CHAPTER 1

An Introduction to the DM-ID-2

Robert J. Fletcher Jarrett Barnhill Sally-Ann Cooper

The Problem

Although psychiatric disorders in persons with intellectual/developmental disability (IDD) are common, they are often not appropriately identified (Reiss, 1994). The provision of adequate mental health treatment for people with ID continues to be lacking, in part, because reliable psychiatric diagnosis remains a clinical challenge. Determining an accurate psychiatric diagnosis becomes especially difficult at lower levels of intellectual functioning (Rush & Frances, 2000).

DM-ID-2 has been produced to help address this problem. in addition to adapting the DSM-5 diagnostic criteria where appropriate, the DM-ID-2 provides a wealth of information about and considerations for assessing and diagnosing individuals with ID and coexisting mental health needs. In some cases, it is not so much that the criteria need to be adapted as that a different method of eliciting the necessary information must be used. Information is provided in recognizing common behaviors of individuals with intellectual disabilities and in how to differentiate these behaviors from psychiatric disorders.

Review of Prevalence of Mental Illness in IDD

Individuals with IDD can experience the same mental disorders as the general population, as well as some disorders that are uncommon in the general population such as pica. Studies have indicated that psychiatric disorders in people with IDD are at a higher rate than in the neurotypical population. Studies on prevalence rates of psychiatric disorders have varied widely.

The variance of the data reflects a number of variables including: (1) the nature of the study sample, (2) the nature of the definition/classification system(s) used to identify psychiatric disorders and ID, (3) the particular tools used for assessment of potential psychiatric disorders, (4) the inclusion or exclusion of 'challenging behavior,' (5) the inclusion or exclusion of autism spectrum disorders under the general mantle of psychiatric disorders, (6) the inclusion or exclusion of biomedical conditions as a potential contributing/etiological factor in the presentation of behavioral or affective symptoms, and (7) the training and experience of the individual(s) applying assessment tools (Buckles, 2016), and the methodological quality of the study.

There have been a few studies that have employed rigorous methodological protocols. One such study conducted by Cooper, Smiley, Morrison, Williamson, and Allan (2007) used multiple measures. The method used a population-based adult sample (N=1023) with a comprehensive individualized assessment model. The data indicated a point prevalence of mental illness at 40.9% (clinical diagnosis); 35.2% (DC-LD); 16.6% (ICD-10); and 15.7% (DSM-IV-

DM-ID-2 Textbook

TR). Similarly, high prevalence rates have also been reported for children and young people with intellectual/developmental disabilities, in whom mental health problems are about four times more common than in the general population (Einfeld, Ellis, & Emerson, 2011; Emerson and Hatton, 2007).

Although much of the prevalence data comes from Europe, and particularly the UK, the National Core Indicators from the USA has identified that a rate of 55% of people with IDD have a co-occurring psychiatric disorder (National Core Indicators, 2016). This study is based on patient charts from 30 states in the USA (N=13,466).

Another study that used a random sample (N=240) reported on different prevalence rates depending on the diagnostic classification system (Bailey, 2007). The data indicated that when using the DC-LD the rate was 57.0%; the ICD-10 reflected a rate of 24.8%; and 13.2% when using the DSM-IV.

These studies, as well as others, demonstrate that there is a higher prevalence rate when using diagnostic systems that are designed to assess mental disorders in people with IDD. Moreover, these studies indicate that the use of the DSM system reflects much lower rates than when using other diagnostic systems, even when compared to other nosology systems that are also not designed for assessing mental disorders in people with IDD (e.g. ICD-10). Hence the need for DM-ID-2, to consider and interpret how to use DSM-5 specifically from the perspective of people with intellectual disabilities.

Classification and Diagnosis of Mental Illness: Historical Perspective

The clinician is faced with certain challenges when an individual with ID presents with disturbed or disturbing behavior. Since at least as long ago as early Greek civilization, it has been acknowledged that not all abnormal behavior arises from a single, unitary cause. People might behave similarly or differently for a number of reasons, and knowing the specific reasons can be helpful not only in explaining the disturbing behavior but also in constructing an

intervention that might alleviate the behavior. This is the reason that we attempt to classify behavior into discrete groupings, including syndromes.

