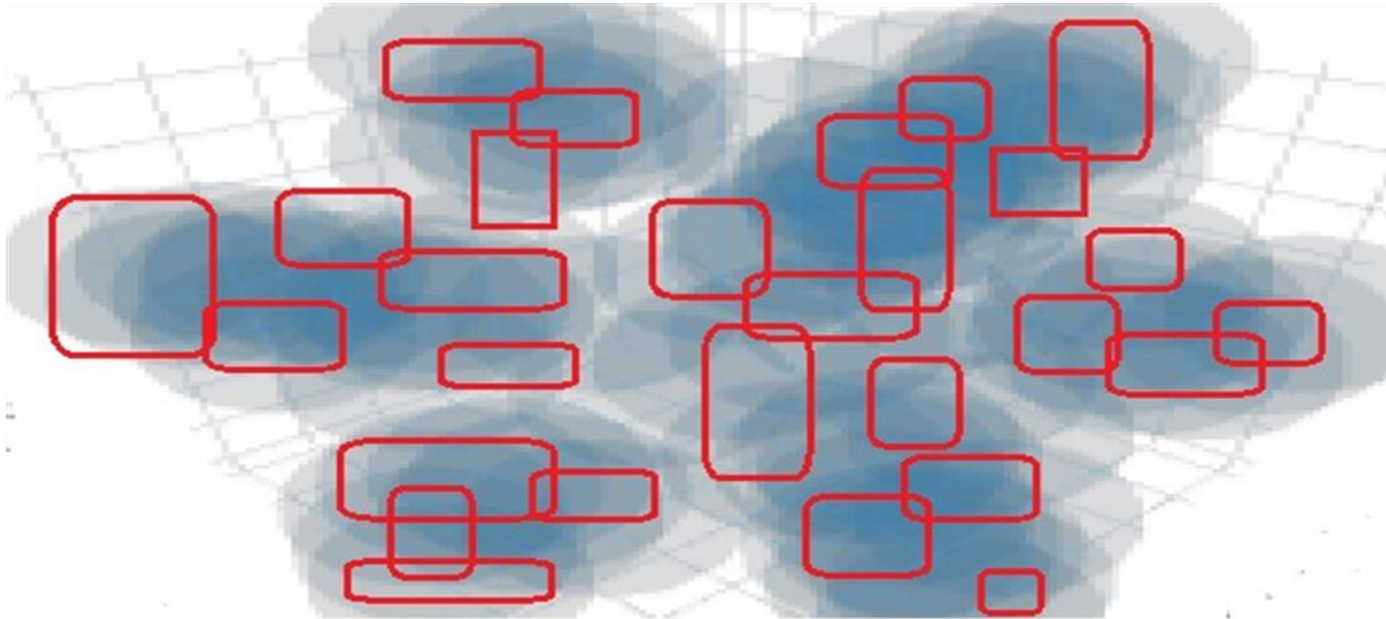


Classification In Psychiatry

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Ground Rules

- Phone Hypocrisy – don't look at or respond to your phones
- Please ask questions during the talk if you wish
- PAY ATTENTION
- THINK!
- This is a stem, expand the factual knowledge with reading later

Curriculum Requirements

5. CLASSIFICATION AND ASSESSMENT IN PSYCHIATRY

Trainees shall demonstrate knowledge of the assessment and classification of the major psychiatric disorders. This includes:

5.1 Classification systems

5.1.1 a working knowledge of ICD and DSM classification and diagnostic systems

5.1.2 WHO classification of impairments, disabilities, and handicaps. A working knowledge of "statementing" for special needs education.

Why Do We Need Classification?

- Allows communication between professionals
- Allows groups to be defined for research to gain information on
 1. Range of likely outcomes (prognosis)
 2. Response to treatment
 3. Important correlates such as bio psycho social features
 4. Causes of the classified disorder (and explanation)
- Statistics for administration, management and budgeting
- Eligibility for care both from services but also family/society
- Facilitate appropriate payments for care
- Reduces potential for abuse e.g. of psychiatric diagnosis

Categorisation As A Form of Classification

- Classifications are cognitive structures imposed on data to achieve particular goals.
- We experience raw streams of data that our brain subdivides into categories and concepts to help us make sense of this
- We think abstractly using the same method of concepts/ categories
- These categories have “prototypic” or “ideal” forms – we recognise an example of a category more quickly the closer it is to a prototype
- Can “sub-categorise” categories e.g. mild/moderate/severe and add other important information

