Child and adolescent psychiatric disorders

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An Introduction to ICD-11 Mental and Behavioural Disorders
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WHO Senior Officer: Geoffrey Reed

• **2010-2012** - Advisory Group for revision of ICD-10
  
  **International Working Group on Classification of Mental & Behavioural Disorders in C&A**

  Michael Rutter (Chair) Daniel Pine, David Shaffer, Francisco Rafael de la Pena, Gillian Baird, John Fayyad, John Lochman, Malavika Kapur, Olayinka Omigbodun, Per-Anders Rydellius, Sue Bailey, Tuula Tamminen, Wenhong Chen, Rudolf Uher

  *Working relationship with DSM working group, to help harmonize systems*
  *APA Neurodevelopmental working group: Sue Swedo (Chair)*

• **2012-2017+**  
  **CDDG (Clinical Descriptions and Diagnostic Guidelines)**

  **Task Force on Neurodevelopmental disorders**
  • Elena Garralda (Chair) David Skuse, Gillian Baird

  **Task Force on Disruptive Behavior and Dissocial Disorders**
  • Elena Garralda (Chair) John Lochman, Jeffrey Burke, Francisco de la Pena, Spencer Evans, Lourdes Ezpeleta, Paula Fite, Walter Matthys, Michael Roberts, Salma Siddiqui
Child psychiatric merged with adult Disorders > the Lifespan Approach

• Increased evidence
  • Adult disorders manifest in childhood with comparable symptomatology
  • There are strong continuities between child and adult disorders
    *(developmental, emotional and behavioral)*
    that affect mental health and function
  • Many young adults with psychiatric disorders have had psychiatric diagnoses in adolescence
Lifespan approach

• Emotional disorders with onset usually in childhood & adolescence eliminated
  • distributed to other groupings they share symptoms with

• Separation anxiety disorder
  >> Anxiety and Fear-related disorders

• Feeding disorders
  >> Feeding and Eating disorders
  Avoidant/restrictive food intake disorder: ARFID

• Each disorder now aims to describe variations in child presentations
CAP & Multi-axial framework

• Multi-axial framework (DSM 5) discarded

  **BUT**

• Psychiatric co-morbidity allowed
  • neurodevelopmental D, genetic or medical, other psychiatric

• Introduction of clinically relevant diagnostic *specifiers or qualifiers*
  • define homogeneous subgrouping of individuals sharing features that may be relevant for management

• **Culture-related** information systematically incorporated
Disorder groupings in the ICD-11 chapter on mental, behavioural and neurodevelopmental disorders

- Neurodevelopmental disorders
- Schizophrenia and other primary psychotic disorders
- Catatonia
- Mood disorders
- Anxiety and fear-related disorders
- Obsessive-compulsive and related disorders
- Disorders specifically associated with stress
- Dissociative disorders
- Feeding and eating disorders
- Elimination disorders
- Disorders of bodily distress and bodily experience

- Disorders due to substance use and addictive behaviours
- Impulse control disorders
- Disruptive behaviour and dissocial disorders
- Personality disorders
- Paraphilic disorders
- Factitious disorders
- Neurocognitive disorders
- Mental and behavioural disorders associated with pregnancy, childbirth and the puerperium
- Psychological and behavioural factors affecting disorders or diseases classified elsewhere
- Secondary mental or behavioural syndromes associated with disorders or diseases classified elsewhere
Child Psychiatric Disorders in ICD-10

- **Disorders of psychological development** involving early developmental tasks: intellectual, learning and communication
  
a. *Specific* developmental disorders of speech and language/communication; of scholastic skills/learning; motor function  
b. *Pervasive* developmental disorders, involving social development, communication and behaviour.

- **Behavioural and emotional disorders with onset usually occurring in childhood and adolescence** affected by emotional & behavioural immaturities of childhood
  
a. Hyperkinetic disorders  
b. Conduct disorders  
c. Emotional disorders with onset specific to childhood  
d. Disorders of social functioning with onset specific to childhood and adolescence  
e. Tic disorders and others including enuresis, encopresis; feeding disorders, pica; stereotyped movement disorder; stuttering, cluttering

- **Disorders that apply across the age and developmental age** including mental retardation
ICD 11 Neurodevelopmental Disorders

- Disorder of intellectual development
- Specific developmental D (language, learning, motor/movement)
- Autism spectrum disorders
- Attention Deficit Hyperactivity Disorders

