התחפחתה הקונספטואלית של דליריו

פרופ' ירמיהו הייניק
Natural disease entities
- Specific disease entities
- Characteristic symptomatology
- Course
- Cause
- Physical findings
- No transitions

Unitary psychosis
- No disease-entities
- Only varieties of madness with fluid boundaries
- Merge into each other everywhere and in all directions
- Melancholia
- Furor
- Delusional madness
- Dementia
Diagnosis is expected to characterize in a comprehensive manner the whole morbid occurrence which has assailed the person and which stands as a well-defined entity among others.
קלסיפיקציה אופטימאלית של מחלות
(Jaspers)

- Any given case would have only one place within the class
- Every case should have a place
- Every mode of psychic disorder could be classified along others as a disease of an exclusive nature
- The whole plan must have a compelling objectivity so that different observers can classify cases in the same way
מקורות הקלסיפיקציות בפסיכיאטריה

קלסיפיקציה

敖קיאות

פורמואליות

מגדה למטרות

פרסי-

ארנון-

儆י

יאושות

.child

textbook
Dementia

Others

DLB*
• McKeith et al, 1996
• Byrne et al, 1991
(Nottingham criteria)
• Perry et al, 1989, (SDLT)

FTD
Gregory & Hodges, 1993 (DFT)
The Lund & Manchester group, 1994 (FTD)
International consortium (2009)

VD
DSM
ICD
Chui et al, 1992
Roman et al, 1993 (NINDS-AIREN)

CAMDEX

DSM

ICD

McKhann et al, 1984 – AD
McKhann et al, 2010 – AD
Dubois et al, 2009 - AD

McKhann et al, 2009 – AD
NIA and AA Workgroups (June, 2010)

Criteria for AD dementia

Criteria for MCI due to AD

Criteria for preclinical AD
Criteria for AD Dementia
McKhann et al, 2010

Criteria for all-causes Dementia

Criteria for diagnosis of AD Dementia

Pathologically proven AD Dementia

Clinical AD Dementia – Degrees of certainty

Probable AD Dementia

Documented decline

Mutation carrier

Probable AD Dementia

Biomarkers positive

Not AD Dementia

Possible AD Dementia

Atypical

Mixed

Possible AD Dementia

Biomarkers negative
FTD
(International Consortium, 2009)

Clinical syndromes
• Behavioral variant FTD (bv FTD)
• Progressive non fluent aphasia (PNFA)
• Semantic dementia (SD)

Language variants (ex. PPA)
• Progressive non fluent aphasia (PNFA)
• Semantic dementia (CD) (ex. tv FTD)
• Logopenic progressive aphasia (LPA)

Motor presentations
• FTD with motor neuron disease
• Corticobasal degeneration (ex. CBS)
• Progressive supranuclear palsy (PSP)

Pathological disease
FrontoTemporal Lobe Degeneration (FTLD)

FTLD tau (Pick, CBD, PSP)

TDP-43 containing inclusions
Delirium

Others?
Excited Delirium Syndrome (White Paper 2009)

CAMDEX (1986; 1998)

ICD

DSM
### Some basic definitions

| Consciousness | The most fundamental and essential cognitive activity  
The awareness of self, others and the physical environment |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clouding of consciousness</td>
<td>A pervasive, diminished responsiveness to environmental stimuli</td>
</tr>
<tr>
<td>Awareness</td>
<td>A term which together with “consciousness” and “conscious mind” is used very freely in psychiatry. Awareness of experience, of activity, of being, of body, of boundaries of self, concrete, delusional, heightened, inner, of personality, of unity</td>
</tr>
<tr>
<td>Alertness</td>
<td>The ability of a patient to give an orienting response to any emotionally meaningful, noxious, or novel environmental stimuli</td>
</tr>
<tr>
<td>Attention</td>
<td>The ability to focus on a specific stimulus without distraction by irrelevant stimuli</td>
</tr>
<tr>
<td>Vigilance</td>
<td>The ability to sustain outward attention over some arbitrary period of time</td>
</tr>
<tr>
<td>Concentration</td>
<td>The ability to maintain inner mental operations without disruption (“inner vigilance”)</td>
</tr>
</tbody>
</table>
Consciousness in General Psychopathology

- Consciousness is characterized by its subjective nature and privacy

- Consciousness has a vague quality = qualia: that is recalcitrant to any external physical description (the particular character of any object of our conscious experience)

- Consciousness is intentional, that is directed towards objects (it has content. It is always about something)

- Our conscious experience is unified into a whole and given to us in fragments or un-integrated parts
The term consciousness as used by clinicians refers to:

- The *inner awareness of experience* as opposed to the categorizing of events as they occur
- It refers to the subject reacting to objects *intentionally*
- It denotes a knowledge of a *conscious self*
Three dimensions of unconsciousness (Sims)

- Deep sleep
- Reduced wakefulness
- Normal sleep
- Stages of sleep
- Normal consciousness (alert, vigilant, lucid)
- Organic impairment
- Brain disease
- Unconscious mind
- Preconscious – not readily available
- Attention awareness

- EEG

- Normal EEG
- Pathologic EEG

- Clouding
- Drowsiness
- Stupor
- Coma (stages)
- Death
Heightened Consciousness

- Subjective increased alertness, greater capacity for intellectual processing
- Subjective sense of richer perception
- Mood: exhilaration, ecstasy
- Synaesthesia
- Normal (emotional, social, religious crisis, falling in love, winning..)
- Drugs (hallucinogens)
- CNS stimulants (amphetamines)
- Early psychosis (mania, schizophrenia)

Quantitative lowering of consciousness

Qualitative changes of consciousness
Quantitative lowering of consciousness

- Clouding of consciousness
  - The lesser stages of impaired consciousness
  - Reduced awareness of the environment with deterioration of thinking, attention, perception and memory. With or without agitation.
  - Organic; Functional: Schizophrenia

- Drowsiness
  - The patient is “awake” but will drift in “sleep” if left without sensory stimulation
  - Slow-in action, slurred in speech, sluggish in intellect and sleepy in subjective experience
  - Organic; Psychiatric interviewing is impossible!!

