THE DISTRESSED YOUNG PERSON

- **7-20% children** have mental health problems
- **Child vs adolescent disorder** = differences in **ability to undertake positive adaptive behaviours** and **failing** to progress in expected fashion in one or more areas of development

PATHOPHYSIOLOGY OF CHILDHOOD DEVELOPMENT

Principles of development

i. *Developmental tasks* = competencies that need to be mastered at a critical period in the developmental continuum

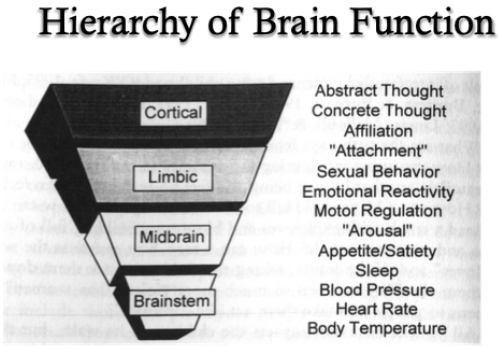
ii. ***Sensitive periods*** – undifferentiated neurons specifically sensitive to set of signals
   a. *More associated to **mental health***
   b. *Affect Attachment, affect modulation, anxiety regulation and behavioural impulsivity*

iii. ***Critical periods*** – **optimal times** in maturation to accomplish tasks

iv. Requires practice and anticipation

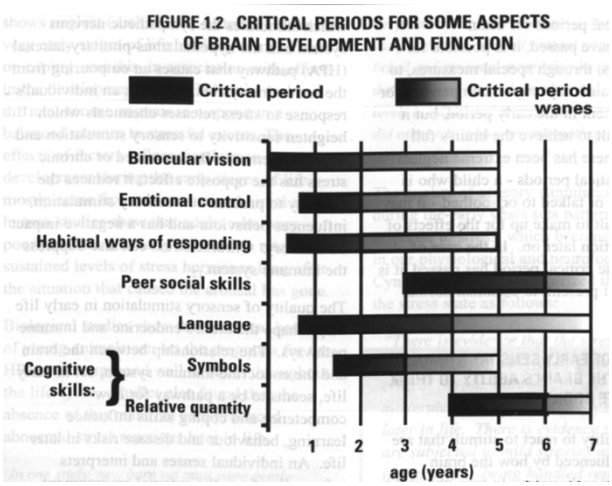
v. Brain remains **sensitive to experiences throughout life – *more sensitive parts include the cortex which has increased plasticity***

- **Child's early experiences** (esp. between mother and infants) are critically important



Brain development

Critical periods	*Significance*
Birth	*All brain cells present (except hippocampus)*
Birth to 8 months	*Vision*
Birth to 4 years	*Maths and logic*
Birth to 10 years	*Language*

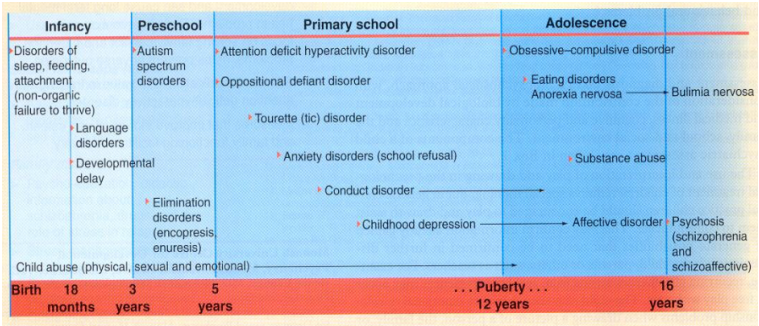


Factors affecting Brain development.

Positive factors	***Negative factors***
• *Good family experiences* • *Supportive environments*	• *Inadequate nutrition (e.g. folic acid – NTD)* • *Toxins during pregnancy (EtOH, thalidomide, rubella)* • *Early experiences of deprivation* • *Early social experiences (e.g stress)* • *Visual defects* • *Sensory deprived environments*

TIMELINE OF PSYCHOPATHOLOGY IN CHILDHOOD

Early childhood	Middle childhood	Late childhood
• Feeding and sleeping issues • Minor aggression • Separation anxiety • Temper tantrums • Oppositional behaviour	• Fears • Fighting • Minor peer relationships • Nightmares • Disobedience	• Anxiety • Disturbed eating • Disobedience • Illicit drug use • Moodiness • Rebellion • School refusal



Childhood syndromes

Internalising disorders	Externalising disorders	Specific developmental disorders	Pervasive developmental disorders (PDD)	Other

