# 2

# Diagnostic Classification Systems

# JEREMY D. JEWELL, STEPHEN D.A. HUPP, and ANDREW M. POMERANTZ

## **DEFINING MENTAL DISORDER**

On the surface, the purpose of the *Diagnostic and Statistical Manual* of Mental Disorders, 4th Edition, Text Revision (DSM-IV-TR; American Psychiatric Association, 2000) is straightforward. Contemporary practice requires a standard "catalogue" of mental disorders, with each disorder defined conceptually, and criteria for formal diagnosis set forth. This chapter explores the development of the DSM-IV-TR, the history of the DSM including previous versions, advantages and disadvantages of the current model of classification, and possible revisions for future editions of the DSM. To begin, however, one must understand that the concept of "mental disorder" is complicated by many issues, including the idea that mental disorders are rooted in societal norms as well as the context of history.

The origin of the concept of mental illness may date back to prehistoric man. That is, it is likely that prehistoric man had some understanding of the "mind", and that surgery to the skull might relieve symptoms of illness due to head injury (Liu & Apuzzo, 2003). As human society has progressed, however, the concept of mental illness has both expanded as well as become more complex. Consider, for example, the mental disorder of depression. In the case where a person may suffer a personal loss and experience grief, at what point in time does that grief become psychopathological depression? In this case, culture and society must somehow draw the line between the normal grieving process and psychopathology. The distinction must be made in terms of the specific behaviors exhibited (frequent fatigue or suicidal ideation) as well as the duration of the pathological behavior (one week

**JEREMY D. JEWELL, STEPHEN D. A. HUPP, and ANDREW M. POMERANTZ** • Southern Illinois University Edwardsville, Diagnostic Classification Systems

J.L. Matson et al. (eds.), *Assessing Childhood Psychopathology and Developmental Disabilities*, DOI: 10.1007/978-0-387-09528-8, © Springer Science+Business Media, LLC 2009 versus one year). Also consider schizophrenia. Typical symptoms of this disorder include the presence of delusions. However, if one were to admit that she believed in a spiritual world or the afterlife, she would probably not be labeled "delusional" despite the fact that there is no supporting scientific evidence for an afterlife. Therefore, even mental disorders with the greatest amount of research in some sense are founded on society's assumption of what is, and is not, normal.

Similarly, society's historical context has often affected our understanding of mental disorder. For example, homosexuality was included as a diagnosable mental disorder in the first two editions of the *DSM* (APA, 1952, 1968). Society's view of homosexuality as a defect in one's character was at that time reflected in the *DSM–II* and *DSM–II* classification of homosexuality (Sexual Orientation Disturbance) as a mental disorder. As society's view on homosexuality has changed, however, so has the classification of homosexuality as a mental disorder. Therefore, although scientists conduct research on various forms of mental illness, one must acknowledge that this academic exercise occurs in the context of both sociocultural norms to some extent, as well as the context of history.

Understanding this, what can we say is a mental disorder? The current *DSM–IV–TR* defines a mental disorder as

... a clinically significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g., a painful symptom) or disability (i.e., impairment in one or more important areas of functioning) or with a significantly increased risk of suffering death, pain, disability, or an important loss of freedom. (APA, 2000, p. xxxi)

One should note that there are several important components to this definition, including the concept that the individual must be experiencing some sort of pain (presently or in the future) or impairment due to the symptoms of the disorder. The advantage of a broad definition such as this, is that it allows clinicians to include a host of disorders in cases where patients themselves may either not recognize their own symptomology as reflecting a disorder (e.g., during a psychotic episode) or even when patients may resign themselves to a longstanding period of suffering (e.g., dysthymia).

Because changing societal norms have continued to shape the definition of mental disorders over time, it is important to take a closer look at the development of the *DSM* and other classification systems.

# HISTORY OF DIAGNOSTIC CLASSIFICATION SYSTEMS

## **Pre-DSM**

Until the publication of the original *DSM* in 1952, the history of diagnostic classification systems for mental disorders in the United States was characterized by a lack of unification. Some of the early efforts were motivated by statistical, rather than clinical, factors. When the U.S. census

was conducted in 1840, it included a single category of mental illness ("idiocy/insanity") to describe portions of the American populace. This was the first time that data were systematically collected via the census for this purpose. In the 1880 census, seven categories of mental illness were included in the census materials, many of which were labeled with terms that now seem antiquated (e.g., monomania, dipsomania, melancholia). Soon, a committee within the American Psychiatric Association began to collaborate with the census bureau in order to gather more extensive data. However, the emphasis remained primarily statistical rather than clinical (APA, 1952, 2000).

Formal diagnostic categorization of mental disorders for clinical purposes was uncommon prior to the approach of the twentieth century. By 1900, many large hospitals and training centers had developed their own systems of labeling and record-keeping for mental illness. These systems were idiosyncratic, having been created solely to meet the needs of the home institution. As increasing numbers of these individualized systems appeared, communication between mental health professionals and agencies was restricted by the lack of a common language describing mental disorders (APA, 1952, 2000; Langenbucher & Nathan, 2006).

In the late 1920s, efforts emerged to create a standardized nomenclature, although it would take decades to attain this goal. Some of the individualized systems of diagnostic classification were adopted widely, including systems created by the U.S. Army and the Veteran's Administration hospitals. These few systems remained in competition with each other until the original *DSM* effectively replaced them in 1952 (APA, 1952, APA, 2000).

# DSM-I-DSM-III-R

The first edition of the DSM, published by the American Psychiatric Association in 1952, was essentially a modified version of the International Classification of Diseases (ICD, published by the World Health Organization). The ICD was in its sixth edition at the time, and it was the first time in which that manual included a category for mental illnesses (APA, 2000). The DSM-I was followed by a revision, DSM-II, in 1968. These two editions are similar to each other and also quite different from any of the subsequent DSM revisions. The language included in the DSM-I and DSM-II indicates a very strong psychoanalytic emphasis; indeed, the psychoanalytic approach was prominent in all areas of clinical work at that time. It is also noteworthy that the first two editions of the DSM lacked specific diagnostic criteria; that is, each disorder was described in a brief paragraph or two. The absence of specific criteria to determine whether an individual qualified for a disorder made the first two editions of the DSM less clinically useful than they could have been. The DSM-I included very few disorders specifically characterizing pathology in children or adolescents, and they were placed within a larger category with many "transient" adult disorders. For example, the DSM-II included a category of disorders entitled "Behavioral Disorders of Childhood and Adolescence," which included only six specific disorders.

The publication of the DSM-III represented a significant change in the DSM classification system (Widiger & Trull, 2007). The DSM-III was quite different from its predecessors in a variety of ways, most obvious of which was greatly increased size and scope. The DSM-III was much more extensive than the DSM-I and the DSM-II; it included a great deal more text and a far greater number of disorders, including a sizeable number of newly defined disorders for children and adolescents (Houts, 2002). The authors of the DSM-III also made an explicit effort to use empirical data as the basis for diagnostic categories, an emphasis that was not present in the first two editions. The DSM-III also shed the psychoanalytic language and any influence that it might reflect, endorsing instead a more atheoretical approach to mental illness. Unlike the first two editions, the DSM-III included specific criteria and thresholds to define disorders. Additionally, the DSM-III marked the first appearance of a multiaxial system, including Axis I (most clinical disorders), Axis II (e.g., developmental disorders and personality disorders), Axis III (relevant medical conditions), Axis IV (relevant psychosocial and environmental factors), and Axis V (Global Assessment of Functioning on a scale from 0 to 100). Collectively, the changes evident in the DSM-III resulted in a more inclusive and clinically useful manual than the first two editions of the DSM.