- Coma
  - Unconscious
  - Organic
  - Beyond psychiatry!!!
Qualitative changes of consciousness (Sims)

**Delirium**

- Fluctuations of consciousness
  - health, sleep, fatigue, epilepsy, III-ventricle tu., delirium, drugs

**Confusion**

- A well-defined interruption of the continuity of consciousness
- Organic (epilepsy, alcoholism, trauma) dissociation
- Abrupt onset and end
- Variable duration (hours, weeks)
- Occurrence of unexpected violent acts or emotional outbursts

**Other terms**

- Automatism
  - action taking place in the absence of consciousness
- Dream-like (oneroid) state

**Twilight state**

- (incl: mania a potu)

**Stupor**
Confusion

- Not a term pathognomonic to organic psychosyndrome
- A purely descriptive term and does not apply to clouding of consciousness
- It refers to subjective symptoms and objective signs indicating loss of capacity for clear and coherent thought
- Organic (acute, chronic), functional psychoses, powerful emotion in neurotic disorders
- The individual describes his own thinking as being confused or the external observer considers that the thought processes are disturbed and confused
- Phenomenologically, it is simply a description of the patient’s self-experience or the doctor’s observation
Stupor

- A symptom complex whose central feature is a reduction in, or absence of relational functions: that is, action and speech.
- Clouding + in psychiatry: a complete absence, in clear consciousness of any voluntary movement.
- Functional: schizophrenia, affective (depressive and manic), dissociative.
- Organic: lesions in the area of the diencephalon and upper brain stem, and also the frontal lobe and basal ganglia. Akinetic mutism (by neurologists), “locked-in” syndrome (ventral pons).
- A phenomenological definition of stupor must exclude the state of consciousness of a mute patient and diagnosis of stupor must then be followed by investigation of DD which includes both organic and and non-organic conditions.
Attention

- The active or passive focusing of consciousness on an experience such as sensory inputs, motor programs, memories or internal representations
- The concept overlaps with the terms: alertness, awareness, responsiveness
- Voluntary vs involuntary attention
- Focused or selective attention (concentration)
- Sustained attention or vigilance
- Divided attention (splitted)
- Alternating attention
- Attentional capacity (a form of working memory)
- Distractibility
Attention cont’d

Attention:

- **Increased**
- **Decreased**

**Normal** (sleep, dreams, hypnotic states, fatigue, boredom)

- **Restricted**
  - Aura
  - Depressive illness
  - Hallucinations

- **Lowered**
  - Organic Hysterical dissociation
  - ADHD
Psychosis
- delusions or hallucinations
- disorganized speech
- grossly disorganized or catatonic behavior
- impairment that grossly interferes with the capacity to meet ordinary demands of life
- loss of ego boundaries or a gross impairment in reality testing

Severity of functional impairment

DSM-IV

Psychosis = delusions or hallucinations
- insight + insight

DSM-II

Psychosis = disorganized speech
- grossly disorganized or catatonic behavior

ICD-9

Psychosis = impairment that grossly interferes with the capacity to meet ordinary demands of life
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- loss of ego boundaries or a gross impairment in reality testing
In psychiatry

**Historia of the great dichotomies**: Terms

- **Cachexia**
- **Pyrexiae**
- **Neurosis**

*(Cullen, 1769)*  

="nervous disease" = all of the diseases of the nerves and muscles

- **Amentia**
- **Melancholia**
- **Mania**
- **Somnolence**

- **Psychosis**
  - Subcategory of neurosis
  - Affected personality as a whole
  - Mania, insanity, dementia, amentia

- **Psychoneurosis**
  - Subcategory of neurosis
  - Affected personality as a whole
  - Mania, insanity, dementia, amentia

- **Psychopathology**

- **Organic psychoses**
- **Psychoses**
  - Affected personality as a whole

- **Functional psychoses**
  - Mania, insanity, dementia, amentia

*(Damerow, 1846, Flemming, 1877)*

- **Neuroses**
- **Psychopathy**

*(Remak, 1864)*

- **Organic psychoses**
- **Psychoses**
  - Affected personality as a whole

*(Mayne, 1860, Reynolds, 1880)*

- **Neuroses**
- **Psychopathology**

*(Cullen, 1769)*

- **Organic**
- **Functional**

- **Psychoses**
- **Psychoses**

- **Neuroses**
- **Psychopathology**

- **Organic psychoses**
- **Psychoses**
  - Affected personality as a whole

- **Functional psychoses**
  - Mania, insanity, dementia, amentia

- **Psychopathology**
Acute vs Chronic

1. **Differences in the total picture**
   - acute = אינטנסיב, Bölüm
   - chronic = שקם, מסדור, נוז

2. **Prognosis**
   - acute = curable
   - chronic = incurable

3. **Duration**
   - acute = עד 1 חודש
   - chronic = יותר מ-6 חודשים

4. **Beginning**
   - acute = hours, days
   - chronic = months, years (insidious)
Symptom – complexes (syndromes)

Certain symptom clusters
typical pictures of the mental state
syndromes

Clinical pictures of the mental state

Entire disease process

“life-time”
“personal history”
1. **Objective and subjective phenomenon of a striking character**

**Subjective**
*depression
*melancholia
*anxiety
*mania
*ecstasy

**Objective:**
*clouded consciousness
*stupor (clear consciousness, mutism, akinesia)
*furor (state of excitement)
*confusion (incoherence and incomprehensibility of speech and action)
*paranoia (appearance of delusions in the widest sense)
*hallucinosis

2. **The frequency of simultaneous appearance: symptoms that occur together most frequently**
3. The coherence of symptoms

“meaningful coherence” - depression
- mania

one common aspect of the heterogeneous categories of …

abnormal motility

excessive weakness

Catatonic Complex

neuroasthenic complex

4. Primary and secondary symptoms

Primary
Elementary
Immediate
Directly caused
Individual symptoms
Caused by the disease

Secondary
All other
What emerges, in a way we can understand
Outcome
General psychic change
What is further, caused
5. Actual clinical picture vs a typical syndrome: Completeness or incompleteness of realization degree

6. Individual case can combine the characteristics of a number of symptom complexes

7. Syndromes are not universal in any arbitrary sense
Particular symptom complexes in psychopathology

- Organic symptom complexes
  - Amnestic syndrome
  - Aphasia

- Symptom complexes of reduced or altered consciousness

- Symptom complexes of abnormal affective states
  - Mania
  - Depression, melancholia

- The paranoid symptom complex

- The catatonic symptom complex
DELIRIUM

Term

Concept

Behavior

Descriptive Psychopathology

Nosology and nosography

Clinical psychiatry
Delirium (Berrios)

- Delirium refers to a cluster of mental and behavioral symptoms occurring in the wake of physical disease (Lipowski, 1980).
- Definitions in general highlight its transient, intermittent and stereotyped nature.
- This last feature (probably reflecting the biological basis of delirium) underlies its secular phenomenological stability.