• **Anxiety disorders** (e.g. separation, phobia, social anxiety, PTSD, OCD)
• **Mood disorders**
• **School refusal**
• **Somatoform disorders** (unexplained physical Sx) e.g. conversion disorders
	• **ADHD** – hyperactive vs inattentive subtype
	• **ODD**
	• **Conduct**
	• **Truancy**
		• **Reading**
		• **Mathematics**
		• **Communication**
		  ○ Phonological
		  ○ Expressive language
		  ○ Receptive language
		  ○ Landau-Kledffner syndrome (acquired aphasia with epilepsy)
		• **Motor skills disorder**
			• Childhood autism
			• Asperger's
			• Rett's *syndrome*
			• Childhood integrative disorder
			• PDD NOS
				• Eating disorder
				• Elective mutism
				• Enuresis
				• Encopresis
				• Tic disorders
				• Gender identity disorders

EMERGENCY ASSESSMENT & Mx IN CHILD AND ADOLESCENT PSYCHIATRY

Hx Pearls

1) **Reason for admission or referral?**
2) **Risk assessment -> danger of suicidal or out-of-control child**
3) Does the child have an **existing** psychiatric **disorder**?
   - Ice breaker topics – how's school? Hobbies? Sports? Music? Where do you live?
   - How bad is it? – affect on ADL, restriction on social activities
   - Their insight into their condition
4) **Driving forces affecting development? Which is most likely?**
   - *Biggest worry for a child is separation!!!!*
   - *Biological*
   - *Familial or sociocultural?*
5) **What resources available within child, family and the community?**
   → consider the bio-psycho-social factors
6) **Assess RF for suicide (SAD PERSONS):** paranoia, disinhibition, older, male, access to weapons, hx of unlawful behaviour or violence, previous attempts, organised plans
7) **ID protective factors**:
   - Coping skills - resilience, self-esteem
   - Supports – family, dependents and community
8) **Collateral Hx** from 3rd parties (with parents alone and child alone)

Exam

1) **Create appropriate environment-** well-lit, quiet, private, non-stimulating, provide necessary sensory aids if needed
2) **Simple exams –** vitals, A-E

General Mx:

- ID what is going to hinder proper neurological development
- Non-pharm Mx – de-escalate and protect safety of others (explain and reassure) – create a safe environment
- Aim to avoid idealisation to prevent repeated attendances
- If restrain required – should be planned, decisive, effective and speedy
- Pharm Mx (last resort)

ERICKSON'S PSYCHOSOCIAL STAGES

Stages	*Crisis*	*Favorable Outcome*	*Unfavorable Outcome*
Childhood			
1st year of life	*Trust vs. Mistrust*	Faith in the environment and future events	Suspicion, fear of future events
2nd year	*Autonomy vs. Doubt*	A sense of self-control and adequacy	Feelings of shame and self-doubt
3rd through 5th years	*Initiative vs. Guilt*	Ability to be a "self-starter," to initiate one's own activities.	A sense of guilt and inadequacy to be on one's own
6th year to puberty	*Industry vs. Inferiority*	Ability to learn how things work, to understand and organize.	A sense of inferiority at understanding and organizing.
Transition years			
Adolescence	*Identity vs. confusion*	Seeing oneself as a unique and integrated person.	Confusion over who and what one really is.
Adulthood			
Early adulthood	*Intimacy vs. isolation*	Ability to make commitments to others, to love.	Inability to form affectionate relationship.
Middle age	*Generativity vs. self-adsorption*	Concern for family and society in general.	Concern only for self—one's own well-being and prosperity.
Aging years	*Integrity vs. despair*	A sense of integrity and fulfillment; willingness to face death.	Dissatisfaction with life; despair over prospect of death.

Erikson vs Freud's concepts about psychological development / personalities:

1) Freud believed that our personality is influenced internally through our libido (ego, superego) and mainly shaped by our childhood esp. in our first 6 years
2) Erikson believed that our personality is dependent on our social interactions and environmental changes which occur throughout our life NOT just our childhood

PHARMACOLOGICAL THERAPY IN CHILDREN

Main indications	Goals	Strategies

1. **Epilepsy**
2. **ADHD**
3. **Obsession disorders**
4. **Depressive disorders**
5. **Tourette's**
6. **Nocturnal enuresis**
	• Start **LOW** and **GO SLOW**
	• Aim for **mono therapy** but acknowledge
	  ○ Development disorder
	  ○ Severe mood disorders
	  ○ Severe Sx which may warrant the need form than 1 therapy
	• Allow sufficient time
	• Always support prescription with adequate psychoeducation (i..e. expected benefits, A/E, contingency plan) → **warn that medication may be lifelong**
		• **Change one drug** / intervention **at a time**
		• Give **sufficient time 8-12 weeks**
		• **Consult senior colleague** if prescribing off-label
		• **Clearly document all changes** (*i.e. target, rationale, plan, review, consent)*
		• **Check adherence on each visit**