Since the time of early Greeks, then, there have been a multitude of systems of nomenclature for mental disorders, each based upon underlying concepts of causation. Each of these systems was limited by the underlying theoretical and philosophical framework used to construct the system. It became increasingly difficult to clearly describe behaviors in terms that had some sort of common acceptance.

At the beginning of the twentieth century, Emil Kraepelin, a German psychiatrist, developed a systematic classification based upon manifest, observable behavior (Alexander & Selesnick, 1966). This classification system enabled psychiatrists from many different places to describe psychiatric disorders in a manner that could be duplicated elsewhere. Because the system was based on observable behavior, the theoretical approach of the psychiatrist would not determine the way he or she characterized the particular psychiatric disorder.

In the mid-twentieth century, the American Psychiatric Association (APA) published the Diagnostic and Statistical Manual of Mental Disorders (DSM) (American Psychiatric Association, 1952) as a systematic document containing descriptions of each of the disorders contained within this classification system. Although this system used the terminology of "reactions" and "syndromes," there was a clear effort to describe various disorders in behavioral and observable terms. In 1968, the DSM-II (American Psychiatric Association, 1968) eliminated the terminology of "reactions" in favor of such terms as Anxiety, Neurosis, and Schizophrenia, but in general there were few changes in the overall structure. Starting with the DSM-III in 1980 (American Psychiatric Association, 1980), diagnostic criteria sets were developed for each disorder, based whenever possible on observable phenomena. The DSM-III-R (American Psychiatric Association, 1987) and the DSM-IV (American Psychiatric Association, 1994) introduced some changes in individual

categories, but in general the basic framework remained relatively unchanged.

The *DSM* diagnostic criteria are constructed to be "generic"; that is, they should ideally be applicable to all patient populations, independent of the patient's age, ethnicity, culture, gender, or the presence of comorbid medical or mental conditions. There have been many critiques of the *DSM*, however, arguing that developmental issues, cultural context, and other factors can affect the symptomatic expression of disorders.

Additionally, there has been controversy found in the literature concerning the issue of reliability in making specific DSM diagnosis in persons with ID, especially those with more severe impairment and intellectual function (Einfeld & Aman, 1995). Mikkelsen and McKenna (1999) assert that as intelligence decreases the validity of psychiatric diagnosis for individuals with ID tends to decrease. They explain this as the result of both an increase in nonspecific organic factors and the relative inaccessibility of the individual's inner life as productive speech decreases with the increased severity of impairment. Noting a general consensus that mental disorders can be diagnosed using standard diagnostic criteria for people with mild IDD and reasonably good communicative skills, Szymanski et al. (1998) acknowledge the increased difficulty for individuals with more severe IDD and poor verbal skills.

The *DM-ID* is not the first attempt to improve the diagnosis of mental disorders in individuals with ID. The Royal College of Psychiatrists in 2001 published a guide entitled DC-LD /Diagnostic Criteria for Psychiatric Disorders for Use with Adults with Learning Disabilities/ Mental Retardation (Royal College of Psychiatrists, 2001). The DC-LD is a classification system that has been developed in recognition of limitations of the ICD-10 Manual published by the World Health Organization (1992) and in its place the *DC-LD* reflects a consensus of current practice and opinion among psychiatrists from the United Kingdom and Ireland who specialize in ID (referred to there as learning disabilities). The DC-LD provides operationalized diagnostic criteria for psychiatric disorders and

is intended primarily for use with adults with moderate to profound ID.

Recognizing the diagnostic challenges that clinicians face when attempting to arrive at an accurate psychiatric diagnosis for individuals with IDD co-occurring with mental illness, in 2007 the National Association for the Dually Diagnosed (NADD), in association with the American Psychiatric Association (APA), published 00(Fletcher, Loschen, Stavrakaki, & First, 2007). The *DM-ID* was designed as a companion to the DSM-IV-TR and aimed to assist clinicians to arrive at a more accurate DSM-IV-TR diagnosis for individuals with IDD. In 2013, the American Psychiatric Association published the DSM-5, thus necessitating revision of the DM-ID to incorporate the changes from the DSM-IV-TR to the DSM-5.

