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Basics of Psychiatry

Theoretical Bases of Clinical Medicine

Brief introduction of the presenter

- MUDr. Eliška Bartečková, Ph.D.
- Department of Psychiatry
 - Vice-head for education and research
 - 2013 - 2017: Chief doctor of the mood disorder ward
- Department of Simulation Medicine
 - Assistant professor
- Ethics committee of the Faculty of Medicine of the Masaryk University
 - Member



Let us set the stage...

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Bryan Charnley

(1949 – 1991)



- Bryan John Charnley was born in Stockton on Tees. He grew up in London. Aged 18, he suffered a nervous breakdown but was able to study at Leicester School of Art later that year. He gained a place at Central School of Art and Design in Holborn, London in 1969 but was unable to complete the course due to another breakdown later diagnosed as acute schizophrenia. From 1971 until 1977 he lived at home with his parents between periods of hospitalisation and treatment including ECT. In 1978 he moved to Bedford and began painting.

Self Portrait Series

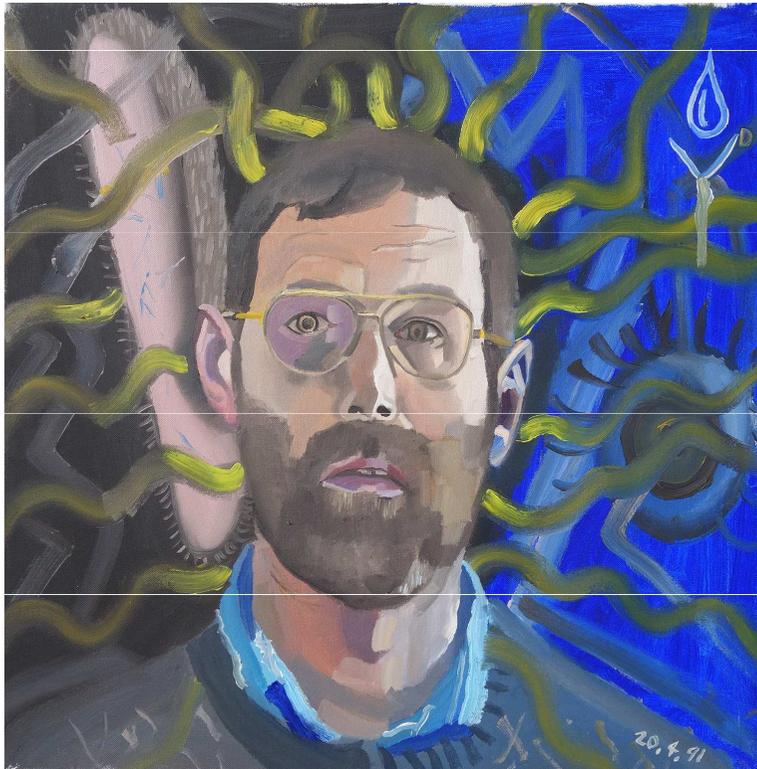


- Bryan Charnley began the Self Portrait Series in March 1991.
- The 17 portraits show graphically the terrible suffering of mental illness.
- He kept a diary which would also help to explain the imagery.

19th April 1991

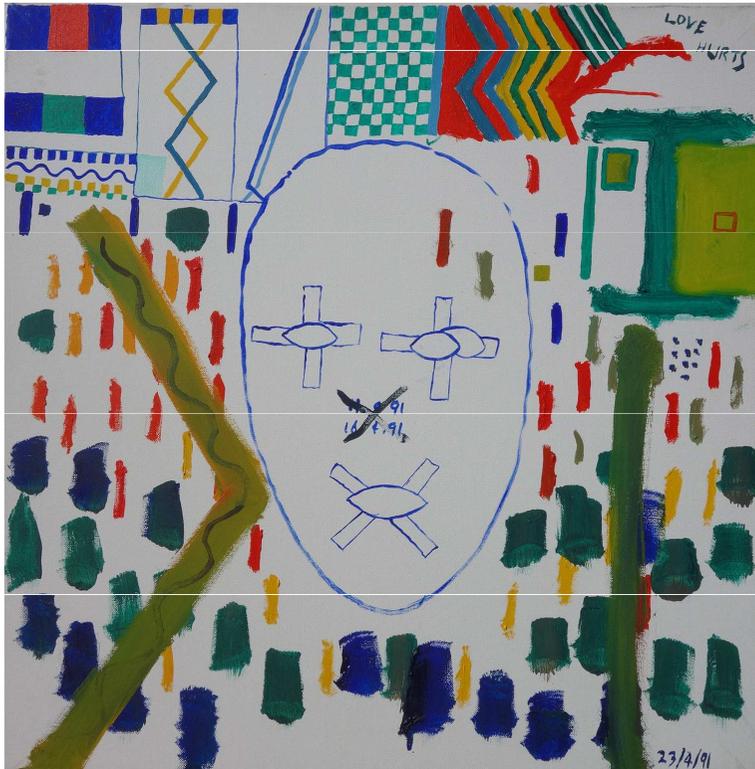


- Conventional portrait painted in two sittings. Is it a good likeness? Drug dosage was two 3 mg. tablets of Depixol (flupenthixol) daily plus two 25 mg. Tryptisol (amitriptyline).



- Cut back to one 3 mg. tablet of Depixol with Tremazepam tablets to get some sleep. Very paranoid. The person upstairs was reading my mind and speaking back to me to keep me in a sort of ego crucifixion. I felt this was because I was discharging very strong vibrations which could easily be interpreted. I tried to express this in the painting. The large rabbit ear is because I was confused and extremely sensitive to human voices, like a wild animal. I also felt I was being read generally by E.S.P. I had cut back to one tablet of Depixol on 17th April 1991 and was now just beginning to feel the dramatic effects of such a sudden withdrawal.

23rd April 1991

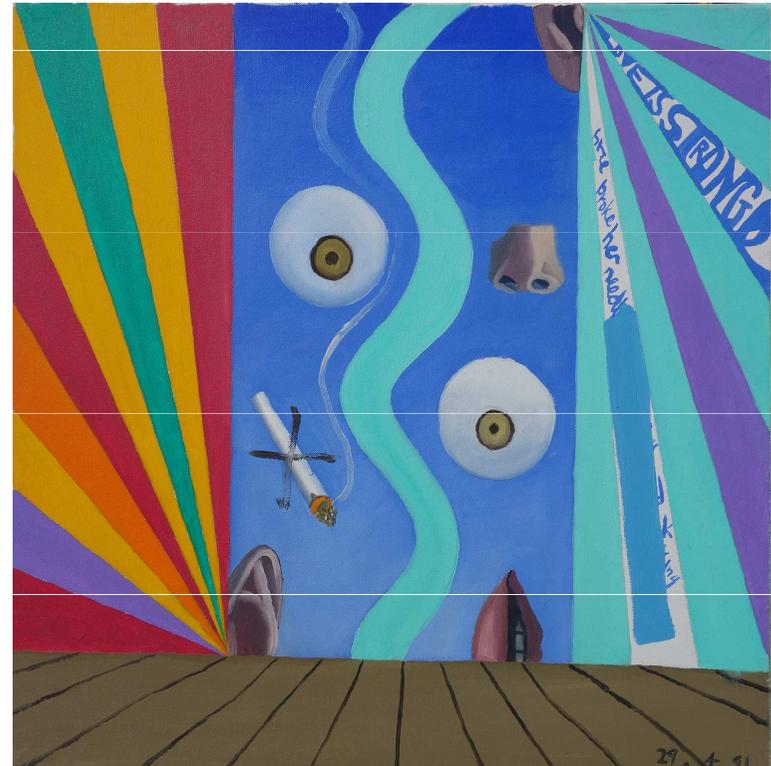


- I had originally had the idea for a series of self portraits from Louis Wain's series of portraits of cats that changed strangely as he became more and more psychotic. They seemed to show a disintegrating ego. I expected something similar, that is the reliance on a sort of hallucinatory geometry but instead found that I was almost completely unable to concentrate so the painting takes on the crudeness of bad graffiti.

24th April 1991



29th April 1991



2nd May 1991



6th May 1991



14th May 1991



18th May 1991



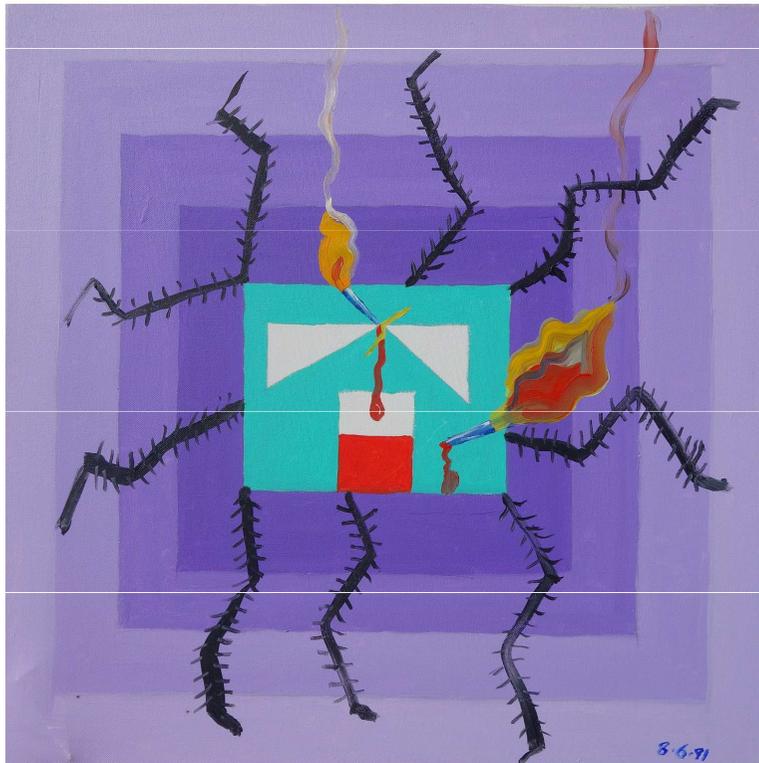
23rd May 1991



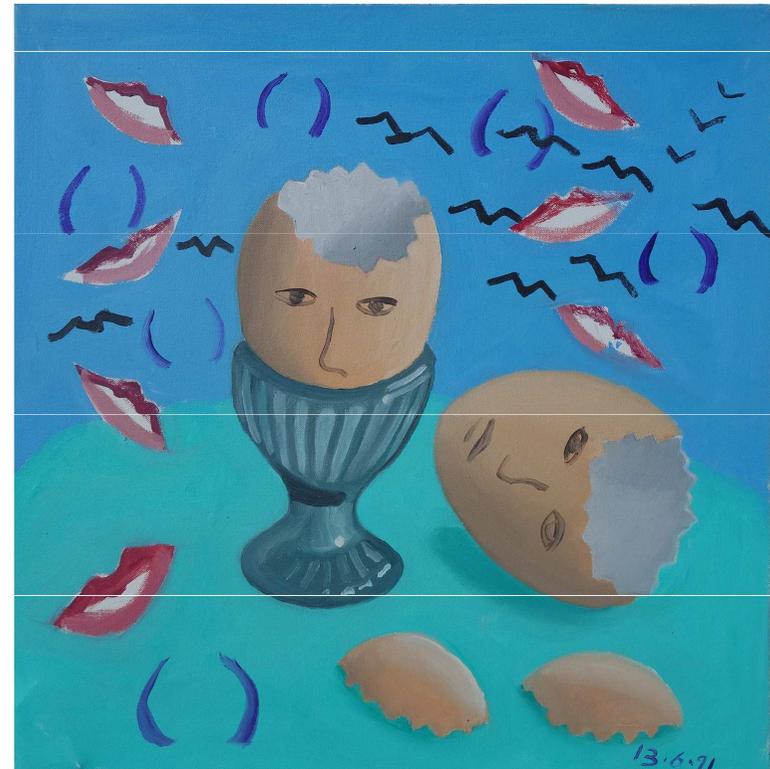
24th May 1991



8th June 1991



13th June 1991

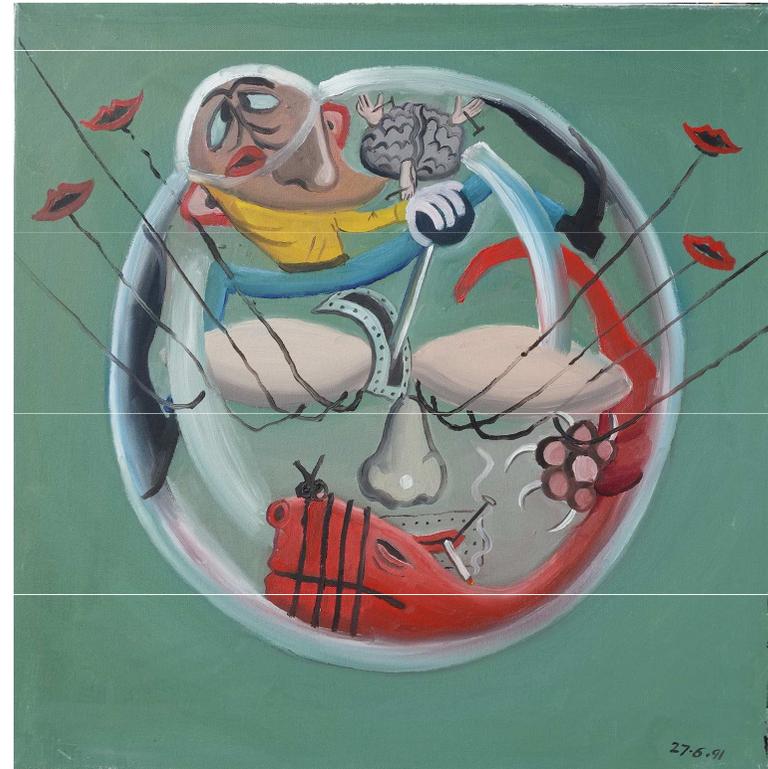


19th June 1991



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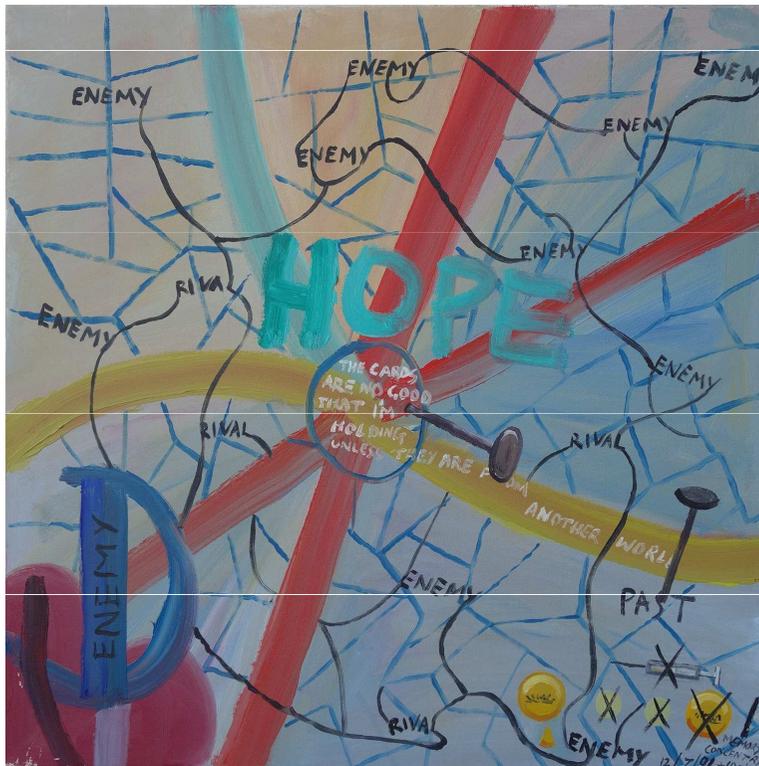
27th June 1991



www.bryancharnley.info (CC-BY-SA 3.0) license

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12th July 1991



- The penultimate and final portraits have no text but communicate everything within the image.
- The central text reads: The cards are no good that I'm holding unless they are from another world. This is a line from Series of Dreams by Bob Dylan, the last track on The Bootleg Series, Volumes I-3.

19th July 1991



- The final portrait was left on the easel in his studio where Bryan Charnley committed suicide.

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Psychiatry



Why "Basics of Psychiatry?"



Broaden Medical Knowledge



Address Misconceptions



Encourage Interest



Prevalence of Mental Disorders

Why "Basics of Psychiatry?"



