

BMSH4302

Introduction to Chronic Disease

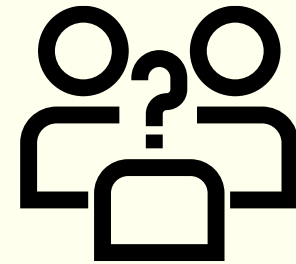
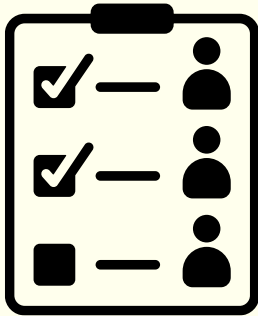
Level 4



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Housekeeping:



Kahoot! Recap

A note on today's content

Today we cover **depression, anxiety and eating disorders**

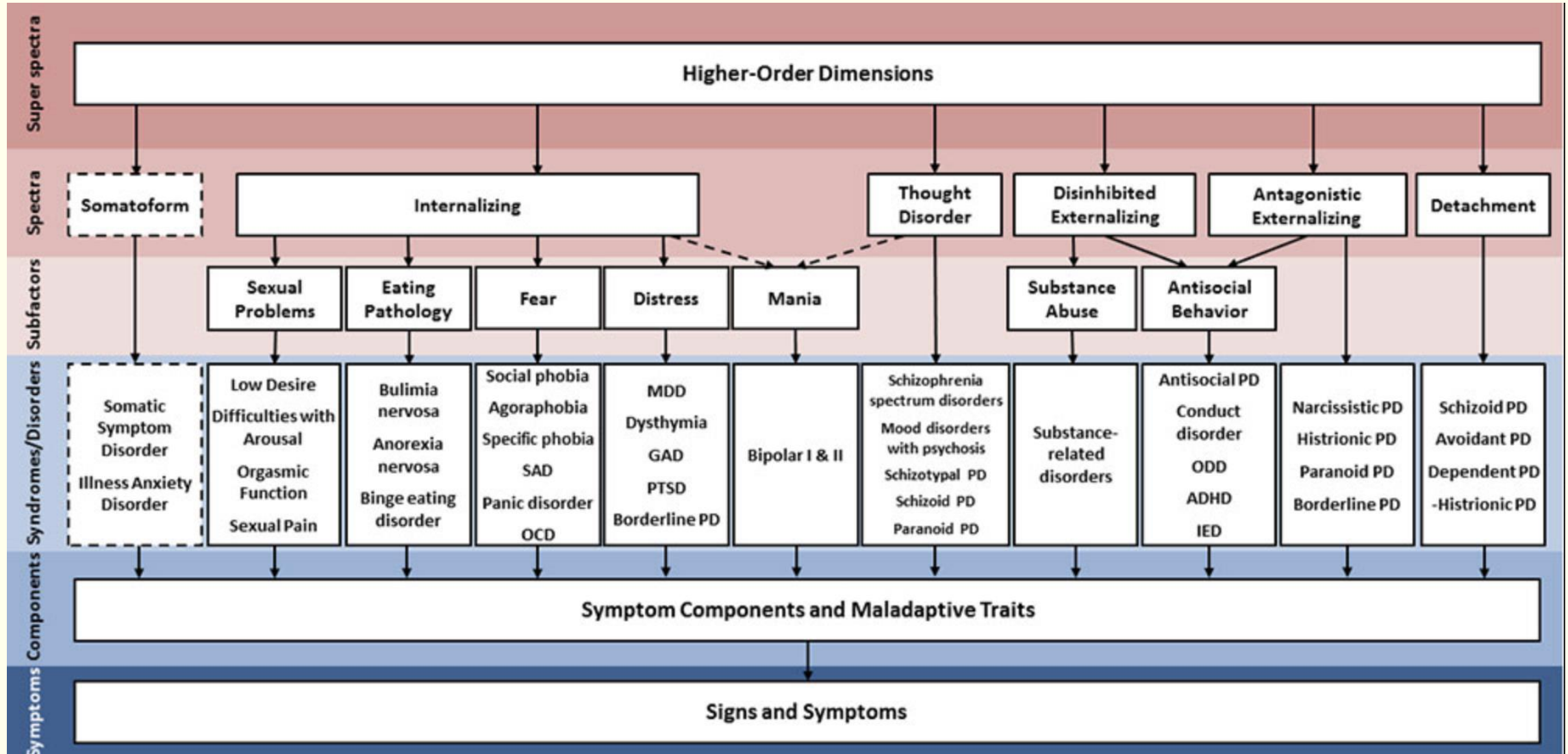
Some of this content may feel **personally relevant**

