Chapter 4

The DSM-IV and How It Applies to Persons with Developmental Disabilities

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Learning Objectives

Readers will be able to:

1. Describe what DSM-IV stands for, its format, and basic applications
2. Identify which categories of mental disorders are listed in the manual
3. Describe how these categories apply to persons with developmental disabilities, both children and adults.

Introduction

Consider a mental health problem in a client with a developmental disability. Try to recollect the ways that the mental health problem was presented, and what formal diagnosis, if any, this person received through a Psychiatric Clinic or Mental Health Community Centre. What were your impressions?

The use of a diagnosis based on certain criteria or ways that professionals communicate with one another has been in practice for a long time. Updated criteria based on new ways of

our understanding of mental health problems have been devised across continents in an effort to improve and enhance the way these criteria apply to all persons with different cultural backgrounds, religious affiliations and varying degrees of disabilities.

In this chapter, an effort has been made to present the Diagnostic and Statistical Manual (DSM-IV) criteria, the various categories listed in it, and more specifically, how they apply to the developmentally disabled population. It is easily understood that any set of criteria that attempts to address all issues relevant to mental health and/or psychiatric pathology/illness/disorder, would present challenges and have limitations, especially as they apply to exceptional groups of people such as those with a developmental disability. DSM-IV presents such limitation as it addresses this population. Despite these difficulties, DSM-IV is an improved version of previously accepted diagnostic criteria, and it can successfully apply to the higher functioning developmentally disabled person.

Let us try to get to know what DSM-IV actually is, and its appropriate application to our clients.

What Is DSM-IV?

DSM-IV stands for Diagnostic and Statistical Manual of Mental Disorder. It is presently in its fourth edition, the latest publication of its kind. It is published by the American Psychiatric Association in Washington, DC. It was first published in May of 1994. DSM-IV was a team effort. More than one thousand people and numerous professional organizations have helped the editorial committee in its effort to develop and provide a helpful guide to clinical practice. The resulting pub-

lication is being used by many and diverse groups of clinicians, researchers and educators with many different orientations and/or specializations. For example, psychiatrists, other physicians, psychologists, social workers, nurses, occupational and rehabilitation therapists, counsellors, and other health and mental health professionals have used this publication.

DSM-IV has been used across settings such as inpatient, outpatient, partial hospital care, consultation-liaison clinics, private practice, primary care and community settings. Its primary aim has been, and remains to be, the communication and description of the various mental disorders in order to improve understanding of these disorders by professionals. In this vein, the DSM-IV is a very important and extremely useful tool for all groups of professionals, irrespective of specialization, level of care, and/or orientation.

DSM-IV has also attempted to bridge the gap amongst the various continents. Its writers collaborated with the World Health Organization Committees to achieve continuity and harmony in the understanding of mental disorders not only in North America, but internationally by using similar concepts as the International Statistical Classification of Diseases and Related Health Problems (ICO-10) (World Health Organization; WHO; 1994), thus enhancing their compatibility.

A DSM-IV Text Revision (TR) was undertaken in 1997 by a working team of experts who in conjunction with the professionals initially involved in the DSM-IV looked at :

A. Any factual errors in DSM-IV and attempted to correct them
B. Updated the material presented in DSM-IV
C. Made changes to reflect new information
D. Made improvements to enhance the educational value of DSM-IV and
E. Updated the ICD-9 (World Health Organization) codes which had changed with the introduction of DSM-IV.

Major attributes of the DSM-IV have been:

- acknowledgement that, despite what its definition implies, a "mental disorder" is as much a physical disorder, and that a physical disorder influences the mental disorder.

- provision of clarification of categories that divides mental disorders into types based on criteria with defining features.

However, the use of individual, professional, clinical judgement is very important in the appropriate use of the DSM-IV. Thus, DSM-IV is *a tool only* to be used in conjunction with other clinical data and judgement. Specific caution should be exercised when DSM-IV categories, criteria and descriptions of mental disorders are applied. For example, for the forensic population, the legal determination of competence, clinical responsibility, or disability can vary vastly from the set terms as defined by the DSM-IV.

Special effort has been made in the preparation of DSM-IV to incorporate an awareness that the manual is used in culturally diverse populations in North America and internationally. Thus, DSM-IV includes three types of information specifically

related to cultural considerations:

1. A discussion of cultural variations and the presentation of mental disorders
2. A description of culture-bound syndromes that have not been included in the DSM-III-R
3. An outline for cultural formulation to assist in evaluating and reporting the information of the individual's cultural context

Use of the Manual

What is a Multiaxial System?

