to the exclusion of people from samples and difficulties in qualifying participants in studies based on arbitrary qualifications.

They assert that by carefully limited participation in studies, results can be skewed or not representative of larger more diverse make up of others with similar psychological issues. These concerns are now being heard and policies requiring the use of the DSM for funding of National Institute of Mental Health (NIMH) are being changed. In a posting in the APA Monitor on Psyhcology, author Winerman (2013) details how NIMH says that the Federal agency will be moving away from funding research based on DSM categories. The APA in response stated that while the DSM shall remain the gold-standard for clinical diagnosis, "what may be realistically feasible today for practitioners is no longer sufficient for researchers." (Winerman, 2013). This announcement from the APA seems to indicate that they now appear to be in agreement with some of their earliest critics and admit that categorical assessment has limitations.

Another example of the need to move towards dimensional assessment of components of psychological conditions lies in the medicalization of obesity. Eating Disorders have a long history in the DSM and characterize certain eating behaviors as a disease. However, these "diseases" unequally affect the population primarily being diagnosed in wealthy white women. The opposite is true with obesity, a medical condition defined as having a body mass index greater than 30(NHS). Obesity, is directly related to a person's height, weight, age, and other factors. Measuring of these factors is easily done and has been done by the medical community for decades. However, with the inclusion of "Binge Eating Disorder" in the DSM 5, several have argued that obesity has become closer to a mental illness. Things become even more socially constructed and confusing when you look at media portrayal of eating disorders, with Anorexia and Bulimia portrayed as a disease, while obesity is described as an individual's medical problem caused by their own actions. Little discussion of the sociological components of obesity such as access SES, diet, and access to recreational resources or exercise, enters

discussions on the medical validity of the "disease". All of this points to the failings of the categorical assessment and the medical model and the need for alternatives.

Standardized Indexes. Perhaps as a response to criticisms over categorical assessment, the APA as early as the DSM-III included a concept of a continuum score of mental health. This was done using a "Global Assessment of Functioning (GAF) Scale" from 0 to 100 of overall mental health and recorded as one value for the five axis system of diagnosis (DSM-IV, p. 32). The multiaxial system actually resulted in providers having to provide five assessments for every client along allegedly distinct axes. The first two axes were for "principal disorder" and "personality disorder". The third axis was to allow for providers to code for physiological conditions related to the client's mental health. Finally, the fourth axis would represent for other "psychosocial factors" such as divorce, job-loss, or loss of spouse.

The distinction between Axis-I principle disorder and Axis-II for personality disorders was frequently confusing for providers, even being acknowledged as such by the APA (APA, 2013, p.1). So while the APA provided for the ability to assess a scaled index of mental health from 0 to 100, it provided little direction in how it was to be used, and was never required to be used during diagnosis. There is evidence that the new axis system of the DSM-IV did show increased reliability between providers (Hilsenroth et al., 2000). However, it was so poorly utilized and frequently seen as "redundant" or "arbitrary" that the APA removed it from the DSM 5 with little comment or any chance of feedback by the industry.

As part of the publication of DSM 5 the APA published a two page flyer entitled, "Personality Disorders" (APA, 2013). In it were a few brief statements explaining the purpose of the multiaxial system and why it was no longer needed. Specifically, the APA stated the

multiaxial system was: “introduced in part to solve a problem that no longer exists: Certain disorders, like personality disorders, received inadequate clinical and research focus. As a consequence, these disorders were designated to Axis II to ensure they received greater attention.” (APA, 2013, p.1). Additionally in responding to criticisms that there was no meaningful difference in the distinction between personality disorders and ‘principle disorders’ the APA felt the axis system became unnecessary in the DSM-5 combining the first three axes outlined in past editions, while dropping ‘psychosocial’ and the GAF altogether. The APA explains in the same flyer that grouping all mental and other medical diagnoses was a benefit as: “Doing so removes artificial distinctions among conditions … benefiting both clinical practice and research use.” (APA, 2013, p.2).

With the APA moving away from continuous measurements on a continuum (GAF) and removing evaluation of “psychosocial” factors, it would seem that there is a perceived lack of value in utility for diagnosis in this information. However, one must evaluate if the APA was trying to ‘have its cake and eat it too’ in earlier editions by focusing on categorical assessment but including the AXIS system to address criticisms. In light of the comments by the APA with the removal of the APA axis system it would not be hard to conclude that the inclusion of axis-II enabled the inclusion of controversial conditions (personality disorders) by distinguishing them from the more commonly accepted principal conditions. Similarly, the addition of Axis-IV for “psychosocial” conditions would address critics that sociological and contextual conditions are critical to understanding of mental health, and Axis-V (GAF) provided for an index score of mental health. Thus it seems the APA has been able to silence critics by establishing themselves as the standard for diagnosis through compromise, only to go back and remove those compromises later.