Transhistorical stability

- Delirium

Transcultural stability
Delerare - דליריום

המונח
DE = לס محافظة
LIRA = חלום
مونחים בשימשしさ ל зло דליריו
(Yudofsky & Hales, 1992)

✓ Acute brain failure
✓ Acute brain syndrome
✓ Acute B.S. + psychosis
✓ Acute confusional state
✓ Acute dementia
✓ Acute organic reaction
✓ Acute reversible psychosis
✓ Acute secondary psychosis
✓ Cerebral insufficiency
✓ Confusional state
✓ Dysergastic reaction
✓ Exogenous psychosis
✓ Infective exhaustive psychosis
✓ ICU psychosis
✓ Metabolic encephalopathy
✓ Oneiric state
✓ Organic brain syndrome
✓ Reversible cerebral dysfunction
✓ Reversible cognitive dysfunction
✓ Reversible dementia
✓ Reversible toxic psychosis
✓ Toxic confusion state
✓ Toxic Encephalopathy
دلיריום בסקנונומיה הפסיכיאטרית היוונית

Phrenitis
Mania
Melancholia
Paranoia

Delirium $\neq$ Phrenitis $\neq$ Lethargy

פגיעה מנטלית גלובלית ו/או דליריו

$\pm$ חום fever

"ונק ספציפי ל"און""

דליריו

∏נייה מואית גלובלית ו/או

34
Delirium

- ICD-10
- DSM-IV
  - A
    - 1B
    - 2
    - 3
    - C
    - 1D
    - 2
  - 1
  - 2
  - 3
  - 4
  - 5
  - .
  - .
  - .

גדרת
תיפעולית
רשימה
מאפיינים
תיאורית
הגדרה
dllirion - הגדה תיאורית

- תסמונת
- אורגנית מוחית
- חולפת, וונית (transient)
- פגיעה קוגניטיבית דיפוזית סמוך לפלקטואנט
- פגיעה קוגניטיבית דיפוזית של מטבוליז
- התחלה אקוטית
- פגיעה דיפוזית של מסבולים מוחיים
DELIRIUM

Advances in Diagnosis, Pathophysiology, and Treatment

Paula T. Trzepacz, MD

Delirium is an acute confusional state with an average prevalence of about 20% in general hospital populations, based on both referral and consecutive admission study designs. It involves alterations in cognition, mood, perception, thinking, and sleep. Symptoms tend to fluctuate in intensity over a 24-hour period, with periods of relative lucidity interspersed with periods of more severe impairment. The features of delirium are as follows:

- Diffuse cognitive impairment
- Perceptual disturbances and hallucinations (especially visual)
- Delusions (usually persecutory)
- Abnormalities of thought process
- Language alterations (especially semantic content of writing)
- Sleep-wake cycle disturbances
- Altered or labile affect
- Acute or abrupt onset of symptoms
- Fluctuation of symptom severity
- Identifiable (or presumed) physical cause

Levels of consciousness and awareness may also fluctuate, though not reaching the degree of impairment of stupor or coma. Because the sleep-wake cycle in delirium is fragmented over a 24-hour period, fluctuations in level of awareness or consciousness might be affected by alterations in sleep physiology, including ultradian rhythms.

From the Neuropsychiatry Program, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania

THE PSYCHIATRIC CLINICS OF NORTH AMERICA

VOLUME 19 • NUMBER 3 • SEPTEMBER 1996

429
### TABLE 12-4. CLINICAL FEATURES OF DELIRIUM

- Prodrome (restlessness, anxiety, sleep disturbance, and irritability)
- Rapidly fluctuating course
- Attention decreased (easily distractible)
- Altered arousal and psychomotor abnormality
- Disturbance of sleep-wake cycle
- Impaired memory (cannot register new information)
- Disorganized thinking and speech
- Disorientation (time, place, and person [very rare])
- Altered perceptions (misperceptions, illusions, delusions [poorly formed], and hallucinations)
- Neurological abnormalities
  - Dysgraphia
  - Constructional apraxia
  - Dysnemic aphasia
  - Motor abnormalities (tremor, asterixis, myoclonus, and reflex and tone changes)
  - Electroencephalogram (EEG) abnormalities (almost always global slowing)
- Other features (sadness, anger, euphoria, or other affects)
חולי דליריו

אטיולוגיות שונות

של התיסמונת

 ayuda \n
אטיולוגיה ספציפית לא נתון קשר

אריב geileות של התומנה הקולית

הכרה מוערפלת קשני חפיפה

ריכゾ ירוד

ricane קצרים מות פוגע,התינו פוחת

סנספורליות ניכרה

אי-שכמים

אפקטים בולטים טו גליית פוח,חרדה,רוג,ריחים

שעיות זורית, אי-לויית,הווית

كونפבלציות

Webpack: showdown

פיטוליגיות: רע, הפחתת שינה,זכות,ישראלים, createStackNavigator,ראו מותאמ

החלקה של התומנה הקולית

הפצית חוסי בסיולוק של הגלים האפידומים, אך "רמק לשטוח הקשת" שיא"
אפיזודה פסיכוטית
ה피יה פחות או יותר
הופעתה סימפטומטית בהתחלה של מחלה נפוצה
الفיגור ב- consciousness
מצאתת בпервמים של קושי קוגנייציה בעלת
הופעת פולקלומוגניית ומסימוני אינטלקטואליים, רפשים ומוסריים
ורטביבים נלבו

ה芨סומוט נגמרת עקובה ירידה בשיעור חילוק החומרים המוחיים (ההיופתית)

EEG- הנבא ליידי biomponents בחמצה של פעילות הרקמות ב-
שוניי ה- EEG- אריך קשור למחלה היגרונמית הטעינה ב crééור הדליידים,
אר קשור לעוצמה, מישכון הוכחת
דריימז = אי ספיקת אקוטית של המוח בכלול

הפנומונולוגיה כללית:
. האורח השקט, הרדום
. האורח המבוכבל קמע
. האורח החזרה, אינימה
. האורח ההווה
. האורח האינקונורמי, הממלך
מוסדות: "ועדה לנומנקלטורה וסטטיסטיקה"편

א. לחתור לאחידות בשימוע האיבחון השוניות
ב. לחות חתים לכל פרק ההפרעות הנפשיות של ICD-6

DSM-I

(1952)

APA

DSM-I
DSM - 1

תסמונת אוֹרִגְנִית מֻוְחָה:

* הפרעות התמצאות
* הפרעות זיכרון
* הפרעות אנלילוספקטיליות (חישוב, אוצר מילים, הבנה, למידה)
* הפרעות שיפוט
* בליטראיה
* רדיות או לביליות של האפקט
* הפיכות

Chronic Brain Disorders

Acute Brain Disorders

בלית הפיכה

 BLEULER
"ה Psić Zodiacal.parse\" "האורגנית""האורגנית"

"השתלמה פתアウトית ומוחירה של הפרעות התמצאות, זיכורים, איונטקטוספקטיליות, שיפוט אפקטי. ذרדת למסב נורמי עם הסרת הגנום."