The *DSM–III* was followed by the publication of the *DSM–III–R* in 1987. As its edition number indicates (with "R" standing for "revised"), the *DSM–III–R* did not represent an overhaul of the *DSM–III*. Instead, it was a relatively minor revision intended to clear up some inconsistent and ambiguous aspects of the *DSM–III* (APA, 2000). Thus, the *DSM–III–R* was quite similar in structure, format, and length to the *DSM–III*. In fact, all subsequent revisions of the *DSM* have remained consistent with the general structure, format, and length of the *DSM–III*.

## DEVELOPMENT OF DSM-IV

In 1994, the American Psychiatric Association published the fourth edition of the *DSM* (*DSM–IV*; APA, 1994a). In 2000, another edition was published, entitled *DSM–IV–TR*, with "TR" standing for "text revision." The term "text revision" refers to the fact that only the text describing the diagnoses—not the diagnostic criteria—differs between the *DSM–IV* and the term *DSM–IV–TR*. That is, the *DSM–IV–TR* contains exactly the same diagnostic criteria as the *DSM–IV*, and they are officially defined in exactly the same way. The essential difference between the *DSM–IV–TR* and the *DSM–IV* is the addition of new text in the *DSM–IV–TR* to describe recent findings relevant to existing disorders. For the sake of simplicity, this chapter simply uses the term the *DSM–IV* to refer to both the *DSM–IV* and the *DSM–IV–TR*.

The creation of the *DSM–IV* was a massive effort, involving the collaborative work of over 1,000 people and a period of time greater than five years (APA, 1994b). It was overseen by a coordinating Task Force and 13 independent Work Groups, each of which focused on a particular category

of psychopathology (e.g., Child and Adolescent Disorders, Anxiety Disorders, Mood Disorders, Personality Disorders). Throughout its development, its authors emphasized that empirical evidence was the cornerstone on which the *DSM–IV* was built, and was also the primary requirement for any changes from the previous edition of the *DSM* (APA, 1994b). The process of creating the *DSM–IV* included three primary phases: literature reviews, reanalysis of existing datasets, and focused field trials (each of these three phases is described in more detail below.) After these three phases were completed, the *DSM–IV* Draft Criteria were released, with which the *DSM–IV* creators hoped to elicit feedback from the professional community, including any problems they could foresee before the draft criteria were made official (APA, 1994b). Incorporating this feedback, *DSM–IV* was published in 1994.

## **Literature Reviews**

Especially since the publication of the *DSM–III* in 1980, a significant body of empirical literature has accumulated regarding specific disorders. Much of this literature is pertinent to the revision of the manual, so a primary task of the *DSM–IV* authors was to undertake a large-scale review. Each Work Group was instructed to ascertain the most important issues for their category of diagnoses, and then to conduct a systematic comprehensive review of the literature to address those issues. Selected parts of the results of these literature reviews are included in the *DSM–IV* text, and the results are included more extensively in the separate *DSM* Sourcebook (APA, 1994b, 2000).

The literature review conducted by each Work Group focused exclusively on their category of diagnoses, and followed the same six-step format (APA, 1994b; 2000).

- 1. *Statement of the Issues.* In this section, the researchers identified the most important issues within their category that were to be addressed by the literature review.
- 2. *Significance of the Issues*. Here, the researchers explained some possible diagnostic or clinical ramifications of the issues identified in the previous section.
- 3. *Methods*. The researchers described how many studies it examined, how it went about searching for and finding the studies, why certain studies were included or excluded from the review, and other aspects of the literature review methods.
- 4. *Results*. Here, the researchers presented the findings of their literature review. They were instructed to produce results that were objective, thorough, and concise.
- 5. *Discussion*. This section features consideration of the implications of the results, including multiple options for resolving the issues described in the first two sections.
- 6. *Recommendations*. Here, the researchers selected the option or options (among those listed in the previous section) that, based on the review of the literature, they believed were most viable.

## **Data Reanalyses**

In some cases, the literature review process revealed areas in which insufficient research existed to address important diagnostic issues for various work groups. In these situations, the researchers often obtained existing datasets and reanalyzed them utilizing new methods (APA 1994b, 2000). By doing so, they were able to address gaps in the published literature on diagnostic and clinical issues. A total of 40 data reanalyses were conducted for the *DSM-IV*, usually via collaboration with researchers at different sites. Typically, the data used in these reanalyses were originally collected for epidemiological purposes or to examine treatment methods, but in this context, the focus was diagnostic (APA, 2000).

# **Field Trials**

The overall purpose of the field trials was to determine how well the proposed *DSM–IV* criteria actually functioned in applied settings that represented the kinds of sites where *DSM–IV* criteria might actually be used. In total, there were 12 field trials involving over 70 separate sites and over 6,000 subjects. The sites selected, as well as the subjects served there, represented a diverse range of cultural and ethnic backgrounds. Thus, the cross-cultural generalizability of proposed diagnostic criteria was addressed (APA, 2000).

A primary goal of the field trials was to investigate the extent to which the proposed revisions would affect the reliability and validity of the diagnostic criteria. Diagnostic criteria were considered both in sets (i.e., the full list of criteria for Generalized Anxiety Disorder, including requirements regarding thresholds and combinations of criteria) and individually (i.e., each specific criterion listed for Generalized Anxiety). Additionally, the field trials allowed the *DSM–IV* authors to appreciate the impact that the proposed diagnostic revisions might have on the day-to-day practice of clinicians who rely on the *DSM–IV*. One way in which these questions were explored was to compare the criteria for mental disorders directly according to various sources. In other words, at a field trial site, the investigators might have utilized both *DSM–III–R* and various proposed *DSM–IV* criteria sets, and then compared the outcome of the use of each to the other (APA, 1994b; 2000).

Throughout the process of creating the *DSM–IV*, its authors emphasized that any revisions would need to be justified by empirical research: "The threshold for making revisions in *DSM–IV* was set higher than that for *DSM–III* and *DSM–III–R*. Decisions had to be substantiated by explicit statements of rationale and by the systematic review of relevant empirical data" (APA, 2000, p. xxviii). There were a number of potential new diagnoses that the *DSM–IV* authors considered; many of those that were not added as new categories appear in an appendix of the manual entitled "Criteria Sets and Axes Provided for Further Study." One purpose of including them in an appendix is to stimulate research among interested researchers. Among the proposed disorders included in this appendix are Premenstrual Dysphoric Disorder, Binge-Eating Disorder,

36

Minor Depressive Disorder, Recurrent Brief Depressive Disorder, and Passive-Aggressive Personality Disorder.

It is also notable that the *DSM–IV* is the first edition of the manual to contain an appendix devoted to issues of culture. This appendix includes an "outline for cultural formulation," which is intended to encourage mental health professionals performing diagnoses to consider such factors as the individual's cultural identity and ways in which cultural factors may influence the psychosocial environment and the relationship between the individual and the professional (APA, 2000).

Creation of the *DSM–IV* was an immense task, and although its authors explain the significant efforts taken to ensure maximum reliability, validity, and clinical utility, they also realize that our understanding of mental illness will continue to improve: "The advance of fundamental understanding of mental disorders will undoubtedly provide much clearer (and probably often very different) answers to the questions raised [by the *DSM–IV* review process]" (APA, 1994b, p. xxi).

# FORMAT OF THE DSM-IV

In this section, the major topics and the format of the *DSM–IV* (2000) are described. The text of the *DSM–IV* begins with the typical acknowledgments and broad statements on the purposes, use, and development of the *DSM–IV*. The authors proceed to describe the multiaxial system and how to derive a multiaxial diagnosis. Within this, the authors provide the Global Assessment of Functioning (GAF). Beginning on page 39, disorders are catalogued and described based on broader sections. Examples of these broad sections include Mood Disorders, Anxiety Disorders, as well as Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence.