Broaden Medical Knowledge



Address Misconceptions



Encourage Interest



Prevalence of Mental Disorders

- While you, as fourth-year students, have gained extensive knowledge in somatic medicine, your understanding of psychiatry may not be as comprehensive. This lecture aims to fill that gap.

Why "Basics of Psychiatry?"



Broaden Medical Knowledge



Address Misconceptions



Encourage Interest



Prevalence of Mental Disorders

- Psychiatry, as a medical specialty, is unfortunately often burdened with misconceptions, not only from the general public but also from other medical professionals. This lecture will address and dispel these misconceptions.

Why "Basics of Psychiatry?"



Broaden Medical Knowledge



Address Misconceptions



Encourage Interest



Prevalence of Mental Disorders

- In the Czech Republic, only a small fraction of medical students choose psychiatry as their future specialty. This introduction aims to spark interest and show the rewarding aspects of a career in psychiatry.

Why "Basics of Psychiatry?"



Broaden Medical Knowledge



Address Misconceptions



Encourage Interest



Prevalence of Mental Disorders

- Mental disorders are common, and irrespective of their chosen specialty, all medical practitioners will encounter patients suffering from these disorders. A fundamental understanding of psychiatry is therefore essential for providing comprehensive care to all patients.

Common Misconceptions

Psychiatry as a field

- Psychiatry and psychology is generally the same.
- Psychiatry isn't a "real" branch of medicine.
- Psychiatry only deals with extreme cases or severe mental disorders.

Common Misconceptions

Psychiatric treatment

- Psychiatrists only prescribe medication.
- Psychiatric medication cause changes in personality
- Psychiatric medication is addictive
- Psychiatric treatment is for life
- Only psychiatrists could prescribe psychiatric medication

Common Misconceptions

Mental disorders

- Mental disorders are labels for normal behavior.
- Mental health disorders are not "real"
- Mental health disorders are a sign of weakness or flawed character
- All people with mental health disorders are violent or unpredictable
- People with mental health disorders can't lead normal or fulfilling lives
- Mental disorders are romantic and kind of cool

Common misconceptions

Conduct of a psychiatrist / Archetypes of psychiatrist



Dr. Dippy

Incapable, having "issues" themselves, comical

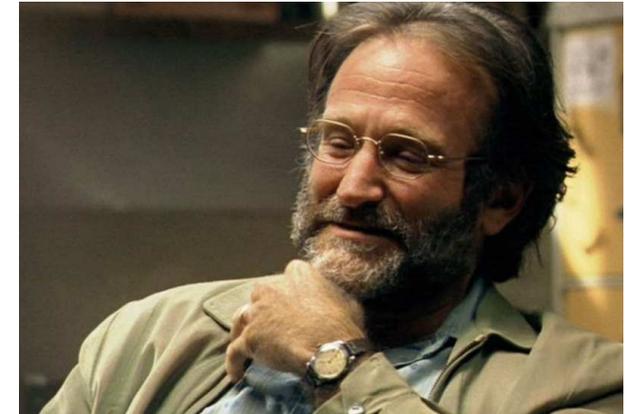
Example: doc. Chocholoušek (Jáchyme, hod' ho do stroje)



Dr. Evil

Malevolent, with a sinister agenda, forcing treatment against will

Example: Dr. Lecter (Silence of the Lambs)



Dr. Wonderful

Selfless, wise, with a deep understanding of human psyche

Example: Dr. Maguire (Good Will Hunting)

Common Misconceptions

Professional abilities of a psychiatrists

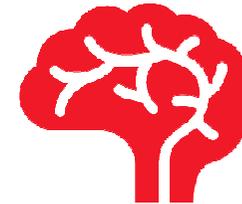
- Psychiatrists can read minds or understand someone instantly.
- Psychiatrists have an uncanny ability to 'fix' people or situations beyond the scope of their professional skills.
- Psychiatrists are seen as the ultimate authority in answering legal questions or making legal decisions in clinical settings.

Psychiatry vs. Psychology



Psychiatry

Medical specialty concerned with a study, diagnostics, treatment and prevention of mental disorders



Psychology

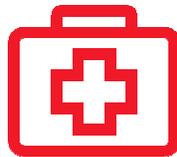
The scientific study of the mind and behavior. It seeks to understand and explain thoughts, emotions, and behaviors.

Psychiatry vs. Psychology



Focus:

Both fields are concerned with mental health, but psychiatry often focuses more on the biological and neurological aspects of mental health, while psychology often focuses more on the cognitive, emotional, and social aspects.



Training:

Psychiatrists are medical doctors, meaning they have completed medical school and residency, and have the ability to prescribe medication. Psychologists typically hold a doctoral degree in psychology and have extensive training in psychotherapy, psychological testing, and research methods.



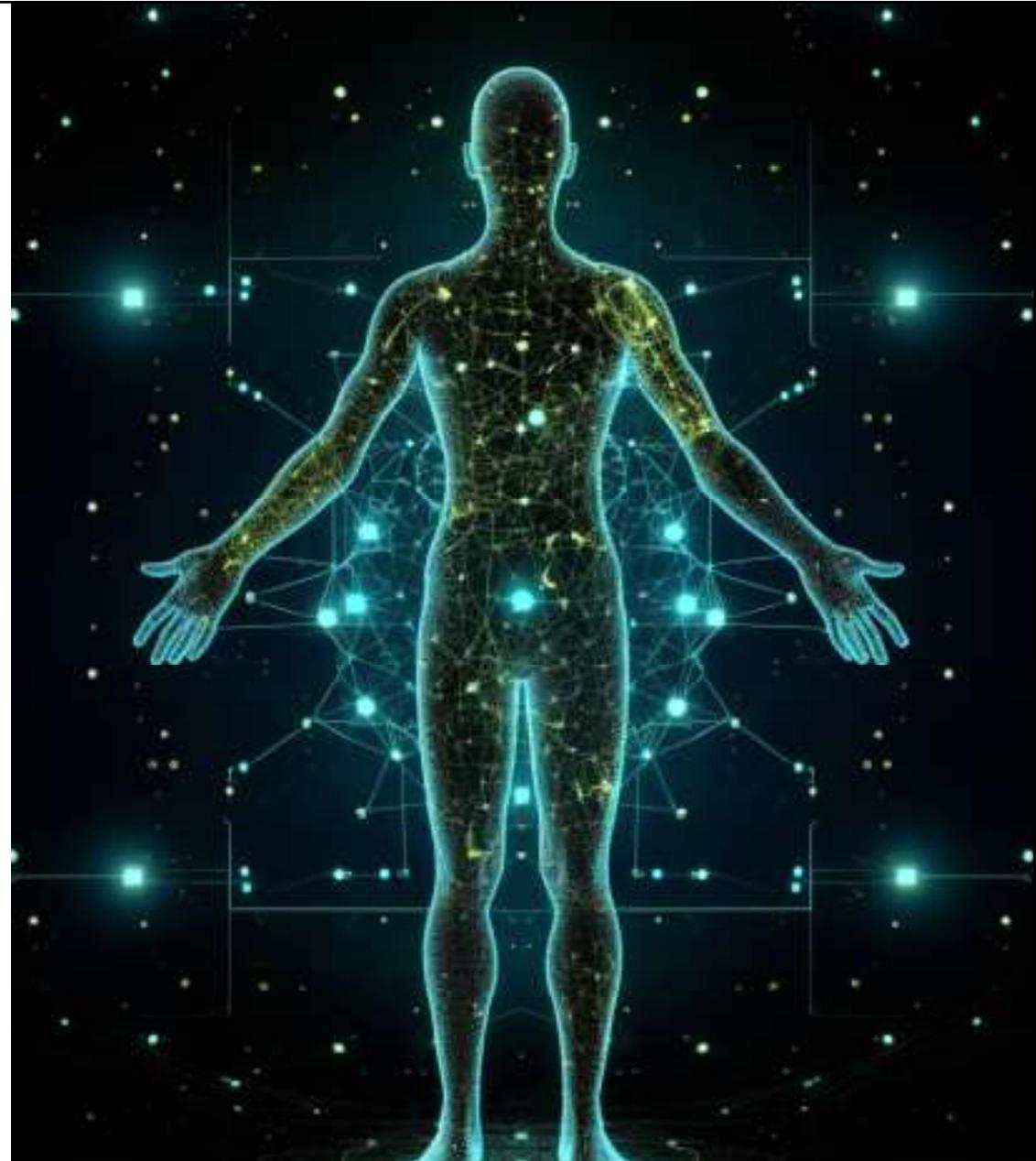
Treatment:

While both psychiatrists and psychologists can provide psychotherapy, only psychiatrists can prescribe medication. This is a crucial distinction as certain mental health conditions require medication for effective management.

Psychiatry is a medical specialty concerned with a study, diagnostics, treatment and prevention of **mental disorders**.

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Mental disorders

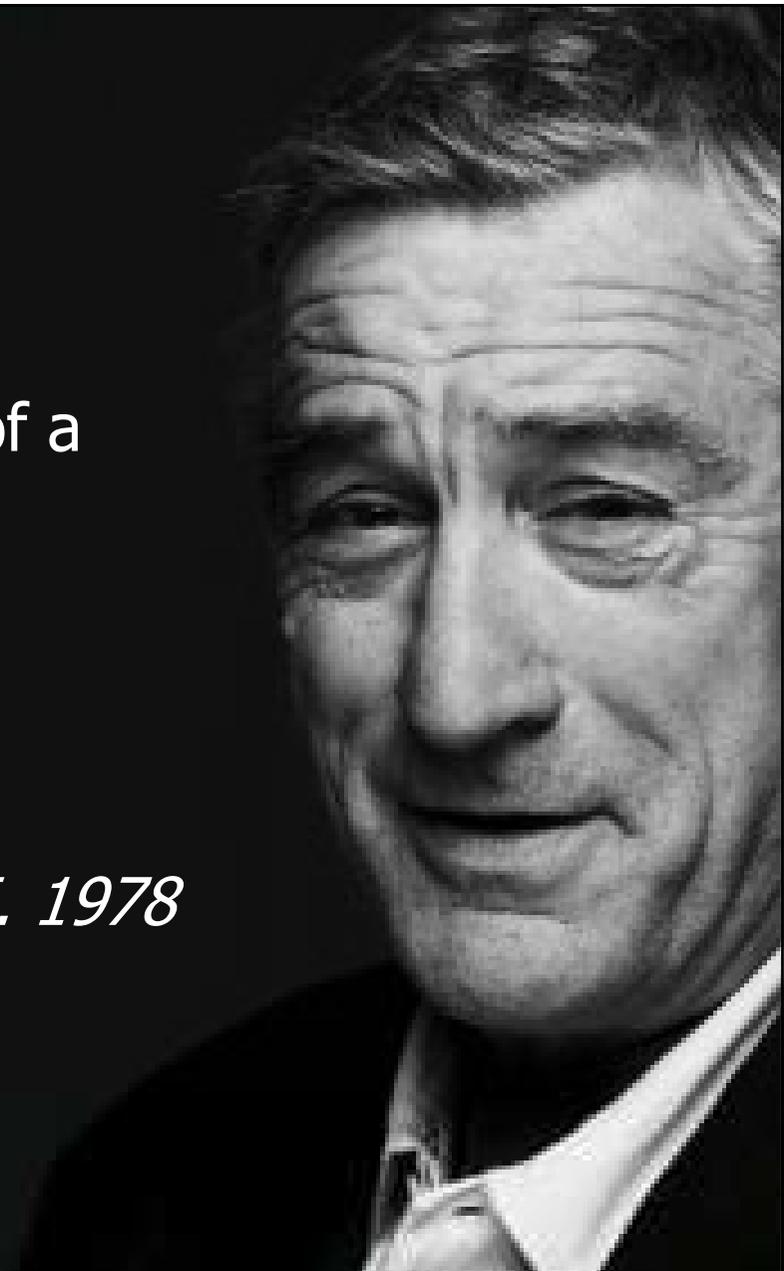


Why "disorder" and not disease?

"There is no assumption that the organismic dysfunction or its negative consequences are of a physical nature."

"Disease often denotes a progressive physical disorder with known pathophysiology."

Spitzer RL & Endicott, I. 1978

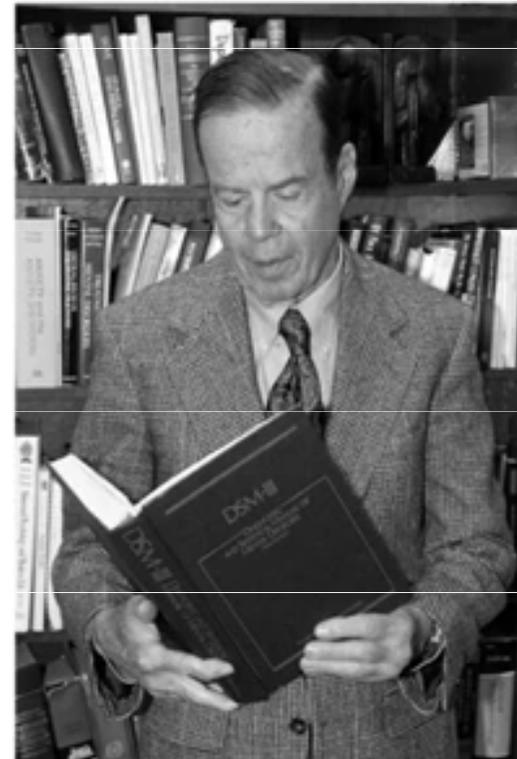


Robert Leopold Spitzer

(1932 – 2015)

- Psychiatrist and professor of psychiatry at Columbia University in New York City.
- "The psychiatrist who transformed the science and practice of psychiatry by leading the development of DSM-III."
- "Development of operationalized diagnostic criteria for every mental disorder in the face of opposition by the then prevailing psychoanalytic community as well as the growing anti-psychiatry movement."
- "Heroic role that may have saved psychiatry as a medical specialty."

Lieberman & First 2016



Why "Disorders" and not "Diseases"?



Conceptual scope

Broader term that can encompass a wide variety of conditions, including those that don't have a clear biological basis or aren't fully understood.



Absence of clearly defined aethiopathogenesis

It acknowledges the current limitations in our understanding of these conditions.



Stigma reduction

The term "illness" or "disease" can sometimes carry a stigma, suggesting something is fundamentally wrong with a person.

What is the definition of mental disorder?



- Giving broader scope of the term "disorder" it is important to define it more clearly.

A mental disorder is a syndrome characterized by clinically significant disturbance in an individual's cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning. Mental disorders are usually associated with significant distress or disability in social, occupational, or other important activities.

DSM-5, ICD-10, ICD-11

Mental Disorders

ICD-10, ICD-11, DSM-5



Syndrome – characteristic cluster of symptoms



Reflects a dysfunction in the processes underlying mental functioning



Associated with significant distress or disability

Mental Disorders are not ...

An expectable or culturally approved response to a common stressor

Socially deviant behavior (e.g., political, religious, or sexual)

Conflicts that are primarily between the individual and society

Mental disorders are not ...



An expectable or culturally approved response to a common stressor



Socially deviant behavior (e.g., political, religious, or sexual)



Conflicts that are primarily between the individual and society

Mental disorders are not ...

Examples



An expectable or culturally approved response to a common stressor

Grief following the death of a loved one
Stress and anxiety during exam periods



Socially deviant behavior (e.g., political, religious, or sexual)

Extreme political activism
Non-traditional sexual practices
Non-traditional beliefs



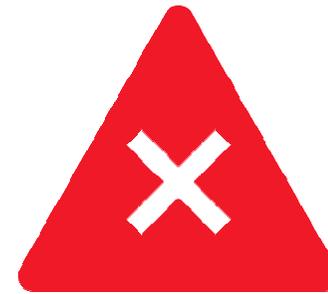
Conflicts that are primarily between the individual and society

Disagreement with societal norms
Nonconformity to societal gender roles

Further Notes



Diagnosis has clinical utility



Diagnosis has predictive potential (*Sheehan*)

Examples of popular lay "diagnoses"

These constructs do not fulfill criteria to be considered separate diagnostic entities

Procrastination

Workaholism

Burnout

Hypersensitivity

Orthorexia

Bigorexia

Drunkorexia

Post-abortion
syndrome

Purpose of Classifications



Communication

It ensures everyone is speaking the same language when discussing diagnosis and treatment.



Diagnosis / treatment / research

Diagnoses are consistent across different clinicians and settings and allows proper treatment and research.



Epidemiology and Public Health

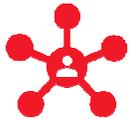
Classifications allow for tracking of prevalence and incidence of different disorders in the population, which can inform public health interventions and policy decisions.