Aetiology

uni05EA/uni05D5/uni05D0/uni05E6/uni05DE/uni05EA/uni05D4/uni05EA/uni05D5/uni05E2/uni05E8/uni05E4/uni05D4/uni05DC/uni05E9/uni05D4/uni05E8/uni05D9/uni05D4/uni05DE/uni05D5/uni05EA/uni05D9/uni05DE/uni05D5/uni05D0/uni05EA/uni05E4/uni05D4/uni05DC/uni05D7/uni05EA/uni05D4/uni05DF/uni05D5/uni05E8/uni05DB/uni05D9/uni05D6, uni05EA/uni05D5/uni05D9/uni05DC/uni05D0/uni05D5/uni05D8/uni05E7/uni05DC/uni05D8/uni05E0/uni05D9/uni05D0/uni05D8/uni05E7/uni05E4/uni05D0/uni05D5, uni05D8/uni05E7/uni05E4/uni05D0/uni05D5, uni05D8/uni05D5/uni05E4/uni05D9/uni05E9, uni05D4/uni05E8/uni05D6/uni05D7, uni05DD/uni05E8/uni05D5/uni05D2/uni05D4, uni05EA/uni05E8/uni05E1/uni05D4, uni05DD/uni05E2, uni05D9/uni05DC/uni05DE/uni05E8/uni05D5/uni05E0, uni05D1/uni05E6/uni05DE/uni05DC.
DSM-1 יבשה קורונה

ACUTE VS. CHRONIC

CONTINUUM

ACUTE BRAIN DISORDERS

ACUTE HALLUCINOSIS

Confusion

Continuum

Confusion

Continuum

Confusion

Continuum

Confusion

Continuum

Confusion

Continuum

Confusion

Continuum
 DSM – II (1968)

מטרות:

א. להפחית מה ביקורת שנמתחה על הקבוצות האיבחוניות והגדרות של DSM-1

ב. להדרק את הקשר עם שיטת הסיווג ICD-8
DSM - II
0.B.S

הגרדה והה- DSM-2

ל-פסיכוסיסטิก

 semua ה сахנ של כלילאריאית

יחסייה תרבותית
יחסייה התמצאות

“חומרת הפגיעה התיפקודית”

“יכולת העמידה בדרישותחיי

לג רד ב

 المعارضة החופוית

“(STD-2).

הפרעות זיכério

הפרעות התמצאות

“ محافظה אינטלקטואליי

פגיעת תיפקודית

פגיעת בשיפוט

“אפקט רוד

ACUTE

CHRONIC

דורות

DSM-I

של

“סטיגמה"יוצרת

הלוצינוזיס

“קורסקוק

הלצינוריס

DSM-2 תיפסח הדריימים

נה ב

לה-פסיכוסיסטיק

“לא סנלית

“יוצרת "ספיגמה"

“רחבה

“קשה להעὺות

“משתתפת בпряжен צרכיה חיוויים

46
ר'ל. ספיץ

“בכ משימה לעניני נוגעackets וטיפוסים

"מפורטים:

א. פיתוח השול מרוכת קלטיקפורית אשר תשחק בכל הנימי אצ מצב

ב. עם תילות רבה יותר בשימור למפורט קלטיות קולי מזק

ג. להיתוך החומת לכל הנימי

ICD-9-CM

APA (1974)

DSM-III (1980)
נבדל بمאפייני הבסיסיים בר kopון משמעתי מוקדמי: 

א. היא לרוב אתאותר.

ב. מביא مدريد אנכים תרגולים סנולימים לכל אתת המ apprentות הנפשיות.

ג. הפרעת היה רב-צירית.

ד. מאפרש רמות אתות של ובואת אבחנה היא.

ה. מביא בunos של مدريد אנכים טאבחונים, תייאר קלוני של ה apprentות

לミיינוק.
הפרעות אורגניות נפשיות

7 קבוצות

ה므로 המונח "דליריו" משקף את הפרעות התאומטיות של אפקטיבית אידיאלית ודלוזיונלית אישיותית.

"המונח דולורום משקף את הפרעות של הפרעות התאומטיות של אפקטיבית אישיותית והולוצינוזיס."
دلיריוס (לפי Lipowski, 1975)

הגדורה

פרעות מודע וקשב
פרעות קופוטיות מפושטת
פרעות פרצפציה
פרעות פסיכומוטוריות
פרעות מחזור שינה-קיiza

החלמה

נסי במוות וא
המלמ

אコメント
מהלך
פלקסי

EEG

נוק מוברני מוחי מפוסמט
גורם אורגני

人格

1
2
3
4
5
דליירים לפי DSM-III (1980)

הכרה מעורפלת (ירידה במודעות לסיביות ו(cos rivvis)

לפוחות שוניות מחבאים:

.A

.1 הפרעות פרцепציה

.2 דיבור אינקונומרטי

.3 הפרעות שינה-كنيسة

.4 הפרעות פסיכומוטוריות

.B

הפרעות התמצאות וויכורים

.C

.4 הפרעות המרידה והmaxLength פלקסואונמי

.D

.ForKey

.E

.4 הפרעות אורוגני ספציפי

.51
DSM-III ב-

ACUTE

آن פסיכוזה

CONFUSION

آن הפרעות ברגשה

آن סימני אוסונומי

DSM-III ב-

מצומצם יوتر

סטגלי יوتر

него יוטר לעתים קרובות יוטר

“GOLD STANDARD” יוטר

הקלייני

 Elkino
מערכת איבחונית אשר התבססה主要集中 על
"זיהות קבוע של מומחיים וללא ידע מעくるית
מקרא".

למקן קיוות אורות של א-ביורט
ולאפרים הכללות של מדדים צמודים
מوبرטים על גhandleSubmit-מקור, באים קישים".
דלייומuffs לפי DSM-III-R (1987)

הלשון המקפתña לнима-לה גניוריהים יзываוניים והסבת תשומת הליכ

A. אל גניוריהים יзываוניים והרי

B. השינה שהבשה

C. לפחון שנייה המבצואים:

1. רימית במחת בנייה
2. הפרעות פריצי
3. הפרעת שינה יקרה
4. הפרעת פסיכומוטאורית
5. אי התמצאות
6. הפרעות זיכרון

D. הפחתות המהירות והשלך פלקוסואמי

E. נורס אורוגני ספצייפה או שלילת גורם לא-אורוגני אחר.
משרתי:

א. הלמשיכ במשיאות קדומות של בחינה חוזרת של קטגוריות ומדדים איבחוניים.