Within each section, each disorder is described in a uniform manner. First, the "diagnostic features" of the disorder are described. These features are described and conceptualized rather broadly, and are not a simple list of symptoms or diagnostic criteria. For example, the diagnostic features of Conduct Disorder are described as "... a repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated (Criterion A)" (p. 93). Next, the "subtypes and/or specifiers" heading refers to any particular subtypes that may be appropriate to the diagnosis (e.g., for Conduct Disorder, Childhood Onset Type or Adolescent Onset Type can be specified). Additionally, appropriate specifiers, such as mild, moderate, or severe, are listed and described. Other types of specifiers may exist as well, such as the specifier "chronic" for Major Depressive Disorder. If subtypes or specifiers do not exist for a particular disorder, this section is not included in that disorder description. Any special instructions for the recording of the diagnosis, including the relationship between the DSM-IV diagnosis and ICD-9 diagnosis, are then noted in the "recording procedures" section.

The next broad section for each disorder is "associated features and disorders," which is usually divided into the following three sections: associated descriptive features and mental disorders, associated laboratory findings, and associated physical examination findings and general medical conditions. "Associated descriptive features and mental disorders" include those features that have been associated with the disorder to a lesser extent, and in some cases these features were not found to contribute significantly to the sensitivity or specificity of the diagnosis in the field trials. "Associated laboratory findings" refers to particular laboratory findings that are either considered diagnostic of the disorder, associated with the disorder, or are perhaps a secondary effect of the disorder.

Next, the DSM-IV provides several sections that give further description to the disorder. First, "specific culture, age, and gender features" describes any differences that may occur in the expression, initiation, or maintenance of the disorder based on these demographic characteristics of the patient. Next, the "prevalence" section gives some broad range of the prevalence of the disorder based on the existing research. "Course" refers to research findings on the onset of the disorder, course of the disorder, duration, and other similar concepts. The "familial pattern" section summarizes research on the presumed heritability of the disorder based on current research findings. The heritability of other related disorders may also be described (e.g., the familial pattern of any mood disorder in patients with Major Depressive Disorder). In the "differential diagnosis" section, the DSM-IV authors describe how other similar disorders may be differentiated from the disorder in question. This information is critical when one considers that many disorders have the same or similar criteria when compared to other disorders. Finally, the DSM-IV provides the specific diagnostic criteria required for the particular disorder.

The *DSM–IV* ends with a number of useful appendices. For example, "decision trees for differential diagnoses" and "criteria sets and axes provided for further study" are provided. Additionally, other appendices provide for an analysis of the compatibility of a particular diagnosis with *ICD–10* diagnoses.

# ICD-10 CLASSIFICATION OF MENTAL AND BEHAVIORAL DISORDERS

The tenth edition of the International Statistical Classification of Diseases and Health Related Problems (ICD–10; World Health Organization, 1992, 1993) is a broad diagnostic system including all diseases and other problems related to health. The first edition, the International List of Causes of Death was adopted in the late 1800s and was originally developed to represent a list of possible causes of death to be used internationally. The World Health Organization (WHO) began publishing the sixth edition of the ICD in 1948, and this revision was the first to broaden the scope of the classification system to include mental disorders. By comparison, the first edition of the DSM was published soon thereafter in 1952.

The *ICD*-7 was published in 1955; however, there were no changes to the mental disorders. In the late 1960s, when the *ICD*-8 and *DSM*-*II* were published, some effort was made to increase the compatibility of these systems. At this time, both systems received criticism regarding the lack

of empirical support for the reliability and validity of their diagnoses (Widiger, 2005). The *ICD-9* was published in 1977, and in an effort to increase reliability it included a glossary with more detailed descriptions of disorders. Published soon thereafter, the *DSM-III* also continued to develop the descriptions of disorders. The *DSM-III* also had other innovations (e.g., explicit sets of criteria) that made it less compatible with the *ICD-9*, and this decrease in compatibility was counter to the ultimate goal of facilitating communication between professionals (Widiger, 2005). The *ICD-10* and the *DSM-IV* were both published in the early 1990s with an increased effort at improving compatibility.

The fifth chapter of the *ICD-10* is the Classification of Mental and Behavioral Disorders. There are two different versions of this chapter, and the first published version was the Clinical Descriptions and Diagnostic Guidelines (CDDG; WHO, 1992) used by clinicians. This version includes narrative descriptions of disorders. The WHO also subsequently derived the Diagnostic Criteria for Research (DCR, WHO, 1993) from the clinical version. Although the clinical and research versions are very similar, there are some differences. Specifically, the research version leaves out some of the descriptive information for each disorder. More importantly, the research version is more restrictive than the clinical version by delineating clear and highly specified criteria and lists of symptoms. The clinical and research versions combined are similar to the scope of information included in the *DSM–IV*.

Overall, the *ICD-10* continued to move away from vague descriptions and the inclusion of unsupported etiologies, and toward clear operational definitions with improved reliability (Bertelsen, 1999). Separate field trials were conducted for both the clinical and research versions in over 30 countries. For both versions, 2,400 patients were assessed by at least two clinicians, and both yielded high interrater reliability for diagnoses (Üstün, Chatterji, & Andrews, 2002). Alternatively, however, the more difficult question of validity and clinical utility of the diagnostic categories continued to be raised.

Although there is considerable overlap between the *ICD*-10 and *DSM*-*IV*-*TR*, the ICD-10 is most commonly used in Europe, Asia, and Africa, whereas the *DSM*-*IV* is more commonly used in the Americas (Jablensky & Kendell, 2002). Having both a clinical and a research version of the *ICD*-10 Classification of Mental and Behavioral Disorders makes comparison between the *ICD*-10 and *DSM*-*IV* both more complicated and difficult, and has led to confusion about which version of the *ICD*-10 is being used during comparisons (First & Pincus, 1999).

Generally speaking, the most significant difference between these two classification systems is that the ICD-10 is a more comprehensive system including the wide range of diseases and other medical problems, whereas the DSM-IV focuses only on psychological disorders. Even within the psychological disorders, the ICD-10 has a greater emphasis on distinguishing between "organic" disorders and other types of disorders. The multiaxial approach is another general difference between the two systems. The DSM-IV includes a five-axis approach, whereas the WHO did not publish a multiaxial system (WHO, 1996) until a few years after

the original publication of the *ICD*–10. There are also some differences between the specific axes.

The majority of the psychological disorders in both the DSM-IV and *ICD*-10 are highly similar, but there are some significant differences between the two systems. These systems can be directly compared by using another book, Cross-walks ICD-10-DSM-IV-TR: A Synopsis of Classifications of Mental Disorders (Schulte-Markwort, Marutt, & Riedesser, 2003). Focusing on *ICD–DSM* comparisons that most directly affect children, the ICD-10 has substantially more disorders for children in several ways. First, the ICD-10 sometimes allows for separate disorders for children (e.g., Social Anxiety Disorder of Childhood) and adults (e.g., Social Phobias), whereas the DSM-IV uses the same diagnosis for both (i.e., Social Anxiety Disorder). Second, the ICD-10 has some "mixed" disorders that are not included in the DSM-IV, and examples of these include Depressive Conduct Disorder and Hyperkinetic Conduct Disorder. Finally, for many of the types of disorders diagnosed in childhood, the ICD-10 divides them into more possible diagnoses. For example, whereas the DSM-IV has five types of Pervasive Developmental Disorders, the ICD-10 describes additional disorders including both Atypical Autism as well as Overactive Disorder Associated with Mental Retardation. Also, compared to Conduct Disorder in the DSM-IV, the ICD-10 provides three separate disorders (i.e., Conduct Disorder Confined to the Family Context, Unsocialized Conduct Disorder, and Socialized Conduct Disorder).