DSM-IV is a multiaxial system, which involves an assessment on several ***axes or levels***, each of which refers to a different domain of information that may help the caregiver to plan treatment and predict outcome.

There are five axes included in DSM-IV, each of which refers to a different diagnostic area:

AXIS I:	Clinical disorders/mental illnesses
AXIS II:	Personality disorders and mental retardation/ developmental disability
AXIS III:	General medical conditions
AXIS IV:	Psychosocial and environmental problems
AXIS V:	Global assessment of functioning

Table 1: AXIS I- Clinical Disorders/Mental Illnesses

Clinical Disorders

- Delirium, Dementia, and Amnesic and other cognitive disorders
- Mental disorders, due to a general medical condition
- Substance-related disorders
- Schizophrenia and other psychotic disorders
- Mood disorders
- Anxiety disorders
- Somatoform disorders
- Factitious disorders
- Dissociative disorders
- Sexual and gender identity disorders
- Eating disorders
- Sleep disorders
- Impulse-control disorders not elsewhere classified
- Adjustment disorders

Axis I includes the various clinical subcategories of the mental illnessess such as mood and anxiety disorders, schizophrenias, somatoform, dissociative etc.

Table 2: AXIS II- personality disorders and mental retardation/developmental disabilities

- Paranoid
- Schizoid
- Schizotypical
- Antisocial
- Borderline
- Dependant
- Obsessive-Compulsive
- Histrionic
- Narcissistic
- Avoidant

Mental Retardation/Developmental Disability/ Delay

- Mild
- Moderate
- Severe
- Profound

Axis II includes the various personality disorders and the clinical subgroups of the mental retardation/developmental disabilities.

Table 3: Axis III- General medical conditions

- Infectious and parasitic diseases
- Neoplasms
- Endocrine, nutritional and metabolic diseases
- Diseases of blood and blood forming organs
- Diseases of nervous system
- Diseases of circulatory system
- Diseases of respiratory system
- Diseases of digestive system
- Diseases of the genitourinary tract
- Diseases of musculoskeletal system and connective tissue

Axis III Includes any medical/physiological illnessess of all body systems such as blood, nervous system, circulatory and respiratory systems, neoplasms, infections etc.

Table 4: Axis-IV- Psychosocial/Environmental problems

- Problems with primary support groups
- Problems related to the social environment
- Educational problems
- Housing problems
- Economic problems
- Problems with access to health care services
- Problems related to interaction with the legal system-crime
- Other psychosocial and environmental problems

Axis IV Includes any Psychosocial/environmental problems such as school, housing, financial , service delivery issues etc.

Axis V: Global Assessment of Functioning

It refers to the clinician's judgement of the individual's overall level of functioning. It is usually done by using the Global Assessment of Functioning Scale or GAF Scale. The scale is rated from 1 to 100. ***The higher the number, the better the functioning of the individual in a specified time***. For example, 70 GAF in the past year refers to reasonably high level of functioning during the past year. (See Table 5)

Table 5: Global Assessment of Functioning Scale GAF) Scale

Scale	Wellness/Illness
100-91	Superior functioning– no symptoms
90-81	Absent or minimal symptoms (mild anxiety but generally well functioning)
80-71	Symptoms present but transient and expectable reaction to stressors
70-61	Some mild symptoms but generally functioning well
60-51	Moderate symptoms in social, occupational, school functioning
50-41	Serious symptoms/impairment in social, occupational, school life
40-31	Some impairment in reality, testing, or communication or work/school/family/judgment
30-21	Delusions or hallucinations; serious impairment in communication of judgment
20-11	Some danger of hurting self or others/ gross impairment in communication
10-1	Persistent danger of severely hurting self or others/ inability to maintain self care

This scale considers the psychological, occupational, and social functioning of an individual or a hypothetical continuum of mental wellness/illness.

The Case of Mr. C.

Mr. C., a 45-year-old man, lives in a group home, and has a mental age equivalence of an 8-10 year old level (severe degree of intellectual disability). Over the past three months, Mr. C. has become withdrawn, has lost any feelings of pleasure in life such as visiting the neighbourhood store, and has refused to walk and ride in the car, all activities which he used to love prior to this phase in his life. He has become more and more dependent on staff, and has lost his ability to self-care.