ב. הוסמך, בינוני לקודמי, עם על נוהים מחכימי.

ג. להאמ נלכאמ עזר יוצר את הפרים וה(IDC-10. 2019)
DSM-IV DELIRIUM

- DUE TO A GENERAL MEDICAL CONDITION
- SUBSTANCE-INDUCED
- DUE TO MULTIPLE ETIOLOGIES
- NOS

קריטריונים

A. הפרעות של ההכרה (למשל, ירידת הבבירות המודע ל外界) עם ירידת ביכולהconciliation, חסם או לסתמ חוסמת-הלב.

B. שוני בקוגניציה (בנוג $\pm 1$ מביכורים, בהמה-אוא, بشפה) ואיתותתות של הפרעה פרといって'ית אל ניון לסטיבר קונבטימ מִתְּלִיל רְמוֹפִּי קוֹד.

C. הפרעה מחספתת תור פרק ומ קר זע (שעון, ליימ) ורדה

D. גורם.
דליירומים (10 י"וק)

A

הפרטת הקוניציה:
1. יכונות מידי ורצומי
2. ריסאוריוציות

לפחות אחד מהבאים:
1. מנבר סטטיסטי
2. ומ תגובת
3. שלף ריבור
4. Startle Reaction

B

הפרעות מחזור שינה-קיצת:
1. אינסומניה
2. הפרעת בלילה
3. חלומות זוגת
4. תoklynית
5. הפרעות המדה, פלטואסיציות
6. גורם
Delirium or Clouded State  (CAMDEX, 1998)

Any 2 of the following:

A. Change in level of awareness manifest in any 3 of the following:
   1. Slowness and vagueness in thought
   2. Markedly impaired ability to focus and maintain attention and concentration
   3. Faulty comprehension with misinterpretation of surroundings
   4. Periodic excitement or stupor
   5. Incomplete arousal with periodic drowsiness

B. Rapid onset of change in level of consciousness and cognitive function present for less than 6 months

C. Disorientation in 2 of the following:
   1. Time
   2. Place of abode
   3. Place at present time

D. Impairment of recent memory (defects in the recording and recall of recent events)

E. Visual (more rarely auditory) perceptual distortion in the form of illusions or hallucinations of a fearful quality and often delusions of an anxiety-laden or other persecutory nature

F. Marked fluctuations in level of consciousness and cognitive performance
DSM-V (proposal)

DSM-V

Neurocognitive Disorder

Delirium

Major Neurocognitive Disorder

Minor Neurocognitive Disorder
DSM-V Neurocognitive Disorders
Defining Characteristics

- Their core or primary deficits are in **cognition**
- These deficits represent a **decline** from a previously attained level of cognitive functioning
- Attributable to **changes** in brain **structure, function** or **chemistry**
DELIRIUM

Delirium is a disturbance in level of awareness or attention, marked by the acute or subacute onset of cognitive changes attributable to a general medical condition; it tends to have a fluctuating course. The condition must not be solely attributable to another cognitive disorder, although Delirium is common in the setting of Major Neurocognitive Disorder. Major changes from DSM-IV are to clarify the primary symptom to a disturbance in level of awareness and attention (rather than consciousness), and to add well-documented supportive features and subtypes.

<table>
<thead>
<tr>
<th>Recommended Revised Criteria</th>
<th>DSM-IV Criteria</th>
<th>Brief rationale for proposed change/ Comments</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL DIAGNOSTIC CRITERIA</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>293.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. Disturbance in level of awareness and reduced ability to direct, focus, sustain, and shift attention.</td>
<td>A. Disturbance of consciousness (i.e., reduced clarity of awareness of the environment) with reduced ability to focus, sustain, or shift attention.</td>
<td>Consciousness is too nebulous a term to describe the symptoms of delirium. Awareness captures the essence of delirium much better</td>
<td>Inouye, 2006; Meagher and Trzepacz 2009</td>
</tr>
<tr>
<td>B. A change in cognition, (such as deficits in orientation, executive ability, language, visuosperception, learning and memory) -Cannot be assessed in face of severely reduced level of awareness -Should not be better accounted for by a preexisting neurocognitive disorder</td>
<td>B. A change in cognition (such as memory deficit, disorientation, language disturbance) or the development of a perceptual disturbance that is not better accounted for by a preexisting, established, or evolving dementia.</td>
<td>Visuospatial impairment and impairment in executive function are key symptoms of delirium; we have also added a clarification that a preexisting neurocognitive disorder does not account for the cognitive changes</td>
<td>Inouye, 2006; Meagher and Trzepacz, 2009</td>
</tr>
<tr>
<td>C. There is evidence from the history, physical examination, or laboratory findings that the disturbance is caused by the direct physiologic consequences of a general medical condition.</td>
<td>D. There is evidence from the history, physical examination, or laboratory findings that the disturbance is caused by the direct physiologic consequences of a general medical condition.</td>
<td>Simply a reversal in the order of criteria so that duration is placed at the end of the criteria</td>
<td></td>
</tr>
<tr>
<td>D. The disturbance develops over a short period of time (usually hours to a few days) and tends to fluctuate in severity during the course of a day.</td>
<td>C. The disturbance develops over a short period of time (usually hours to days) and tends to fluctuate during the course of the day.</td>
<td>We have added &quot;in severity&quot; to improve clarity of this criterion.</td>
<td></td>
</tr>
</tbody>
</table>