ICD 11 Disruptive behaviour and dissocial disorders

- Oppositional defiant disorder
  With chronic irritability-anger
  With limited prosocial emotions
- Conduct –dissocial disorder
  With childhood/adolescent onset
  With limited prosocial emotions
Neurodevelopmental disorders

• Behavioural & cognitive disorders arising during developmental period
  • significant difficulties in acquisition/execution of specific intellectual, motor, language, social functions

• Disorders whose core features are neurodevelopmental
  • although behavioural & cognitive deficits present in other mental disorders that such as Schizophrenia & Bipolar disorders)

• Presumptive aetiology complex and often unknown

• **6A00** Disorders of **intellectual development**

• **6A01** Developmental **speech or language** disorders

• **6A02** Autism **spectrum disorder**

• **6A03** Developmental **learning** disorder

• **6A04** Developmental **motor** coordination disorder

• **6A05** **Attention deficit hyperactivity disorder**

• **6A06** Stereotyped movement disorder

• **8A05.0** Primary tics or tic disorders

• **6E60** Secondary neurodevelopmental syndrome

• **6A0Y** Other specified neurodevelopmental disorders

• **6A0Z** Neurodevelopmental disorders, unspecified
Elon Musk reveals he has Asperger's during "Saturday Night Live" monologue
Autism Spectrum Disorder in ICD-11

Essential features

A. Persistent deficits in *initiating and sustaining* social communication and reciprocal social interactions
   - that are *outside the expected range of typical functioning* given the individual’s age and level of intellectual development

B. Persistent restricted, repetitive & inflexible patterns of behaviour, interests or activities
   - that are clearly *atypical or excessive* for the individual’s age, gender and sociocultural context
   - plus lifelong excessive and persistent hypersensitivity or hyposensitivity to *sensory stimuli*
Exclusion from ICD-10

- Asperger syndrome: little general cognitive/language delay; circumscribed interests
- Atypical Autism: onset after 3 years; failure to meet criteria for number of areas of abnormality
- Pervasive Developmental Disorder, unspecified
- Rett’s syndrome: Diseases of the Nervous System causing regression
- Child disintegrative disorder
Qualifiers of ASD diagnosis

• Specify whether with, or without
  • Disorder of Intellectual Development
  • Language
  • Loss of previously acquired skills
A02 Autism spectrum disorder

- 6A02.0 without disorder of intellectual development and with mild or no impairment of functional language
- 6A02.1 with disorder of intellectual development and with mild or no impairment of functional language
- 6A02.2 without disorder of intellectual development and with impaired functional language
- 6A02.3 with disorder of intellectual development and with impaired functional language
- 6A02.5 with disorder of intellectual development and with absence of functional language
- 6A02.Y Other specified
- 6A02.Z unspecified
## Additional Features

**Clinical presentation may be late**
- ability to function adequately in many contexts *through exceptional effort*

**Symptoms of anxiety, or depression may predominate**
- + in adolescence and adulthood; can mask underlying social communication disorder

**Social naiveté can lead to exploitation by others**
- social media

**Genomic deletions, duplications and mutations**
- increasingly recognized

**Epilepsy**
- onset in early childhood or in adolescence

**Unusual patterns of cognitive strengths and weaknesses**
- In those with average IQ: common and highly variable across individuals
Speech and language disorders

ICD 10

- Specific Speech articulation disorder
- Expressive language disorder
- Receptive language disorder
- Acquired aphasia with epilepsy
- Other or unspecified dev disorder of speech/language – Selective mutism

ICD 11

- Developmental Speech Sound Disorder
  Speech Fluency
- Developmental Language Disorder
  Qualifiers
  1. Receptive/expressive impairment
  2. Predominantly Expressive language impairment
  3. Predominantly with impairment of pragmatic language
- Secondary language disorder
  - >Secondary language disorder
  - >Anxiety & Fear-Related Disorders
ICD 11 Language Disorder Pragmatic Qualifier vs DSM 5 Social Pragmatic Communication Disorder

**BOTH INCLUDE**

- Development difficulties understanding what not explicitly stated
  - making inferences; nonliteral/ambiguous meanings
  - idioms, humour, metaphors
  - multiple meanings depending on context for interpretation
- Impairs effective communication
- Not attributable to another disorder, including autism