Mr. C. has also lost his appetite and his weight is now less by ten pounds. His sleep pattern has also changed so that Mr. C. wakes up during the night (2-3 a.m.), and is unable to return to sleep, which disturbs the other clients. When asked, he tends to deny any difficulties, and withdraws even more.

It seems that at the point when his symptoms started, Mr. C. lost his day program due to lack of sufficient work activity and resources available. On interview, Mr. C. is rather withdrawn, does not talk spontaneously, and clings to the staff. However, he denies hearing any voices and/or seeing things.

Mr. C.'s Multiaxial DSM-IV evaluation is as follow:

Axis I	Major depressive disorder, single episode, severe without psychotic features
Axis II	Severe mental retardation
Axis III	Unclassified brain dysfunction
Axis IV	Loss of day program
Axis V	GAF: 35 (current).

DSM-IV TR Classification

The list of categories referred to in this text is primarily the one commonly applied to persons who have a developmental disability persons of any age. Substance related disorders, and sexual and gender identity disorders are not included in this chapter, since they are being dealt with elsewhere in this text.

A. Disorders that are usually first diagnosed in infancy, childhood or adolescence.

Mental Retardation/Developmental Disability.

Communication Disorders

- Expressive language disorder
- Mixed expressive-receptive language disorder.
- Stuttering
- Phonological disorders

Pervasive Developmental Disorders

- Autistic disorder
- Rett's disorder
- Asperger's disorder
- Childhood disintigrative disorder

Attention Deficit and Disruptive Behaviour Disorders

- Attention deficit/hyperactivity disorder
- Conduct disorder
- Oppositional and defiant disorder
- Disruptive behaviour disorder

Feeding and Eating Disorders of Infancy or Early Childhood

- Pica
- Rumination disorder
- Feeding disorder of infancy or early childhood

Tic Disorder

- Tourette's disorder
- Chronic motor or vocal tic disorder
- Transient tic disorder
- Tic disorder NOS

Elimination Disorder

- Enuresis
- Encopresis

Mental Retardation/Developmental Disabilities/Delay

The most important reference of DSM-IV-TR classification, as it applies to developmentally disabled persons, is its section on mental retardation/developmental disability. As already mentioned in Chapter 1, the essential feature of Mental Retardation/Developmental Disability/Delay is a significantly subaverage general intellectual functioning *(criterion A*) that is accompanied by concurrent deficits or impairments in adaptive functioning significant limitation in adaptive functioning in at least two of the following areas (*criterion B),* onset before age 18 (*criterion C*).

Mild Degree of Developmental Disability: Potential and mental health risks

This group constitutes the largest segment (about 85%) of all persons who are developmentally disabled. This group was formerly referred to as *educable*. Persons with this degree of disability can acquire academic skills up to approximately the sixth grade level, and typically have social and communication skills with minimal impairment at the sensorimotor areas. During adulthood, they usually achieve social and vocational skills adequate for minimal self-support.

Various causes are responsible for the occurrence of this degree of disability; the person may be affected prior to birth or after birth due to infections, medical conditions, and traumas. This group of persons, frequently, suffers from increased levels of anxiety and mood disorders (Borthwick-Duffy & Eyman, 1990; Stavrakaki & Mintsioulis, 1995; Gitta & Goldberg, 1995), since academic and social demands are often greater than their cognitive limitations allow them to reach. They also recognize the differences that exist between themselves and the general population. This increases their level of anxiety, and lowers their self-esteem. Another important factor in the development of mental illness in this specific group is the very traumatic and adverse experiences that these individuals have to face throughout their lives (school, work and societal barriers). Remaining other mental disorders are as prevalent in this group as in the general population (Reid, 1976).

Moderate Degree of Developmental Disability: Potential and mental health risks

This group constitutes about 10% of the entire population of

persons with developmental disabilities. Individuals with moderate levels of intellectual disability usually are able to reach the second grade level in academic subjects, and can profit from vocational training. They also can attend to their personal care with moderate supervision. They may as well learn to travel independently in familiar places. During the early childhood years, persons who are moderately developmentally disabled acquire limited communication and self-care skills. During adolescence, due to difficulties in understanding and appropriately responding to social cues and stimuli, they may find themselves socially isolated with limited or non-existent peer network. During adult life, the majority of these persons are able to perform unskilled or semiskilled work under supervision in sheltered workshops, or in the general workforce.