Billing and Reimbursement

In many health care systems, a diagnosis is needed for insurance reimbursement. Classifications provide the codes that are used for this purpose.

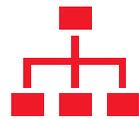
Approaches to Classifications



Strategy

Phenetic (description of signs)

Phyletic (hierarchical relationships)



Grouping

Monothetic classification (all the defined attributes have to be present)

Polythetic classification (proportion of attributes have to be present)



Cognitive operations

Empirical (observable data or evidence)

Theoretical or conceptual (pre-existing theoretical framework or set of concepts)



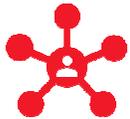
Group borders

Dimensional (continuum or spectrum)

Categorical (distinct categories)

Approaches to Classifications

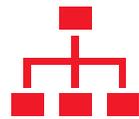
Psychiatric classifications



Strategy

Phenetic (description of signs)

Phyletic (hierarchical relationships)



Grouping

Monothetic classification (all the defined attributes have to be present)

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Cognitive operations

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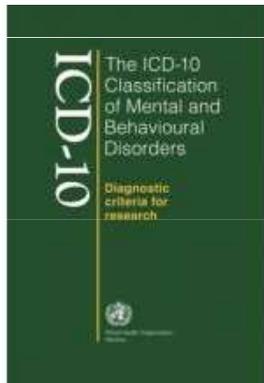


Group borders

Dimensional (continuum or spectrum)

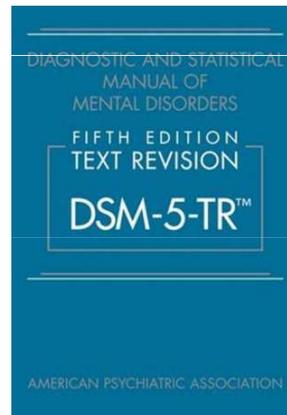
Categorical (distinct categories)

Current Classifications



ICD-10

- International Classification of Diseases, 10th Edition
- Currently in usage in the Czech Republic



DSM-V

- Diagnostic and Statistical Manual, 5th Edition
- Used in USA
- Golden standard for research



ICD-11

- In effect from January 2022
- <https://icd.who.int/en>
- Czech translation is ongoing
- In the Czech Republic the implementation is not expected earlier than 2027

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Mental health is a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community.

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Diagnostic process in Psychiatry

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"If you know the enemy and know yourself, you need not fear the result of a hundred battles."

Sun Tzu, 544 – 496 BC



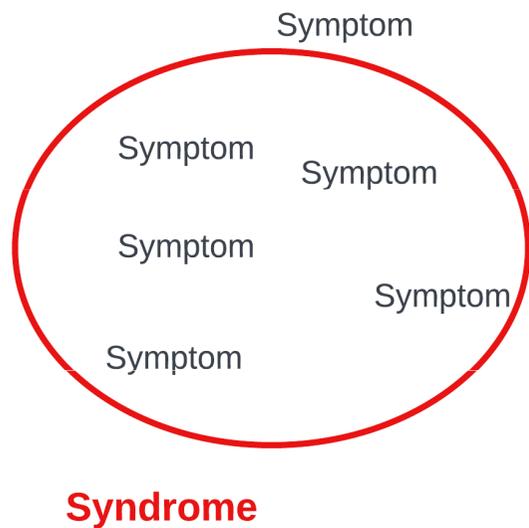
Diagnostic Process Overview

Symptom
Symptom Symptom
Symptom
Symptom Symptom
Symptom

– Sources of Information

- Interview
- Observation
- Third-party information
- Creative activities

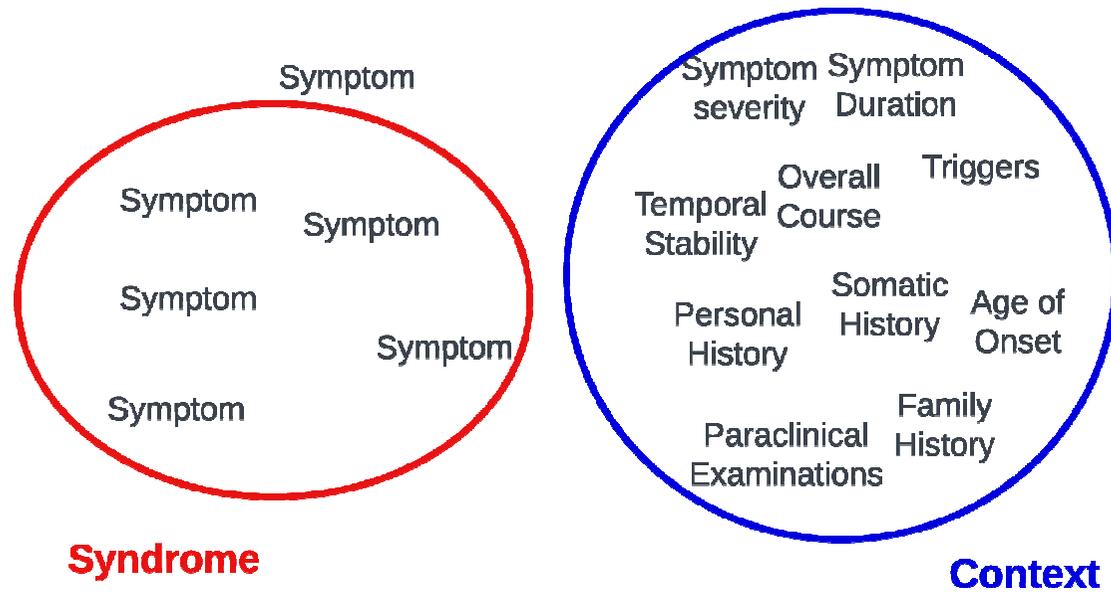
Diagnostic Process Overview



- **Syndrome**

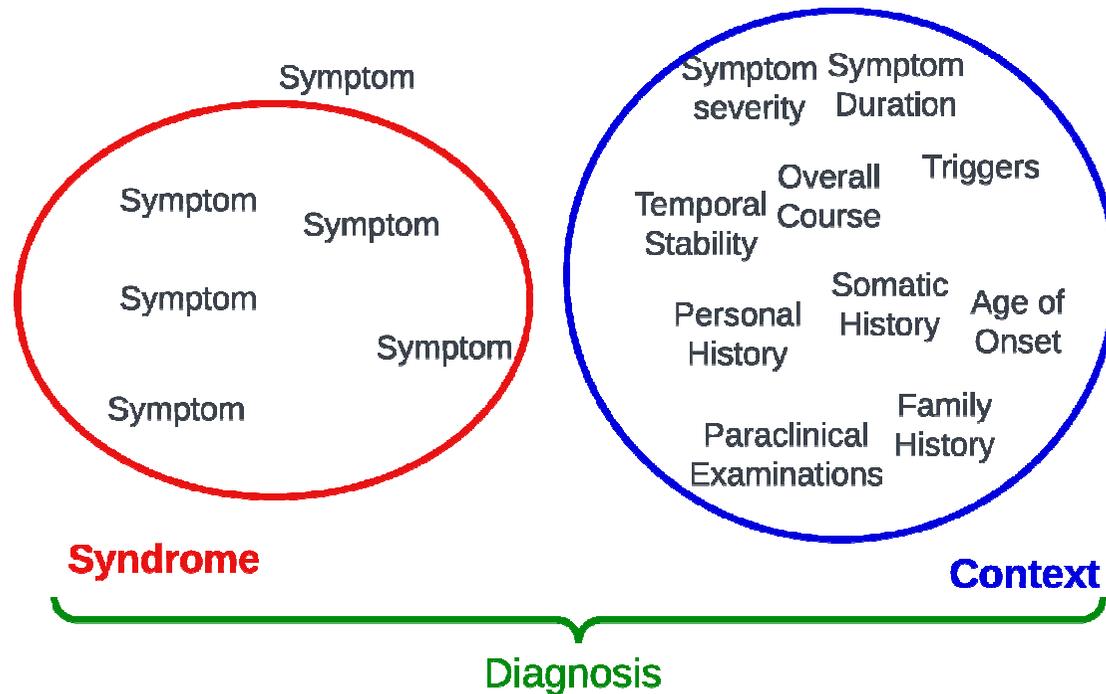
- From Greek σύνδρομος (running together)
- Cluster of symptoms usually appearing together

Diagnostic Process Overview



- Syndrome ≠ Diagnosis
- Further information is needed

Diagnostic Process Overview



- Diagnosis may be subject of change
- It is a consequence of the most common course type of psychiatric disorders being episodic.

Example: Depression

ICD-10 and DSM-V Criteria

ICD-10	DSM-V
Pathologically depressed mood	Pathologically depressed mood
Anhedonia	Anhedonia
Hypobulia	Hypobulia
Lower self-esteem	Feelings of worthlessness / self-accusations
Self-accusations	
Suicidal thoughts or behaviour	Suicidal thoughts or behaviour
Decreased ability to think (hypoprosexia, ambivalence)	Decreased ability to think (hypoprosexia, ambivalence)
Change in psychomotorics (decreased / increased)	Change in psychomotorics (decreased / increased)
Sleep disturbance (hyposomnia / hypersomnia)	Sleep disturbance (hyposomnia / hypersomnia)
Change in appetite (hypoorexia / hyperorexia)	Weight loss / Change in appetite

Example: Depression

ICD-10 and DSM-V Criteria

≥ 2 weeks

	ICD-10	DSM-V	
	Pathologically depressed mood	Pathologically depressed mood	≥ 1
≥ 2	Anhedonia	Anhedonia	
	Hypobulia	Hypobulia	
	Lower self-esteem	Feelings of worthlessness / self-accusations	
	Self-accusations		
	Suicidal thoughts or behaviour	Suicidal thoughts or behaviour	≥ 5
≥ 4	Decreased ability to think (hypoprosexia, ambivalence)	Decreased ability to think (hypoprosexia, ambivalence)	
	Change in psychomotorics (decreased / increased)	Change in psychomotorics (decreased / increased)	
	Sleep disturbance (hyposomnia / hypersomnia)	Sleep disturbance (hyposomnia / hypersomnia)	
	Change in appetite (hypoorexia / hyperorexia)	Weight loss / Change in appetite	

Example: Depression

ICD-10 and DSM-V Criteria

- + Almost everyday, most of the day
 - + Other causes excluded
 - + No mania or mixed episode
- ≥ 2 weeks

	ICD-10	DSM-V	
≥ 2	Pathologically depressed mood	Pathologically depressed mood	≥ 1
	Anhedonia	Anhedonia	
	Hypobulia	Hypobulia	
≥ 4	Lower self-esteem	Feelings of worthlessness / self-accusations	≥ 5
	Self-accusations		
	Suicidal thoughts or behaviour	Suicidal thoughts or behaviour	
	Decreased ability to think (hypoprosexia, ambivalence)	Decreased ability to think (hypoprosexia, ambivalence)	
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Role of Paraclinical Examinations

- Substrate of human experience and behaviour is the brain.
- Psychiatric symptomatology may be caused by anything that influences brain structure or function:
 - Trauma
 - Ischaemia
 - Expansive processes
 - Infection
 - Intoxication
 - Systemic affliction
 - Etc.
- Paraclinical examinations serve to exclude other ("somatic") causes of symptoms.
- Somatic causes are often more threatening life of the patient
- **Specific diagnostic groups in ICD-10:**
 - Organic ("due to") disorders
 - Substance-related disorders
 - Neurodevelopmental disorders

Paraclinical Examinations

 Physical examination

 ECG

 Blood sampling (biochemistry, blood count)

 Urine sampling

 Toxicology (usually urine, sometimes blood)

 Brain imaging CT / MRI / Special (SPECT, PET-MR, DAT-Scan etc.)

 EEG

 Spinal tap

Paraclinical Examinations

Acute setting

 Physical examination

 ECG

 Blood sampling (biochemistry, blood count)

 Urine sampling

 Toxicology (usually urine, sometimes blood)

 Brain imaging CT / MRI / Special (SPECT, PET-MR, DAT-Scan etc.)

 EEG

 Spinal tap

Paraclinical Examinations

 Physical examination

 ECG

 Blood sampling (biochemistry, blood count)

 Urine sampling

 Toxicology (usually urine, sometimes blood)

 Brain imaging CT MRI / Special (SPECT, PET-MR, DAT-Scan etc.)

 EEG

 Spinal tap

Non-acute setting

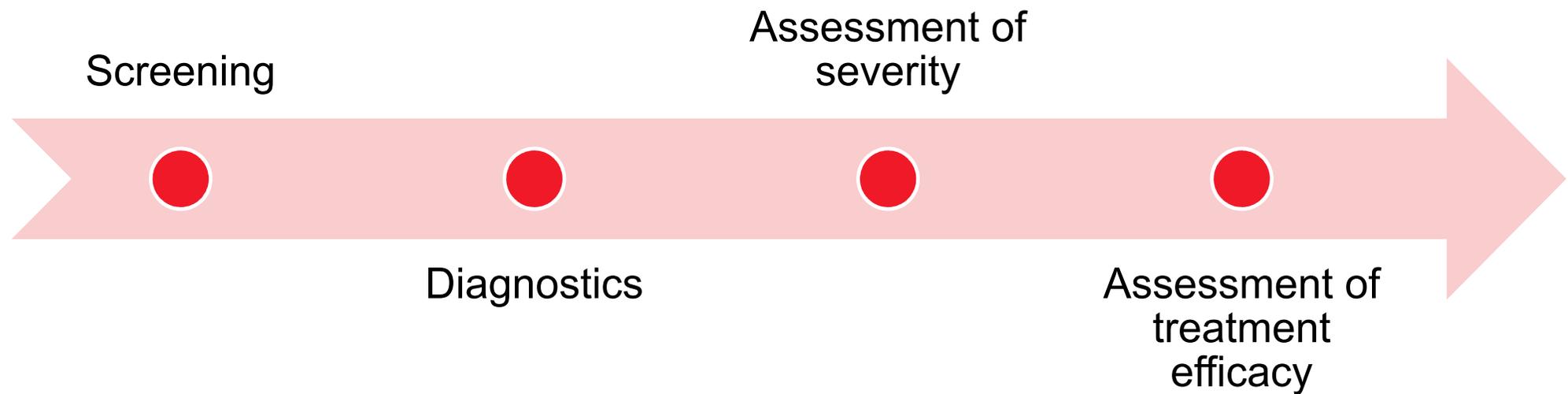
Psychological Assessment

- Assessment performed by trained psychologist.
- Serve an analogous function like paraclinic examination, but with a special focus on psychological processes.
- Examples of types:
 - Intelligence tests
 - Neuropsychological tests
 - Psychopathological tests
 - Personality tests (e.g. MMPI)
 - Projective tests (e.g. Rorschach test)