**SPCD (but not LDP Q) also includes**

- Deficits in communication for social purposes
A. Persistent difficulties in social use - verbal/non-verbal communication

- Deficits using communication/social purposes
  - greeting/sharing information, appropriate to social context

- Impairment ability to change communication to match social context/needs of listener
  - speaking differently classroom & playground; child & adult
  - avoiding use of overly formal language

- Difficulties following rules for conversation & storytelling
  - taking turns, rephrasing when misunderstood
  - using verbal/nonverbal signals to regulate social interaction

- Difficulties understanding what not explicitly stated
  - making inferences; nonliteral/ambiguous meanings
  - idioms, humour, metaphors
  - multiple meanings depending on context for interpretation

B. Deficits result in functional limitations in

- effective communication, social participation, social relationships, academic achievement or occupational performance, individually or in combination

C. Onset of symptoms: early developmental period

- but may not be fully manifest until social communication demands exceed limited capacities

D. Symptoms not attributable to another medical/neurological condition or to low abilities in domains of word structure/grammar

- and are not better explained by autism spectrum disorder, intellectual disability, global developmental delay or another mental disorder
ADHD in DSM 5

- Classified as a neurodevelopmental disorder
- As in DSM IV - same 18 symptoms, same dimensions (inattention & hyperactivity/impulsivity)
- Age of onset of symptoms causing impairment:
  - 7 >> 12 years (also ICD 11)
- 6/9 symptoms from hyperactive impulsive & for inattentive problems remains
  - Lowered threshold for adults and ≥ 17 Y  5/9
- Additional examples added to criterion items - especially for adults
- Strengthening of cross-situational requirement
  - several symptoms in each setting required
  - symptoms present when “with friends or relatives” added
- “Impairment” specified
  - As “interfere with or reduce the quality of social, academic, or occupational … functioning”
- Co-existing conditions possible: removal of exclusion for ASD (PDD)
- Discontinued “subtypes” >> specifiers

  **Combined**
  - Predominantly inattentive
  - Predominantly hyperactive/impulsive
ICD-11

Attention deficit hyperactivity disorder

- Persistent pattern (6 months+) of inattention &/or hyperactivity-impulsivity with direct negative impact on academic, occupational, or social functioning.
- Symptoms present prior to age 12
  - though some individuals may first come to clinical attention later
- Symptom level outside expected for age & intellectual level

- Inattention: difficulty in sustaining attention to tasks that do not provide a high level of stimulation or frequent rewards; distractibility and problems with organisation.
- Hyperactivity: excessive motor activity, difficulties remaining still, specially in structured situations requiring behavioural self-control
- Impulsivity: tendency to act in response to immediate stimuli, without deliberation or consideration of the risks and consequences

- Relative balance and manifestations of symptoms varies across individuals and may change over the course of development
- Symptoms evident across multiple situations or settings (home, school, work, or with friends or relatives) but likely to vary according to structure and demands of setting
- Symptoms not better accounted for by another mental, behavioural, or neurodevelopmental disorder and not due to the effect of a substance or medication

Qualifiers: predominantly inattentive presentation
  predominantly hyperactive-impulsive presentation
  combined presentation
Summary - Neuro Developmental Disorders

• Largely aligned with DSM 5 - life span approach
• Include ICD10’s Mental Retardation > Disorders of Intellectual Development
  Hyperkinetic D > ADHD – Attention Deficit Hyperactivity Disorder

• Some changes in nomenclature - *Speech articulation D>> sound & fluency*
  - *Developmental Language Disorder with impairment of pragmatic language vs DSM 5 SPCD*

• Autism: amalgamation of earlier disorders >> Autistic Spectrum Disorders
  • 3 > 2 two main dysfunctional areas
  • manifestations with average intellect and in adults
  • *Qualifiers*: intellectual and language development

• ADHD: lifespan approach
The disruptive behaviour and dissocial disorders - DSM 5 & ICD 11

ICD 11

Disruptive behaviour & Dissocial disorders

- Oppositional defiant disorder
  - With chronic irritability-anger
  - With limited prosocial emotions

- Conduct -dissocial disorder
  - With childhood vs adolescent onset
  - With limited prosocial emotions

- Intermittent explosive disorder

DSM 5

Disruptive, impulse-control and conduct disorders

- Oppositional defiant disorder

- Conduct disorder
  - With childhood/adolescent/unspecified onset
  - With limited prosocial emotions