DSM-5 Neurocognitive Criteria, Draft 1/7/10, p. 5
| Note: The following supportive features are commonly present in delirium but are not key diagnostic features: sleep-wake cycle disturbance, psychomotor disturbance, perceptual disturbances (e.g., hallucinations, illusions), emotional disturbances, delusions, labile affect, dysarthria and EEG abnormalities (generalized slowing of background activity) |
| Note: Nothing is mentioned in the current criteria about accompanying symptoms. Though not necessary or sufficient in themselves to make the diagnosis, they should be recognized as frequent symptoms of delirium |
| Coding note: If delirium is superimposed on a pre-existing Neurocognitive Disorder, indicate the delirium as follows: |
| Coding note: If delirium is superimposed on a pre-existing Vascular Dementia, indicate the delirium by coding 290.41 Vascular Dementia, with Delirium |
| Coding note: Include the name of the general medical condition on Axis I e.g. 283.0 Delirium Due to Hepatic Encephalopathy |
| Coding note: Include the name of the general medical condition on Axis I e.g. 283.0 Delirium Due to Hepatic Encephalopathy |
| If the full criteria are currently met for delirium, specify its current clinical status and/or features: |
| Hyperactive, hypoactive or mixed |
| Short term vs. persistent duration |
| Evidence is quite good that delirium can be subcategorized into hyperactive/hypoactive/mixed varieties. |
| Evidence is questionable for a subcategory for chronic delirium |
| NOTE: The Committee is still discussing whether to add subsyndromal delirium in parallel with minor neurocognitive disorder, and welcomes input on this issue. |
| | Inouye, 2006; Meagher and Trzepacz, 2000 |
| | Camus, 2000; Han, 2009; Marcantonio, 2002 |
| | Kiely, 2004; Cole, 2007; 2008 |
Delirium as a disorder of consciousness
Ravi Bhat, Kenneth Rockwood

Delirium is a common clinical phenomenon, often described as a disorder of consciousness. Delirium is commonly under recognised. The usual response to under recognition is to exhort practitioners to do a better job, but perhaps under recognition should instead be seen as a daily pragmatic challenge to how delirium is conceptualised. Here we retrace the view that delirium is a disorder of consciousness, but propose a more multidimensional approach to this key feature. We argue that delirium can be recognised through evaluating arousal, attention and temporal orientation. We suggest that this approach can be validated by testing whether it leads to better delirium identification, accounts for the characteristic clinical disturbances, explains why delirium is common in the extreme age groups and why in later life its boundaries often blend with dementia.

A troop of newly graduated recruits parades on final review. The march past is a portrait of symmetry, save for one young soldier, whose mother nevertheless beams from the stands: “I love that boy! John”. Such misplaced parental pride finds a modern day counterpart in the routine exhortation by delirium specialists—including ourselves—for other physicians to get in step with the expert when assessing the mental state of their patients. While physician education is important, part of the pervasive under recognition of delirium must reflect the teaching—that is, how delirium is described and discussed. Here we review some current thinking about what constitutes delirium, propose an alternate operational approach and consider some implications of this synthesis.

THE CURRENT DEFINITION OF DELIRIUM AND SOME ANTECEDENTS
Can it still make sense to ask “what is delirium”? The fourth edition of the Diagnostic and Statistical Manual (DSM-IV) of the American Psychiatric Association defines delirium as a disturbance of consciousness and a change in cognition that develops acutely (Table 1). Support for delirium as a disordered level of consciousness can be found from Huggins Jackson and was explicit in Lipowski’s advocacy for the study of delirium that has so informed modern thinking. But DSM-IV displaced DSM-III-R in which delirium was grounded in Geschwind’s influential account of it as a disorder of global attention. What is more, some influential textbooks continue to distinguish between what DSM-IV calls “delirium with psychomotor retardation” (and which they term the “acute confusional state”) and “delirium with psychomotor agitation” which they term simply “delirium”. The persistence of this confusion about delirium seems to us to stem from its description being rooted in the experience of particular types of patients at particular historical periods which now have become less relevant in the face of population ageing. The first modern proposals of what delirium is and how it might be defined have proceed neither from a model nor from a systematic characterisation of the patients who most commonly suffer from delirium. Now, however, we have enough empirical studies of delirium to allow a model to be proposed and debated. Any new model of delirium should not just account for its characteristic features, but should lend insight into why delirium is understood, why it is common in the extreme age groups, why in late life its boundaries can blend with dementia and whether delirium with psychomotor agitation should be grouped with delirium with psychomotor retardation.

PROPOSAL FOR AN ALTERNATE CONCEPTUALISATION OF DELIRIUM
In the late 1990s, two reviews of delirium psychopathology noted that it was remarkably under studied. The commonest symptoms were disorientation (especially temporal disorientation) (78-100%), clouding of consciousness (65-100%) and impairments in attention/vigilance (62-100%). Disorganised thinking was present in 95%, and memory deficits (62-90%) and diffuse cognitive deficits in 77% of people with delirium. Subsequent studies, constrained by instruments that look for these deficits, have added comparatively little to the record. An exception is a prospective phenomenological study of 50 elderly people, most of whom reported—a few passionately—a sense of being trapped in incomprehensible experiences. Being confused meant that time and place were dissolved, so that past and present, as well as different places, seemed to coexist.

To build on this evidence base, we can also consider “clouding of consciousness”, classically defined as “states of reduced wakefulness or awareness that in their minimal form may include hyperexcitability and irritability alternating with drowsiness”. When delirium is defined in relation to disturbed levels of consciousness, impaired arousal is obviously essential. Arousal can be graded, but it is not readily conceptually reduced. Likewise, while arousal can clearly influence attention and while there are different types of attentional impairment, attention too is similarly difficult to reduce in the same way contrasted with other features are reducible—for example, disorganised thinking can be referable to a variety of other impairments in delirium, including arousal, attention, time perception and memory difficulty.

In addition to arousal and attention, we argue that temporal disorientation is essential, not just because it is common in delirium but because “time ordered-ness” is integral to conscious experience. Some might argue that disorientation results from memory impairment and the consequent failure to update knowledge about time and environment. Most people with memory impairment are not temporally disoriented however; more likely, disorientation is due to faulty encoding of the temporal order of information. Disorientation to time may represent impaired time perception, a facet of which has so eloquently been captured in the phenomenological studies of delirium.
consciousness, simply reflects the at-
times impenetrable semantic problems in
describing fundamental aspects of
everyday human conscious experience.
Still, delirium must be faced. Based on
the frequency of their occurrence and
their relative irreducibility, we think it
reasonable to suggest that delirium can
be operationalised as an acute distur-
bance in consciousness, characterised by
impairments in arousal, time perception
and attention.

OPERATIONALISING THE ASSESSMENT OF CONSCIOUSNESS IN DELIRIUM BY MEASURING AROUSAL, TIME PERCEPTION AND ATTENTION
Arousal represents comparatively little diffi-
culty in measurement, especially hyperarousal, which can be graded on a contin-
uum of alertness through lethargy, drowsyness, stupor and coma.9

Measuring hypoaousal is more proble-

matic. There is no readily available scale,
and the term “hypoaousal” is often used
interchangeably with “inattentiveness”
and “distraction”. The measure-
ment problem becomes easier to resolve
when arousal is defined as responsiveness
to sensory stimuli and motor activity.10

Hypoaousal is less clear behavioural
anchors, making it more measurable.