Although many of the disorders are similar between the two systems, they still differ somewhat in label and symptoms. For example, the *DSM–IV* uses the label Attention-Deficit/Hyperactivity Disorder, and the ICD–10 includes a few Hyperkinetic Disorders (e.g., Disturbance of Activity and Attention) with slightly different criteria. Also, both Attention-Deficit/Hyperactivity Disorder (in the *DSM–IV*) and Disturbance of Activity and Attention (in the *ICD–10*) have many similar symptoms (sometimes with slight wording differences); however, the *ICD–10* has an increased distinction between hyperactivity and impulsivity.

As psychology journals continue to have greater international contributions, having two different major classification systems creates more confusion regarding diagnoses. This confusion is somewhat tempered by the fact that the DSM-IV is used more internationally with researchers than with clinicians; however, this increases the gap between international research and practice. Having two different versions of the ICD-10 also adds to the possible confusion. The existence of different major systems for cataloguing mental disorders also emphasizes that the current diagnostic categories are not static and are subject to change. In fact new editions of the DSM and ICD will likely be published within the next few years. Jablensky and Kendell (2002) suggest that the next revision of the DSM is more likely to have radical changes because the ICD is more constrained by coordinating the efforts of many more countries. Although some view the omission of unsupported etiologies in the *ICD-10* as a step in the right direction, some have called for revisiting inclusion of supported etiological theories in the next revision of the ICD (Üstün, Chatteri, & Andrews, 2002).

# THE PURPOSES AND USES OF A DIAGNOSTIC CLASSIFICATION SYSTEM

In a generic sense, a nosological system is simply a system of classifying disease or pathology. Therefore, most would agree that the *DSM-IV*, as well as all previous versions of the *DSM*, can be understood as nosological in nature. However, as the *DSM* has evolved from its first edition to the current one, the primary purpose of this classification system has drastically changed. Specifically, the first two versions of the *DSM* were known as primarily an explanatory nosological system that was rooted almost exclusively in psychoanalytic theory. Therefore, the primary purpose of the system was to explain the etiology of particular disorders from this theoretical framework.

With the introduction of the *DSM-III*, however, the nosological system became more descriptive or typological (Bertelsen, 1999). The *DSM-III* drifted away from explaining the etiology of particular disorders, and a great deal of attention was paid to specifically and accurately describing the symptoms of each disorder in the hopes of elevating the reliability of the diagnostic system. Another implication of this evolution of the diagnostic model is that the *DSM-III* and *DSM-IV* are relatively atheoretical. Although an atheoretical nosological system allows it to be more broadly applied to a variety of disorders as well as clinicians with a variety of theoretical backgrounds and training, these advantages come at a cost. In particular, an atheoretical nosological system may lack explanatory power as to the etiology of particular disorders, thus affecting patient treatment (Frances & Egger, 1999). Subsequent sections of this chapter continue to come back to this issue of an explanatory versus descriptive nosological system.

Given that the current *DSM–IV* is primarily descriptive in nature, one must consider the strengths and multiple purposes of such a system. The primary motivating force in moving the *DSM* to a descriptive classification system was to increase the reliability of the diagnostic system. Specifically, many clinicians in the field became concerned regarding the lack of standard practice in diagnosis that existed prior to the *DSM–III*. At a more fundamental level, however, a diagnostic system is critical so that those within the profession can communicate with each other using a universal nomenclature. One can imagine the chaos and confusion that would prevail if hundreds of professionals attempted to describe groups of similar patients or existing constructs without any agreed-upon system that defined these groups. Therefore, a foundational prerequisite to any diagnostic classification system is that it must allow for clinicians to come to the same diagnostic conclusion given information gathered from a patient that reflects a particular set of symptoms.

Related to this, previous research using the *DSM–II* indicated that diagnostic reliability between clinicians ranged from poor to fair on almost all of the diagnostic categories (Spitzer & Fleiss, 1974). With regard to diagnostic reliability, researchers publishing on the *DSM–IV* indicate that there is increasing reliability compared to previous versions of the *DSM*, although there are a number of diagnoses where diagnostic reliability continues to be problematic (APA, 1998).

Another purpose of a diagnostic classification system such as the DSM-IV is the need to conduct clinical research on particular populations. Again, a reliable diagnostic system is a fundamental prerequisite needed to conduct such research. For example, imagine that a group of researchers wanted to test the efficacy of a new antidepressant drug. In order to do so, they would need to administer the drug to a group of persons suffering from depression, while also administering a placebo to a similar group of persons with depression. In order to draw accurate conclusions regarding the efficacy of the new drug, it is critical that both groups of people diagnosed with Major Depressive Disorder are highly similar in the symptoms, as well as the level of impairment they exhibit. Another obvious reason for a reliable diagnostic classification symptom is that the efficacy of this new antidepressant drug presumes that there are symptoms of depression that exist in the person so that a change can be noted by researchers. If someone who was not clinically depressed were to be included in the experimental research group, the results might underestimate the effects of this antidepressant as there were no symptoms of depression to decrease or eliminate in that particular person.

A recent meta-analysis of inpatient psychotherapy effectiveness by Kösters, Burlingame, Nachtigall, and Strauss (2006) provides another example of the need for reliable diagnostic categories for research purposes. The results of the meta-analysis indicated that the strength of improvement that could be attributed to inpatient psychotherapy treatment differed as a function of the patient's diagnosis. Specifically, patients with mood and anxiety disorders improved to a greater extent when compared to patients with other disorders such as Schizophrenia (Kösters et al., 2006). Understanding this, the field of psychology can now examine the treatments for persons with these various diagnoses and attempt to improve those treatments that are relatively less successful. Again, important research such as this can only be conducted when a reliable diagnostic classification system exists.

Similarly, there has been a general movement in clinical psychology toward specifically detailed interventions that are both standardized and manualized. In fact, Division 12 of the American Psychological Association has begun establishing a list of treatments that researchers support for particular diagnoses (American Psychological Association, Division 12 Society of Clinical Psychology, n.d.). These empirically supported treatments (ESTs) are catalogued and matched by disorder, rather than endorsing a particular treatment wholesale. Treatment planning based on a particular diagnosis is not necessarily new to psychology, yet it is the specificity of the particular treatment intervention matched with a very specifically diagnosed disorder that is somewhat novel. Again, reliable diagnosis is a fundamental prerequisite to this move toward choosing an empirically supported treatment based on a particular diagnosis.

Another use of the DSM diagnostic classification system is that there are many other public institutions that rely on an accurate diagnosis. For example, in the United States, the Social Security Administration policy on disability determination partially relies on criteria for Mental Retardation to determine social security disability benefits for that disability status. These criteria are closely related to the criteria set forth in the *DSM–IV*.

This example is just one where a mental disorder may qualify someone for government support. Similarly, the Individuals with Disabilities Education Act (IDEA; Department of Education, 2005) allows for children with a diagnosis of Attention-Deficit/Hyperactivity Disorder (ADHD) to be eligible for special education services in the public schools through the category of Other Health Impaired (OHI). However, the IDEA legislation itself does not specify the criteria for ADHD. Rather, IDEA relies on the symptom criteria as outlined in the *DSM-IV*, as part of the criteria necessary for a child to be determined as Other Health Impaired (Department of Education, 2005).

A final use of the *DSM* diagnostic classification system, and perhaps the most controversial, is to allow for third-party payment for psychological services. Specifically, a significant portion of the population in the United States has private health insurance coverage. These health insurers usually require a formal diagnosis, using either the *DSM-IV* or *ICD-10*, in order to reimburse the provider. This situation has generated a great deal of debate, most especially concerning the rights of the insured and privacy of medical records (for a detailed review of similar issues see Newman & Bricklin, 1991). Given the direct relationship between a categorical diagnostic system such as the *DSM-IV* and reimbursement for mental health services, persons who suffer from a mental illness but at a subthreshold level may be denied services from their insurance provider. Again, this is not an explicitly stated purpose of the *DSM-IV* by its authors, but merely an undesirable effect of the healthcare system that has evolved over time.