Diagnostic Challenges

During the past few decades, there have been important developments in the field of mental health care for people with IDD. The National Association for the Dually Diagnosed has been instrumental in marshaling national and international attention, providing education and training, and disseminating relevant clinical and research policy issues. In spite of these encouraging developments, however, there remain significant obstacles hindering appropriate care and treatment for this underserved population. One key problem has been the lack of a diagnostic system appropriate for clinical use with the diverse population of people with IDD (Sturmey, 1999). As a result, individuals may receive no psychiatric diagnosis even when a mental disorder exists, or they may receive an inaccurate or inappropriate diagnosis. Because treatments, services, and supports are tied directly to the accurate evaluation and diagnosis of people who have IDD coexistent with mental disorders, the absence of psychiatric diagnoses is a central issue.

Clinicians need a system whereby they can recognize the presence of *DSM-5*-documented mental disorders in persons who have limited expressive and receptive language skills. The DSM system relies primarily on self-report.

DM-ID-2 Textbook

Individuals report to the clinician their signs, symptoms, feelings, and experiences. A major advantage of the *DM-ID-2* is that it enhances the reliability of psychiatric diagnoses in persons with IDD which could ultimately improve treatment outcomes.

There are a number of factors associated with the difficulty of making an accurate diagnosis in people with IDD. The applicability of existing standardized classification systems (such as the DSM-5) for persons with IDD has been critically debated in professional literature (Sturmey, 1999). To determine whether a person within the general population has been experiencing psychiatric symptoms, a clinician typically relies on the person's description of his or her experiences and feelings. Individuals with cognitive impairments experience difficulties in receptive and expressive language to varying degrees. Mild limitations in cognitive and verbal skills make it difficult, and severe limitations may make it impossible, for people with IDD to articulate such abstract or global concepts as depressed mood or to communicate subtle differences among emotional or motivational states.

Other factors that increase the difficulty in making psychiatric diagnoses include the tendency for some people with IDD to attempt to hide their disabilities (to adopt a "cloak of competence"; Edgerton, 1967), the tendency not to be forthcoming with respect to self-descriptions, and the tendency for some to try to please the evaluator by answering falsely or in a manner that is inaccurate ("acquiescence bias"). Additionally, the symptoms of diverse psychiatric disorders are often expressed differently in people with IDD. Sovner (1986) has identified four processes that are common in persons with IDD that can influence the diagnostic decision-making process: (1) baseline exaggeration, (2) intellectual distortion, (3) psychosocial masking, and (4) cognitive disintegration.

Another diagnostic challenge is diagnostic overshadowing (Reiss, Levitan, & Szyszko, 1982). Having a diagnosis of IDD can overshadow coexisting mental disorders and may predispose practitioners to overlook the presence

of psychopathology because unusual or anomalous behavior is attributed by the clinician to being artifacts of developmental or social delay. For example, a person with profound IDD who is very withdrawn and asocial might be less likely to be labeled as depressed than would a person with average intelligence (Sturmey, 1999). Adding further to this risk of diagnostic overshadowing is the considerable amount of physical disorders, impairments, and multimorbidity that people with intellectual disabilities experience (Cooper et al, 2015).

Accurate diagnosis is important because it provides a sound basis for effective treatment. Positive treatment outcome is based on an accurate diagnosis. Just as this is true concerning physical health, it is equally true in psychiatric health.

Severe behavioral disturbance in the form of verbal or physical aggression toward others, self-injury (aggression toward self), and property destruction frequently motivates referrals for diagnosis and treatment prescription. Such severe disturbance occurs at a clinically significant rate among people with ID, often threatens the stability of family living or the continuation of community living in a relatively nonrestrictive setting, and can precipitate admission to a public mental health or ID facility. Severe behavioral disturbance of various types occurs among people with mild to profound ID. However, it is important to understand that severe behavioral disturbances are not part and parcel of a diagnosis of ID. The presence of clinically significant behavioral disturbances mandates a thorough clinical diagnostic evaluation to determine the presence of comorbid mental and physical disorders that may be responsible for the behavioral disturbance. The extent to which behavioral disturbances represent symptom equivalents for symptoms such as depression and anxiety, especially in individuals with severe and profound ID, has been the subject of considerable debate, which remains to be elucidated by further research.