Current theories of attention explicitly
distinguish between arousal and atten-
tion, and suggest a critical role for the
coregulatory system in mediating the
fluence of arousal on attention.11 A
reversing animal study for example,
contrasted phasic locus coeruleus (LC)
firing (in response to stimulation) with
the level of tonic LC activity.12 An inverted
U-shaped curve was demonstrated, such
that too low or too high a state of tonic LC
firing (corresponding to differences in
arousal) altered phasic LC firing (corres-
dering to variability in attention).
Similar findings come from functional
MRI studies in human subjects.13 Thus
hypoaousal is not only distinct from
inattentiveness, but can be seen as a
cause of it. In consequence, we propose
that both hypoaousal and hyperaousal
should be measured and rated separately.

Clinically, temporal orientation is often
measured using instruments such as the
Mini-Mental Status Examination.9 The
Temporal Orientation Test,17 which
includes a question on time of day, is
likely better for this purpose than the
Mini-Mental Status Examination.

Even though impaired attention is a
striking clinical feature of delirium, pro-
blems of “attention”, verbiage large,
are ubiquitous in neuropsychiatric disor-
ders.18 Not all attentional tests perform
equally well, but it is not clear whether
any particular form of attentional impair-
ment is specific to delirium. In perhaps
the only systematic study of attention in
delirium, only Digit Span Backwards, a
test of both attention and working
memory, and aspects of the Digit
Cancellation Test, a test of sustained
visual attention and divided attention,
were significant independent predictors
of delirium.19 Considering the historical
importance of measuring attention in
delirium, this is a surprisingly narrow
foundation for the weight that it is
expected to carry. For future studies,
Digit Span Backwards and months for-
wards are each easy to do.20 The
picture recognition attention screening
task from the Confusion Assessment Method
for the Intensive Care Unit is also feasible,
even though it requires copies of the
pictures, thus making them expensive.

POSSIBLE MECHANISMS FOR DISORDERED AROUSAL, TIME PERCEPTION AND ATTENTION
Arousal arises from a thalamus-ascen-
sing arousal system”, which is reciprocally
innervated with specific thalamic nuclei
in turn transmits sensory information to
the cortex.21 Levels of cerebral blood
flow or metabolism are seen as correlates
of both hypoaousal and hyperaousal.22
Arousal appears to be modulated by
acetylcholine (ACh), 7-alpha-butyric acid
(GABA) and monoamines. ACh released
by interneurons and pedunculopontine
segmental neurons, in their projections
through the thalamus and basal forebrain
to the cortex, plays a prominent role in
arousal.23 This network is also associated
with EEG activation during wakefulness
and the generation of paradoxical sleep.24
In contrast to the role of ACh in learning
in the hippocampus, this perhaps better
explains the profound sleep–wake cycle
disturbance that is seen in delirium.

A role for reciprocally controlled25
tonic sensory and muscle spindle activity in
maintaining a state of wakefulness might
also be relevant to the clinical picture
of delirium. This is seen in sharp relief
clinically when epidural anaesthesia
reduced by about half the need for general
anaesthesia in a randomised double blind
trial.26 Interestingly, in both young children
and older adults epidural anaesthesia also
causes significant sedation.27

Time perception, arguably central to
human conscious experience, has been
the focus of models in psychology, philo-
sophy and neuroscience.14 In animals,
the range of processed time scales spans
at least 12 orders of magnitude.28
Most theories of time perception address short
time durations, in the range of milliseconds
to seconds, and many do not make
explicit the difference between timing
and time awareness. Timing can only be
observed in an animal that is acting or
behaving, making it possible to infer that
perhaps the animal has some notion of
duration judgment. By contrast, time
awareness is how humans perceive time; there is no way for us to tell if other
animals perceive time as we do.

BROADLY, TIMING THEORIES CAN BE CLASSI-
FIED AS THOSE THAT PROPOSE TIMERS AND
THOSE THAT INSTEAD ATTEMPT TO MODEL
TIMING ON COGNITIVE OR NEUROLOGICAL
PROCESSES. Most timer based theories
propose the existence of an internal clock
or pacemaker.29–31 As timing cannot be
studied independently of an animal’s act-
ing in its environment, models that
assume the existence of some sort of
independent “organ of time” are
intractable. For our purposes, and recog-
nising that many processes must be
involved, the oscillator–comparator model
seems to provide a relevant and testable
starting point.32–34 In this model, cortical
timing expectations are compared with
the actual sensory input timing, to
experience time passing, and whether it
seems shorter or longer than expected.

Similarly, mechanisms in humans that
are relevant for navigating in space—
processes that are continuous and auto-
nomatic—could also be relevant for timing.
By such processes, an observer accounts
for changes in the spatial relationship
between self and objects in the environ-
mant that result from one’s own move-
ments.29 Spatial updating likely relies on
an egocentric representation of space,35
wherein the location of each object is
encoded with respect to the observer.
(Tthe contrast is allocentric representa-
The DSM-5 criteria, level of arousal and delirium diagnosis: inclusiveness is safer

Abstract

Background: Delirium is a common and serious problem among acutely unwell persons. Although linked to higher rates of mortality, institutionalisation and dementia, it remains underdiagnosed. Careful consideration of its phenomenology is warranted to improve detection and therefore mitigate some of its clinical impact. The publication of the fifth edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-5) provides an opportunity to examine the constructs underlying delirium as a clinical entity.

Discussion: Altered consciousness has been regarded as a core feature of delirium; the fact that consciousness itself should be physiologically disrupted due to acute illness attests to its clinical urgency. DSM-5 now operationalises ‘consciousness’ as ‘changes in attention’. It should be recognised that attention relates to content of consciousness, but arousal corresponds to level of consciousness. Reduced arousal is also associated with adverse outcomes. Attention and arousal are hierarchically related; level of arousal must be sufficient before attention can be reasonably tested.

Summary: Our conceptualisation of delirium must extend beyond what can be assessed through cognitive testing (attention) and accept that altered arousal is fundamental. Understanding the DSM-5 criteria explicitly in this way offers the most inclusive and clinically safe interpretation.

Keywords: Delirium, Consciousness, Arousal, Attention, Diagnostic and Statistical Manual of Mental Disorders

Background

Delirium is an extensive and serious problem in acute hospitals [1]. It is unquestionably a marker for vulnerability, and is associated with adverse outcomes in a number of settings [2-5]. Fundamentally, the syndrome represents a decompensation of cerebral function in response to one or more pathophysiological stressors [6]. Therefore, understanding how to identify delirium can be central to recognising acute illness in patients of all ages.