As can be seen, there are numerous purposes for a nosological classification system such as the *DSM–IV*. These purposes all rely on the reliable and accurate diagnosis of mental disorders. As the *DSM–IV* has moved from an explanatory to a descriptive classification system, proponents would argue that this shift has resulted in an increase in diagnostic reliability. On the other hand, some critics would also argue that because of this shift, the utility and validity of the *DSM* has suffered considerably in order to gain this increase in reliability (Widiger & Clark, 2000).

# DISADVANTAGES OF THE DSM-IV

Since the first edition of the *DSM* in 1952, there have been numerous critics of this classification system, and the *ICD-10* is subject to the same types of criticisms. Most recently, criticism has been focused on the *DSM-IV* because of its increasing adherence to the "medical model" of mental illness (Widiger & Clark, 2000). Although there is some variation as to how experts define this medical model, some possibilities are outlined below as well and an explanation is provided as to how the medical model affects our understanding of mental illness.

## **The Medical Model of Mental Illness**

The medical model of mental illness can be understood as having similarities with the medical community's understanding of physical illness (Cloninger, 1999). The assumptions of the medical model as they

apply to mental illness are threefold. First, it is assumed that the concept of a disease exists, and that persons can be placed into two categories, those who are diseased and those who are healthy and without disease. This categorical way of conceptualizing mental illness, as opposed to placing persons along a continuum of disease and health (also known as a dimensional model), are discussed in more detail in further sections. The second assumption of the medical model is that the disease, or mental illness, resides within the individual (as opposed to the individual's circumstances, context, relationships, etc.). The third assumption is that any treatment to alleviate this disease must occur at the level of the individual as well. When one understands these assumptions that are implicit in the medical model, coupled with the descriptive and atheoretical nature of the DSM-IV as previously described, a type of tautological circular reasoning can arise. Specifically, one might ask, "Why is this child often truant, cruel to people, and cruel to animals," which would be answered "Because he has Conduct Disorder." The next question is, "Why does this child have Conduct Disorder," to which might come the answer, "Because he is often truant, he is cruel to people, and is cruel to animals." This error in reasoning is often referred to as "reifying" disorders, and many have urged clinicians and researchers to formulate mental disorders as simplified descriptions of behavior clusters rather than actual entities (Knapp & Jensen, 2006).

Another related disadvantage of the medical model of mental illness is that the model in and of itself lends credibility to a biological etiology of mental illness, when in fact such an exclusive etiology may not necessarily exist. For example, when working within a nosological system that assumes that disease lies within the individual, resulting research will most likely examine the disease at the individual level, neglecting other facets of the human experience that contribute to the mental disorder. This process of scientific inquiry, if allowed to proceed in this fashion, could then build a research literature that describes mental disorders as biological in origin (neglecting other avenues of research).

## Acknowledging the Environmental Context

The question as to the etiology of mental disorders leads to another important concept related to the medical model, which is the relative importance of environmental variables in understanding mental illness. Bronfenbrenner (1979) first discussed what he described as the ecological model of psychological functioning. This model changed the internal process of the "disease" of mental illness to one wherein an individual's internal characteristics do not fit within his environmental context. Bronfenbrenner (1979) theorized that each child is surrounded by a complex ecology or environment with which he or she interacts. This environment consists of relationships and systems proximal to the child, such as other family members. Additionally, however, the child is both directly and indirectly affected by other systems in the environment, including the school environment, religious and other community organizations, and other broader cultural variables.

Therefore, the ecological model would view the aggressive behaviors of an individual child within their social context. Whether these aggressive behaviors might be indicative of a mental disorder depends on whether they are adaptive and fit within the child's context. If this particular child lives in a home where violence is both modeled and expected, and within a high crime neighborhood that exposes the child to daily threats, then aggressive behavior may in fact be adaptive and may not necessarily be indicative of a mental disorder. On the other hand, if that same child lives in a safe environment where aggression is punished, then repeated displays of aggression would be maladaptive. This aggression could lead to impairment of the child's functioning, and could be viewed as a symptom of a mental disorder.

# The Categorical Nature of the DSM-IV

Another disadvantage, or weakness, of the *DSM–IV* is the categorical view of mental illness. Again, this concept is related to the medical model of mental disorders as persons are either considered as having a mental disorder, or not having a disorder. Many argue that this view of psychological functioning ignores the reality of the human existence (Widiger & Trull, 2007). In fact, the authors of the *DSM–IV* were themselves concerned with what might be perceived as an absolutist view of the categorical nature of the classification system, and they address this issue in the preface of the text. Specifically, they state the following.

In *DSM–IV*, there is no assumption that each category of mental disorder is a completely discrete entity with absolute boundaries dividing it from other mental disorders or from no mental disorder. There is also no assumption that all individuals described as having the same mental disorder are alike in all important ways. (APA, 2000, p. xxxi).

However, although this point is acknowledged in the *DSM–IV*, the reality is that the current *DSM* lays out a specific diagnostic classification system that for the most part does not allow the diagnosis of any disorder falling below the threshold. Specifically, clinicians must simply judge whether a patient does or does not have a particular mental disorder. Again, the authors (APA, 2000) of the *DSM–IV* go on to justify and rationalize the categorical nature of the *DSM–IV* when stating:

Although dimensional systems increase reliability and communicate more clinical information (because they report clinical attributes that might be subthreshold in a categorical system), they have serious limitations and thus far have been less useful than categorical systems in clinical practice and in stimulating research. (APA, 2000, p. xxxii).

Given this, there are two caveats to understanding the *DSM–IV* as a purely categorical diagnostic system. First, some *DSM–IV* disorders allow for a "Not Otherwise Specified" (NOS) diagnosis. For example, a NOS diagnosis might apply if the clinician cannot establish the required time frame

for impairment required to formally diagnose a particular disorder. Thus, this system does allow for some flexibility in diagnosing individuals when clinical judgment determines that a disorder exists but that a lack of information regarding the patient's functioning does not allow that patient to qualify for a particular diagnosis. Secondly, some disorders require clinicians to specify the level of impairment as mild, moderate, or severe. This qualifier of severity usually depends on the number of symptoms displayed by the patient as well as the qualitatively judged severity of those symptoms. Again, qualifiers of impairment and severity lend a somewhat dimensional quality to the *DSM-IV*, allowing clinicians to distinguish patients to some extent within a diagnostic category.

Many would argue that the rigidity of the current categorical system is unfortunate, but is also necessary in a system that has been highly operationalized in an attempt to maximize diagnostic reliability. However, researchers in the field also maintain that many more persons suffer from psychological distress that could be considered a subthreshold disorder compared to those who meet the full criteria for a mental disorder (Helmchen & Linden, 2000). Given this, the current system of diagnosis may not accurately reflect the true broad continuum of psychological functioning.

A final point related to this is the fact that the DSM-IV is not a classification system that measures or classifies health or adaptive psychological functioning. Rather, all of the diagnoses that are catalogued in this diagnostic system are considered illnesses. For clinicians in fields such as positive psychology and health psychology, this fact may be somewhat frustrating. Although related topics in human resiliency are important and have begun to garner more research attention (Greene, Galambos, & Lee, 2003), this view of adaptive psychological functioning is not captured or described in the current diagnostic system (Cloninger, 1999). Again, there are two exceptions to this within the DSM-IV itself. First, the DSM-IV provides the Global Assessment of Functioning (GAF) scale that allows clinicians to rate client functioning (from 1 to 100). The GAF is estimated on Axis V and is part of a standard multiaxial diagnosis. An important component of the GAF related to resiliency is the scale between 91 and 100 that allows clinicians to identify patients who have "superior functioning" relative to typical nondisordered individuals (p. 34).