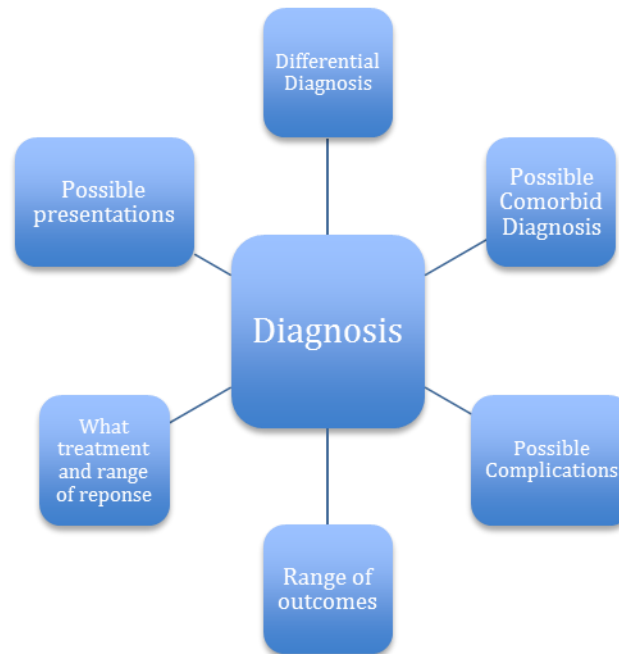
Why Use Categories?

- Doctors often see patients in time critical situations e.g. brief appointments and other stressors could be e.g. seeing patient at 3am, being aware of multiple patients to see after this one, caseloads of 100s
- Often have to make decisions about patient such as admit/not admit, what treatment to start or change etc
- Need a robust system to help them make good decisions
- Categories quicker, less “cognitive-resource” dependent than dimensions

The Status of a Diagnosis

- Diagnosis is an abstract concept used to summarise complex information about a patient's health state
- It doesn't exist as a "thing"
- It is ALWAYS provisional
- People may be given a diagnosis but they are NOT the diagnosis
- It can have powerful effects on people's lives. Not all intentional or harmless
- Not "Disease Based" But "Pattern Recognition Based"
- Do not confuse the territory for the map

Diagnosis: Utility of Diagnosis



A,B, C, D Model of Patient attributes

A - What patient shares with all other patients

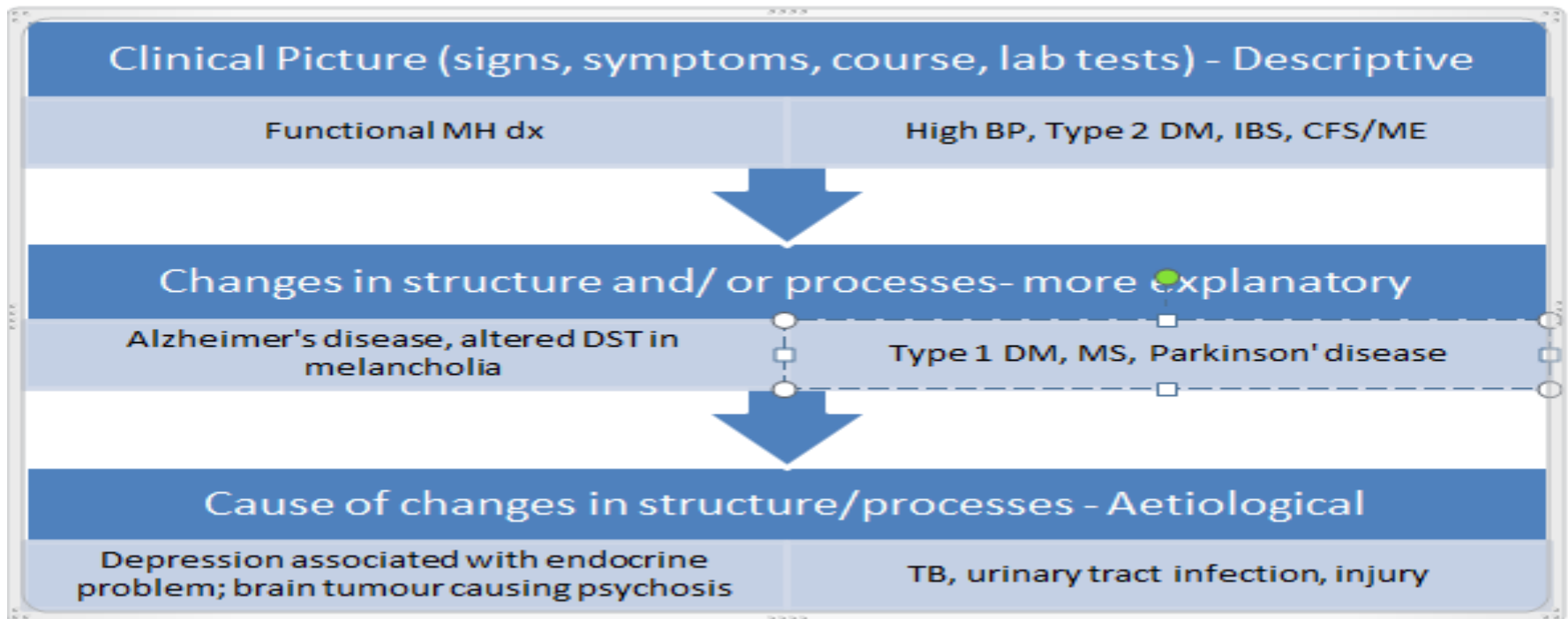
B - What patient shares with some other patients