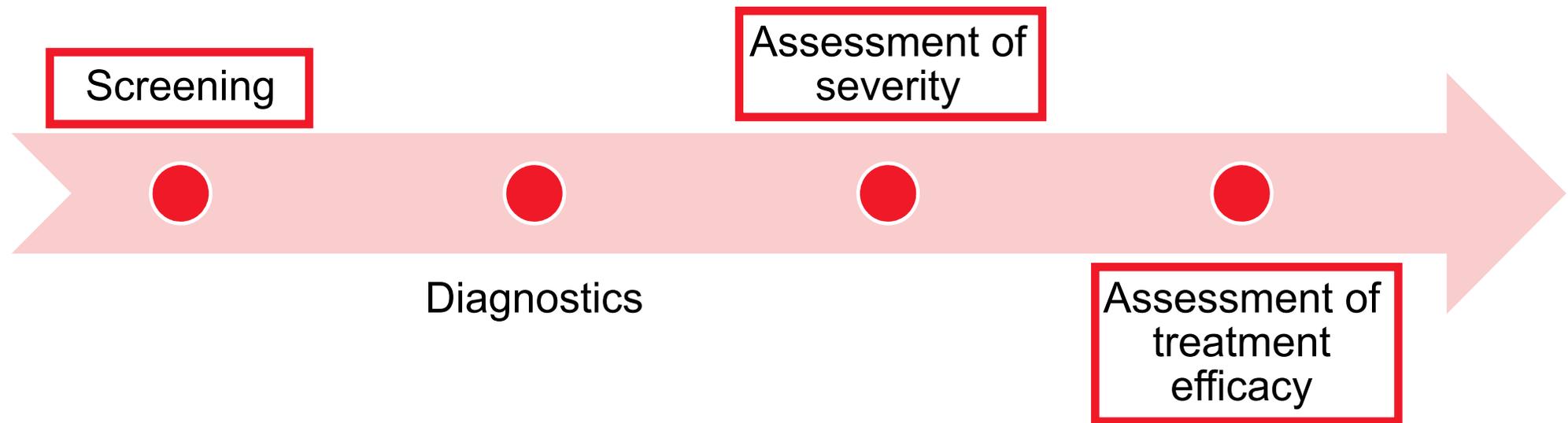
Self-report Questionnaires and Scales

Placement in diagnostic process



Self-report Questionnaires and Scales

Placement in diagnostic process



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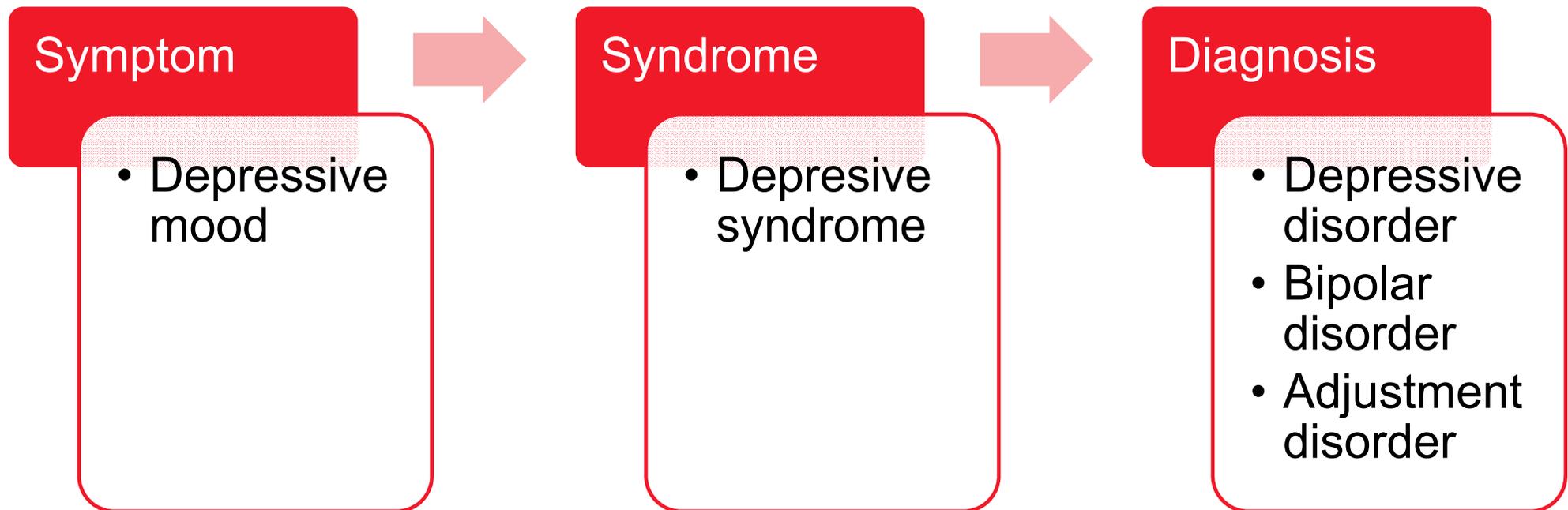
Psychiatric terminology

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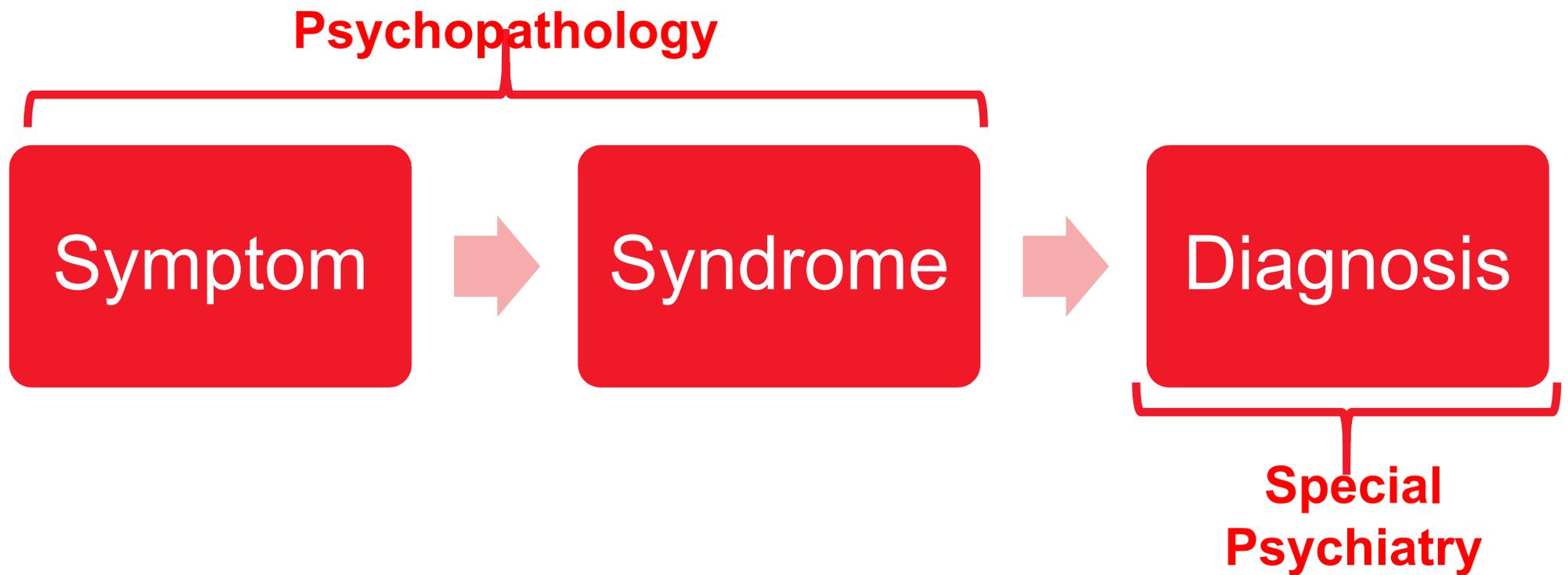


Distinguish

Example "depression"

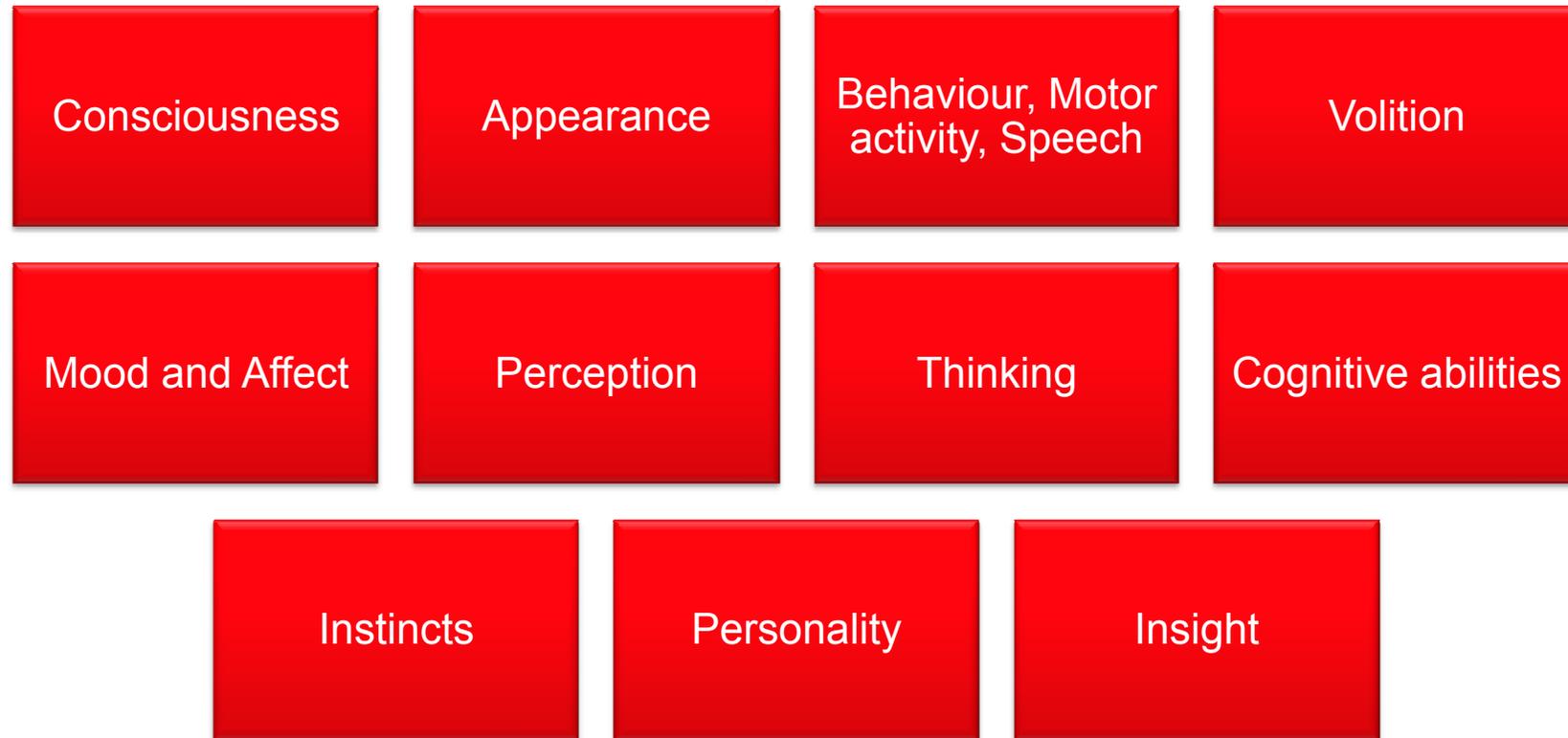


Distinguish



Mental Status Assessment

Status praesens psychicus | (*Psychické funkce*)



Quick Guided Tour over the ICD-10

- F0: Organic disorders
- F1: Substance-related disorders
- F2: Schizophrenia and related disorders
- F3: Mood (affective) disorders
- F4: Neurotic, stress-related and somatoform disorders
- F5: Behavioural syndromes associated with physiological disturbances and physical factors
- F6: Disorders of adult personality and behaviour
- F7: Mental retardation
- F8: Developmental disorders
- F9: disorders with onset usually occurring in childhood and adolescence

F0: Organic disorders

- Disorders caused by other "organic" causes directly or indirectly influencing the brain.
- "Due to" disorders.
- Main criterion is that there is a causal relationship between the insult and disorders onset.
- Dementias
- Delirium
- Organic disorders resembling other psychiatric disorders

F1: Substance-related disorders

- Disorders caused psychoactive substances:
 - Acute states
 - Chronic states
 - Damage after long-term use
- Acute intoxication
- Harmful use
- Addiction
- Withdrawal
- Withdrawal with delirium
- Toxic psychosis
- Amnestic syndrome
- Residual disorders

F2: Schizophrenia and related disorders

- "Primary psychoses"
- Psychosis: Diagnosis in which the psychotic symptoms could occur.
- Psychotic symptoms:
 - Delusions
 - Hallucination
- Akutní a přechodné psychotické poruchy
- Schizofrenie
- Schizoafektivní porucha
- Porucha s bludy
- Schizotypní porucha

F3: Mood (affective) disorders

- Main symptom is impairment in mood.
- Traditionally also considered psychoses (so called "affective psychoses")
- Major depressive disorder
- Bipolar disorder
- Persistent mood disorders

F4: Neurotic disorders

- Traditionally considered "neuroses"
- Dominant symptom is usually anxiety.
- Anxiety disorders
 - Panic disorder
 - Generalized anxiety disorder
 - Phobias
- Stress-related disorders
 - Acute stress reaction
 - PTSD
 - Adjustment disorder
- Somatoform disorders
- Dissociative disorders

F5 Syndromes related to physiological disturbances

- Heterogeneous groups of disorders.
- Most important are eating disorders.
- Eating disorders
 - Anorexia
 - Bulimia
- Pregnancy-related disorders unclassifiable elsewhere
- Non-organic sleep disorders
- Sexual dysfunctions

F6: Disorders of adult personality

- Includes very important category of "specific personality disorders"
- Specific personality disorders
- Enduring personality changes
- Impulse-control disorders
 - Gambling
 - Monomanias
- Gender identity disorders
- Sexual preference disorders ("deviations")

F7: Mental retardations

- Now called "intellectual disabilities"
- Includes intellectual disabilities of various aetiologies.
- Mild
- Moderate
- Severe
- Profound

F8: Developmental disorders

- Now called "neurodevelopmental disorders"
- Disorders of speech, language and scholastic skills
- Autism

F9: Child and adolescent disorders

- Heterogeneous group of disorders with a common feature that they often occur during childhood and adolescence.
- Hyperkinetic disorders (ADHD)
- Conduct disorders
- Tic disorders

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Epidemiology of Mental Disorders

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The Global Burden of Disease (GBD) is a tool that provides a comprehensive picture of **mortality and disability** across **countries, time, age, and sex**. It quantifies health loss from hundreds of **diseases, injuries, and risk factors**, so that health systems can be improved and disparities eliminated.

GBD research incorporates both the prevalence of a given disease or risk factor and the relative harm it causes. With these tools, decision-makers can compare different health issues and their effects.

The GBD produces over 1 billion data points into a suite of data visualizations, and is regularly updated with new data.

Publications 400+ since 2010	Data points generated 1 billion+ in 2022	Diseases and injuries 350+ in 195 countries, 1990-present	Participating researchers 7,000+ in over 156 countries and territories
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[Learn more about the GBD →](#)

[Contribute to the GBD →](#)

- A complex regional and global research study focusing on burden of disease
- Started 1990:
 - World Bank
 - WHO
- Now:
 - Institute of Health Metrics and Evaluation (University of Washington).
 - PI is Christopher J.L. Murray
 - www.healthdata.org

Occurrence

Epidemiological terms

Incidence

- New cases

Prevalence

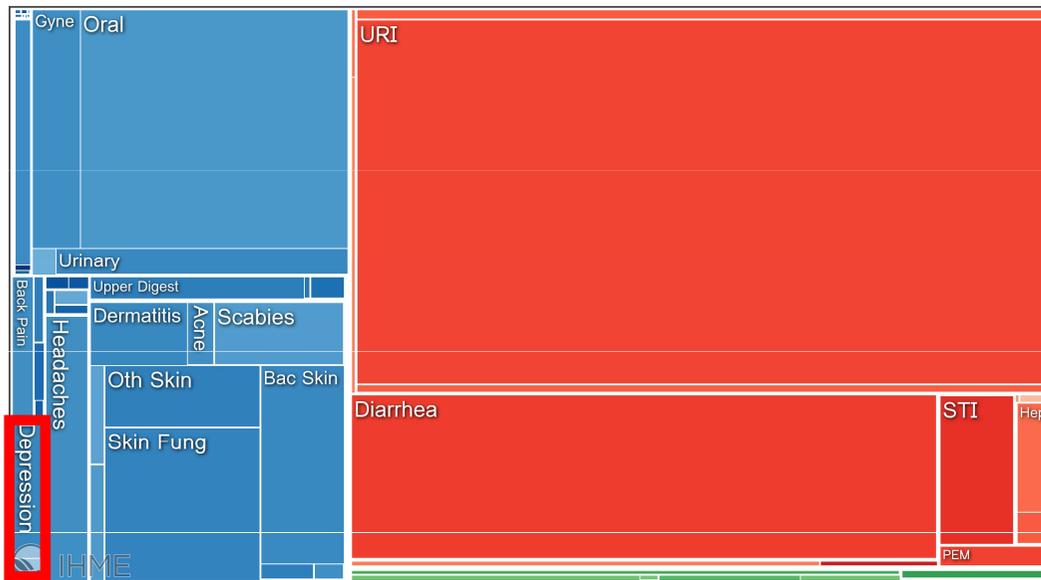
- All individuals with a diagnosis at a certain time

Lifetime Prevalence

- The proportion of a population who, at some point in life has ever had the characteristic.