Another component of the *DSM–IV–TR* that allows for the description and assessment of psychological health and adaptation is the Defensive Functioning Scale (DFS), located on p. 807 of the manual. The DFS follows from psychoanalytic theory by describing psychological defenses that are available to a person as they attempt to cope with either internal or external stressors. Many of these defenses are maladaptive in nature (e.g., psychotic denial), however, other defenses are catalogued that would reflect an optimal and perhaps even superior level of functioning. Such defense mechanisms include affiliation, altruism, and humor (APA, 2000). Currently, the DFS is only included in the *DSM–IV* as a possible consideration for future versions of the DSM so that clinicians may estimate and describe psychological defenses that are at a client's disposal. Although the DFS is merely a possibility for use in future versions of the DSM, some researchers and theorists in the field

have encouraged continued examination of this scale and the constructs measured (Blais, Conboy, Wilcox, & Norman, 1996).

# ALTERNATIVE THOUGHTS ON CLASSIFICATION

The DSM–IV enjoys widespread use as the most utilized diagnostic classification system in both clinical and research settings. However, critics of the system abound, and several conceptual alternatives to the DSM–IV have been put forward. Some of these alternatives are limited to a particular diagnostic class (e.g., personality disorders), or are in the beginning stage of their theoretical and conceptual construction, whereas other alternatives such as the Psychodynamic Diagnostic Manual (Alliance of Psychoanalytic Organizations, 2006; PDM) and the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (Zero to Three: National Center for Infants, Toddlers, and Families, 1994) are currently in print and exist as either competitors or adjuncts to the DSM–IV, depending on one's view.

The PDM is a product of the collaboration of five psychoanalytic associations (Packard, 2007). The primary impetus for the creation of the PDM was the complaint from clinicians that although the *DSM–IV* easily separates diagnostic groups for research purposes, it also neglects to include a theoretical foundation that serves to inform treatment planning. The PDM, on the other hand, relies on the foundation of psychoanalytic theory to explain mental health as well as dysfunction. The manual describes three axes: the P axis describes personality variables, the M axis describes mental functioning, and the S axis describes symptom patterns. The authors of the PDM emphasize that the manual is not necessarily a direct competitor to the *DSM–IV*, but can be used as an adjunct for the purpose of increasing clinician effectiveness (Packard, 2007).

The Diagnostic Classification: 0–3 (Zero to Three: National Center for Infants, Toddlers, and Families, 1994) is essentially a diagnostic classification system that has been specifically derived for classifying mental illness and developmental disorders in very young children and infants. Again, given that the *DSM-IV* provides a limited number of diagnostic categories that apply to children from birth to age three, one could consider this manual as more of a complement to the *DSM-IV* rather than a direct competitor in all cases. The Diagnostic Classification: 0–3 (1994) describes a multiaxial system of diagnosis very similar to the *DSM-IV*, except that clinicians note Relationship Classification for Axis II, as opposed to typical Axis II disorders in the *DSM-IV* that largely include personality disorders.

Besides the PDM and Diagnostic Classification: 0–3, which can be used as standalone diagnostic manuals, other researchers and theorists have begun to describe alternative models of classification. For example, Cloninger (1999) has proposed an alternative to the *DSM–IV* that draws from a number of theoretical origins. The author describes a "psychobiologically based paradigm" that acknowledges the importance of certain innate personality characteristics that exist. Cloninger uses evolutionary theory to explain the development of these characteristics as well as their continuous variability within the human race. These characteristics are purported to be measured by the Temperament and Character Inventory (TCI). Data gathered from the TCI on a clinical population relates these broader temperament and character constructs to both the existence of mental health as well as dysfunction. Some of the differences between this paradigm and the *DSM-IV* as noted by the author include a more developmental perspective on human functioning, and an equal emphasis on mental health. Although Cloninger (1999) alludes to the interaction of neurological processes and the psychological development of the individual, others (Hollander, 2006) have also relied on neurological research to both explain and categorize particular mental disorders.

Specifically, Hollander (2006) calls on future conceptualizations of substance use and impulse control disorders as well as Obsessive-Compulsive Disorder to consider neurological functioning and related laboratory findings in their clinical diagnosis. With continued research in neuroimaging that relates neurological functioning to behavioral and emotional dysfunction, a more physiological and neurological classification system of mental illness is being called on by some in the field (Charney, Barlow, Botteron, Cohen, Goldman, Gur et al., 2002).

Another alternative to the current *DSM–IV* classification of mental illness is the underlying conceptual structure of particular rating scales. Lahey, Applegate, Waldman, Loft, Hankin, and Rick (2004) discuss how particular diagnostic categories such as ADHD are conceptualized differently between the *DSM–IV* and the subscale scores (and the items that derive them) provided on particular rating scales.

Given this, the authors developed an interview covering many of the diagnosable disorders in childhood and adolescence. In examining data from 1,358 participants, the authors tested several taxonomic classifications of psychopathology through both exploratory and confirmatory factor analysis. The authors then describe how the current *DSM–IV* criteria and related categories both agree and differ with the factors derived from their data. For example, these authors describe a factor that describes both hyperactive/ impulsive as well as oppositional defiant criteria, thus combining two separate *DSM–IV* diagnoses (Oppositional Defiant Disorder and Attention-Deficit/ Hyperactivity Disorder Hyperactive Impulsive Subtype) into a single category of psychopathology. Thus these authors argue for an alternative taxonomy that relies on an empirical investigation of both self and caretaker reports of symptomology (Lahey et al., 2004). For a similar study using empirical methods to derive and confirm personality diagnoses in adolescence, see Westen, Shedler, Durrett, Glass, and Martens (2003).

Jensen, Knapp, and Mrazek (2006a) present an evolutionary perspective of psychological disorders, and this perspective sets the stage for a new way of thinking about diagnoses. Overall, they suggest that the *DSM– IV* considers disorders, by definition, to be maladaptive. However, they add that the symptoms contributing to most disorders are only maladaptive in most modern-day settings. That is, many clusters of symptoms may have actually been adaptive in the evolutionary history of humans. Jensen et al. (2006a) provide evolutionary theories for several disorders that are common in children and adolescents.

For example, the authors apply evolutionary theory to ADHD. That is, inattention, hyperactivity, and impulsivity (i.e., some of the criteria for ADHD) are often maladaptive in modern homes and classrooms. However, there may have been a time in the evolutionary history of humans when these behaviors served an important function. In fact, Jensen, Mrazek et al. (2006) suggest that being too focused on a task may actually be maladaptive in settings that have a high likelihood of danger (e.g., attack from wild animals). Thus, being easily distracted by small changes on the horizon may actually help a person survive. What has been termed "inattention" in the DSM is labeled "scanning" behavior in this theory. Also, "hyperactivity" may also be adaptive at times, particularly in settings with few resources. That is, very active behavior may include exploring an environment for scarce resources. Active behavior may also help stimulate muscle development and motor skills. Lastly, in this theory, impulsive behavior may make the difference between success and failure when pouncing on a prey or defending against an attacker. Jensen et al. (2006b) use the term "response-ready" as an alternative to the label ADHD, suggesting that response-ready behavior has been very adaptive in the evolutionary history of humans in some environments.