C – What is unique to this patient

{D- What patient shares with everybody else}

- If concentrate therapeutic efforts solely on A, offer same treatment to everyone
- If concentrate therapeutic efforts solely on C, can't extrapolate from this patient how to treat other patients
- If concentrate purely on B lose sight of the person
- Must make therapeutic efforts on A,B,C and D

Basis of Classification



Essentialism & Carving Turkeys

- “Essentialism” suggests that for example illnesses can be separated into “natural kinds” in classic “Sydenham” model
- Syndrome is collection of clinical features that associate together (with implication of similar underlying cause)
- These separate entities are distinguished by points of rarity between themselves and normality - the categories have validity
- (Pneumonia is different from myocardial infarction, and can be further subdivided into a variety of aetiological causes)
- So diagnosis is supposed “to carve nature at the joints”
- BUT nature is not a giant multi-limbed turkey
- Mental disorder particularly hard to separate from each other

What is Promiscuous Reality?

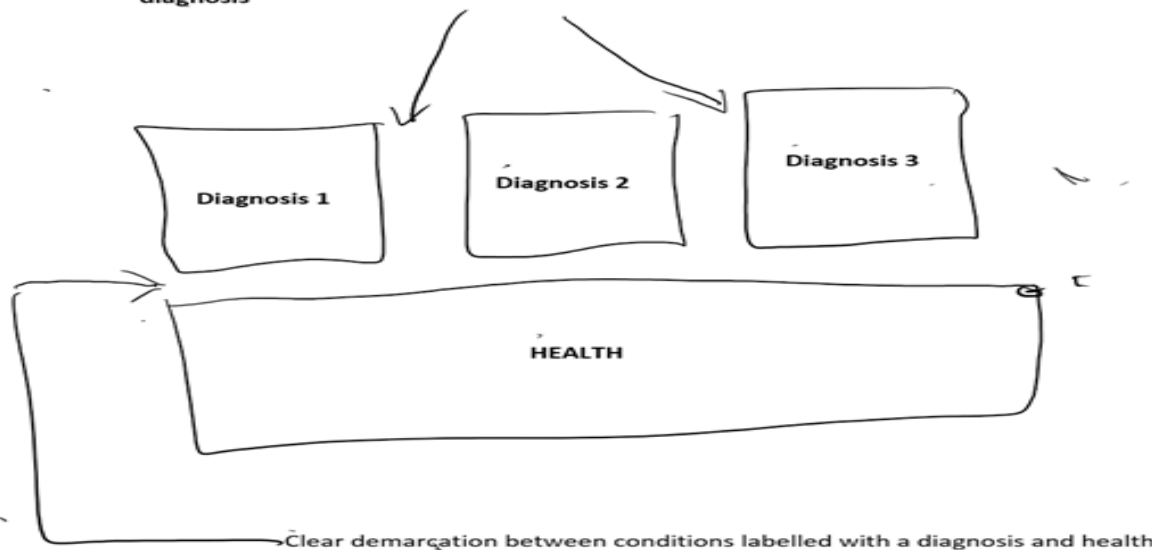
- Multiple viewpoints can describe a “piece” of the whole truth
- Putting all these viewpoints together can increase your knowledge of the whole though maybe not even the totality of whole truth
- Different viewpoints can have different purposes
- Multiple “models” of mental of disorder – biological, social, cognitive, psychodynamic and so forth
- These can all be useful in understanding and guiding help for patients
- They do not necessarily exclude each other
- Pragmatic realists recognise different classifications can be used depending on their **Utility** (usefulness)

What is Validity

- Some people effectively mean utility –a diagnosis is valid if it allows to make certain predictions
- Most people usually mean a concept that is independent of the observer/ observation
- E.g. if we did not observe them there still would be elements, protons, stars
- For diagnostic constructs it's often taken to mean an entity that is clearly separated in a zone of rarity from health and from other illnesses