Incidence

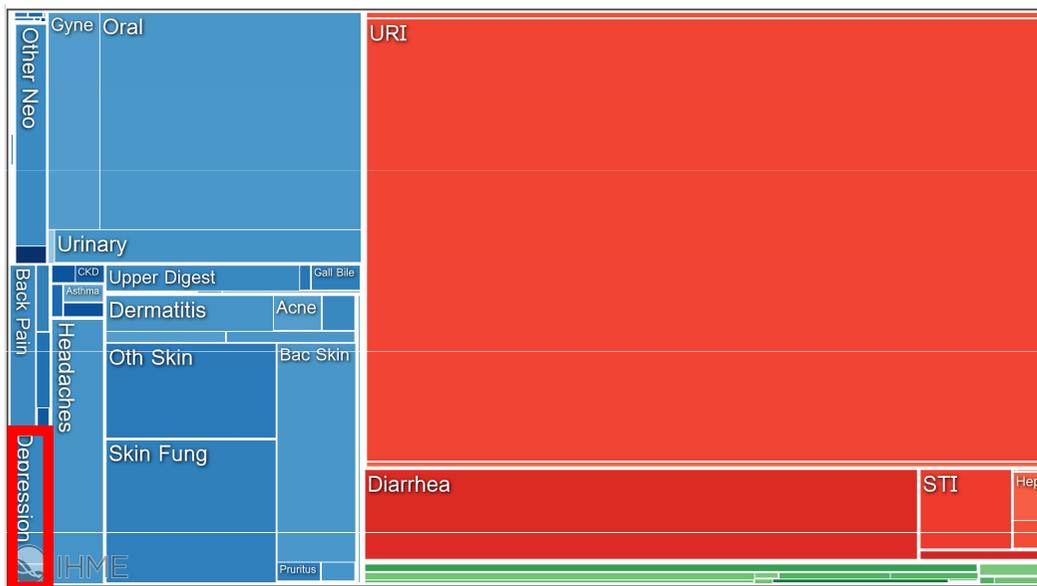
2019, boths sexes, globally



- Percentage of all new cases of all diagnoses
- 1. Upper respiratory infection
 - 42.82 %
- Depressive disorder
 - 0.72 %

Incidence

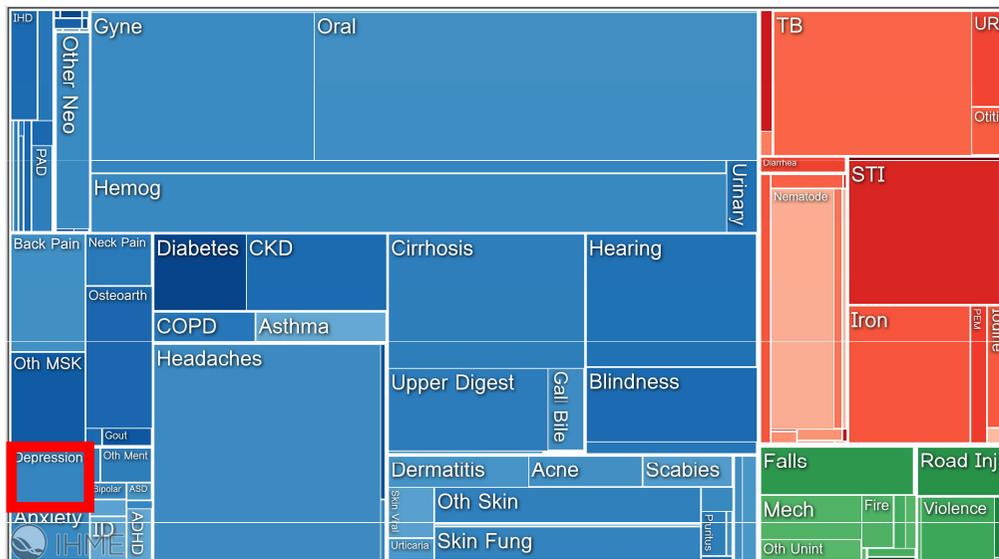
2019, both sexes, high-income countries



- Percentage of all new cases of all diagnoses
- 1. Upper respiratory infection
 - 51.22 %
- Depressive disorder
 - 0.86 %

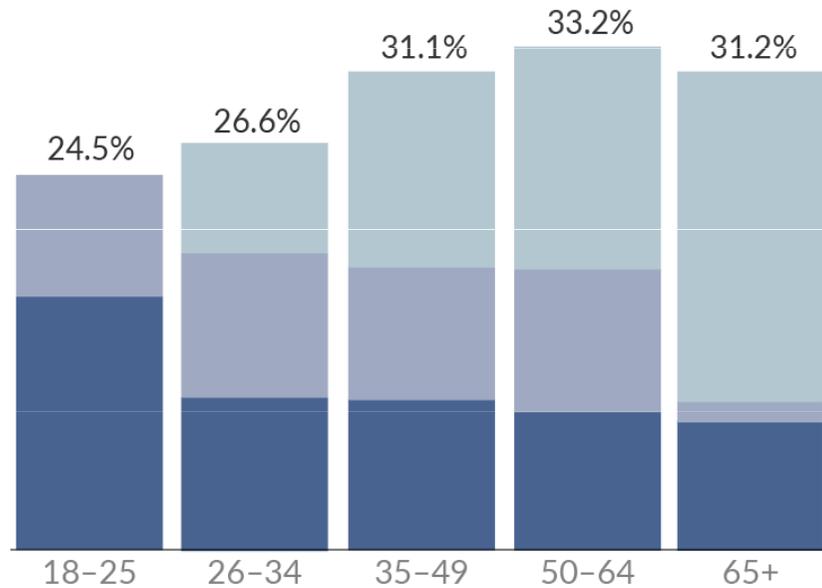
Prevalence

2019, both sexes, globally



- Percentage of all new cases of all diagnoses
- 1. Tuberculosis
 - 24.59 %
- Depressive disorder
 - 3.76 %

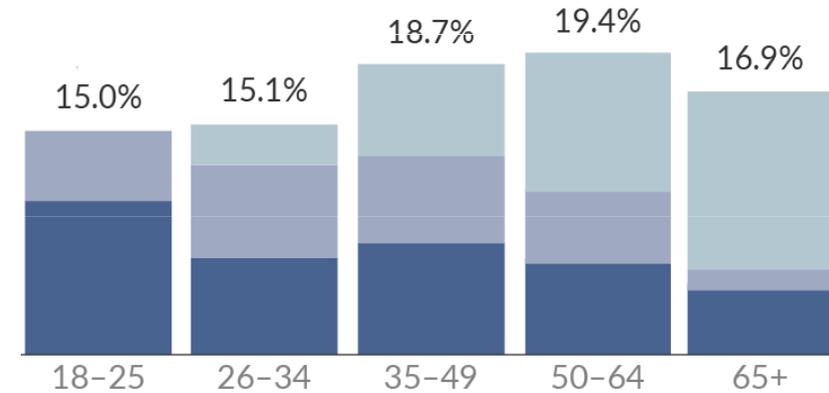
Depression



Lifetime prevalence - females

Barvy:

- Informed about episode, but later forgot it
- Informed about episode and did not forget it
- Had episode during the last year

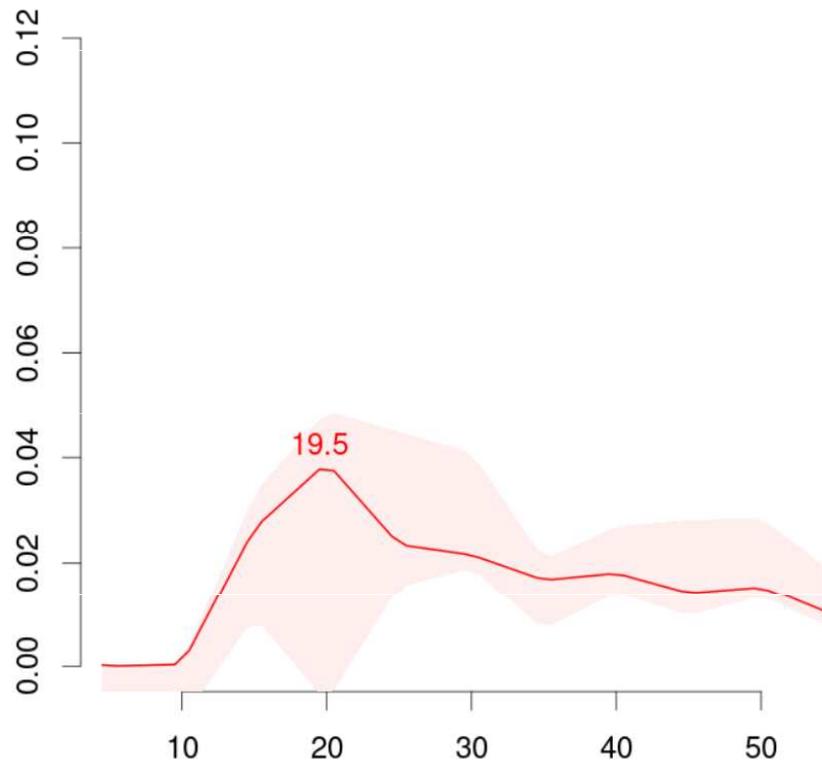


Lifetime prevalence - males

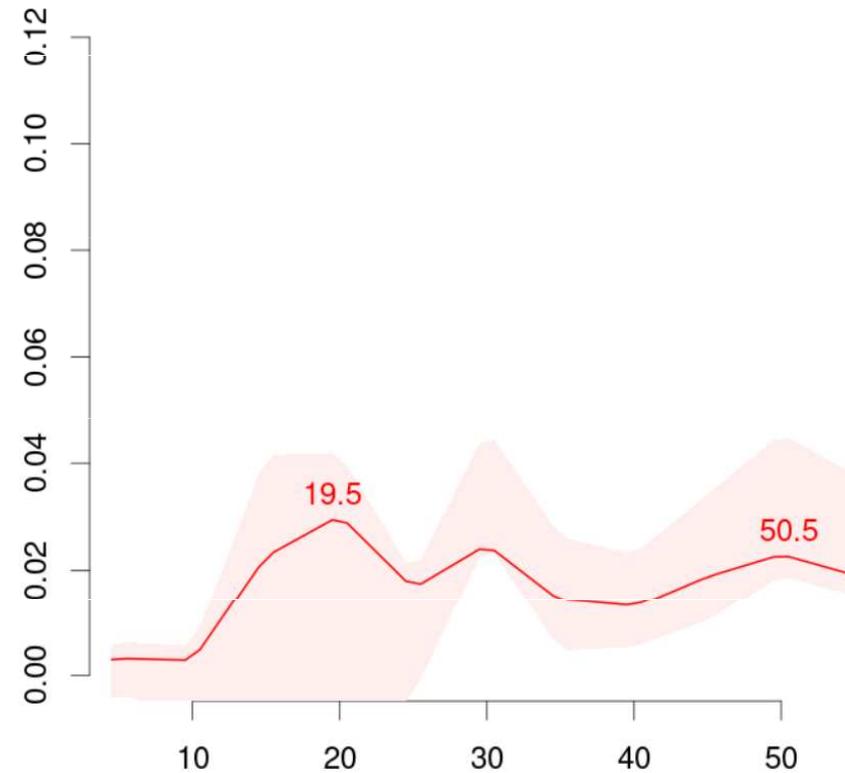
- Females have approx. 1.5 - 2x higher lifetime prevalence
- Decrease in lifetime prevalence in the oldest age range is caused by the shortening of life in people with depression

Age of onset

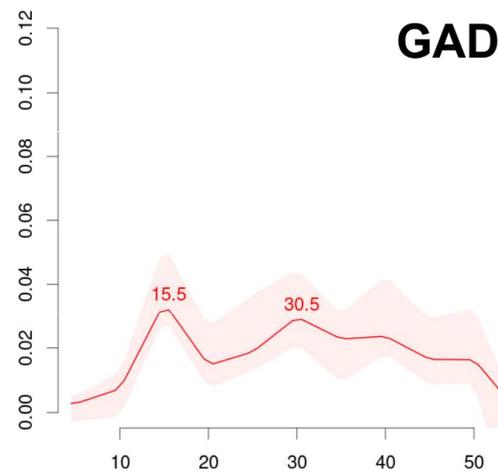
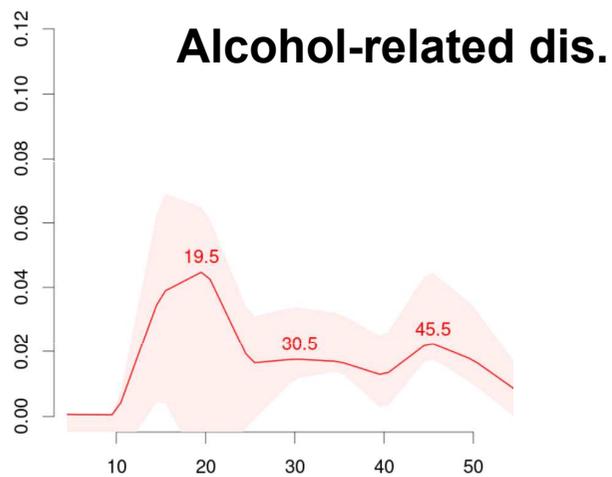
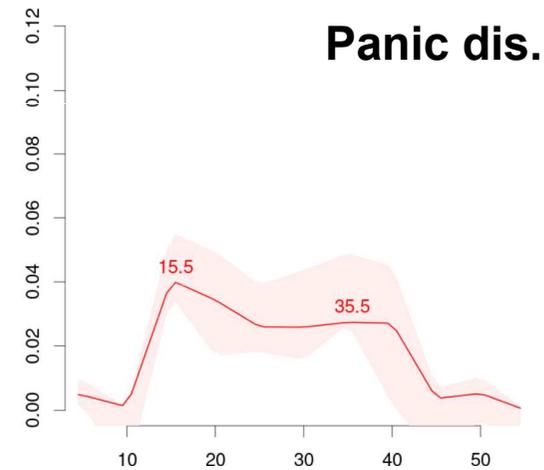
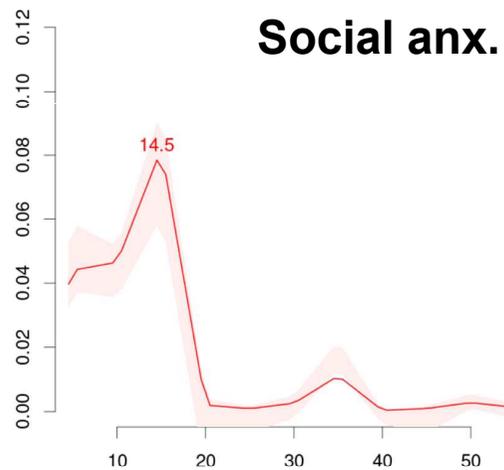
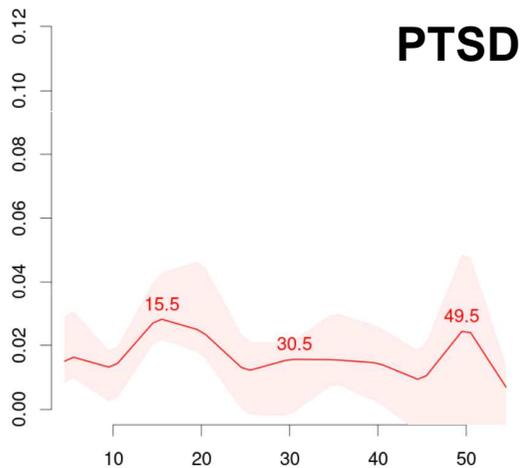
Depressive disorder



Bipolar disorder



Age of onset



Solmi a kol. 2022

Functional Aspects

DALY: Disability Adjusted Life Years

DALY

How many years of life does a person lose by being unable to work (or disabled) or dead