- Intermittent explosive disorder

- Pyromania and kleptomania
Disruptive behaviour & Dissocial disorders

Oppositional defiant disorder
  With chronic irritability-anger
  With limited prosocial emotions

Conduct –dissocial disorder
  With childhood/adolescent onset
  With limited prosocial emotions
Disruptive behaviour or dissocial disorders

- **6C90** Oppositional defiant disorder
  - **6C90.0** Oppositional defiant disorder, with chronic irritability-anger
  - **6C90.1** Oppositional defiant disorder, without chronic irritability-anger
  - **6C90.10** Oppositional defiant disorder without chronic irritability-anger, with limited prosocial emotions
  - **6C90.11** Oppositional defiant disorder without chronic irritability-anger, with typical prosocial emotions
  - **6C90.1Z** Oppositional defiant disorder without chronic irritability-anger, unspecified
  - **6C90.7** Oppositional defiant disorder, unspecified

- **6C91** Conduct-dissocial disorder
  - **6C91.0** Conduct-dissocial disorder, childhood onset
  - **6C91.00** Conduct-dissocial disorder, childhood onset, with limited prosocial emotions
  - **6C91.01** Conduct-dissocial disorder, childhood onset, with typical prosocial emotions
  - **6C91.0Z** Conduct-dissocial disorder, childhood onset, unspecified
  - **6C91.1** Conduct-dissocial disorder, adolescent onset
  - **6C91.10** Conduct-dissocial disorder, adolescent onset, with limited prosocial emotions
  - **6C91.11** Conduct-dissocial disorder, adolescent onset, with typical prosocial emotions
  - **6C91.1Y** Other specified conduct-dissocial disorder, adolescent onset
  - **6C91.2** Conduct-dissocial disorder, unspecified
  - **6C91.2Y** Other specified disruptive behaviour or dissocial disorders
  - **6C92** Disruptive behaviour or dissocial disorders, unspecified
Oppositional defiant disorder

With chronic irritability-anger

With limited prosocial emotions
Oppositional Defiant Disorder (ODD)

• ICD-10: same category name

• Persistent pattern (> 6 months) of markedly defiant, disobedient and provocative behavior
  • More frequently than is typically in others of same age and developmental level, not restricted to siblings.

• Persistent angry or irritable mood
  • often accompanied with severe temper outburst, headstrong argumentative and defiant behavior

• Significant impairment in several areas of functioning.
  • Physical aggression in the preschool years can occur with ODD
    • Expected to be first evident in early childhood
DSM 5 - ODD has 3 symptoms groups but no subtype

Angry/irritable mood
(Review Evans et al, 2017 strongest support)
Often loses temper
Is often touchy or easily annoyed
Is often angry and resentful

Argumentative/defiant behavior
(Spencer Evans et al, moderate support)
Often argues with authority figures (adults for children)
Often actively defies or refuses to comply with requests from authority figures or with rules
Often deliberately annoys people
Often blames others for his or her mistakes or misbehavior

Vindictiveness
(Evans et al, weak support)
Is often spiteful or vindictive

In clinically referred boys, several studies find that irritability dimension of ODD only predicts

- symptoms of depression and neuroticism
- increased risk for mood/anxiety/neuroticism through adolescence and young adulthood

- parent-reported irritability age 14 predicted suicidality 30 years later in the Isle of Wight sample
  - did NOT predict bipolar disorder (Copeland et al., 2017)

- factorial evidence for a broad ODD construct
  - for some children, this includes severe chronic irritability associated with internalizing problems
Subtypes of ODD/Qualifier

• With chronic irritability-anger
  • Prevailing & persistent angry/irritable mood
  • Frequent and severe temper outbursts out of proportion in intensity of the provocation

• Without chronic irritability-anger
  • Not prevailing and persistent angry or irritable mood, but with headstrong argumentative, and defiant behavior
DSM 5 - Disruptive mood dysregulation disorder (DMDD)

- Severe recurrent **temper outbursts** (more than tantrums) grossly out of proportion in intensity/duration to the situation
  - 3+ each week for 1 year+

- In-between, persistent **irritable/angry mood**
  - most of the day and nearly every day
  - observable by parents, teachers, or peers (in 2+ settings)
  - **Not** 3+ consecutive months without symptoms