Nature of Diagnosis Diseases/ Syndromes

Clear demarcation between different conditions labelled with different diagnosis



Diseases/ Syndromes Examples

- Type 1 Diabetes
- Myocardial Infarction
- Tuberculosis
- Urinary Tract Infection
- Melancholia
- Alzheimer's Disease
- Organic Psychosis
- Delirium Tremens/ Wernicke-Korsakoff

Sydenham Syndromes

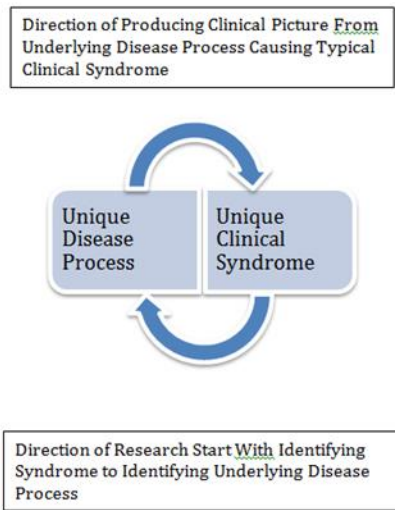


Figure Y One-to-One Relationship between Disease and Syndrome

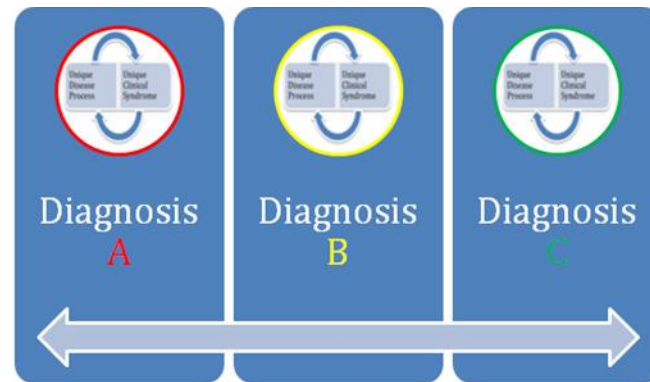


Figure Z Different disease processes leading to separate clinical syndromes. This allows different diseases to be distinguished clinically by diagnosis then further researched to identify these different processes.

Nature of Diagnosis Spectrums With Health

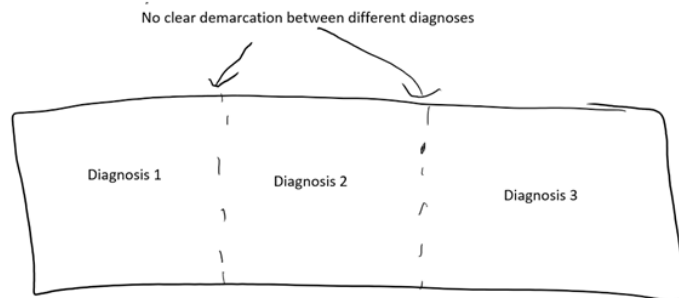


Spectrums With Health Examples

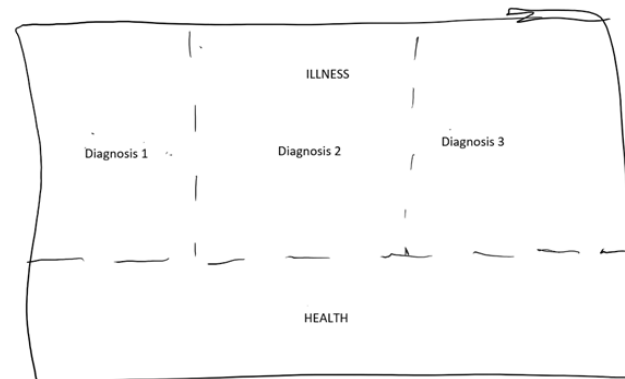
- Hypertension
- Type 2 Diabetes
- Hyperlipidaemia
- Acne Vulgaris
- Most examples of common mental disorders – depression, anxiety, mixed anxiety/ depression
- ? Psychotic like experiences *may* overlap with psychotic symptoms
- General population personality traits and diagnostic features of prototypic personality disorders

Nature of Diagnosis

Spectrums of Condition



Spectrum of illness with different parts of spectrum labelled as different diagnosis with no clear demarcations between these diagnoses.