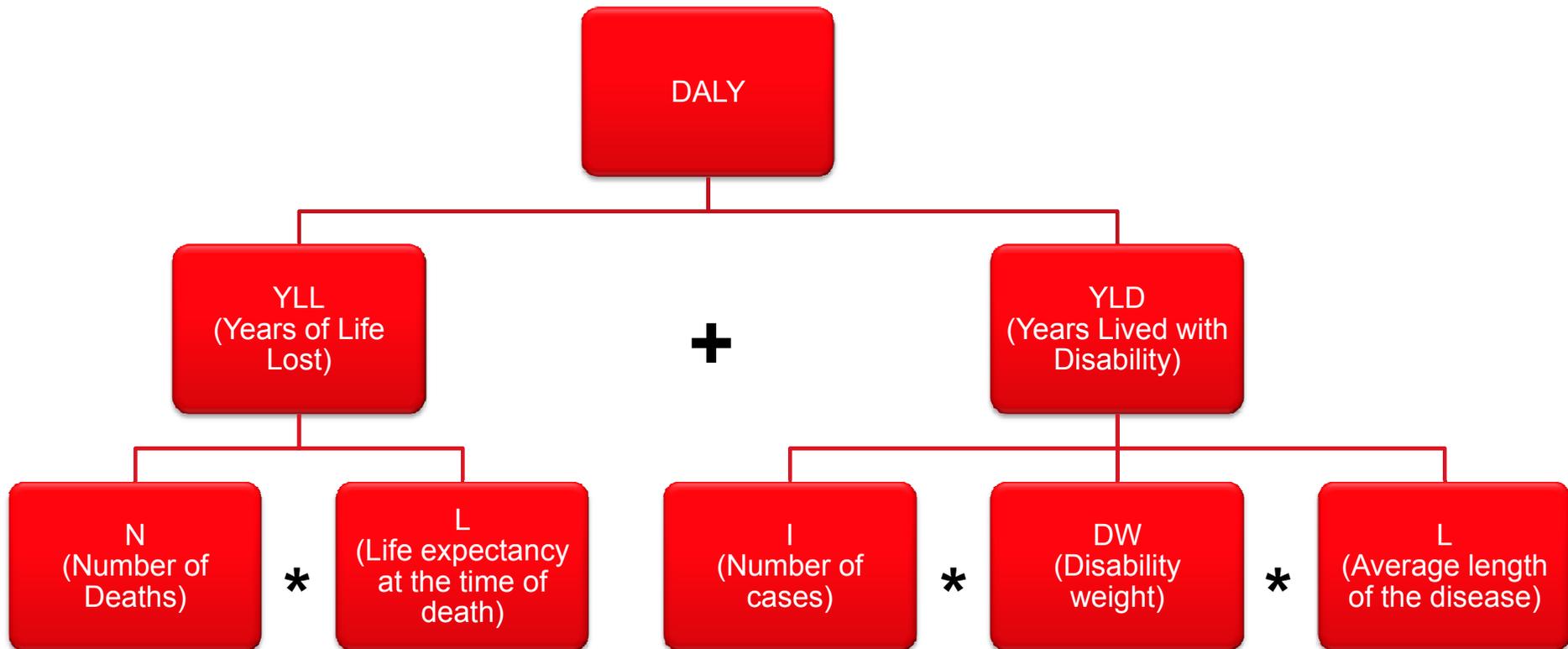
$$= \text{YLD} \text{ Years Lived with Disability} + \text{YLL} \text{ Years of Life Lost}$$



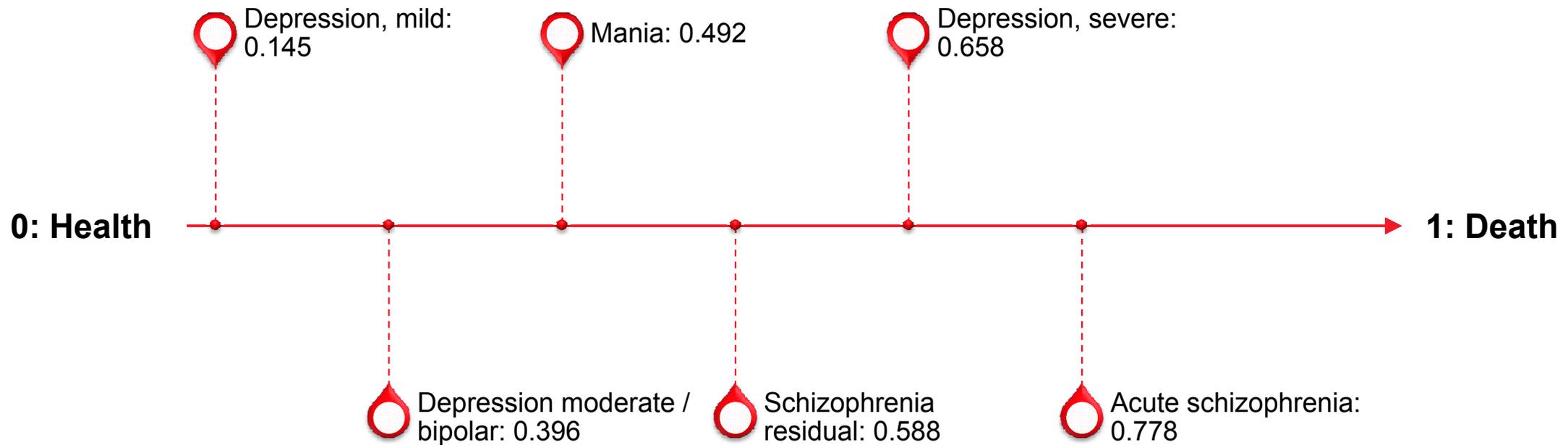
Planemad Vector by Radio89; Derived from: DALY disability affected life year infographic.png; CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=20278903>

DALY

Formula

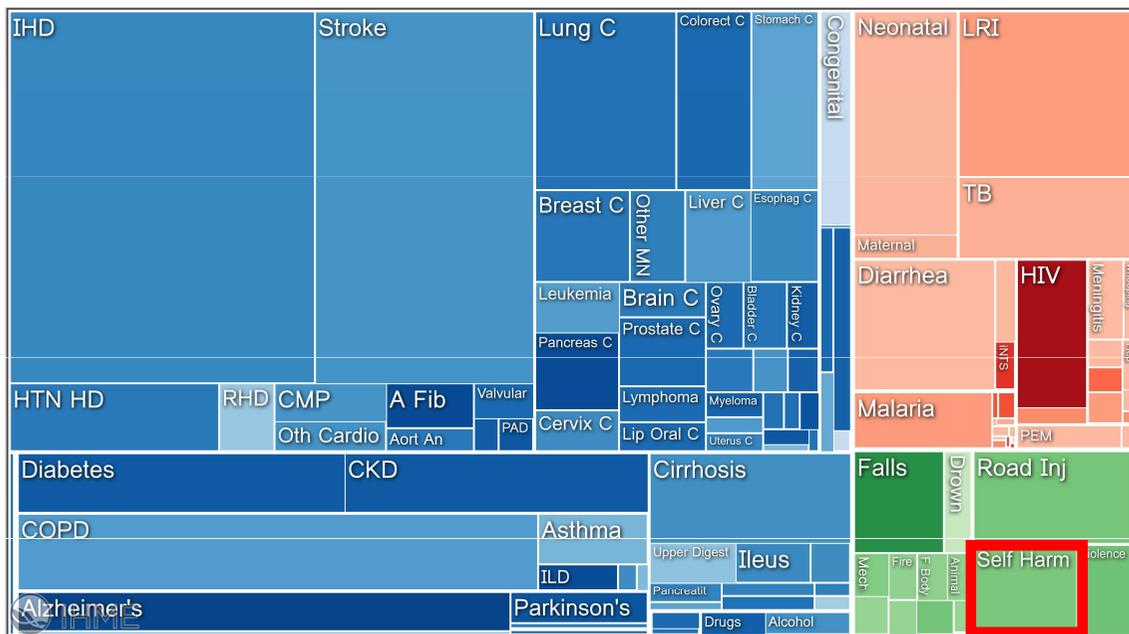


Disability Weights



Deaths

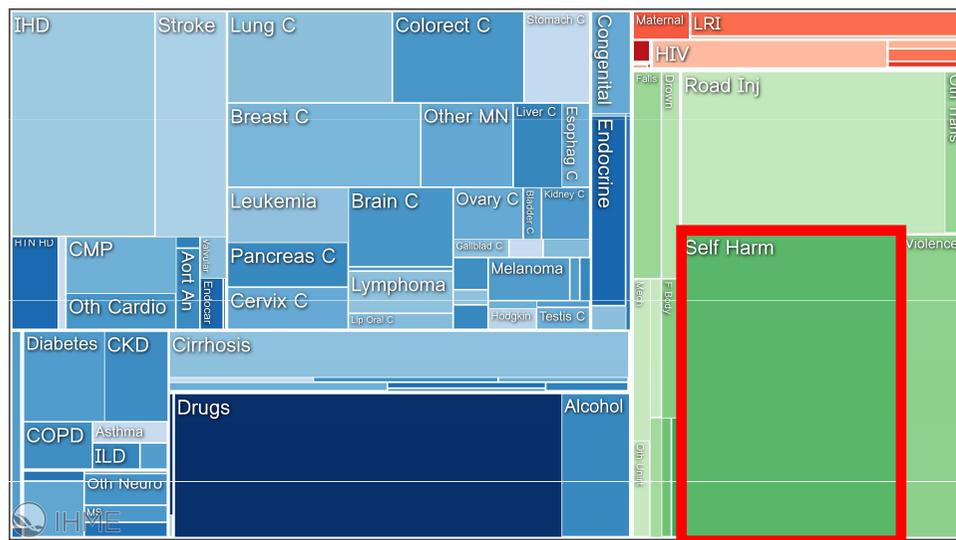
2019, both sexes, globally



- **Self-harm (incl. suicidality):**
- 1.34 %

Deaths

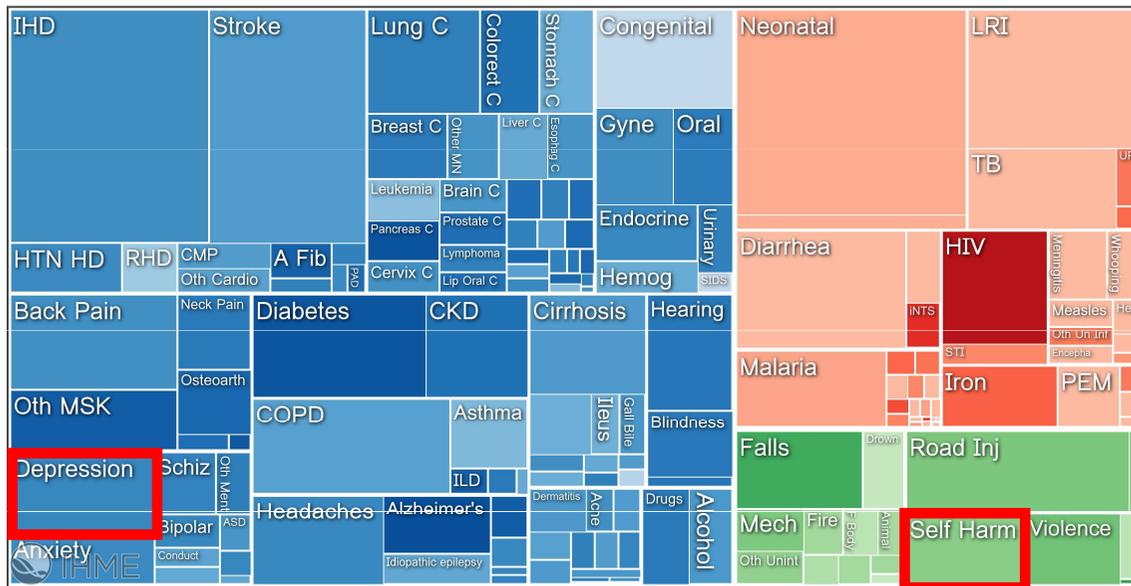
2019, both sexes, 15 – 49 years, hi-income countries



- 1. **Self-harm (incl. suicidality):**
 - 12.4 % of all deaths
- 2. **Traffic accidents**
 - 10.83 % of all deaths
- 3. **Substance-related**
 - 10.74 % of all deaths

DALY

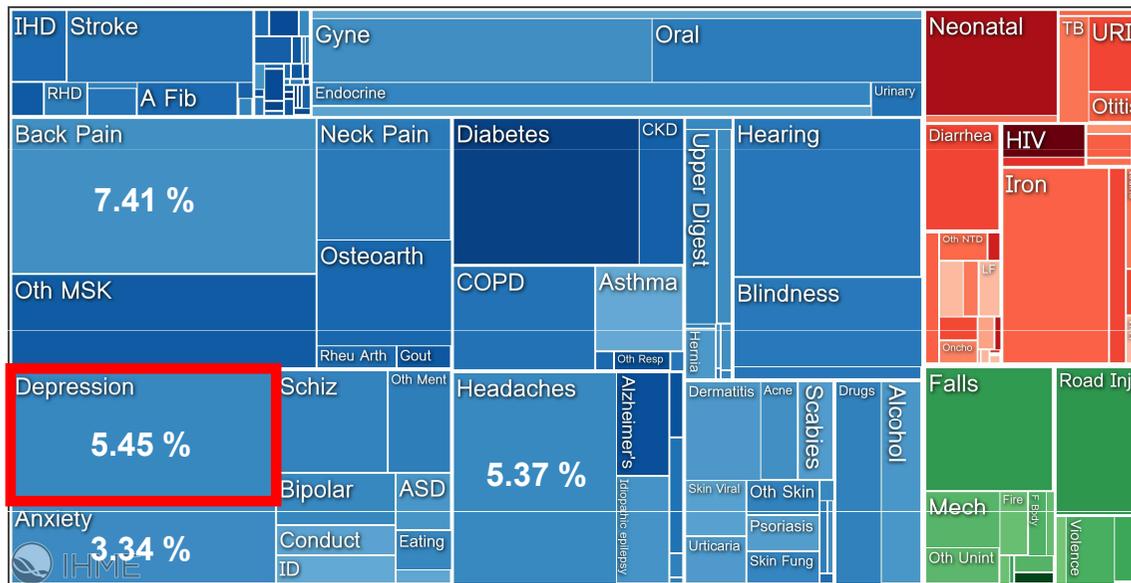
2019, both sexes, globally



- Depressive disorder
- **1.84 %**
- Self-harm (incl. Suicidality):
- **1.35 %**

YLD ~ Sick leave and disability

2019, both sexes, globally



- Depressive disorder is one of the most important sources of decreased productivity
- 2. place
- 5.45 %

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Aethiology and Patogenesis

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Aetiology & Patogenesis



Aetiology

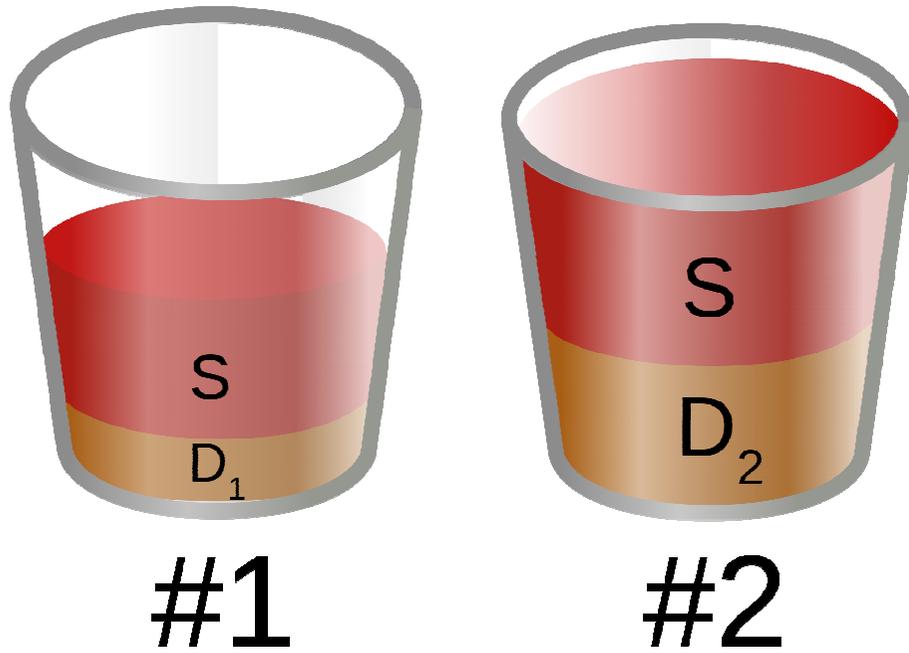
The cause or causes of diseases or pathologies