Similar evolutionary theories for other disorders have also been presented. For example, social anxiety may represent an adaptive sensitivity to social hostility, and panic attacks sometimes alert organisms to actual dangers, such as potential suffocation (Pine & Shapiro, 2006). In a similar vein, depressive behavior may be adaptive in the sense that it ensures the loser of a battle gives up fighting in order to survive (Pfeffer, 2006). Finally, behaviors associated with Conduct Disorder, such as aggression and cunning, also clearly have some survival value in certain environments (Kruesi & Schowalter, 2006). If nothing else, evolutionary theory forces one to consider the context within which behaviors occur, and that context often determines if the behavior is adaptive or maladaptive.

## THOUGHTS ON THE DSM-V

With the publication of the *DSM–IV* in 1994, well over a decade has now passed with no significant changes made to the diagnostic classification system itself. However, preparatory work on the *DSM–V* has been ongoing for the past several years (Widiger & Simonsen, 2005). A series of white papers, developed by the *DSM–V* Research Planning Work Group, was recently published as an edited book entitled *Research Agenda for DSM–V* (APA, 2002). This source outlined the current research on several fundamental areas of diagnostic classification, including neuroimaging research, animal models, understanding psychopathology within a developmental context, the diagnosis of personality disorders, and other related topics. Additional white papers have been published more recently regarding similar topics.

A website, entitled the *DSM–V Prelude Project* (http://dsm5.org/index.cfm), has been created to both inform professionals in the field regarding the revision process as well as solicit feedback (First, Regier, & Narrow, n.d.).

The most recent work toward the *DSM–V* includes a series of ongoing NIHsponsored conferences, whose purpose is to lay out a framework for the research agenda that will guide the revision process (Sirovatka, 2004). The next step in the revision process was the appointment of work groups, which occurred in 2008. Therefore, according to the current timeline the publication of the *DSM–V* is anticipated to be May of 2012 (First, Regier, & Narrow, n.d.).

Given that a great deal of preliminary discussion has already taken place regarding the next *DSM*, a few patterns have begun to emerge. First, there is building consensus for a dimensional model of personality disorder as opposed to the current categorical model in the *DSM-IV* (Widiger & Trull, 2007). These authors argue that the current categorical model provides a number of diagnostic problems, including criteria overlap between diagnostic categories and heterogeneity within diagnostic categories. Additionally, they posit that a dimensional model of personality dysfunction, possibly based on the Five Factor Model, would alleviate many of these current diagnostic issues. In fact, others in the field advocate for a dimensional model (as opposed to a categorical one) for many of the other disorders (e.g., mood disorders) listed in the *DSM-IV* (Widiger & Clark, 2000).

Although many behaviorists have proposed replacing the DSM with other systems altogether, Scotti, Morris, McNeil, and Hawkins (1996) suggest improvements for future revisions of the *DSM*. Specifically, they propose revisions to the multiaxial approach that include a focus on the function of behavior. Scotti et al. suggest the diagnostic categories in the *DSM* already give clinicians a starting point with which to begin a functional analysis. A diagnosis describes people with a similar set of behaviors, making it easier for the clinician to start hypothesizing about etiology and potential treatments. However, diagnostic categories typically represent fairly heterogeneous groups of people, thus there remains a need for ideographic assessment, and this could be better reflected in the multiaxial approach of the *DSM*. Goals of the *DSM* include improving diagnosis, communication, research, and treatment. These authors argue that the *DSM* is effective at these first three goals, but that it falls significantly short in helping with treatment planning.

To improve the multiaxial system, Scotti et al. (1996) propose changes to Axis III and Axis IV, with the other axes remaining unchanged. In the *DSM-IV-TR*, Axis III is reserved for General Medical Conditions, and Axis IV is for Psychosocial and Environmental Problems. In the Scotti et al. proposal the medical problems axis would be significantly expanded and relabeled "Ideographic Case Analysis". Part of this axis would include medical conditions that affect the diagnosis, but it would also be expanded to include antecedents and consequences of the primary symptoms. The Psychosocial and Environmental Problems axis would also be expanded and relabeled "Psychosocial and Environmental Resources and Deficits". Although it would continue to include similar problems to those in the current system, it would also have a significant increased focus on resources and client strengths that can be used and built upon to improve treatment outcome. In a later summary of this proposal, Reitman and Hupp (2002)

also emphasized the importance of improving Axis V, Global Assessment of Functioning, to include scores from assessment tools with empirical support (e.g., questionnaires) rather than the very broad and generic rating used in the current *DSM*.

Although critics of the *DSM–IV* look to make substantial changes in the upcoming *DSM–V* through the revision process, there are others in the field that continue to defend at least aspects of current practice using the *DSM–IV* as the most empirically supported (Hiller, 2006). Since the publication of the *DSM–III*, the DSM has served as an atheoretical classification system that strives for universal applicability, cutting across both theoretical lines as well as investigations into the etiology of disorders. History, perhaps, will judge whether the *DSM–III*, *DSM–III–R*, and *DSM–IV* have been successful in this endeavor. Perhaps the future of psychiatric diagnosis lies in the integration of theory, rather than the removal of theory. In the words of Banzato (2004), this future would rely on "the combination of sophisticated conceptual framework, methodological pluralism and sound scientific empirical evidence" (p. 500).

## REFERENCES

- Alliance of Psychoanalytic Organizations. (2006). *Psychodynamic diagnostic manual.* Silver Spring, MD: Author.
- American Psychiatric Association. (1952). *Diagnostic and statistical manual of mental disorders*. Washington, DC: Author.
- American Psychiatric Association. (1968). *Diagnostic and statistical manual of mental disorders* (2nd ed.). Washington, DC: Author.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed., rev.). Washington, DC: Author.
- American Psychiatric Association. (1994a). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- American Psychiatric Association. (1994b). *DSM–IV sourcebook: Volume 1.* Washington, DC: Author.
- American Psychiatric Association. (1998). DSM–IV sourcebook: Volume 4. Washington, DC: Author.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.
- American Psychiatric Association. (2002). A *research agenda for DSM–V*. Washington, DC: Author.
- American Psychological Association, Division 12 Society of Clinical Psychology. (n.d.). *A guide to beneficial psychotherapy*. Retrieved March 7, 2007, from http://www. apa.org/divisions/div12/cppi.html.
- Banzato, C. (2004). Classification in psychiatry: The move towards ICD–11 and DSM–V. *Current Opinion in Psychiatry*, 17, 497–501.
- Bertelsen, A. (1999). Reflections on the clinical utility of the ICD–10 and DSM–IV classifications and their diagnostic criteria. *Australian and New Zealand Journal* of Psychiatry, 33, 166–173.
- Blais, M. A., Conboy, C. A., Wilcox, N., & Norman, D. K. (1996). An empirical study of the DSM–IV defensive functioning scale in personality disordered patients. *Comprehensive Psychiatry*, 37, 435–440.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