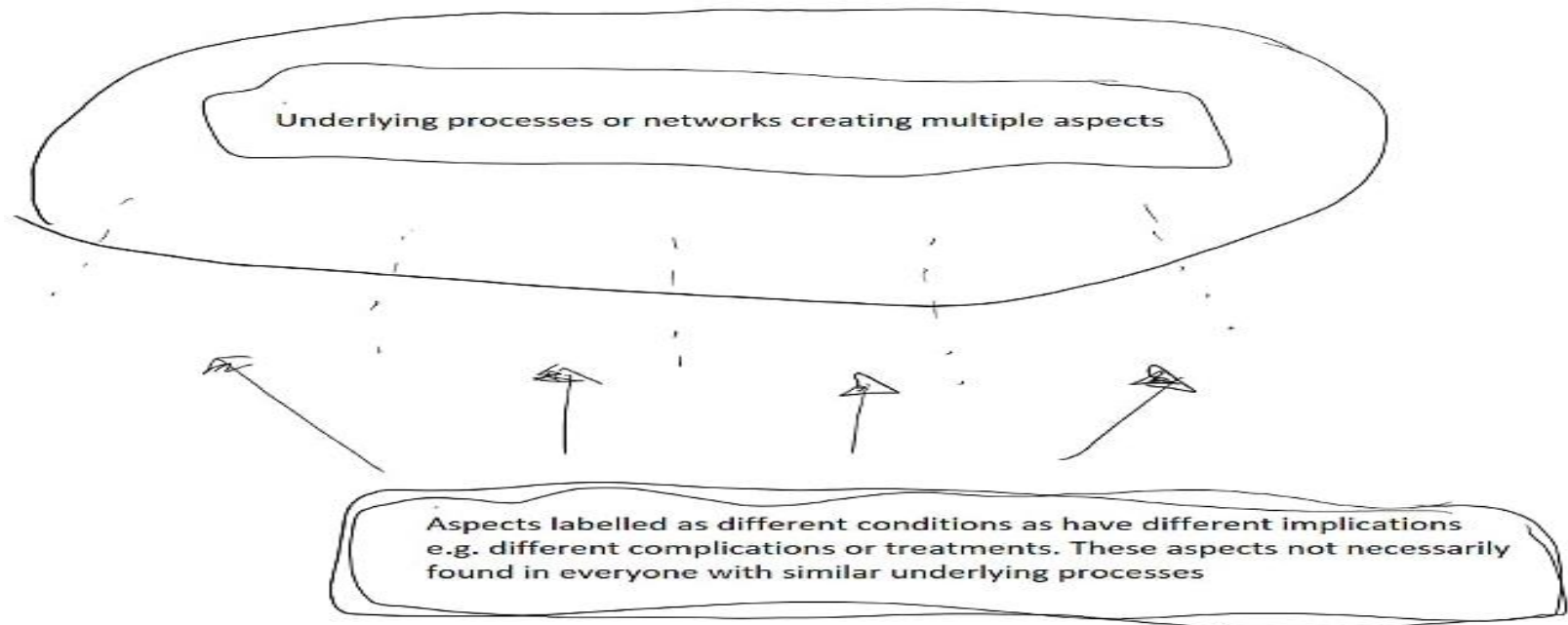
No clear demarcation between health and illness.
No clear demarcations between different diagnoses.

Spectrums of Condition Examples

- TB
- COAD (bronchitis/ emphysema)
- Type 1 Diabetes/ Type 2 Diabetes
- Acute coronary syndrome
- Inflammatory Bowel Diseases
- Connective Tissue Diseases
- Seronegative spondyloarthropathies including an overlap between psoriasis and inflammatory bowel disease
- Parkinson's disease – Lewy Body Dementia
- Frontotemporal dementia – motor neurone disease
- Psychosis (Bipolar, schizophrenia, schizoaffective)

Nature of Diagnosis

Spectrums of Conditions



Spectrums of Conditions Examples

- Metabolic syndrome (type 2 diabetes, high blood pressure, hyperlipidaemias, polycystic ovarian syndrome, obesity, NAFL)
- Autoimmune and inflammatory disorders (including Type 1 DM, MS, rheumatoid arthritis, IBD, psoriasis, asthma)
- Myeloproliferative disorders chronic myeloid leukaemia, myelofibrosis or polycythaemia rubra vera
- Prototypic personality disorders
- Internalising (split into fear and misery subtypes)
- Externalising (substance misuse and some personality types)
- Dementias (vascular, Lewy body, Alzheimers often co-occur)

Nature of Diagnosis 6 Injuries

- External forces that cause damage
- Examples include fractures, penetrating wounds, crush injuries, soft tissue damage, burns
- MH equivalents may be acute or chronic trauma