- Onset of symptoms before age 10
  - diagnosis not made for the first time before age 6 or after 18 y

- Symptoms significantly different to ODD & Bipolar D
- Precursor condition: SMD (Severe Mood Dysregulation)
Severe Mood Dysregulation – SMD and DMDD

• Need to reduce overdiagnosis of Bipolar Disorder in US (4,000% ↑ in 12 years)

• SMH - chronic levels of anger or sadness, hyperarousal, reactivity
  - predicted later anger & depressive, not bipolar Disorder (Deveney et al., 2014; Stringaris et al., 2010)

• DSM 5: SMH >> Disruptive Mood Dysregulation Disorder (DMDD)
  listed in DSM Chapter on Depression
  • Temper outbursts (3+ per week) & severe irritability (daily, most day) ; 12 months+
  • Responds to minor provocations with poor controlled negative emotions
    & prevailing negative mood (irritable, angry, sad)
  • Present in 2+ settings (home; school; peers); severe in at least in one
  • 6+ years of age, onset before 10; no manic episode
But...

- Insufficient research evidence SMD
  - SMD >> DMDD by removing
  - hyperarousal (insomnia, agitation, distractibility, racing thoughts) from essential criteria
  - low intelligence (IQ<80) from exclusionary criteria

- DMDD field studies and secondary analyses
  - limited reliability, lack of psychiatric consensus
  - very high rates of overlap with other disorders

*(Spencer Evans et al 2017; John Lochman et al 2015)*
Conduct/Dissocial Disorder (CDD)

- New category name
- Repetitive and persistent behaviors which violate basic social norms & rights of others
  - aggression towards people/animals
    - bullying, threatening, physical fights, using weapon, stealing with confrontation
  - destruction of property
    - fire-setting, deliberate destruction
  - Deceitfulness & theft
  - serious violation of rules
    - Adolescents - staying out at night, running away, truant
    - Adults - non-payment of fines, not keeping work rules

- Simple criminality, political protest **not** sufficient
Disruptive behaviour & Dissocial disorders

Conduct –dissocial disorder

New qualifiers

With childhood/adolescent onset
With limited prosocial emotions
Conduct –dissocial disorder

New qualifiers

With childhood/adolescent onset
With limited prosocial emotions
CDD – Childhood & Adolescent onset Subtypes

**Childhood Onset**
- Symptoms before 10 years, males
  - frequent display physical aggression toward others
    - disturbed peer relationships
- history of ODD in early childhood
- neurodevelopmental difficulties including ADHD with hyperactivity/impulsivity
- antisocial behaviour in one/both parents
- CD more likely to persistent into adulthood than adolescent type

**Adolescent onset**
- CDD behaviors not evident before 10
- peer relations typically normal
- may have had ODD
  - may persist into adult life
Limited Prosocial Emotions

NEW Qualifier for CDD and ODD (DSM 5 for CDD only) (e.g. Herper et al., 2012)

• Diagnostic guidelines
  • Lack of empathy & sensitivity to feelings of others
    • lack of concern for others’ distress
  • Lack of remorse, shame or guilt about their own behavior
    • unless prompted by being apprehended
  • Relative indifference to probability of punishment
    • absence of nervousness
  • Lack of concern over poor performance in school or work
  • Limited expression of emotions
    • particularly positive and loving feelings expression is shallow
    • insincere or instrumental

• Assessed: self-report & well-known informant
Limited prosocial emotions *qualifier*

- Based on research on psychopathic personality
  - Callous and unemotional people
- Comparative early onset, and worse adult prognosis
- Cognitive and emotional deficits
  - Deficits in processing signs of fear and distress in others
  - Fearless, indifference to punishment
- Significant heritability
- Less responsive to parenting interventions, behaviour therapy or multimodal psychosocial interventions
- **BUT** only moderate stability over time, and traits may improve with Rx
Summary: ICD 11 - CAPsych D

• Loss of Specific childhood disorders & multi-axial classification
  >> co-morbidity, qualifiers & CYP comments throughout
  >> carefully described disorders, evidence base

• Childhood onset persistent disorders
  - Neuro-developmental D (IDD & ADHD)
  - Disruptive behaviour & Dissocial disorders
    Qualifiers
    ODD - irritability (vs DSM 5 DMDD) & low prosocial
    CD - age of onset & low prosocial

• Classification and CAMHS
References