Mental health concerns and the development of mental disorders in this group, are generally higher than that of the general population. Sleep and adjustment disorders are also more prevalent in this group. Anxiety and mood disorders are more prevalent amongst this group (Stavrakaki & Mintsioulis, 1997, 1999; King, 1999; King & McCartney, 1999). Certain types of schizophrenias are more frequent than were earlier believed such as Catatonia, disorganized subtypes of Schizophrenia (Menolascino 1972; Hucker, 1979; King, 1994).

Severe Degree of Developmental Disability: Potential and mental health risks

This group constitutes 3-4% of individuals with developmental disabilities. They acquire limited or no traditional communications skills, intelligible speech, or elementary self-care skills. Their gains in pre-academic subjects are limited to

sight-reading of some "survival words". In adult years, they may be able to perform repetitive simple tasks in closely supervised settings. Most adapt well to life in the community, either with their families, or in group homes.

It is well established that the greater the degree of developmental disability, the greater the risks of developing mental health concerns and mental disorders (Heaton-Ward, 1977; Gostason, 1985; Gillberg, Persson, Grufman, & Themner, 1986; Borthwick-Duffy, 1990). It is also fair to state that the greater the degree of developmental disability, the greater the concurrent physical and medical disabilities (Heaton-Ward, 1977; Blackman, 1997).

This group is subject to higher prevalence of mental disorders during childhood through to adult life. During early childhood years, attention deficit hyperactive disorder, and self-injurious behaviours, with associated eating and tic disorders, were found to be very common (Reid, 1980; Quine, 1986). Other authors such as Einfeld and Sovner have reported increased prevalence of Autism (up to 40%), psychoses and disruptive behaviour disorders. Epilepsy and pervasive developmental disorders were found to be significantly higher than in the general population (up to 37%) with male vs. female ratios of 3:1. Sleep disorders and disruptive behaviour disorders have also been found to prevail in this group (Sovner & Hurley, 1989). Anxiety and Obsessive-Compulsive disorders are more common in this group (Stavrakaki & Mintsioulis, 1995; 1997). Affective mood disorders, and bipolar disorders as well, are more prevalent in this group as compared to the general population (Reid, 1976; Heaton-Ward 1977; Hucker, Day, George, & Roth, 1979; Stavrakaki et al, 1997, 1999; King, 1999; King, Fay, & Croghan, 2000). With adequate supports, this group of

individuals can settle in the community in high support settings and/or group homes.

Profound Degree of Developmental Disabilities: Potential and mental health risks

This group constitutes 1 to 2 percent of people with developmental disability. Most individuals with this diagnosis have an identified neurological condition that accounts for the disability. They exhibit significant impairment in their cognition and sensorimotor functioning. Self-care and communication skills are limited to non-existent. Many will benefit from highly structured environments with constant supervision and support as well as an individualized relationship with a caregiver.

Mental disorders and mental health issues are, by far, more prevalent in this group. However, due to the cognitive limitations of this group, the diagnosis, assessment and treatment are challenging. Based on the criterion that is accepted (DSM-III-R), Sovner and Des Noyers Hurley (1989) suggested that there were four factors that interfered with the application of the DSM criteria to persons with developmental disabilities. These factors are:

- ***Intellectual distortion*** refers to the effects of the diminished ability to think abstractly and communicate effectively.
- ***Psychosocial masking*** refers to the effects of the developmental disability upon the content of the psychiatric symptoms.
- ***Cognitive disintegration*** refers to limited coping skills and cognitive impairment that tends to affect this group in becoming disorganized under stress. This process is similar

to the one that occurs in pseudodementia.

- ***Baseline exaggeration*** describes how pre-existing behavioural challenges of a less significant level or maladaptive coping strategies may increase during periods of increased stress or psychiatric distress, and be dismissed as possible symptoms of a psychiatric disorder because of their pre-existence.

The DSM-IV criteria are very difficult to apply when individual clients are functioning at a severe to profound level of developmental disability. The best criteria and tools to be used in these instances are the ***clinician's own experience, and the behavioural descriptions and clinical observations*** that lead to an improved understanding of the mental disorders specifically found in these groups. Modifications to the criteria to apply in persons with developmental disability are currently being developed by a team of experts in the US.