Nature of Diagnosis 7

Other Conditions of Interest to HCPs

- Disparate group of situations that are not illnesses but it is felt that health professionals offer some benefit.
- States associated with an increased risk of illness or health-related adverse events e.g. pregnancy/ child-birth, psychosocial stressor where may benefit from support
- Health care professionals are thought to have useful skills or can offer other benefits e.g. TOP, cosmetic surgery, adjustment to new situation
- Problems or difficulties where help is sought from a health or allied professional. In order to get access to care a diagnostic label may be needed e.g. child behavioural difficulties

Problems of classifying Mental Disorders

- Brain is most complex organ in body by far
- Functioning of brain poorly understood : what we do know is still difficult to understand how it translates into “outputs” such as thoughts, feelings, memories
- (Physiology and pathophysiology poorly understood)
- “Outputs” of brain extraordinarily complex and affected by external factors such as culture and very hard to objectively measure
- Given complexity of outputs, the role of external factors such as culture, lack of knowledge of functioning of brain, difficulty objectively measuring outputs an aetiological classification is very difficult

Reliability

- “Without Reliability there can be NO Validity (OR UTILITY)”
- If a diagnosis can't be reliably agreed upon it has low utility
- Inter-Rater Reliability in terms of diagnosis can be defined as the degree to which different observers can agree on the presence of a diagnosis in the same patient
- Often measured using the Cohen's kappa concordance statistic : the degree of agreement between 2 raters, greater than chance
- Also can be “weighted” for multiple categories, taking into account how close categories are together for agreement (e.g. yellow/orange more disagreement than red/violet)

Measuring Reliability

- Kappa Agreement
- < 0 Less than chance agreement
- 0.01–0.20 Slight agreement
- 0.21– 0.40 Fair agreement
- 0.41–0.60 Moderate agreement
- 0.61–0.80 Substantial agreement
- 0.81–0.99 Almost perfect agreement

(DSM 5 used much lower thresholds to justify diagnostic categories as having good reliability)

Inter-Rater reliability of ICD10 Diagnosis

Code	Disorder	Worldwide Except for Canada and the United States		Canada and the United States	
		Kappa	N	Kappa	N
F60.3	Impulsive personality disorder	0.38	57	0.43	37
F60.4	Histrionic personality disorder	0.32	90	0.07	27
F60.7	Dependent personality disorder	0.26	73	0.40	34
F60.8	Other personality disorder	0.25	97	0.38	35
F60.9	Unspecified personality disorder	0.13	30	0.60	20
F61	Personality trait accentuation	0.35	301	0.18	69
F61.7	Dependent personality trait	0.21	63	-0.08	17
F2	Schizophrenic disorders	0.84	639	0.77	169
F20	Schizophrenia	0.81	426	0.79	131
F20.0	Paranoid schizophrenia	0.74	267	0.66	89
F20.3	Undifferentiated schizophrenia	0.42	112	0.40	45
F20.5	Residual schizophrenia	0.58	65	0.54	17
F21	Schizotypal states	0.49	114	0.50	21
F22	Persistent delusional disorders	0.68	117	0.52	27
F22.0	Delusional disorder (paranoia)	0.65	81	0.47	24
F23	Acute/transient psychotic disorders	0.68	159	0.49	26

Utility without Validity : Colours



Utility without Validity : SCZ and Mania

- Can reliably separate: ICD 10 kappa for schizophrenia 0.79-0.81 and for bipolar, manic disorders to be 0.69-0.77
- Has predictive value for outcome: AESOP study if presented with Mania had 3-4 times better chance of symptom & functional recovery at 3 and 10 years than presenting with Schizophrenia
- Has predictive value for treatment: Lithium effective in bipolar mania (and bipolar, depression) but not schizophrenia. Antipsychotics can be effective for both bipolar mania and schizophrenia but not bipolar, depression (quetiapine low dose may be effective for bipolar dep)
- Bipolar on average less cognitive impairment than SCZ
- More likely to have same type of disorder inherited (not purely tho)