You are welcome to **step out at any point**, no explanation needed

Support: Student wellbeing services, your GP, Samaritans 116 123

Today's Session

- **Mental disorders:** the umbrella picture
- **Depression**
- **Anxiety disorders**
- **Eating disorders:** umbrella framework, then four sub-types
- **Case-based group activity:** recognising signs in a client



What is a Mental Disorder?

“A mental disorder is characterized by a clinically significant disturbance in an individual's cognition, emotional regulation, or behaviour. It is usually associated with distress or impairment in important areas of functioning.”
(WHO, 2025)

Disturbance causes **significant distress** or impairs everyday functioning

- Not simply an extreme of normal experience: **duration, severity and impact** matter
- Classified as **chronic conditions**: many are lifelong, relapsing or fluctuating

The Global and UK scale

Globally: over 1 billion people live with a mental disorder (WHO, 2025)

- **1 in 7** people worldwide: second leading cause of long-term disability
- Depression and anxiety alone cost the global economy **USD 1 trillion** per year

UK: 1 in 5 adults experience a common mental health problem in any given week

- Prevalence in England rose from **17.6% to 22.6%** (2007 to 2023/24)

Wales

- **36%** of people in Wales report their mental health has declined in the past 3 years
- **73%** of adults in Wales felt anxious in the 2 weeks before survey (2023)
- **Wellbeing scores** in Wales consistently lower than other UK nations
- **Cost of living** is a major driver: 48% feeling more depressed, 59% more stressed
- **Deprivation** strongly linked: those in material deprivation score significantly lower

How we are approaching this session

We use the **biopsychosocial model** as our framework today

- **Biological:** genetics, brain chemistry, physical health
- **Psychological:** thoughts, emotions, past experiences
- **Social:** relationships, poverty, culture, environment

No single factor explains any mental disorder: **all three interact**

How conditions get their official names: ICD-11 and DSM-5

Two international systems classify mental and physical health conditions

- ICD-11: International Classification of Diseases, 11th edition (WHO, 2019)
- Used globally including by NHS Wales; adopted in Wales in 2023
- DSM-5-TR: Diagnostic and Statistical Manual of Mental Disorders (American Psychiatric Association, 2022)
- DSM-5 dominates research literature; ICD-11 is the NHS clinical standard

Depression

Depression

ETYMOLOGY AND DEFINITION

Latin: “deprimere” to press down (de = down, premere = to press)

NICE NG222 (2022): absence of positive affect, low mood, associated symptoms

DSM-5-TR: 5 or more symptoms present for at least 2 weeks

- Must include low mood or loss of interest in activities (**anhedonia**)
- Symptoms must cause **significant distress** or impair daily functioning

Depression

GLOBAL AND UK PREVALENCE

Global: 280 to 332 million people live with depression (WHO; GBD 2021)

- **1.8-fold increase** in prevalent cases from 1990 to 2021 (GBD 2021)

UK: 1 in 6 adults had moderate to severe depressive symptoms in autumn 2022

- Pre-pandemic prevalence was **10%; rose to 21%** by early 2021 (ONS)
- **Women (19%)** more likely than men (12%) to experience symptoms in England

Depression:

INCIDENCE

Global: 341 million new cases per year (GBD 2021)

Wales-specific incidence figures are not published separately

- National Survey for Wales reports **wellbeing scores**, not clinical incidence
- 10% of Welsh adults reported receiving treatment for depression or stress
- Welsh wellbeing scores consistently below the UK average across all surveys

Depression:

BIOPSYCHOSOCIAL FACTORS

- **Biological:** genetic predisposition, HPA axis dysregulation, chronic inflammation
- **Physical illness** is a bidirectional risk factor (CVD, diabetes, cancer all increase risk)
- **Sleep disruption:** both a symptom and a contributing cause
- **Psychological:** trauma history, adverse childhood experiences, negative thinking patterns
- **Low self-esteem,** perfectionism and a tendency to self-blame are associated factors