The American Psychiatric Association’s fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) revised the diagnostic criteria for delirium. As the leading organisations in delirium science and practice, the European Delirium Association (EDA) and American Delirium Society (ADS) believe that the interpretation of these revisions warrants comment, in order to improve clinical practice and patient safety.

The diagnosis of delirium represents an umbrella construct that was adopted to overcome the terminological chaos existing before DSM-III (1980), when dozens of terms were used to indicate generalised brain dysfunction occurring in the context of acute illness or drug intoxication. These included ‘acute confusional state’, ‘encephalopathy’, ‘acute brain failure’, ‘ICU psychosis’, and even ‘subacute befuddlement’ [7,8]. These terms were not based upon any explicit scientific rationale, but rather denoted delirium occurring in different patient populations and/or treatment settings. Combining all of these clinical constructs under the term ‘delirium’ has resulted in a more coherent approach to clinical practice and research.

A consistent feature of DSM versions prior to DSM-5 has been the requirement that alterations in the content (that is, attention) and/or level (that is, arousal) of consciousness are core to the diagnosis of delirium. Delirium can present as hypoactive or hyperactive states, and may fluctuate between the two. DSM-III used the term ‘clouding of consciousness’. DSM-III-R and DSM-IV, while maintaining the term ‘consciousness’, operationalised this...
by linking this construct to deficits in attention. This shift towards attention was driven by a recognition that the construct 'consciousness' was difficult to assess objectively [9]. It should be appreciated that for consciousness, both attention and arousal are hierarchically related: it is possible to have full arousal, but profound inattention (for example, hypervigilance), but not the other way around [10]. Therefore, the retention of 'consciousness' implied that level of arousal remained part of the construct of delirium.

In DSM-5, the term 'consciousness' is not used at all (Table 1). Delirium is now more restrictively defined in terms of its cognitive features, and the level of arousal element implicit in prior DSM criteria has been removed. Moreover, Criterion D states that inattention or changes in cognition must not occur in the context of a severely reduced level of arousal such as coma.

**Discussion**

The risk of misinterpreting these revised criteria is that clinicians may focus inappropriately on inattention and testability, erroneously overlooking the *de facto* disturbance in consciousness (that is, delirium) that comes with altered arousal. Criterion D draws attention to the idea that altered arousal states may exist outside of delirium. Our view is that this is only the case in the profoundest possible disturbance of arousal, namely, coma (Figure 1). Other than coma, the interpretation of Criterion D should recognise that it is not possible to determine a threshold to discriminate severe and non-severe levels of arousal. It is also worth noting, in relation to Criterion E, that withdrawal of an antipsychotic in a patient with a chronic psychotic condition, such as schizophrenia, may result in a syndrome of increased arousal and acute recurrence of psychotic symptoms. Although this specific state may appear to be phenomenologically similar to delirium, it should not be classified as such.

What kinds of evidence should be required to demonstrate disturbances in attention, orientation and other cognitive domains? A narrow interpretation of Criterion D could mean that patients too drowsy to undergo cognitive testing cannot fulfill Criterion A (inattention and disturbed orientation to the environment) or Criterion C (deficit in an additional cognitive domain). That is, patients not capable of demonstrating 'inattention' cannot be assessed against Criterion A if this is interpreted to mean that patients must show impaired performance on cognitive tests of attention or an inability to sustain attention during interview. Of crucial clinical importance, non-comatose patients who are too drowsy to demonstrate inattention by tests or interview might not be classified as having delirium. This narrow approach would have multiple negative consequences. The unanimous view of the Boards of the EDA and ADS is that Criterion D should include all states of altered arousal (except coma) in the spectrum of delirium on scientific, practical and clinical safety grounds.

First, a substantial proportion of patients present to acute hospitals with reduced consciousness that is severe enough to affect their ability to engage with cognitive testing and/or interview. Reduced level of consciousness is present at least 8% of general hospital admissions [11]. If Criterion D is strictly applied, large numbers of patients will thus be left unclassified, or labelled with vague descriptions such as 'obtunded' or 'stuporous'. This is important, because reduced level of arousal is a powerful

<table>
<thead>
<tr>
<th>Table 1 Comparing DSM classifications of delirium*</th>
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<tbody>
<tr>
<td><strong>DSM-IV</strong></td>
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<tr>
<td>A. Disturbance in attention (i.e., reduced ability to direct, focus, sustain, and shift attention and awareness (reduced orientation to the environment))</td>
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<tr>
<td>B. The disturbance develops over a short period of time (usually hours to a few days), affects all domains (attention, orientation, and awareness) and tends to fluctuate in severity during the course of the day.</td>
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<tr>
<td>C. An additional disturbance in cognition (e.g., memory deficit, disorientation, language, visuospatial ability, or perception).</td>
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<tr>
<td>D. The disturbances in Criteria A and C are not better explained by a pre-existing established or evolving neurocognitive disorder and do not occur in the context of a severely reduced level of arousal.</td>
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*DSM-IV: Diagnostic and Statistical Manual of Mental Disorders, fourth edition; DSM-5: Diagnostic and Statistical Manual of Mental Disorders, fifth edition.
*Changes in DSM-5 from DSM-IV shown in italics.
<table>
<thead>
<tr>
<th>Neuropsychiatric Disorders</th>
<th>2013</th>
<th>DSM-5</th>
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<tbody>
<tr>
<td>Delirium, Dementias and Amnestic and Other Cognitive Disorders</td>
<td>2000</td>
<td>DSM-IV-TR</td>
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<td>1994</td>
<td>DSM-IV</td>
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<td>Organic Mental Disorders</td>
<td>1987</td>
<td>DSM-III-R</td>
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<tr>
<td>1980</td>
<td>DSM-III</td>
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<td>Organic Brain Syndromes</td>
<td>1968</td>
<td>DSM-II</td>
</tr>
<tr>
<td>1972</td>
<td>DSM-I</td>
<td></td>
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mind, behavioral regulation
Social cognition: recognition of emotions, theory of
and visual perception

5. Visualconstructional-perceptual ability: construction
Fluency, grammar, and syntax, and receptive language

4. Language: expressive language (including naming,
memory)

3. Learning and memory: immediate memory, recent
memory, habits, mental flexibility,
overriding habits, mental flexibility,
memory, responding to feedback/error correction,

Executive ability: planning, decision-making, working

2. Attention, selective attention, processing speed,

1. Complex attention: sustained attention, divided

DSM-5 Cognitive domains
(April Draft, 2012)