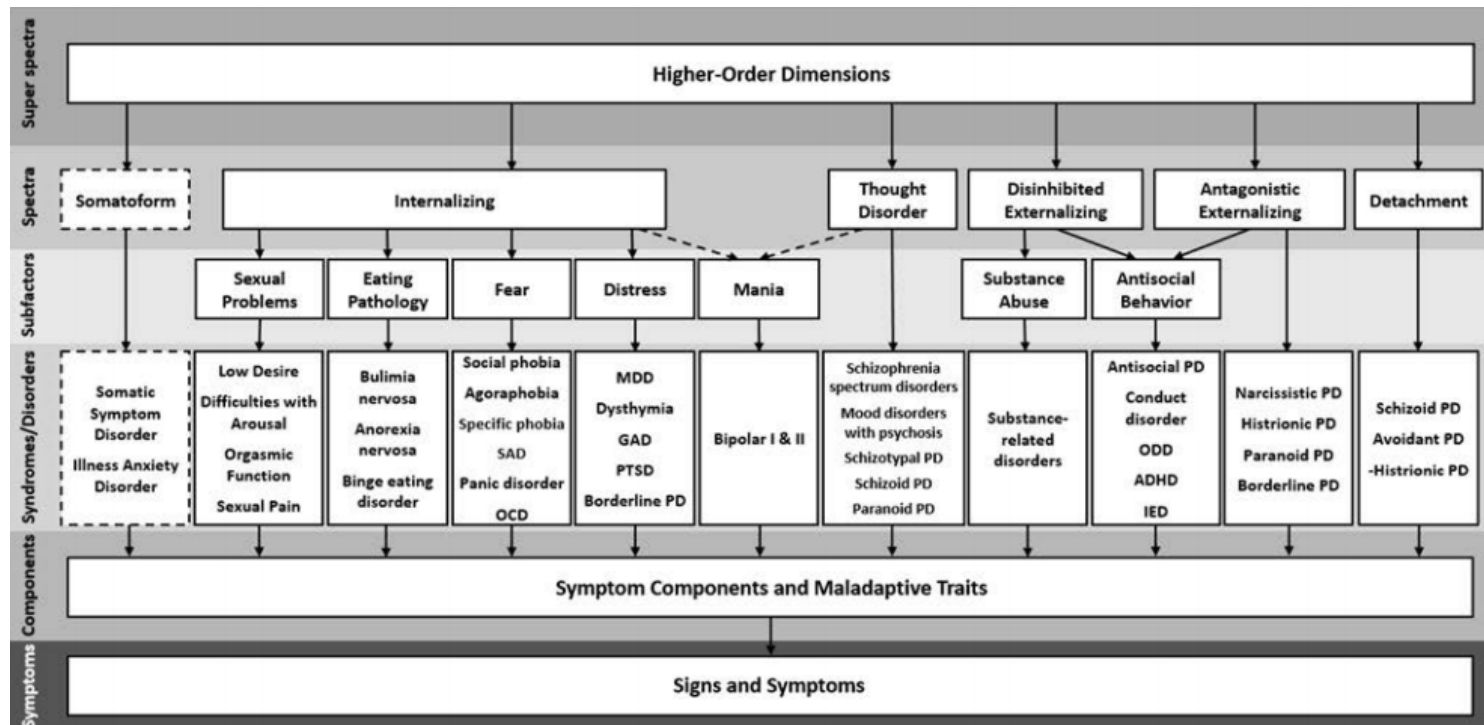
Stigma and other drawbacks

- By concentrating on the diagnosis can lose whole picture especially if “overforce” into ill matching category
- Stigma: people often get associated with their diagnosis e.g. epileptic, leprosy
- This can lead to self-stigma, stigma from other people, and from healthcare professionals based on stereotypes of that illness
- This stigma can be even more distressing than the disorder itself
- Reification “over estimate” the degree of “predictive knowledge” and “validity” of the diagnostic construct e.g. SCZ is an illness not a disease (as pathology unknown in most cases)

Comparison with Medical Diagnosis

- Many medical problems have unknown pathology and would fail to meet “validity” tests
- Headaches, migraines, CFS/ME, polymyalgic rheumatica, Irritable Bowel Syndrome
- Up to 40% of referrals to different medical OPs have these “functional disorders”
- Many medical problems have “cultural” overlays in presentation or present differently in people from different backgrounds e.g. atypical chest pain in South Asians with MI
- Many medical diagnosis have similar reliability or worse than psychiatric dx

Structure of Psychopathology in Population Cognitive problems Aetiology Excluded HITOP



Prototypic Matching/ Narrative v Operational Criteria

- Prototypic matching/ narrative classifications describe “typical cases” (cf blue bloaters/pink puffers). Professionals match patient in front of them to closest description in classification
- Clinicians prefer this type as quick and convenient – even when supposed to use operational tend to use prototype matching
- Operational criteria list a set of rules to make a diagnosis in a particular patient (cf making a diagnosis of myocardial infarction) such as mandatory features, exclusion criteria etc.
- Researchers prefer this as more get more standardised homogenous groups and said to be more reliable