Depression:

BIOPSYCHOSOCIAL FACTORS

- **Poverty, unemployment, food insecurity** and housing instability are independent risk factors
- **ONS data:** rates of depression higher among renters and those struggling with bills
- **Social isolation and loneliness:** 7.8% of UK adults felt lonely always or often (ONS, 2024)
- **Relationship breakdown,** caring responsibilities and bereavement all elevate risk
- **Dahlgren and Whitehead:** living and working conditions shape mental health outcomes

Gender, diagnosis and the suicide paradox

- **Women (24%)** more likely than **men (15%)** to report common mental health problems
- But: men present differently: **irritability, aggression, substance use**
- Men are **half as likely** as women to receive treatment for depression
- Men die by suicide at **3 times the rate** of women (ONS, 2024)
- If men were genuinely less unwell, this gap would not exist

Depression:

SIGNS AND SYMPTOMS

- Persistent low mood, tearfulness, hopelessness
- Loss of interest or pleasure in activities previously enjoyed (anhedonia)
- Fatigue, disturbed sleep, appetite and weight changes
- Difficulty concentrating, indecisiveness, feelings of worthlessness or guilt
- Physical symptoms: pain, headaches, digestive problems

What helps:

MODIFIABLE BEHAVIOURS AND HEALTH RELATED QUALITY of LIFE (HRQoL)

- **CBT and behavioural activation:** first-line psychological treatments (NICE NG222)
- **Antidepressants:** effective for more severe depression; not first-line for less severe

Depression is the **leading cause of disability** in working-age adults globally

Significantly impairs **work, relationships, self-care** and physical health management

Depression and anxiety cost the global economy **USD 1 trillion** per year in lost productivity

What helps:

MODIFIABLE BEHAVIOURS AND HEALTH RELATED QUALITY of LIFE (HRQoL)

- **NICE NG222 (2022):** group exercise is a first-line treatment for less severe depression
- **Exercise effectiveness** comparable to psychotherapy and medication (Heissel et al., 2023)
- Both **aerobic exercise and resistance training** have evidence
- **Mediterranean diet** associated with 32 to 45% reduction in depressive symptoms
- **Omega-3** supplementation (EPA and DHA, 1 to 2g/day) endorsed as adjunctive therapy

Anxiety Disorders

Anxiety Disorders:

ETYMOLOGY AND DEFINITION

Latin: from 'angere' to choke, to distress (the physical sensation of tightness)

- **ICD-11:** excessive fear and anxiety with related behavioural disturbances
- **Subtypes:** GAD, panic disorder, social anxiety, specific phobias
- **Key distinction:** anxiety as normal experience versus anxiety disorder as clinical condition
- **Disorder:** excessive, persistent, difficult to control and causes significant impairment

Anxiety Disorders:

GLOBAL AND UK PREVALENCE

Global: 458 million people lived with anxiety disorders in 2019 (GBD data)

- Up from 311 million in 1990: a **12.6% increase** in age-standardised prevalence

UK: mixed anxiety and depression is the most common mental disorder at 7.8%

Wales (2023): 73% of adults felt anxious in the previous 2 weeks

- **26%** said anxiety stopped them doing what they needed or wanted to do

Anxiety Disorders:

BIOPSYCHOSOCIAL FACTORS

- **Biological:** genetic vulnerability, HPA axis reactivity, autonomic nervous system sensitivity
- **Psychological:** learned threat responses, history of trauma, perfectionism, intolerance of uncertainty
- **Social:** financial insecurity, cost of living pressures, work stress, social isolation
- **GBD 2021** confirms bullying victimisation as a causal risk factor for anxiety disorders
- Anxiety and depression **co-occur frequently:** shared biological and social pathways

Anxiety Disorders:

SIGNS AND SYMPTOMS

Persistent, excessive worry about multiple areas of life

- **Physical:** racing heart, breathlessness, muscle tension, nausea, dizziness
- **Cognitive:** difficulty concentrating, mind going blank, catastrophising
- **Behavioural:** avoidance of feared situations, withdrawal from activities

Significant impact on **work, relationships and daily functioning**

The Physical Activity Paradox in anxiety

- Exercise significantly reduces anxiety symptoms: strong evidence (Singh et al., 2023)
- Physical inactivity is a probable causal risk factor for anxiety (Wanjau et al., 2023)