Symptom clusters can be misleading in their applicability and diagnosis of the mental disorder in these groups. For example, many persons suffering from developmental disability are seen at various psychiatric or medical clinics because of the prevailing symptoms that are, in the majority, aggressivity, impulsivity, agitation and self-injurious behaviours (King, Carlo DeAntonio, McCracken, Forness, & Ackerland, 1994; Stavrakaki & Mintsioulis, 1995; Gitta & Goldberg, 1995). These symptoms can be the manifestations of a number of medical and/or mental health issues or disorders, such as, anxiety disorder, depressive illness, and/or major psychotic illness. The preferred diagnosis in this case should be based primarily on the clinical experiences and observational data. ***It is of utmost importance that staff, family members, school and other professional personnel collect and provide information on behav-***

ioural patterns and symptom presentation. It is critical to evaluate how patterns have altered and deviated from earlier, accepted and established patterns for the individual concerned.

Communication Disorders: These disorders are very common, and frequently coexist with developmental disabilities. Frequently, individuals experiencing this combination of disorders tend to exhibit other mental health problems, since any language deficits create stress and frustration for the individuals concerned. Anxiety, depressive and adjustment disorders are commonly linked with this group (Stavrakaki, et al., 1995). Treatment and/or assistance in improving language or adopting alternate ways of communicating are very important in modifying and ameliorating mental health problems in this group (primary prevention).

Pervasive Developmental Disorders: These disorders are characterized by severe and pervasive impairment in several areas of development:

- Reciprocal social interaction skills
- Communication skills
- Presence of stereotyped behaviour, interests and activities

These disorders are linked with developmental disabilities. Up to 40% of persons with developmental disabilities experience or have been diagnosed with any of the subcategories of these disorders especially as seen in autism. The coexistence of these two disorders usually indicates major neurological damage. Mental health problems such as anxiety and depressive disorders further complicate the clinical picture, and create inordinate amounts of stress to the individuals, further lowering

their already limited level of functioning. Treatment of coexisting mental health problems assists individuals and their families in better adjusting to the primary disability, and diminishes the support they are required to receive.

Attention Deficit and Disruptive Disorders: The essential feature of the Attention Deficit-Hyperactivity Disorder is a persistent pattern of inattention and/or hyperactivity- impulsivity that is more frequent and severe than is typically observed in individuals at a comparable level of development.

This disorder plagues persons with developmental disabilities and increases the difficulties that he/she experiences in his/her life. The coexistence of these disorders with a developmental disorder points to a major neurological deficit. It also increases the likelihood of other mental health disorders such as disruptive behaviour, anxiety, and depression as well as substance related and sexual disorders. However, it is a challenge to identify these disorders in the developmentally disabled group for two reasons. First, many of the cardinal symptoms of these disorders are either inherent in the developmental disability (short attention span, excessive motor activity, or impulsivity). Second, the presence of qualities such as deliberateness and independence are sometimes incompatible with the developmental disability.

Thus, Oppositional Defiant Disorder is very rarely, if at all, diagnosed in this group. Attention deficit/disruptive disorders can only be diagnosed in the presence of the main symptoms, (i.e., attention deficit, hyperactivity, or impulsivity) when developmentally disabled persons present these in excess to their peers with a similar degree of disability.

Feeding Disorders: The primary disorder of this category is pica, the persistent eating of non-nutritive substances for a period of at least one month. Pica is very common amongst persons with developmental disabilities. It is very difficult to modify pica; various treatment modalities and interventions have been used with limited success.

Eating Disorders: Anorexia, the individual's refusal to maintain a minimally normal body weight, and bulimia, binge eating and inappropriate methods to prevent weight gain, are very rarely diagnosed in this population. This is primarily due to the fact that the diagnosis relies heavily on the individual's subjective feelings and intent, qualities that are generally lacking especially in the lower functioning groups.

On the other hand, compulsive overeating and patterned overeating are major issues in this population. This is, in part, due to the use of food for comfort and pleasure, and in part, due to the use of food as reinforcement to alter undesirable behaviours. Overeating is not usually diagnosed as one of the main eating disorders. However, excessive weight gain affects this group disproportionately, and leads to lower mobility, physical health issues, and low self-esteem.