THE EATING DISORDERS

	Anorexia Nervosa (AN)	Bullemia Nervosa (BN)	Binge eating disorder (BED)	Avoidant / Restrictive food intake disorder (ARFID)
Define	Have a **hyper-responsive fear network** **(i.e.** very real fear of food & perceive it as threatening) 1. Disorder of low weight 2. Fear of body shape 3. Persistent behaviour to avoid wt gain *Nb: binge eating* Requires recurrent binge eating ONLY with marked distress	**ONCE A WEEK FOR 3 MONTHS** 1. Normal or above average weight 2. **Binge eating** (out of control, time-limited) 3. **Compensatory behaviours** ➔, purging, XS exercise, laxative, insulin, thyroxine **4. Overevaluation of weight & shape**	• Binge episodes **ONLY** • Sig. distress after binge episode (guilt, shame) • Overweight / obese patients	**Eating / feeding disturbance** • Significant weight loss • Inadequate intake - Failure to meet nutritional needs • Avoid food based on consequences of eating • **NO weight /shape over-evalution**
Subtypes	1. Binge eating + purging 2. Restrictive eating	NA	AKA: emotional eating	• **Sensory response** - does not like specific colours • **Fear response** – previous bad experience - choke/ GORD • **Disinterested for food**
Epi	• Onset 15 years - adolescents • 90% recovery in a year • 3.3% have major ED (> 15yo)	• Onset 15 years – adolescents • BUT presents later (up to 6 years later)	• **Most common**	
Risk factors	**Genetics** • FHx • Autism • Personality traits (e.g. perfectionists, high anxiety, OCD, impulsivity) **Environmental factors** • Body dissatisfaction • Psycho-social stresses (E.g. bullying, DV, sexual abuse, neglect) ➔ childhood ACE • Socio-cultural expectations of appearance • Social and mass media influence			Same as AN • **Strong overlap with autism disorder**
Causes	**Puberty and adolescence** • Period of altered body fat composition • Period of altered brain architecture • Development of comorbid psychiatric illness (e.g. anxiety, depression)			
Sx	• Psychological Sx (as above) • Poor concentration • Fatigue • Amenorrhoea • OP – bone fractures	• Irregular menses • Unexplained seizures / funny turns • GI complaints		Caloric counting
Signs	• **Dry brittle hair (bald spots)** • **Lanugo** (to regulate temp) • **Cachexia** • **Low BMI < 18** • Hypothermia <35.5 (cold hands) • Bradycardia < 40 (adult), < 50 (child) • HypoTN < 90/60 • Low electrolytes - ↓K, PO4, Mg	• **Arrythmias** • **Dental problems** (E.g. erosive enamel, callused fingers) • **Oedema** (swelling of parotid glands due to purging) • **EUC deranged** (Na, K due to purging) • **Low WCC, BSL**		
Prognosis	• **40% make 5 year recovery** • 40% are symptomatic • 20% poor outcome	• **50% fully recover** • 30% partial recovery • 20% poor outcome		

CONSEQUENCES OF EATING DISORDERS

"Minnesota study – Keys 1944" ➔ brain atrophy ➔ psychological & behavioural changes

Patients at a higher weight can still have starvation syndrome

STARVATION SYNDROME

Prolonged dietary restriction can lead to

Psychological	Behavioural
• Denial of issues • Preoccupation with eating, food and weight • Reduced capacity for thinking & difficulty concentrating • Rigid thinking • Perfectionism	• Dietary restriction • Misuse of laxatives, appetite suppressants, enemas & diuretics • Eating in secret • Obsessive rituals around food • Elimination of entire food groups • Eating large amounts of foods • Compulsive or excessive exercise

Risk of regaining weight **faster/ greater** after starvation syndrome

SCOFF

The SCOFF is a screening tool for eating disorders

An answer of 'yes' to 2 or more questions warrants further assessment

S – Do you make yourself sick because you feel uncomfortably full?
C – Do you worry you have lost control over how much you eat?
O – Have you lost over 6kg in a 3 month period?
F – Do you believe yourself to be fat when others say you are thin?
F – Would you say food dominates your life?