Diagnosis for an individual within the population without IDD generally relies upon the person's description of his or her experiences and feelings. Individuals with IDD have limited receptive and expressive language, thus limiting their ability to describe their symptoms. They may also lack the self-reflection to describe internal states. Furthermore, individuals with IDD who are experiencing mental illness may present in very different ways than their peers without IDD. The DM-ID-2 provides guidance for assessing and diagnosing specific disorders in individuals with IDD and provides information on recognizing challenging behaviors of individuals with IDD and how to differentiate between behavioral problems and psychiatric disorders. The DM-ID-2 is designed as a companion to the DSM-5 and aimed to assist clinicians to arrive at a more accurate diagnosis for individuals with IDD.

The DM-ID-2

The publication of the *DSM-5* (American Psychiatric Association, 2013) necessitated that the *DM-ID* be updated. NADD began putting together work groups to revise the *DM-ID* during the summer of 2012. One hundred and four experts from around the world were recruited to work in 26 work groups. A chairperson was identified for each work group.

Changes from DSM-IV to DSM-5 reflect developments in genetic research and neuroimaging as well as efforts to promote ease of use. The disorders included in DSM-5 have been reordered into a revised organizational structure, reflecting the fact that mental disorders do not always fit completely within the boundaries of a single disorder and that some symptom domains involve multiple diagnostic categories. DSM-5 recognizes developmental issues utilizing a lifespan approach and including descriptions of how the disorder presentation changes across the lifespan. The multi-axial approach has been dropped. A number of disorders that had been distinct in DSM-IV, such as autistic disorder, Asperger's disorder, and pervasive developmental disorder, have been consolidated in DSM-5 and the DM-ID-2 into autism spectrum disorder (ASD). Trauma- and stressor-related disorders in the DSM-5 and DM-ID-2 is an umbrella diagnostic area that now includes

reactive attachment disorder, disinhibited social engagement disorder, posttraumatic stress disorder (PTSD), acute stress disorder, and adjustment disorder. The classification for bipolar and depressive disorders has been streamlined. Disorders previously referred to as "dementias" are now designated as major or mild neurocognitive disorders and have enhanced specificity.

Expert Consensus Model

Whilst there have been recent exploratory and confirmatory factor analyses that have delineated major grouping of psychopathology (depression, anxiety, psychosis, organic, emotional dysregulation/problem behaviours) in adults with intellectual disabilities (Melville, McConnochie, et al., 2016; Melville, Smiley, et al., 2016), there is a general dearth of research in the specific diagnostic categories of co-occurring IDD and mental illness. "Because many pertinent questions encountered in everyday practice are not well answered by the available research, expert consensus is a valuable bridge between clinical research and clinical practice" (Frances, Kahn, Carpenter, Frances & Docherty, 1988). In the absence of research, the collective opinion of experts is considered a useful and appropriate guide. For this reason, the authors of the DM-ID-2 relied upon an expert consensus model in much of their work. Grounded in the expert consensus model, each chapter grew out of a critical review of the available literature.

In the development of diagnostic systems and practice guidelines, consensus committees, consisting of experts, researchers, and practitioners, have been formed for various topics in medicine and behavioral healthcare. Consensus methods were an important aspect of the development of all editions of the DSM, and these methods have been applied within the field of developmental disabilities with respect to practice issues centering around the use of psychotropic medications (Reiss & Aman, 1998), integration of psychotropic medication and other treatments (Reiss & Aman, 1998), diagnosis and intervention for autism spectrum disorders (New York Department of Health [NY-

DOH], 1999a, 1999b, 1999c), and diagnosis and treatment of mental health problems in people with intellectual disabilities (National Institute for Health and Care Excellence, 2016).

Chapter Structure for DM-ID-2

A guideline was developed to structure the diagnostic chapters, allowing for clarity and uniformity. The diagnostic chapters in the DM-ID-2 generally follow this guideline. The primary elements of the guideline are listed below.