Despite the APA's rejection of both sociological factors and the GAF, moving away from categorical assessment to continuous measurements on a continuum looks like a promising alternative. Besides being directly measurable / observable, this would reduce the arbitrary nature of cutoffs and 'bright-lines' in assessments (Kutchins & Kirk, 1992). Having measurement of factors outside of individual's control, including social factors, could be implemented easily and aid in both research and diagnosis. For instance, tracking an individual's SES with regard to mental health might show that certain psychological conditions are more heavily associated with certain portions of the population. Because the index is continuous participants in studies would need not be excluded because their SES doesn't fit into a specific category allowing studies to be more diverse while still providing valuable data. This inclusiveness of all data addresses an issue referred to by Mirowski and Ross (1989a) as "reducing the signal but not the noise". They pointed out that diagnosis under a categorical system requires the collection of data and then the ignoring of most of it. A continuum does not have this issue and allows one to establish criteria appropriate to the study.[3]

Most importantly, these measurements could even help to point towards likely causes of mental illness. Providing evidence of causation is not easy, particularly in conditions with as many variables as mental health, however, use of continuous and multiple distinct indexes could help. Since these indexes can be continuously tracked over the course of treatments or the lifespan of individuals or groups studies can more easily be designed allowing better regression or causal inference. Scientific peer review and replication should also remain easier by

[3] Of course, one must establish their criteria prior to collecting their data to avoid confirmation bias in analysis of data and should be able to defend their decisions among their peers.

increasing the number of qualified participants and bridging between medical, psychological, and sociological fields.

Rosenfield's application of "modified labeling theory" provides evidence that factors such as stigma, quality of services, a person's decision making power, and supportive interactions, all relate to mental illness and treatment (1997). This continues to suggest these factors should be tracked and indexed as part of patient care. Other social components related to mental illness have been shown as well including sex (Ferraro & Nuriddin, 2006) and race (Gaines, 2007).

Multifactor analysis of psychological distress and well-being shows much promise as well. Masse' et al. (1998) showed that measurements along a 'well-being continuum' combining factors such as access to a good job, social life, support network, and adequate living conditions, proved to be distinct from physiological distress. Evidence was found that psychological distress, when also measured along a continuum, and analyzed alongside the well-being continuum, allowed for the distinguishing between depression from anxiety and depression from other disorders (Massé et al., 1998). This evidence further supports the need and validity for continuum in research and assessment of clients. Whelan (1994) also found that psychological stress can be predicted through sociological factors. In his analysis of survey data from 3294 households it was found that the largest determining factor of psychological stress was unemployment and economic depression. Again, this points to the need to measure economic and social factors in the assessment of mental health.

Another benefit of multiple indexes is the ability to perform multifactor analysis. Multifactor analysis can easily be achieved by adding or removing factors from indexes, or through regression. Through the standardization of the content of these indexes repeatability and

validity can be achieved while still allowing for simple use of statistical tools and high reliability. As more data and studies are conducted the validity of the indexes can be refined and even past study data can be easily updated to be used for longitudinal studies.

Conclusion

Given the concern and limitations inherent in the current method of diagnosis of mental illness, it is evident that alternative methods of diagnosis need to be researched. Based on both current and historical literature, it seems likely that categorical assessment should be discontinued for the use of diagnosis or treatment of individuals due to the negative effects documented over half a century. The most promising ideas appear to lie around the creation of new standardized indexes of factors known connected to mental health. As an example; indexes for social factors (social support, socioeconomic status (SES), access to medical care, employment), physiological factors (family history of mental illness, gender, sex, diet, sleep) and behavioral factors (sleep hygiene, functional ability, coping skills, recreational activities) seem like appropriate starting points. The continuums need not limit diagnosis to "cutoff points" but instead would help to portray a more useful "dashboard of mental health" to providers and patients alike even enabling trending analysis easily. Unlike categorical assessments, areas of deficit can clearly be seen and tracked with treatments able to be customized to focus on each patient's unique situation. Treatments should focus on reducing index scores through evidence based models which include treatment of all correlated factors, including those factors outside of the individual's direct control such as SES, education, access to medical care or other support.

It might be common in the future to see your mental health professional and discuss your dashboard reflecting working long hours without any recreational time or lack of eating healthy

meals and have a greater concern for your mental health around these environmental factors rather than your explosive argument with a coworker. Thus common human behavior and psychological events can be discussed in terms of overall mental health and not characterized as disorders such as Temper Dysregulation Disorder. Furthermore, this enables providers to first try non-medical treatments before moving to more costly, risky, and invasive medical treatments. This approach fits well with the growing interest in the medical community for more holistic approaches to health and lifestyle.

That is not to say that categorical assessment should be stopped completely, as it has been shown to be helpful in standardizing communication between providers, governments, and industry. In fact; the new continuum indexes could be consolidated into categorized totals enabling quick communication and comparisons helping to drive more informative policy decisions around mental health. However, categorical assessment should be constrained to factor analysis in defining conditions instead of social construction methods open to mischaracterization or even possible corruption. With new definitions based on factor analysis, or other statistical methods of directly observable factors, continued use in research could continue to be used for prevalence rates, treatment rates, and generalized comparisons. By limiting the use of categorical assessment and basing comparisons off statistical analysis it seems possible to offer more consistent communication without risk of labeling or stigmatization.

After concerns about the dangers of categorical assessment of mental illness were raised almost fifty years ago, only recently has greater criticism started to energize around a potential crisis in human health. More research needs to be done on the idea of continuum based assessment of overall mental health, versus the traditional medical model of mental illness as a disease. Likewise, evidence from the field of sociology has shown that direct links between

health and society cast doubt on the individual as the sole factor proposed by the psychological model of mental illness. It is believed that with additional research and a growing macro-environmental and experiential view of mental health, better forms of diagnosis and focus of treatment can be achieved.

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