For Bulimia Nervosa ask the following 2 additional questions:
1. Are you happy with your eating patterns?
2. Do you eat in secret?

EARLY warning signs in children

1) **Behavioural (more obvious)** – disordered/unusual eating patterns, calorie counting, eating away from family
2) **Mood changes** – irritable, social isolation
3) **Physical** – low energy, increased exercise (0.5-1kg/week over several weeks or 5% of body wt) (postural BP drop and tachycardia)

Other types of eating disorders

- **PICA** - eating rocks, non-foods
- **Rumination disorder** – regurgitated food
- **OSFED** – otherwise specified feeding and eating disorder (e.g. Sx of AN but normal wt or those with BN but only for 2 weeks

CORNERSTONES of Mx [no gold standard]

ALL require MDT approach (GP, family, SW, OT, PT, specialists)

- ➢ Engage with patient and sig. other
- ➢ Validation and empathy

1) Family based therapy (FBT) (child/teen) -- 3 phases
- 1) weight restoration
- 2) return control over eating
- 3) establish healthy adolescent identity
- *>50% success rate at 5 years FU requires supportive family →* ***AIM TO external eating disorder (AN= devil)***

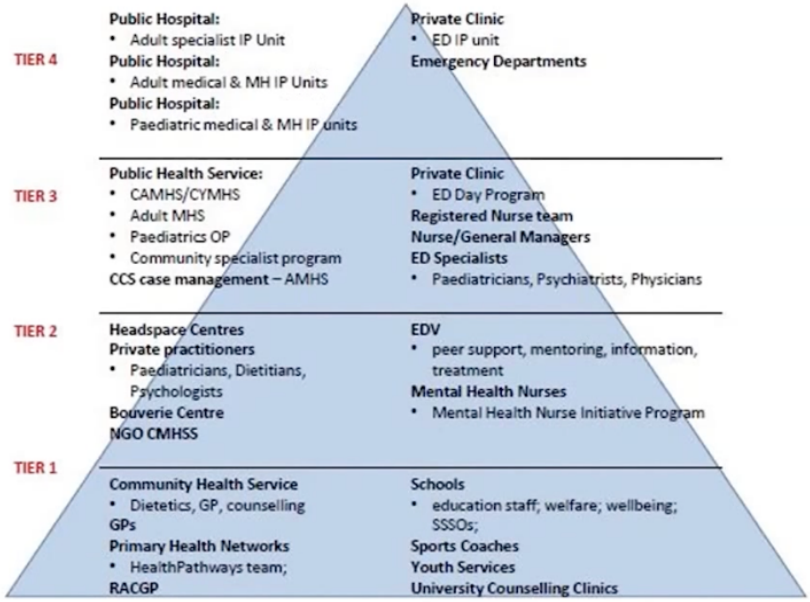
2) CBT (BEST for adults and BN)
- 20-40 sessions – individual treatment
- Adults with eating disorders

3) Motivational enhancement therapy, DBT, AFT, SSCM

EATING DISORDERS Investigations + Mx of refeeding syndrome

	Psychiatric admission indicated[a]	Medical admission indicated[b]
Weight	Body mass index (BMI) <14	BMI <12
Rapid weight loss	1kg per week over several weeks or grossly inadequate nutritional intake (<100kcal daily) or continued weight loss despite community treatment	
Systolic BP	<90 mmHg	<80 mmHg
Postural BP	>10 mmHg drop with standing	>20 mmHg drop with standing
Heart rate		≤40 bpm or > 120 bpm or postural tachycardia > 20/min
Temperature	<35.5°c or cold/blue extremities	<35°c or cold/blue extremities
12-lead ECG		Any arrhythmia including QTc prolongation, non-specific ST or T-wave changes including inversion or biphasic waves
Blood sugar	Below normal range*	< 2.5 mmol/L
Sodium	<130 mmol/L*	<125 mmol/L
Potassium	Below normal range*	<3.0 mmol/L
Magnesium		Below normal range*
Phosphate		Below normal range*
eGFR		<60ml/min/1.73m² or rapidly dropping (25% drop within a week)
Albumin	Below normal range	<30 g/L
Liver enzymes	Mildly elevated	Markedly elevated (AST or ALD >500)*
Neutrophils	<1.5 × 10⁹/L	<1.0 × 10⁹/L
Risk assessment	Suicidal ideation Active self-harm Moderate to high agitation and distress	