- Chapter summary
- · Review of diagnostic criteria
 - General description of the disorder
 - Summary of DSM-5 criteria
 - Issues related to diagnosis in persons with ID
 - Development and course
 - Prevalence
 - Differential diagnosis
 - Functional consequences [if relevant]
 - Comorbidity
- Application of diagnostic criteria to people with ID
 - General considerations

- Methodology
- Review research applying to people with ID
- Adults with mild to moderate intellectual disability
- Adults with severe or profound intellectual disability
- Children and adolescents with intellectual disability
- Limitations in applying DSM-5 criteria to people with ID
- Etiology and Pathogenesis
 - Biological Factors
 - Psychosocial Factors
 - Developmental Factors
- Application of criteria
 - Table of Applied Criteria
 - References

The *DM-ID-2* encompasses seven types of applications of the *DSM-5* criteria. Unlike the *DSM* system, the *DM-ID* system does not rely on self-report. The *DM-ID* criteria subsets are principally concerned with observation of behaviors.

Table of Applied Criteria				
DSM-5 Criteria	Appling Criteria for Mild and Moderate ID	Applying Criteria for Severe and Profound ID		

The seven applied criteria are:

- 1. Addition of symptom equivalents
 - Observed reports that are equivalent to self-reports as identified in the DSM system
- 2. Omission of symptoms
 - Symptoms that do not exist or cannot be identified in persons with IDD
- 3. Changes in symptom count
 - Indicated the frequency of a symptom that is required to meet the diagnostic criteria
- 4. Modification of symptom duration
 - The length of time a symptom has to be

- present in order to meet the diagnostic criteria
- 5. Modification of age requirements
 - Indicates change in age to take into consideration the developmental perspective of the individual with IDD
- 6. Addition of explanatory notes
 - Intended to communicate a criterion without an official modification of the criteria subset
- 7. Criteria sets that do not apply
 - Criteria sets that do not apply to persons with IDD

Some of the diagnostic chapters consolidated applied criteria ranging from mild-profound. As such, there will be two columns; one column lists the DSM-5 criteria, with another column listing applied criteria for mild-profound IDD, where applicable. Other diagnostic chapters have three columns; the left-hand column lists the DSM-5 criteria, the middle column lists applied criteria for mild-moderate IDD, and the right-hand column lists applied criteria for severe-profound IDD. It is important to note that there is not always a change from the DSM-5 criteria, and in these situations the applied criteria section will indicate that there is no change.

Limitations and Cross-Referencing

The American Psychiatric Association, publisher of the DSM-5, only allows for the reproduction of approximately 50% of criteria sub-

sets. Therefore, the DM-ID-2 was restricted with regards to the number and extent of DSM-5 articulated diagnostic subsets. Thus we had to be selective with which criteria we chose to include in the DM-ID-2. We chose to exclude some criteria on the basis of their extreme similarity with another criteria set; in this case we comment at the bottom of the tables to this effect. Other criteria sets were omitted on the basis of rarity. Throughout several of the DSM-5 chapters, criteria are repeated for the specific mental disorders in question being due to another medical condition, and also for the specific mental disorder in question being induced by a substance/medication. Hence, rather than repeating the full criteria sets in several chapters, we provide them here, and cross-refer the specific chapter to these two tables where they apply.

DSM-5 Criteria for mental disorder due to another medical condition

DSM-5 Criteria for Mental Disorder Due to Another Medical Condition	Applying Criteria for Mild and Moderate ID	Applying Criteria for Severe and Profound ID
A. Symptoms/signs as reported in the relevant chapter.	A. Adaptations as reported in the relevant chapter.	A. Adaptations as reported in the relevant chapter.
B. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.	B. No adaptation.	B. No adaptation.
C. The disturbance is not better explained by another mental disorder.	C. No adaptation.	C. No adaptation.
D. The disturbance does not occur exclusively during the course of a delirium.	D. No adaptation.	D. No adaptation.
E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.		

DSM-5 Criteria for substance/medication-induced mental disorder

DSM-5 Criteria for Substance/Medication-Induced Mental Disorder	Applying Criteria for Mild and Moderate ID	Applying Criteria for Severe and Profound ID
A. Symptoms/signs as reported in the relevant chapter.	A. Adaptations as reported in the relevant chapter.	A. Adaptations as reported in the relevant chapter.
B. There is evidence from the history, physical examination, or laboratory findings of: 1. the symptoms in Criterion A developed during, or soon after substance intoxication or withdrawal or after exposure to a medication. 2. The involved substance/medication is capable of producing the symptoms in Criterion A.	B. No adaptation.	B. No adaptation.
C. The disturbance is not better explained by a mental disorder that is not substance/medication induced. Such evidence of an independent mental disorder could include the following:	C. No adaptation.	C. No adaptation.
The symptoms preceded the onset of the substance/medication use; the symptoms persist for a substantial amount of time (e.g., about 1 month) after the cessation of acute withdrawal or severe intoxication; or there is other evidence of an independent non-substance/medication-induced mental disorder (e.g. history of recurrent non-substance/medication-related episodes).		
D. The disturbance does not occur exclusively during the course of a delirium.	D. No adaptation.	D. No adaptation.
E. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.		