But: anxiety can also drive compulsive exercise as avoidance behaviour

- Performance anxiety, fear of failure and overtraining are real clinical presentations

What Helps:

MODIFIABLE BEHAVIOURS AND HEALTH RELATED QUALITY of LIFE (HRQoL)

CBT is first-line treatment for most anxiety disorder subtypes (NICE guidelines)

- **Exercise:** significant reduction in anxiety symptoms across adult populations
- **Diet:** omega-3 supplementation and Mediterranean diet pattern have evidence
- **Mindfulness-based approaches:** good evidence base, especially for GAD

Anxiety disorders: **second leading cause** of years lived with disability in young people

Eating Disorders

Eating Disorders:

DEFINITION

ICD-11: persistent disturbance of eating behaviour impairing physical health or psychosocial functioning

- **Not simply about food:** complex mental health conditions with biological, psychological and social roots
- Eating disorders have the **highest mortality rate** of any psychiatric disorder

Relevant to client populations in nutrition, sport therapy and exercise science

Eating Disorders:

GLOBAL AND UK PREVALENCE

Global: 14 million people worldwide, including 3 million children and adolescents (WHO, 2019)

- **GBD 2021:** age-standardised prevalence rising from 300.73 to 354.72 per 100,000 (1990 to 2021)

UK: 1.25 million people have an eating disorder (Eating Disorders Awareness Week 2025)

- Hospital admissions up 84% between 2015 and 2021 (RCPsych, 2022)
- **Youth:** 12.5% of 17 to 19-year-olds had an eating disorder in 2023, up from 0.8% in 2017

Eating Disorders:

INCIDENCE AND WALES DATA GAP

UK primary care incidence rose from 32.3 to 37.2 per 100,000 (2000 to 2009); continuing to rise (Micali et al., 2013)

- Average time from becoming unwell to starting treatment: 3.5 years (Beat, 2023)

Wales-specific eating disorder prevalence data is **not currently published**

- This data gap is itself significant: absence of data is not absence of need

Condition	Lifetime prevalence	Incidence (per 100,000)	Peak onset	Mortality rate
Anorexia nervosa	2 to 4% (women); lower in men	4.2 to 12.6 (females); ~1 (males); overall ~6.0	15 to 19 years	5.1 per 1,000 person-years (highest of any psychiatric disorder)
Bulimia nervosa	1 to 2% (Europe); 1.5% females, 0.1% males (worldwide)	Not reported separately	15 to 25 years	1.74 per 1,000 person-years
Binge eating disorder	1.9% women; higher male prevalence than other EDs (Europe)	Not reported separately	Later onset than AN/BN	Not reported
Avoidant Restrictive Food Intake Disorder (ARFID)	0.3 to 17.9% (wide range reflects different clinical settings)	No reliable figure available	Earlier than AN/BN; common in childhood	Insufficient data
Atypical eating disorders (EDNOS/OSFED)	Most common single category: 10.1% females, 0.9% males (worldwide)	Not reported separately	Varies	Not reported

Eating Disorders:

BIOLOGICAL AND PSYCHOLOGICAL FACTORS

- **Biological:** over 50% of risk is heritable; reward pathway dysregulation; altered interoception
 - Female relatives of people with anorexia are 11.4 times more likely to develop it
- **Psychological:** perfectionism, low self-esteem, negative body image, history of trauma
- **Shame** is a significant driver: higher shame levels correlate with more severe disordered eating
- **Thin-ideal internalisation:** belief that thinness equals worth, success or control

Eating Disorders:

SOCIAL AND SPORT CULTURAL FACTORS

- **Social media:** thin-ideal imagery confirmed as risk factor in high-income countries (GBD 2021)
- **Weight stigma** in healthcare and wider society is an independent risk factor
- **LGBTQ+** populations have significantly elevated risk
- **Sport and performance culture:** weight-sensitive sports carry higher risk
 - Athletes face **dual pressures:** performance demands and weight management

Gender and Eating Disorders

- Around 25% of people with eating disorders in the UK are male
- Binge eating disorder is closest to gender parity: approximately 40% of sufferers are male
- Male eating disorders are significantly underdiagnosed
- Three mechanisms: presentation differs (muscle dysmorphia), men less likely to seek help, diagnostic tools normalised on women
- The stereotype that eating disorders only affect young women is both false and harmful