SPECTRUM OF CARE



GENERAL ASSESSMENT

- Ask about what they eat on normal day
- Weight trends throughout life
- Menstrual Hx
- Cluster B personality disorders?
- **Set point theory** → genetic predisposition where our body tries to maintain its weight within a preferred range
- **EXAM** – check mouth, parotids, hands, GI, renal and MSK

General Ix:

- Weight, Height, food diary
- Temp. and BP
- **FBC, EUC,**
- **LFT –** albumin levels indicate severity of AN
- **BSL**

Ix to exclude medical causes:

- LH/FSH, TT/E2/DHEA
- TFT, 24 hr cortisol
- Bone density (DEXA) – baseline
- Body fat composition
- B-HCG
- ECG, USS, CT-abdo

GENERAL HIGH-risk groups

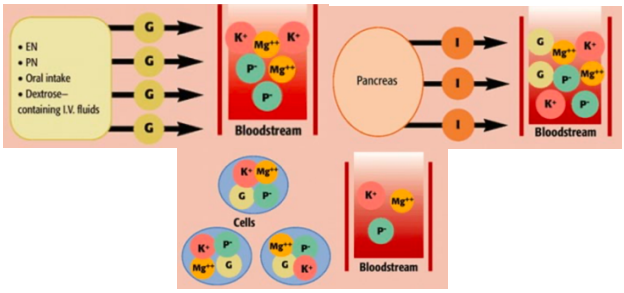
- **Women** (esp. transitional periods - adolescents 12-29 yo)
- **Women with PCOS, diabetes**
- **Athletes** (swimmers, jockeys, runners)
- **FHx**
- **Young people with obesity**
- **Those seeking weight loss**, dieting

Clinical Pearl:

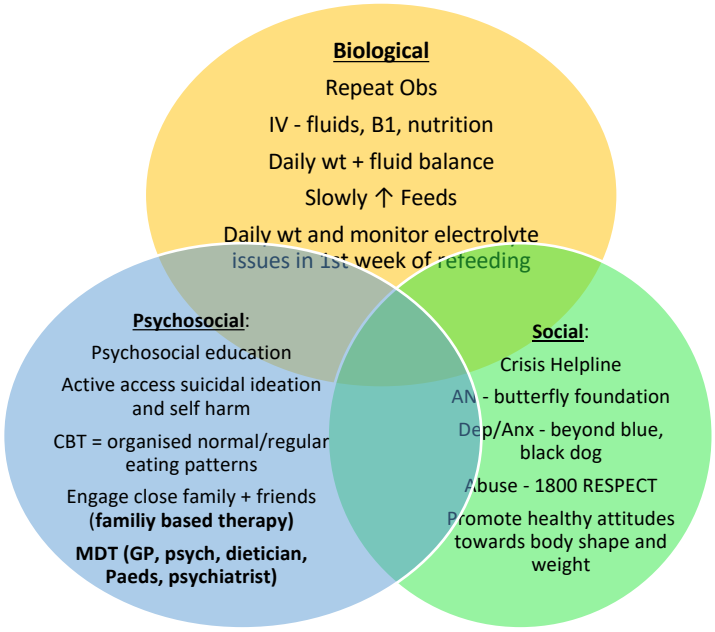
- **Externalise eating disorders** – emphasise to parents that this is NOT their child
- If eating disorders are **caught early (esp. first 3 years) → higher chance of FULL recovery + early education**
  - Vomiting = loss of only 30% of food
  - Laxatives = loss of 10% of food
- **Higher doses of SSRI's** are used in treating **bulimia nervosa** compared to doses used in treating depressive disorders.
  - **Sig. reduces** both binging and purging behavior,

Why is recovery so difficult?

- Illness is **egosyntonic** (i.e. body image disturbance and emotional stress are experiences as consistence times and values)



General Mx of eating disorders



What is refeeding syndrome?

- Fatal shift of fluid and electrolytes due to sudden quick re-introduction of food during starvation state
- Characterised by:
  - *Low electrolytes – PO4, K, Mg (due to +++insulin induced uptake of electrolytes by cells)*
  - *Cardiac arrythmias*
  - *Oedema*

Who is at risk of refeeding syndrome?

- Rapid weight loss >10%
- Severe caloric restriction < 500cal /day
- Rapid introduction of CHO (low K, PO4, Thiamine, mg)

x

Mx of refeeding syndrome

- Refeed slowly for first 2 weeks - initially around 1000 cal/day
- Monitor electrolytes and arrythmias.
- Prophylactic **thiamine** supplementation and serum monitored)
- Promote healthy attitudes towards body shape, weight and good nutrition