Added Value Chapters

In addition to all the major diagnoses that are found in the *DSM-5*, the *DM-ID-2* includes two additional chapters. Following this chapter, there is a chapter on assessment and diagnostic procedures. This chapter is important as it assists the reader in understanding the biopsychosocial developmental approach to conducting a psychiatric assessment with individuals who have an intellectual disability. Another added value chapter informs the reader about behavioral phenotypes that are associated with genetic disorders, which is intended to aid in the understanding of how a disorder's genotype affects its behavioral phenotype.

Neurodevelopmental Disorders

The DSM-5 changes the "Disorders with Onset during Childhood and Adolescence" (DSM-

IV-TR and DM-ID) to a new category "Neuro-developmental Disorders." The reorganization adds stereotypic movement disorders and tic disorders to the neurodevelopmental disorders. There are major components of neurodevelopmental disorders: age of onset during the developmental period; diagnosis based on assessment based on a deviation from expected lines of development and differentiation from other medical or neurodegenerative disorders. Even when these basic criteria are met, there is still a high rate of overlap between them. This pattern of high rates of comorbidity also applies to other psychiatric disorders (American Psychiatric Association, 2013; Fletcher et al., 2007).

Because of these boundary issues, many affected children may have multiple developmental diagnoses. For example, child can have autism spectrum disorder, severe intellectual

disability; attention deficit hyperactivity disorder and a tic disorder. The relationship between these neurodevelopmental disorders, challenging behaviors, and primary psychiatric disorders can also complex (American Psychiatric Association, 2013). In the *DM-ID-2*, intellectual disability is already established and serves as a starting point in the diagnosis. As a result, the diagnostician must consider how the severity of IDD limits our ability to clearly recognize many neurodevelopmental disorders (e.g. specific learning and communication disorders in nonverbal individuals). The presence of severe IDD can also affect the developmental trajectory of emerging motor co-ordination, communication, and specific learning disorders as well as the validity of many diagnostic instruments crucial to defining these disorders (Barnhill, 2014).

In recent years, it is becoming increasingly obvious that many primary psychiatric disorders are also neurodevelopmental in nature. The risk for early onset psychiatric disorders is related to gene-environmental interactions, the timing of early developmental stressors (e.g. trauma), and history of learning experiences and in some cases, the presence of a specific behavioral phenotype. In addition, the presence of IDD or autism spectrum disorder also alter the development, assessment, and treatment of schizophrenia, bipolar, depressive, anxiety and obsessive-compulsive/related disorders. Lastly, severity of IDD and autism spectrum disorder plays a critical role in the development of challenging behaviors (aggression, self-injury, anddisruptive and destructive behaviors) that frequently accompany primary psychiatric disorders (Barnhill, 2014). In order to negotiate these issues, the diagnostician needs a good working knowledge of diagnostic overshadowing, baseline exaggeration, and vulnerability to cognitive, emotional, and behavioral disorganization and cognitive distortions (Barnhill, 2014; Fletcher et al., 2007; Gardner, Griffiths, & Hamlin, 2012).

Other Disorders

Whislt neurodevelopmental disorders emerge in childhood and persist into adulthood, a large

number of other types of disorders more typically have onset in youth, adulthood, or at older age. Chapters on these are presented in the DSM-5 after the neurodevelopment disorder chapter. Key changes include the streamlining of bipolar disorders and depressive disorders, the elimination of substance abuse and substance dependence which are replaced with a new overarching category of substance use disorders, and the enhanced specificity for major and mild neurocognitive disorders (formerly known as the dementias) to reflect scientific advances in this area. The categorization of personality disorders remains similar to that in DSM-IV, but section III of DSM-5 presents an alternative hybrid model of impairments in personality functioning and pathological personality traits.