Tic Disorders: A tic is a sudden, rapid, recurrent non-rhythmic, stereotyped motor movement or vocalization. Tic disorders may be associated with developmental disability. Adequate diagnosis of these disorders is challenging, since tics and movements tend to be inherent to some disability conditions. However, the repetitive, stereotypic movement encountered in Autism and other developmental disabilities does not constitute a tic disorder.

Elimination Disorders*: Enuresis*, the repeated voiding of urine day and night into bed or clothing, and *Encopresis*, the repeated passage of faeces into inappropriate places, are very frequently associated with persons labelled as developmentally disabled. The greater the degree of disability, the more frequent the coexistence of these disorders. It is accurate to state that these conditions may also be the result of lack of opportunity of appropriate training. In these instances, the persons with developmental disability can profit from behavioural/ learning opportunities/training.

These disorders are very difficult to prevent and/or treat, since they are often neurologically driven or developmentally determined. They can also be a manifestation and/or expression of emotions such as anger, fear, or agitation. Physical complications such as urinary tract infection are frequently present. As a result, social and psychological problems may also develop.

B. Disorders associated with any age group

Mood Disorders

- Depressive disorders
- Bipolar disorder

Anxiety Disorders

- Panic disorder without agoraphobia
- Panic disorder with agoraphobia
- Specific phobia
- Social phobia
- Obsessive-Compulsive disorder
- Post-traumatic stress disorder

- Acute stress disorder
- General anxiety disorder

Eating Disorders

- Anorexia Nervosa
- Bulimia Nervosa

Sleep Disorders

- Dyssomnias
- Parasomnias

Adjustment disorders

- With depressed mood
- With anxiety
- With both depressed mood and anxiety disorder

Personality disorders

- Paranoid
- Schizoid
- Antisocial
- Borderline
- Histrionic
- Narcissistic
- Avoidance
- Dependent
- Obsessive-Compulsive

Schizophrenias

- Schizophrenia
- Schizophreniform disorder
- Delusional
- Brief psychotic disorder
- Psychotic due to medical conditions

Specific characteristics of the above mentioned disorders as they apply to the developmentally disabled group

The aforementioned mental disorders associated with any age group are also prevalent in the developmentally disabled population. The higher the degree of cognitive ability, the higher the occurrence of these disorders.

Let us now examine the specific features with which these disorders are associated when they coexist with developmental disability.

Mood Disorders: These disorders are characterized by a disturbance in mood as the predominant feature. As mentioned earlier, these disorders are quite common for adults who are mildly and moderately developmentally disabled. The criteria referred to in the DSM-IV clearly can apply to the developmental disabled population. In the cases where the cognitive ability is rather limited (severe and profound degrees), and verbal or augmented communication is limited or non-existent, the main symptoms of these disorders (lack of pleasure, excessive emotions, tearfulness, irritability, changes in sleep, appetite and sexual behaviour), can only be recognized as ***deviations from previously exhibited behaviour.*** Their diagnosis is heavily based on clinical observations and accurate data col-

lection of sleep patterns, eating habits, and daily activities. Recently, great interest has been shown in both depressive and bipolar disorder for persons with developmental disabilities.

Anxiety Disorders: Similar interest has been expressed in these disorders. The DSM-IV criteria apply without modifications in higher functioning developmentally disabled persons. In the lower categories, again, behavioural observations are of utmost importance in diagnosing these disorders. Clients who do not verbalize or communicate adequately, exhibit certain behaviours linked with these disorders (avoidance behaviour when faced with certain stimuli, autonomic arousal by becoming hyper-vigilant, panicky, tremulousness with excessive motor activity, and agitation and/or aggressivity). These changes are frequently associated with other physical signs (i.e., paleness, increased heartbeat, sweating and dry mouth). Wetting, loose stools and/or constipation can also accompany them.

Eating Disorders: In the adult population, as in children and adolescents, both anorexia and bulimia rely heavily on the subjective feelings of the individual and, as such, are very seldom diagnosed in persons who have developmental disabilities. Issues of overeating apply equally to this group. However, there are also distinct syndromes such as Prader-Willi, where excessive eating is the cardinal symptom. In these instances, the eating takes the form of an obsessive-compulsive disorder, and its treatment requires addressing the obsessive-compulsive nature of the eating disorder.