Pathogenesis

The process by which a disease or disorder develops

Diathesis-stress model



4P Model

Aetiological factors in mental disorders

Predisposing

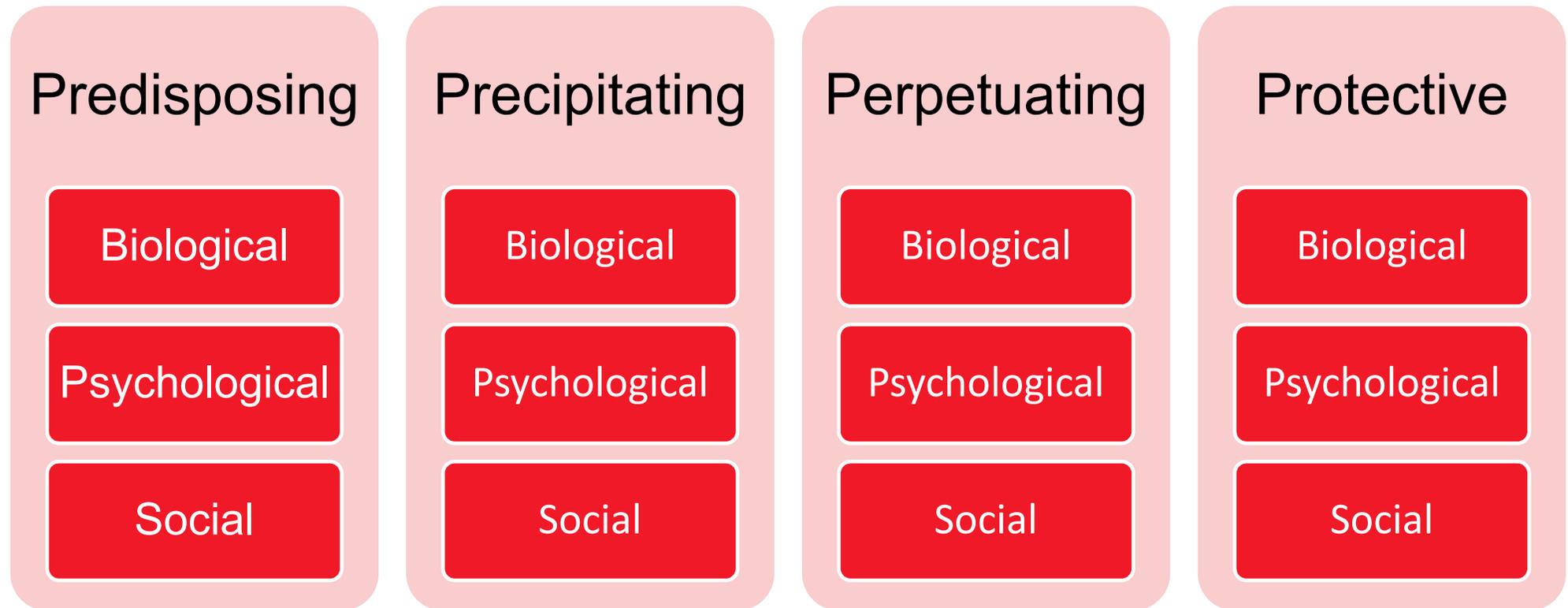
Precipitating

Perpetuating

Protective

Biopsychosocial model

Aetiological factors in mental disorders

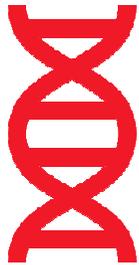


Case formulation: Matrix

Example: Major Depressive Disorder

	Predisposing <i>(Remes et al 2021)</i>	Precipitating <i>(Slavich et al 2011)</i>	Perpetuating
Biological	Female sex Somatic illness Genetic factors (BDNF, HLA, specific SNP)	Somatic illness Bodily trauma Medication (e.g. corticosteroids) Substance abuse Lack of sleep	Chronic somatic illness Comorbidities Substance abuse Lack of sleep
Psychological	Negative self-concept Rejection sensitivity Neuroticism Ruminations	Loss and grieving Rejection (Dis)Stress Changes in life	Unmet needs Maladaptive strategies
Social	Childhood adversities (abuse, bullying etc.) Low education Low income	Financial difficulties Job loss	Financial difficulties Unemployment Secondary gains

Biopsychosocial Model Matrix



Content of the matrix differs between diagnoses:

Ratio of biological : psychological : social constituents

Specific types of factors



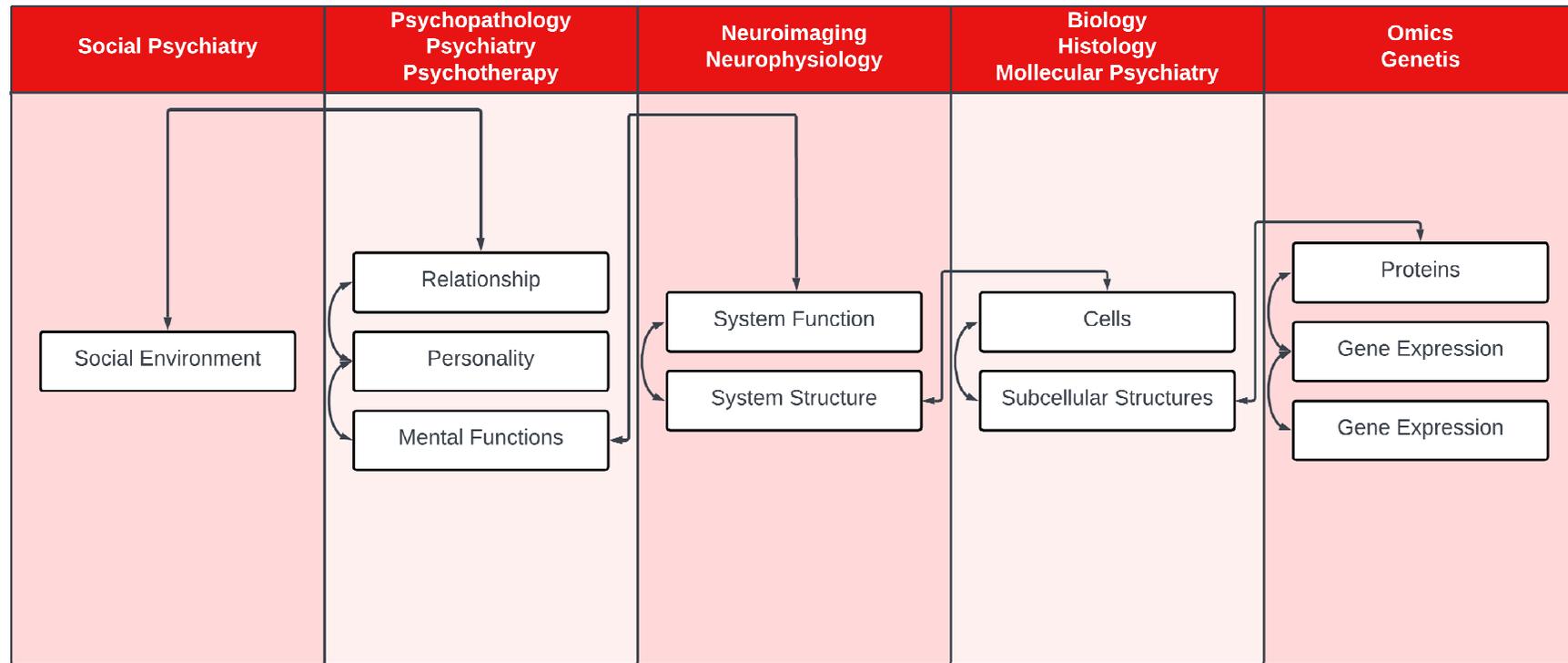
It further shows individual characteristics

Even within a single diagnosis, different individuals can present a unique mix of factors.

Importance of a personalized approach to understanding and treating mental disorders

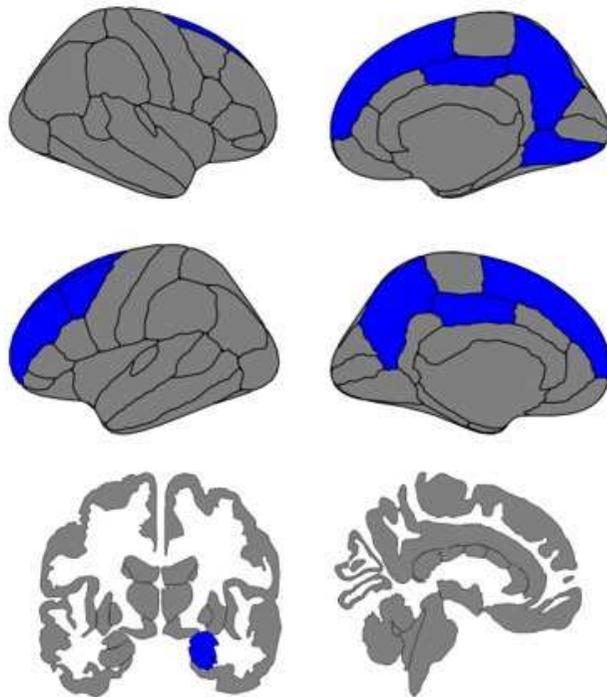
Pathogenesis | Levels of Abstraction

Úrovně abstrakce (Kašpárek 2010)



Brain Morphology Changes

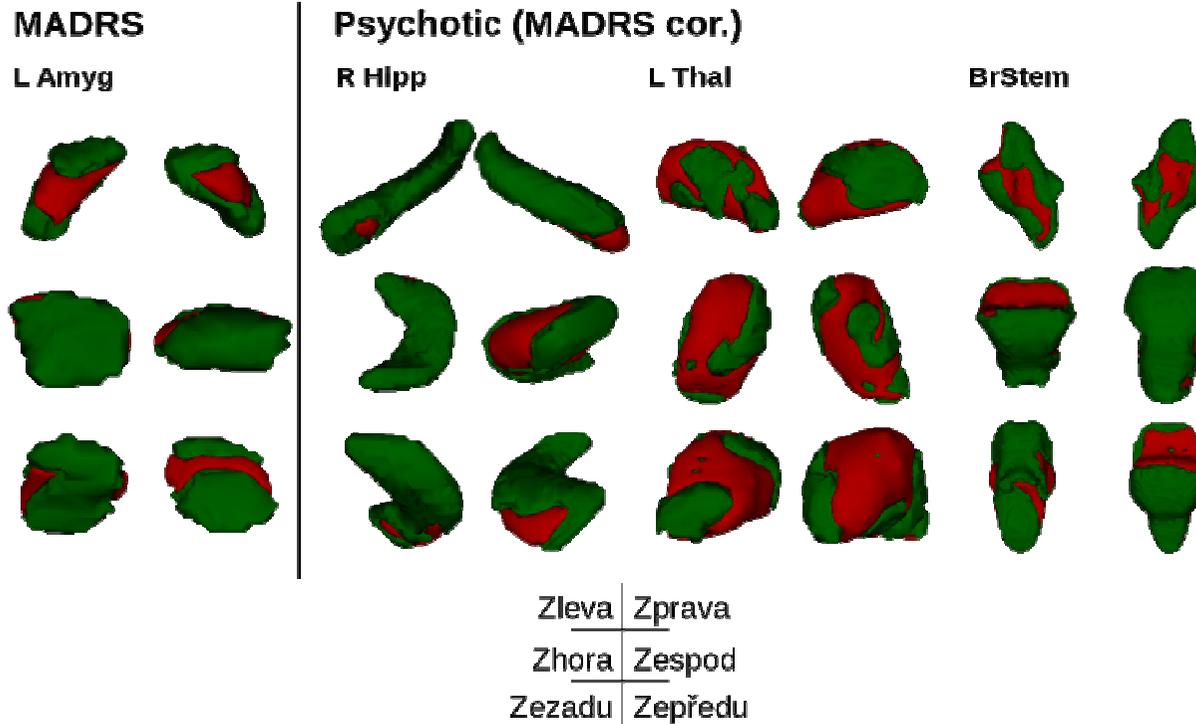
Example | Psychotic vs. Non-Psychotic Depression



- **PD / NPD:** 56 / 52
- **Age:** 71.7 (7.7) / 70.2 (6.7)
- **PD ↓ GM density in:**
 - Ra L superior frontal
 - L middle frontal
 - R lingual
 - R a L posterior cingulate
 - R a L praecuneus
 - R amygdala a hippocampus

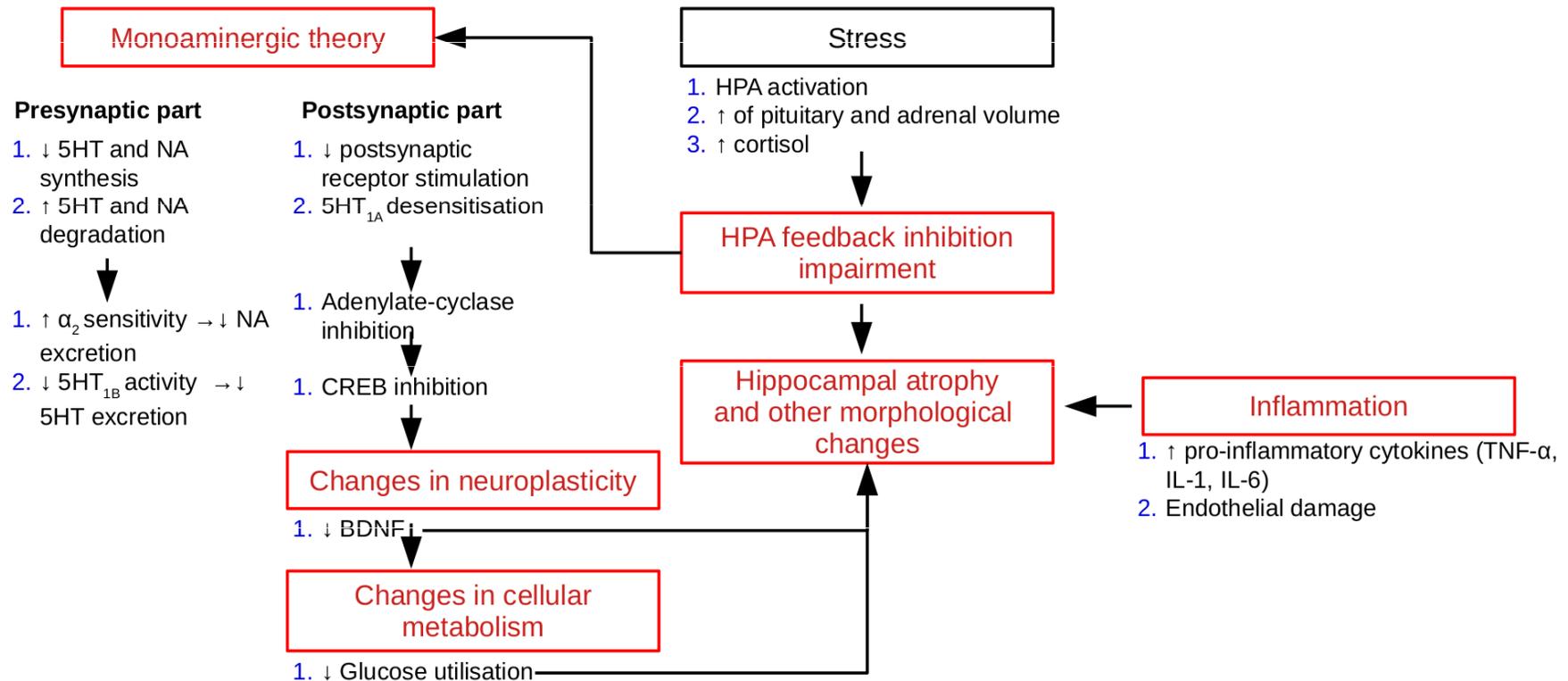
Brain Morphology Changes

Example | Vertex Analysis of Psychotic vs. Non-Psychotic Depression

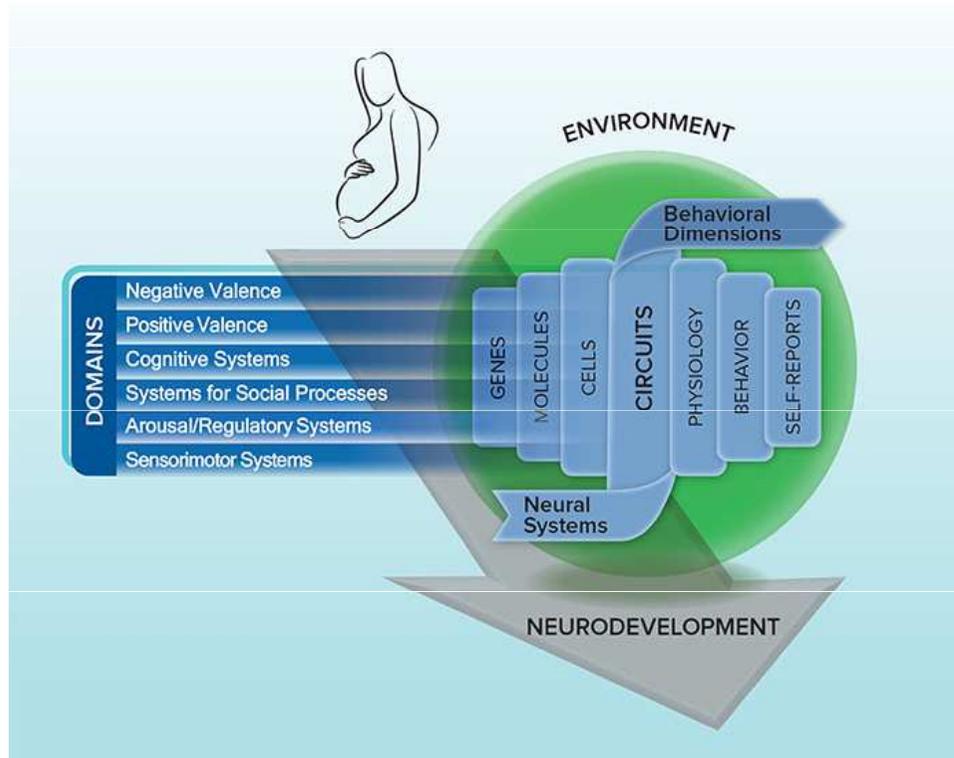


Integrative Models

Example | Neurobiology of Depression (Ferrari and Villa, 2017)



Research Domain Criteria (RDoC)



- Initiative of the National Institute of Mental Health (NIMH).
- Providing a biologically-based, rather than symptom-based, framework for understanding mental disorders.