Diagnostic Hierarchy

Choose diagnosis that is highest in hierarchy that can explain all symptoms

1. Organic disorders
2. Mood Psychosis
3. Schizophrenia
4. Depression
5. Anxiety Disorders
6. Personality issues

The International Classification of Diseases

- The standard diagnostic tool for epidemiology, health management and clinical purposes.
- Every country has to send health statistics using ICD codes to UN
- In its 10th edition, with 11th coming out soon
- 6th edition started providing psychiatric codes but with no description (similar to other health problems)
- From 8th edition onwards a “glossary” produced with descriptions of each psychiatric code to improve standardisation of diagnosis
- 10th has a main version of a glossary with prototypic descriptions, a DCR with operational criteria and a simplified primary care version

Diagnostic Statistical Manual

- Introduced to produce codes for variety of admin uses and descriptions of these codes for US
- Gives ICD codes for disorders and increasing similarity to ICD
- DSM editions I,II used psychodynamic concepts and aetiology
- DSM III revolutionary in 1980 : operational criteria, multi-axial classification, dropped Freudian /most aetiology, aimed for reliability
- Latest edition DSM V controversial: thresholds too low? (Yanks worry though that too restrictive would deny people access to help), no multi-axial, dimensional measures included
- Most commonly used system in research

Diagnosis as part of Formulation

- Formulation is summary of all relevant clinical information including diagnosis
- Should guide treatment and management of patient
- Should tell you “why does this patient present with this type of problem at this particular time (and still does)?”
- Can be divided into predisposing, precipitating and maintaining factors
- The types of factors can be divided into biological, psychological and social
- BIOPSYCHOSOCIAL formulation

Summary 1

- Classification necessary for clinical, scientific, administrative, statistical/ epidemiological and social roles
- Diagnosis are prototypic categories that are useful for way docs work
- Give info on clinical picture, co-occurrence, complications, prognosis, treatment
- Identified by matching patient's clinical picture to best fitting diagnosis –rapid process
- Diagnosis is always *provisional*
- Psychiatric diagnosis often have utility (attached info) but little validity (i.e. don't describe clearly separate entities)

Summary 2

- Don't confuse map for territory
- Diagnosis often describe areas of spectrums
- Mental health often dimensional but separated into categories
- Overlap between psychiatric/ medical diagnosis for utility and validity
- Other classification systems may be more useful for other purposes/ ways of working
- UK clinical practice uses ICD10, most research uses DSM

Further Reading

- ICD 10 (mandatory until ICD 11 comes out)
- DSM V (know about)
- “A Companion to the Classification of Mental Disorders” Cooper and Sartorius
- Read chapter on Classification in your main textbook e.g. Shorter Oxford Textbook on Psychiatry
- “Distinguishing between the validity and utility of psychiatric diagnoses” Kendell, Robert; Jablensky, Assen The American Journal of Psychiatry; Jan 2003; 160, 1
- “Models for Mental Disorder” Tyrer and Steinberg

MCQ Questions (pick false answer)

The purpose of diagnosis include

1. Allow clinicians to communicate with each other
2. To allow research to take place that is able to be translated to clinical benefit
3. To allow eligibility for receipt of care
4. To perfectly predict outcome and treatment response with 100% accuracy in every case
5. To allow governments to recognise patterns of health problems and report statistics

MCQ Questions (pick false answer)

Psychiatric diagnosis

1. Often lack validity
2. Do not have utility
3. Can help improve prediction of outcome and treatment response
4. Are not always optimum for all health professionals in the way they work with patients
5. Can be associated with harm such as stigma

MCQ Questions (pick false answer)

General Medical diagnosis

1. Can have lower inter-rater reliability than psychiatric diagnosis
2. In presentations to medical outpatient clinics often have unknown pathology
3. Psychosocial factors have little input into cause or outcome
4. Often based on deciding a dividing line on a characteristic spread through the population with one side illness, the other side healthy
5. Have clear separations between all illnesses

MCQ Questions (pick false answer)

For the different classification systems

1. You don't need to know the ICD-10 system so long as you know DSM-5
2. ICD-10 has 3 different versions depending on whether used by clinicians, researchers or primary care
3. DSM system prioritises making sure people can access care
4. DSM-5 no longer has multi-axial classification
5. Even symptom and dimensional classifications require categorical choices and aetiological information and similar to diagnosis

MCQ Questions (pick false answer)

Inter-rater reliability of diagnosis

1. Is irrelevant to whether a diagnosis can have utility or validity
2. Can be improved by standardising how people ask questions
3. Definitions of symptoms and how they are rated are needed for studies in psychiatry
4. Is high for the overall diagnosis of schizophrenia but less for the subtypes of schizophrenia
5. In the 60s was high between New York psychiatrists and British psychiatrists for schizophrenia

Any questions?