Problem behaviors commonly present in children and adults with intellectual disabilities. *DSM-5* does not consider these as disorders, and hence it is essential to consider the underlying causes of the problem behavior and code accordingly. *DM-ID-2*, therefore, also follows this approach.

Summary

The Diagnostic Manual – Intellectual Disability 2 (DM-ID-2): A Textbook of Diagnosis of Mental Disorders in Persons with Intellectual Disability is designed to provide state-of-the-art knowledge of mental disorders and IDD. It provides a series of chapters that corresponds closely to the DSM-5 classification system, with specific directions for applying the existing criteria to make them apply to persons with dual diagnosis. The authors of the chapters were selected largely from among professionals who had made international contributions to the field of dual diagnosis. The DM-ID-2, therefore, represents a multicentered, multicultural, and multifaceted collaborative effort of many experts, an effort aimed at an improved understanding of mental disorders and their unique expressions in persons with IDD.

DM-ID-2 Textbook

References

- Alexander, F. G., & Selesnick, S. T. (1966). The history of psychiatry: An evaluation of psychiatric thought and practice from prehistoric times to the present. New York: Harper and Row.
- American Psychiatric Association. (1952). Diagnostic and statistical manual of mental disorders (DSM). Washington, DC: Author.
- American Psychiatric Association. (1968). *Diagnostic and statistical manual of mental disorders (DSM-II)* (2nd ed.). Washington, DC: Author.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders (DSM-III)* (3rd ed.). Washington, DC: Author.
- American Psychiatric Association. (1987). *Diagnostic and statistical manual of mental disorders (DSM-III-TR)* (3rd ed., revised) Washington, DC: Author.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders (DSM-IV)* (4th ed.) Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (DSM-5)* (5th ed.). Washington, DC: American Psychiatric Publishing.
- Bailey, N.M., 2007. Prevalence of psychiatric disorders in adults with moderate to profound learning disabilities. *Advances in Mental Health and Learning Disabilities*, 1, 36-44.
- Barnhill J. (2014), Child development and intellectual disabilities: The challenge of hitting a moving target. In D. Baker & E. Blumberg (Eds.), *Mental health and wellness supports for youth with IDD* (pp. 223-237). Kingston, NY: NADD Press.
- Buckles, J. (2016). The epidemiology of psychiatric disorders in adults with intellectual disabilities. In C. Hemmings & N. Bouras (Eds.), *Psychiatric and behavioral disorders in intellectual and developmental disabilities*. Cambridge, UK: Cambridge University Press.
- Cooper, S.A., Smiley, E., Morrison, J., Williamson, A., Allan, L. (2007). Mental ill-health in

- adults with intellectual disabilities: prevalence and associated factors. Mental health services for adults with learning disabilities. *British Journal of Psychiatry*, 190, 27-35.
- Cooper, S-A., McLean, G., Guthrie, B., McConnachie, A., Mercer, S., Sullivan, F. & Morrison, J. (2015). Multiple physical and mental health comorbidity in adults with intellectual disabilities: population-based cross-sectional analysis. *BMC Family Practice*, DOI: 10.1186/s12875-015-0329-3.
- Edgerton, R. B. (1967). The cloak of competence: Stigma in the lives of the mentally retarded. Berkeley, CA: University of California Press.
- Einfeld, S.L. & Aman, M.G. (1995). Issue in the taxonomy of psychopathology in children and adolescents with mental retardation. Journal of Autism and Developmental Disorders. 25, 143-167.
- Einfeld, S. Ellis, L. & Emerson, E. (2011). Comorbidity of intellectual disability and mental disorder in children and adolescents: A systematic review. *Journal of Intellectual and Developmental Disability*, 36, 137-43.
- Emerson E, & Hatton C. (2007). Mental health of children and adolescents with intellectual disabilities in Britain. *British Journal of Psychiatry*, 191, 493-99.
- Fletcher, L., Loschen, E., Stavrakaki, C., & First, M. (Eds.). (2007). Diagnostic manual-intellectual disability: A textbook of diagnosis of mental disorders in persons with intellectual disability. Kingston, NY: NADD Press.
- France, A., Kahn, D., Carpenter, D., Frances, C., & Docherty, J. (1998, July) A new method of developing expert consensus practice guidelines. *American Journal of Managed Care.* 4 (7): 1023-9.
- Gardner, W. I., Griffiths, D. M., & Hamlin, J. (2012). Biopsychosocial features influencing aggression: A multimodal assessment and therapy approach. In J. K. Luiselli (Ed.), The handbook of high-risk challenging behaviors: Assessment and intervention (pp. 83–102). Towson, MD: Brookes.