Sleep Disorders: Sleep disorders are very common in this group, and are either the direct result of the underlying neurological deficit, or a symptom of another co-existing mental disorder. They are usually associated with anxiety and depressive

disorders, as well as bipolar disorders. These disorders can be continuous for a lengthy period of time, or can be intermittent, as in bipolar disorders, reflecting the underlying pathology. Many times, treatment of the underlying disorder resolves the sleep disorder. In a few situations, they can be prolonged and difficult to address. In these cases, the sleep disorders themselves can be the cause of disruptive behaviours, irritability, agitation and/or aggressivity. Re-establishing a healthy sleep pattern can be sufficient to modify the ensuing disruptive behaviours. Again, accurate and appropriate data collection is very important in the diagnosis and treatment of these disorders.

Adjustment disorders: The symptoms of these disorders are very similar to those of anxiety and depressive disorders. They follow a specific psychological or physical trigger, and usually last a self-limiting time. They are quite frequent in the persons labelled with mild and moderate developmental disabilities since they go through environmental changes during their lives. The presence of these disorders and their diagnosis in persons labelled with severe or profound developmental disabilities, remain a challenge, and are based on observed behavioural changes, and deviation of usually accepted normative behaviour patterns.

Personality disorders*:* They are enduring patterns of inner experience and behaviour that deviate markedly from the expectation of the individual's culture. Symptoms characteristic of these disorders in the adult general population apply also to the developmentally disabled group. Again, the level of cognitive ability determines how closely these symptoms resemble the ones applied to the general population as defined by DSM-IV. Clinicians are challenged in diagnosing these conditions in the

lower functioning groups (severe and profound degrees).

Schizophrenia: It is a disturbance that lasts for at least six months, and includes at least one month of active-phase symptoms such as, delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behaviour, and negative symptoms. These criteria can apply in diagnosing schizophrenia in the higher functioning developmentally disabled group. In the lower groups, due to limited or total absence of communication, the diagnosis of schizophrenia remains a challenge. These individuals cannot convey experience such as hallucination and/or delusions. In certain instances, however, some developmentally disabled individuals can display evidence of response to hallucinations, or adapt catatonic postures, so that the diagnosis of schizophrenia can be made.

C. Disorders commonly but not exclusively associated with the aging population

- Delirium
- Dementia
- Amnesic disorders
- Other cognitive disorders

Delirium: The essential feature of delirium is a distubance of consciousness that is accompanied by a change in cognition that cannot be accounted for by a pre-existing or evolving dementia. In persons with developmental disability, as in the general population, delirium can be the result of one of the following conditions:

- General medical conditions
- Substance intoxication/withdrawal

Delirium can also produce symptoms similar to schizophrenia and/or other psychotic conditions. Careful physical and mental status examinations are very important in understanding and diagnosing delirium. The treatment of delirium requires addressing the medical crisis and the underlying cause.

Persons with developmental disabilities are more frequently afflicted by delirium since they are more vulnerable to medical conditions that lead to delirium. They are also very sensitive to medications and/or other substances which are used to treat physical ailments for mental health problems.

Dementias: Dementias are characterized by the development of multiple cognitive deficits (including memory impairment). Dementia is due to the direct physiological effects of a medical condition, the persisting effect of a substance, or multiple etiologies suggestiing cerebrovascular disease and/or Alzheimer's.

The main symptoms of Dementia are:

- Memory impairment
- Apraxia (impaired ability to execute motor activity despite intact motor ability)
- Aphasia (deterioration of language function)
- Agnosia (failure to identify or recognize objects despite intact sensory function)
- Disturbance in executive functioning (ability to think abstractly, plan, initiate, sequence and stop complex behaviours)

Many persons with developmental disabilities suffer from underlying pathologies that predispose them to dementias. Ge-

netic conditions such as Down Syndrome and other chromosomal anomalies are known to be linked with dementias in earlier ages than that of the general population. Due to the cognitive limitations that already pre-exist in persons with a developmental disability, it is very difficult to diagnose dementias in this population. ***The diagnosis can only be based on evident deterioration of the pre-existing level of cognition, and on behaviours that indicate a greater loss of abilities.***

Table 7: Characteristics of Mental Disorders in Persons with Developmental Disability