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Treatment in Psychiatry

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Treatment in Psychiatry



Treatment Modalities

What we use

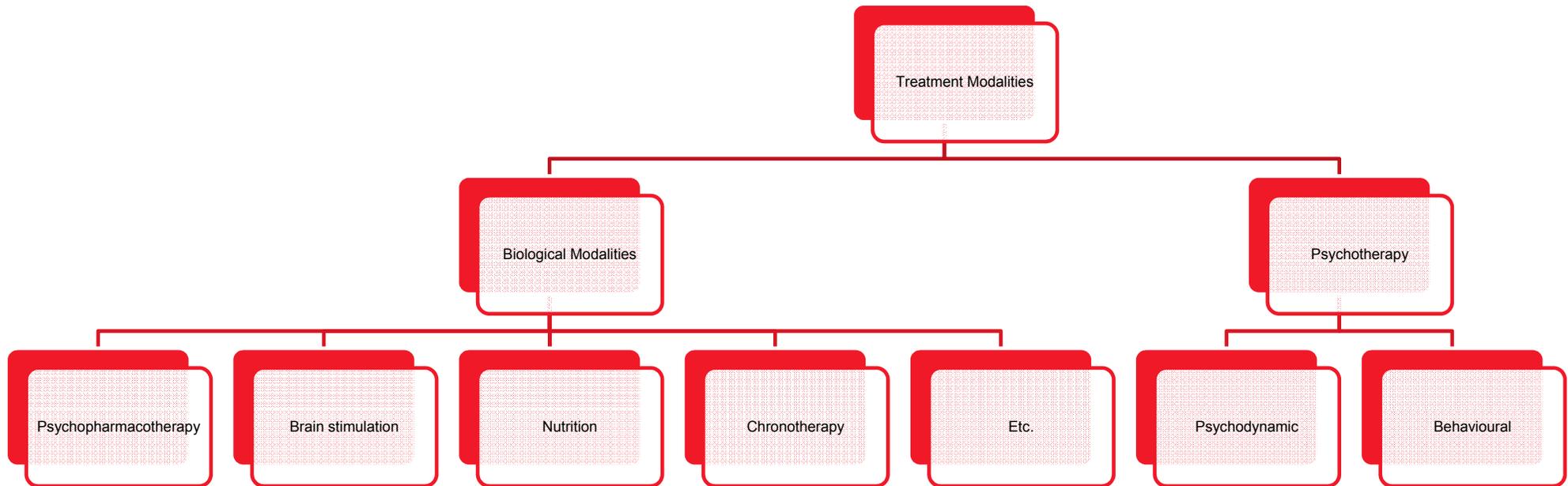


Guidelines

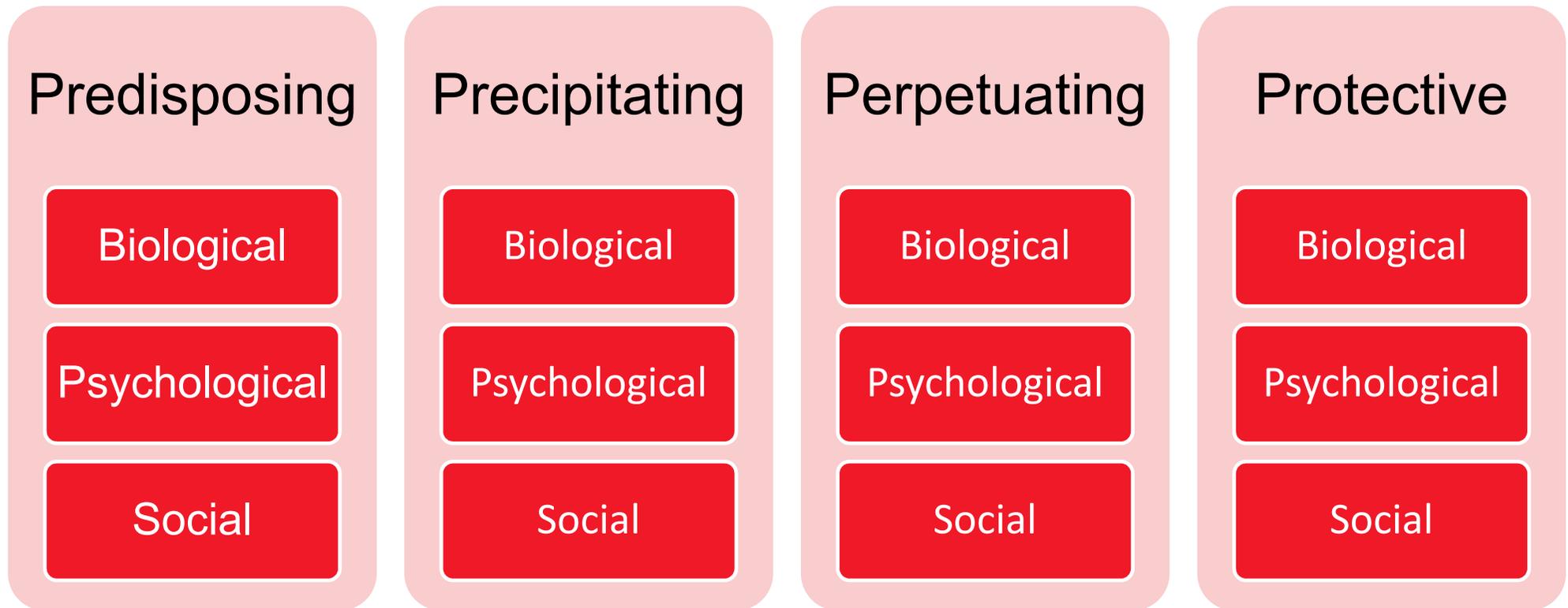
How we use it

Evidence based

Treatment Modalities in Psychiatry

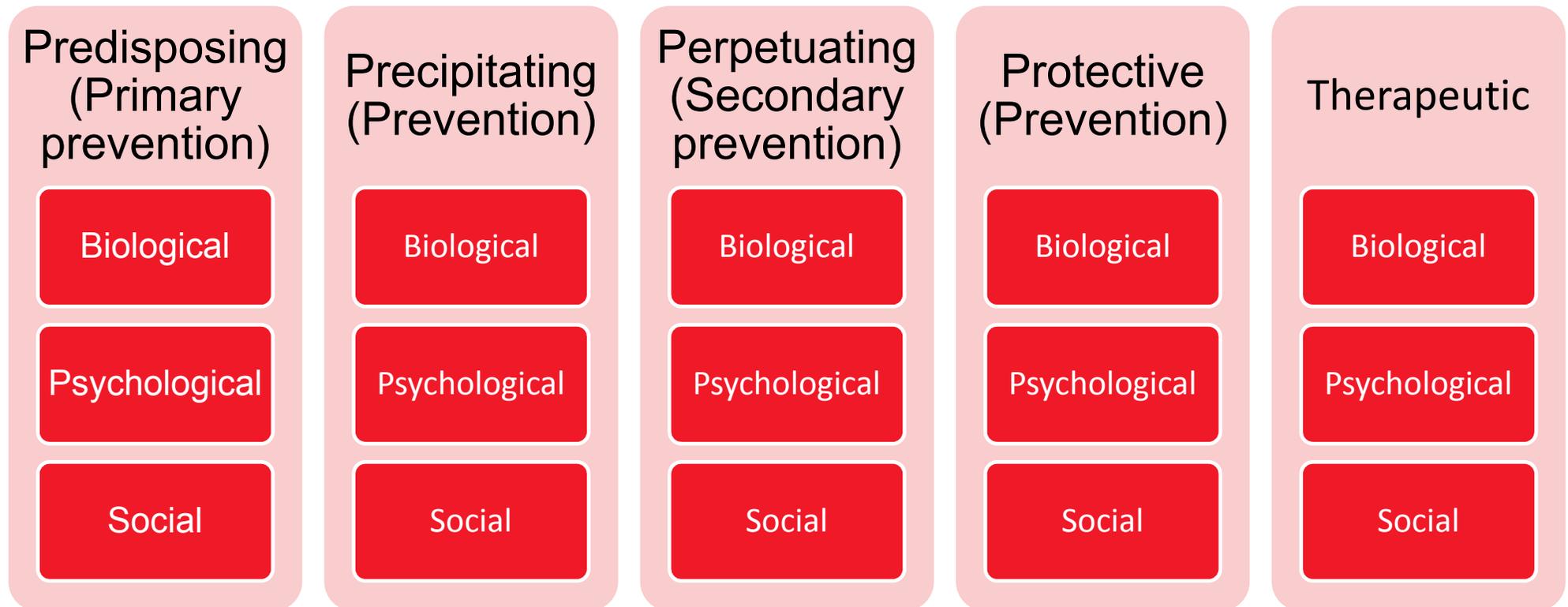


4P model



4P model + Interventions

Interventions could be also utilized on biological, psychological and social levels

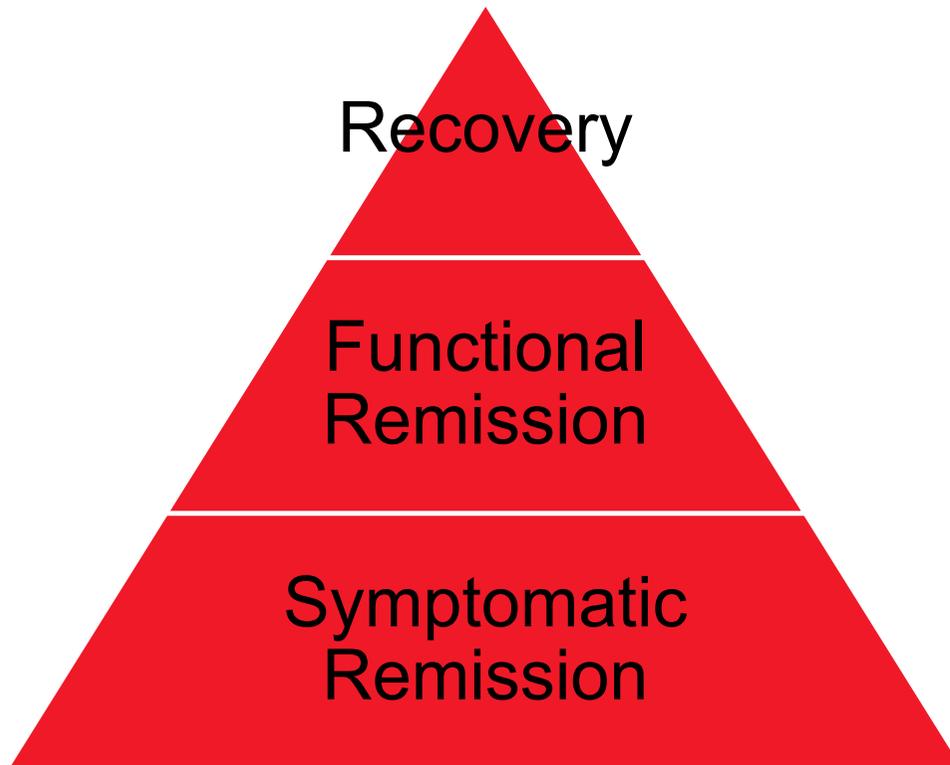


Treatment Modalities across ICD-10

Ratio of Biological (B): Psychological (P) Treatment Modalities in Average Patient

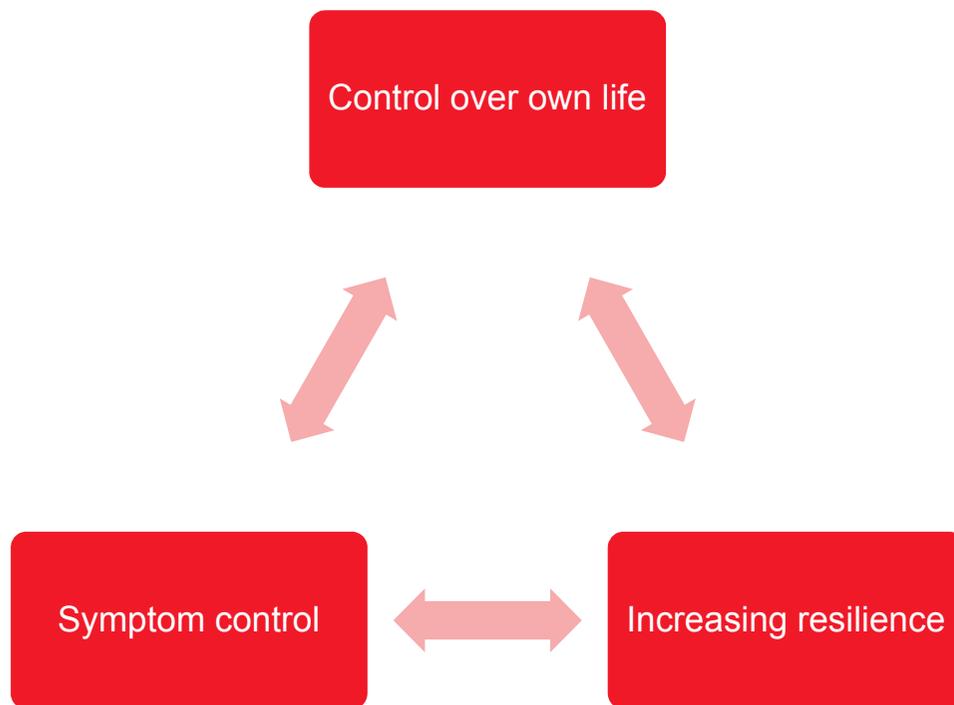
Diagnostic Group	1	2	3	4	5	6	7	8	9	10
F0 Organic disorders	B	B	B	B	B	B	B	B	B	P
F1 Substance-related disorders	B	B	B	B	B	P	P	P	P	P
F2 Schizophrenia and related disorders	B	B	B	B	B	B	B	P	P	P
F3 Mood disorders	B	B	B	B	B	B	P	P	P	P
F4 Neurotic, stress-related and somatoform disorders	B	B	B	P	P	P	P	P	P	P
F5 Syndromes associated with physiological factors	B	B	B	B	P	P	P	P	P	P
F6 Disorders of adult personality and behaviour	B	B	P	P	P	P	P	P	P	P
F7 Mental retardation	B	B	B	B	B	B	B	B	P	P
F8 Disorders of psychological development	B	B	B	B	B	P	P	P	P	P
F9 Childhood and adolescent	B	B	B	B	P	P	P	P	P	P

Classical Treatment Paradigm



- In the traditional (and mostly used) treatment model, recovery begins with sufficient symptom control.
- In recent years, more focus was given also to the higher levels:
 - Functional remission
 - Recovery

Recovery model



- A holistic approach, focuses on the person and their life.
- It does not necessarily aim to return to premorbid functioning.
- "One does not need to have full control over their symptoms in order to have control over their life."
- It is intended to help patients achieve their goals, fulfill expectations and dreams.
- It is not a linear process, it can proceed at different speeds.

Recovery Model

Role of a psychiatrist

- Support each person to have control over their life regardless of their emotional experiences.
- Perceive each person as an individual and not focus solely on their mental health.
- Recognize individual differences, such as age, gender, culture, beliefs, and support networks.
- Strive to understand the situation and experiences of each individual, because each person is different.
- Understand that mental health significantly varies from person to person, including how often someone has periods of illness and for how long.
- Remember that each person's journey is likely not going to be straight, but rather a mixture of successes and failures.
- Be optimistic and support the person to live a meaningful life based on their choices, goals, strengths, and abilities.
- Help build independence.

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Q&A

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Děkuji za pozornost

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