- Melville, C., McConnachie, A., Johnson, P., Purves, D., Smiley, E. Simpson, N., & Cooper, S-A. (2016). Problem behaviours and symptom dimensions of psychiatric disorders in adults with intellectual disabilities: an exploratory and confirmatory factor analysis. Research in Developmental Disabilities, 55, 1-13.
- Melville, C.A., Smiley, E., Simpson, N., Johnson, P., McConnachie, A., Purves, D., & Cooper, S-A. (2016). Statistical modelling studies examining the dimensional structure of psychopathology experienced by adults with intellectual disabilities. Systematic review. Research in Developmental Disabilities, 53-54, 1-10. doi.org/10.1016/j. ridd.2016.01.018
- Mikkelsen, E. J. & McKenna, L. (1999). Psychopharmacologic algorithms for adults with developmental disabilities and difficult-to-diagnose behavioral disorders. *Psychiatric Annals.* 29 (5), 302-314.
- National Core Indicators. (2016). Mental illness or psychiatric diagnosis. Retrieved from www.nationalcoreindicators.org/charts/.
- National Institute for Health and Care Excellence (2016) Mental health problems in people with learning disabilities. Prevention, assessment and management, https://www.nice.org.uk/guidance/indevelopment/gid-cgwave0684
- New York Department of Health. (1999a). Clinical practice guidelines: Report of the recommendations. Autism / pervasive developmental disorders, assessment and intervention for young children (age 0-3 years). Publication No. 4215. Albany, NY: New York Department of Health (NYDOH).
- New York Department of Health. (1999b). Clinical practice guidelines: Quick reference guide. Autism/pervasive developmental disorders, assessment and intervention for young children (age 0-3 years). Publication No. 4216. Albany, NY: New York Department of Health (NYDOH).
- New York Department of Health. (1999c). Clinical practice guidelines: The technical report. Autism / pervasive developmental

- disorders, assessment and intervention for young children (age 0-3 years). Publication No. 4217. Albany, NY: New York Department of Health (NYDOH).
- Reiss, S. (1994). Handbook of challenging behavior: Mental health aspects of mental retardation. Worthington, OH: IDS Publishing Corporation.
- Reiss, S., & Aman, M.G. (Eds.). (1988). The international concsensus handbook: Psychotropic medications and developmental disabilities. Columbus, Ohio: Ohio State University –Nsonger Center.
- Reiss, S., Levitan, G. W., & Szyszko, J. (1982). Emotional disturbance in mental retardation: Diagnostic overshadowing. *American Journal of Mental Deficiency*. 86, 567-571.
- Royal College of Psychiatrists. (2001). Diagnostic criteria for psychiatric disorders for use with adults with learning/mental retardation (DC-LD). Occasional paper OP 48. London: Gaskell.
- Rush, A. J., & Frances, A. (Eds.). (2000). Treatment of psychiatric and behavioral problems in mental retardation (Special issue). *American Journal on Mental Retardation*, 105(3).
- Sovner, R. (1986). Limiting factors in using DSM-III criteria with mentally ill/mentally retarded persons. *Psychopharmacology Bulletin*, 22, 1055-1059.
- Sturmey, P. (1999). Classification: Concept, progress and future. In N. Bouras (Ed.), Psychiatric and behavioural disorders in developmental disabilities and mental retardation (pp. 3-17). New York: Cambridge University Press.
- Szymanski, L. S., King, B., Goldberg, B., Reid, A. H., Tonge, B. J. & Cain, N. (1998). Diagnosis of mental disorders in people with mental retardation. In S. Reiss & M. G. Aman (Eds). Psychotropic and developmental disabilities: The international consensus handbook (pp. 3-17). Columbus: Ohio State University, Nisonger Center.
- World Health Organization (1992) ICD-10 International classification Diagnostic. 10th edition (ICD-10).