- Charney, D., Barlow, D., Botteron, K., Cohen, J., Goldman, D., Gur, R., Lin, K., et al., (2002). Neuroscience research agenda to guide development of a pathophysiologically based classification system. In D.J. Kupfer, M. B. First, & D. A. Regier (Eds.), *A research agenda for DSM–V*. Washington, DC: American Psychiatric Association.
- Cloninger, C. R. (1999). A new conceptual paradigm from genetics and psychobiology for the science of mental health. *Australian and New Zealand Journal of Psychiatry*, 33, 174–186.
- Department of Education. (2005). 34 CFR Parts 300, 301 and 304 Federal Register June 21, 2005.
- First, M. B., & Pincus, H. A. (1999). Classification in psychiatry: ICD–10 v. DSM–IV: A response. *British Journal of Psychiatry*, 175, 205–209.
- First, M. B., Regier, D. A., & Narrow, W. (n.d.). *DSM-V prelude project: Research and outreach*. Retrieved March 1, 2007, from DSM-V Prelude Project Web site: http://dsm5.org/index.cfm.
- Frances, A. J. & Egger, H. L. (1999). Whither psychiatric diagnosis. Australian and New Zealand Journal of Psychiatry, 33, 161–165.
- Greene, R. R., Galambos, C., & Lee, Youjung, (2003). Resilience theory: Theoretical and professional conceptualizations. *Journal of Human Behavior in the Social Environment*, *8*, 75–91.
- Helmchen, H., & Linden, M. (2000). Subthreshold disorders in psychiatry: Clinical reality, methodological artifact, and the double-threshold problem. *Comprehensive Psychiatry*, 41, 1–7.
- Hiller, W. (2006). Don't change a winning horse. *Journal of Psychosomatic Research, 60,* 345–347.
- Hollander, E. (2006). Behavioral and substance addictions: A new proposed DSM–V category characterized by impulsive choice, reward sensitivity, and fronto-striatal circuit impairment. *CNS Spectrums*, *11*, 814–822.
- Houts, A. C. (2002). Discovery, invention, and the expansion of the modern *Diagnostic and Statistical Manuals of Mental Disorders*. In L. E. Beutler & M. L. Malik (Eds.), *Rethinking the DSM: A psychological perspective*. Washington, DC: American Psychological Association.
- Jablensky, A., & Kendell, R. E. (2002). Criteria for assessing a classification in psychiatry. In M. Maj, W. Gaebel, J. J. López-Ibor, & N. Sartorius (Eds.), *Psychiatric diagnosis and classification* (pp. 1–24). New York: John Wiley & Sons.
- Jensen, P. S., Knapp, P., & Mrazek, D. A. (2006a). *Toward a new diagnostic system for* child psychopathology: Moving beyond the DSM. New York: Guilford Press.
- Jensen, P. S., Mrazek, D. A., Knapp, P., Steinberg, L., Pfeffer, C. R., Schowalter, J., & Shapiro, T. (2006b). Application of evolutionary models to Attention Deficit/Hyperactivity Disorder. In P. Jensen, P. Knapp, & D. A. Mrazek (Eds.), *Toward a new diagnostic system for child psychopathology: Moving beyond the DSM* (pp. 96–110). New York: Guilford Press.
- Knapp, P., & Jensen, P. S. (2006). Recommendations for the DSM–V. In P. Jensen, P. Knapp, & D. A. Mrazek (Eds.), Toward a new diagnostic system for child *psychopathology: Moving beyond the DSM* (pp. 111–130). New York: Guilford Press.
- Kösters, M., Burlingame, G. M., Nachtigall, C., & Strauss, B. (2006). A meta-analytic review of the effectiveness of inpatient group therapy. *Group Dynamics: Theory, Research, and Practice, 10,* 146–163.
- Kruesi, M., & Schowalter (2006). Conduct disorder and evolutionary biology. In P. Jensen,
  P. Knapp, & D. A. Mrazek (Eds.), *Toward a new diagnostic system for child psychopathology: Moving beyond the DSM* (pp. 111–130). New York: Guilford Press.
- Lahey, B. B., Applegate, B., Waldman, I. D., Loft, J. D., Hankin, B. L., & Rick, J. (2004). The structure of child and adolescent psychopathology: Generating new hypotheses. *Journal of Abnormal Psychology*, *113*, 358–385.
- Langenbucher, J. & Nathan, P. E. (2006). Diagnosis and classification. In M. Hersen & J. C. Thomas (Eds.), *Comprehensive handbook of personality and psychopathology: Volume 2*, pp 3–20. Hoboken, NJ: Wiley.
- Liu, C. Y. & Apuzzo, M. L. J. (2003). The genesis of neurosurgery and the evolution of the neurosurgical operative environment: Part I – prehistory to 2003. *Neurosurgery*, 52, 3–19.

Newman, R. & Bricklin, P. M. (1991). Parameters of managed mental health care: Legal, ethical, and professional guidelines. *Professional Psychology: Research and Practice*, 22, 26–35.

Packard, E. (2007). A new tool for psychotherapists. Monitor on Psychology, 38, 30–32.

- Pfeffer, C. R. (2006). An evolutionary perspective on childhood depression. In P. Jensen, P. Knapp, & D. A. Mrazek (Eds.), *Toward a new diagnostic system for child psychopathology: Moving beyond the DSM* (pp. 78–95). New York: Guilford Press.
- Pine, D. S., & Shapiro, T. (2006). A developmental evolutionary perspective on two anxiety disorders. In P. Jensen, P. Knapp, & D. A. Mrazek (Eds.), *Toward a new diagnostic system for child psychopathology: Moving beyond the DSM* (pp. 58–77). New York: Guilford Press.
- Reitman, D., & Hupp, S. D. A. (2002). Behavior problems in the school setting: Synthesizing structural and functional assessment. In M. L. Kelley, G. H. Noell, and D. Reitman (Eds.), *Practitioner's guide to empirically based measures of school behavior*. New York: Plenum.
- Schulte-Markwort, M., Marutt, K., & Riedesser, P. (2003). *Cross-walks ICD-10-DSM-IV-TR:* A synopsis of classifications of mental disorders. Cambridge, MA: Hogrefe & Huber.
- Scotti, J. R., Morris, T. L., McNeil, C. B., & Hawkins, R. P. (1996). DSM–IV and disorders of childhood and adolescence: Can structural criteria be functional? *Journal of Consulting and Clinical Psychology*, 64, 1177–1191.

Sirovatka, P. (2004, Winter). DSM research planning. Psychiatric Research Report, 20, 1–3.

- Spitzer, R. L. & Fleiss, J. L. (1974). A re-analysis of the reliability of psychiatric diagnosis. British Journal of Psychiatry, 125, 341–347.
- Üstün, T. B., Chatterji, S., & Andrews, G. (2002). International classifications and the diagnosis of mental disorders: Strengths, limitations and future perspectives. In M. Maj, W. Gaebel, J. J. López-Ibor, & N. Sartorius (Eds.), *Psychiatric diagnosis and classification* (pp. 25–46). New York: John Wiley & Sons.
- Westen, D., Shedler, J., Durrett, C., Glass, S., & Martens, A. (2003). Personality diagnoses in adolescence: DSM–IV Axis II diagnoses and an empirically derived alternative. American Journal of Psychiatry, 160, 952–966.
- Widiger, T. A. (2005). Classification and diagnosis: Historical development and contemporary issues. In J. E. Maddux, & B. A. Winstead (Eds), *Psychopathology: Foundations* for a contemporary understanding (pp. 63–83). Mahwah, NJ: Lawrence Erlbaum.
- Widiger, T. A. & Clark, L. A. (2000). Toward DSM–V and the classification of psychopathology. Psychological Bulletin, 126, 946–963.
- Widiger, T. A. & Simonsen, E. (2005). Introduction to the special section: The American Psychiatric Association's research agenda for the DSM-V. Journal of Personality Disorders, 19, 103–109.
- Widiger, T. A., & Trull, T. J. (2007). Plate tectonics in the classification of personality disorder: Shifting to a dimensional model. *American Psychologist*, 62, 71–83.
- World Health Organization (1992). International classification of diseases classification of mental and behavioral disorders: Clinical descriptions and diagnostic guidelines (10th revision). Geneva: Author.
- World Health Organization (1993). International classification of diseases classification of mental and behavioral disorders: Diagnostic criteria for research (10th revision). Geneva: Author.
- World Health Organization (1996). *Multiaxial classification of child and adolescent psychiatric disorders: The ICD-10 classification of mental and behavioural disorders in children and adolescents.* Geneva: Author.
- Zero to Three: National Center for Infants, Toddlers, and Families. (1994). *Diagnostic classification of mental health and developmental disorders of infancy and early childhood: Diagnostic classification:* 0–3. Washington, DC: Author.