Physical Activity Paradox

- **Compulsive exercise** is a clinical feature of anorexia and bulimia, not simply a risk factor
- **RED-S** (Relative Energy Deficiency in Sport): disordered eating meets sport performance
 - Exercise prescription in active eating disorders requires specialist clinical oversight
- **Treatment:** multi-disciplinary, typically CBT-ED, nutritional rehabilitation, medical monitoring
- **58%** of people with an eating disorder have at least one other psychiatric condition

The Four Sub-Types

CLINICAL RECOGNITION

We cover each sub-type with: **definition and key signs and symptoms** only

- **Purpose:** clinical recognition for professional practice across all three programmes
- **Four sub-types:** anorexia nervosa (AN), bulimia nervosa (BN), binge eating disorder (BED), ARFID
- You **cannot tell** whether someone has an eating disorder by looking at them
- Most people with eating disorders are **not underweight**

Anorexia Nervosa

- **ICD-11/DSM-5-TR:** restriction of energy intake; intense fear of weight gain; distorted body image
- **Key signs:** very low body weight, food rituals, compulsive exercise, social withdrawal around meals
- **Physical signs:** amenorrhoea, lanugo, cold intolerance, dizziness, dental erosion
 - 1-year prevalence: 0.16% females, 0.09% males; highest mortality of any psychiatric disorder

Bulimia Nervosa

- **ICD-11/DSM-5-TR:** recurrent binge eating followed by compensatory behaviour, at least weekly for 3 months
 - Body weight typically within normal range, this is why it is often invisible
- **Key signs:** binge-purge cycles, dental erosion, swollen cheeks (salivary gland enlargement)
- **Russell's sign:** calluses on knuckles from self-induced vomiting; mood changes; fatigue; secrecy

Binge Eating Disorder (BED)

- **ICD-11/DSM-5-TR:** recurrent binge eating without regular compensatory behaviour
- **Most common** eating disorder in the UK: affects approximately 1 in 50 people
- Approximately 40% of sufferers are male
 - the most equal gender split of all eating disorders
- **Key signs:** eating rapidly, in secret, when not hungry; marked distress after episodes; no purging

ARFID: Avoidant/Restrictive Food Intake Disorder

- **ARFID:** clinical acronym introduced in DSM-5 (2013) and adopted into ICD-11
- **Avoidance or restriction** based on: sensory properties, fear of consequences, or lack of interest in food
- **Not driven by body image** concerns or fear of weight gain (distinguishes it from anorexia)
- Strongly associated with autism and ADHD; starts earlier in life than other eating disorders
- **Key signs:** very limited food range; significant weight loss or nutritional deficiency

Group Activity: Recognising Signs in a Client

Work in **groups of 3 to 4** for 15 minutes

You will receive one case scenario

Read the case and discuss:

- 1. What signs are present?**
- 2. What condition might this be?**
- 3. How might presentation differ if this client were a different gender?**
- 4. Who would you refer this client to, and why?**

Case A: Jordan: male, 22

- Jordan is a second-year sports and exercise sciences student training for competitive rowing
- Has lost 8kg over 12 weeks through 'clean eating' and increased training volume
- Reports feeling tired but continues training twice daily; becomes distressed if a session is missed
- Eats only foods described as 'clean' or 'pure'; refuses team meals and social eating
- Coach has noticed Jordan is quieter, more irritable, and performance has dropped

Case B: Maya: female 19

- Maya is a first-year nutrition student who has recently started at university
- Her GP referred her after her mother raised concerns; Maya attends alone
- Reports frequently eating very large amounts of food in the evening, then feeling disgusted and ashamed
- States she does not make herself sick; exercises occasionally but not compulsively
- Has withdrawn from social life; says she feels 'out of control' around food

Debrief and Session Close

- **Jordan:** features consistent with anorexia nervosa and RED-S; compulsive exercise as clinical feature
- **Maya:** features consistent with binge eating disorder; no compensatory behaviour is the key distinction
- **Both cases:** how does gender, sport context or professional setting affect recognition?
- **Key thread:** mental disorders are chronic conditions with significant HRQoL impact
- **Week 10 preview:** treatment and management, where diet, exercise and behaviour are the medicine