A. Disorders associated with infancy, childhood, and adolescence

Mental Disorders	**Developmental Disability**
Communication Disorders	*Frequency:* High *Associations:* Anxiety, Depression, Adjustment disorders
Pervasive Developmental Disorders	*Frequency:* 40% *Associations:* Anxiety and depressive disorders, major neurological deficit
Attention Deficit/Disruptive Disorders	*Frequency:* High *Associations:* Disruptive behaviours, anxiety depressive disorders, sexual and substance abuse disorders *Symptoms:* Have to be higher than other persons with DD in similar circumstances
Feeding Disorders Pica	*Frequency:* High *Associations*: Neurological deficit
Eating Disorders Anorexia/Bulimia Compulsive/patterned overeating	*Frequency: R*are as diagnosis relies heavily on the individual's feeling of intent *Frequency:* Very common Not usually diagnosed as one of main eating disorders

(Table continues)

Mental Disorders	Developmental Disability
Tic Disorders	*Frequency*: Common but difficult to diagnose *Associations*: Autism and repetitive stereotypic movements are not included under this category
Elimination Disorders Enuresis Encopresis	*Frequency*: Very common especially in the lower levels of ability

B. Disorders Associated with Any Age Group

Mood Disorders	*Frequency:* High *Symptoms:* Lack of pleasure, excessive emotions, tearfulness, irritability, changes in sleep and appetite and sexual behaviours *Recognition*: Only if deviation is noted from previously exhibited behaviour
Anxiety Disorders	*Frequency:* High *Symptoms:* Avoidance of certain stimuli, autonomic arousal, panic, tremulousness, excessive motor activity, agitation, aggressivity, pallor, increased heart beat, sweating, dry mouth, wetting, loose stools and/or constipation *Recognition:* Only if deviation is noted from previously exhibited behaviour
Eating Disorders	Same as in disorders in childhood
Sleep Disorders	*Frequency*: High *Associations*: Neurological deficit, co-existing mental disorder, may cause mental health problems

(Table continues)

Adjustment Disorders	*Frequency*: Moderate *Symptoms:* Similar to anxiety depressive disorders *Associations*: Follows a specific trigger, self-limiting
Personality Disorders	*Frequency*: Moderate *Symptoms*: Similar to general population *Recognition*: Difficult in lower functioning persons
Schizophrenias	*Frequency*: Moderate *Symptoms*: Delusions, hallucinations, disorganized speech, grossly disorganized or catatonic behaviour and negative symptoms *Recognition*: Easy when display above symptoms. Clinical observations in lower functioning group of behaviours resembling abnormal phenomena such as hearing voices or suspiciousness/paranoia. Also in certain instances, total personality disintegration

C. Disorders Associated with Aging

Delirium	*Frequency*: Moderate *Symptoms*: Disturbances of consciousness, change in cognition *Associations*: Medical conditions, substance abuse, mental disorders
Dementias	*Frequency*: High *Symptoms*: Memory loss, apraxia, agnosia, aphasia, disturbance in executive function *Associations*: Genetic conditions such as Down Syndrome and other trisomies, medical conditions

Summary

This chapter addresses the DSM-IV and Text Revision criteria in their application to developmentally disabled persons. These criteria are best applied with few modification when the individual clients are functioning at the mild, and in some instances, moderate level of disability. The DSM-IV-TR criteria are very difficult to apply when the individuals are severely or profoundly disabled. Best criteria and tools used in these cases are the clinician's own experience and familiarity with these groups, and the behaviour descriptions and clinical observations of caregivers that assist the experts in diagnosing mental disorders in these groups.

We all agree that appropriate diagnosis is vitally important in the understanding of Mental Disorders, and in turn, the use of proper therapeutic interventions including specific medications, behaviour techniques, psychotherapies, milieu (environmental) therapies and social interventions. Therefore, the Diagnostic and Statistical Manual is an important, but not exclusive, diagnostic tool available to clinicians in their attempt to apply criteria to properly diagnose Mental Disorders in the developmentally disabled group. Clinical observation and other diagnostic tools are very important in establishing the correct diagnosis of mental disorders in persons with developmental disability.

Do You Know?

1. What is the DSM-IV and its application?
2. What are some of the common diagnoses of mental disorders in persons with developmental disabilities?
3. What is the multiaxial system?
4. What primarily determines the application of the DSM-IV criteria without any modifications?
5. What are some of the barriers in the use of DSM-IV criteria for persons with developmental delays?

Resources

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