

# **Anxiety & Depression in Children and Adolescents**

Dr Ong Say How

Chief, Child and Adolescent Psychiatry, IMH

Adj Asst Prof, YLL School of Medicine NUS

& Duke-NUS Grad Medical School

- Introduction to Mental Health
- Abnormal Mental Health
- Childhood and adolescent development
- Impact on Children and Adolescents
- Impact on Family

- Mental Health = “state of emotional and psychological well-being in which an individual is able to use his or her cognitive and emotional capabilities, function in society and meet the ordinary demands of everyday life ” – *World Health Organization (WHO)*
- Emotional and social health of children play pivotal role in helping child nurture his sense of self-efficacy and self-worth

- *WHO Sep 2010:*
  - More than 450 million people worldwide suffer from mental disorders
  - Many more are undiagnosed or have mental health problems
  - There is no health without mental health

# Incidence of psychiatric disorders

- One-year prevalence of about 10% in general population (similar to the adult).
- Rate influenced by several risk and protective factors.
- Cumulative effect of stress a potent negative influence on children.
- Boys generally more prone to develop psychiatric disorders. Girls more vulnerable during adolescence.

- Overall mental health prevalence not high
  - Stress is generally ok in Singapore
- Good home environment protects against mental health disorders
  - Good family helps manage stress
- Low IQ correlates with increased mental health disorders
  - Children with learning problems have greater stress
  - Brighter kids cope better with stress

- Anomalous behaviour, emotions or thought processes.
- Persistent symptoms - at least two weeks.
- Severe enough to interfere with child's everyday life.
- A handicap to the child and/or caregivers.
- Taking account of child's stage of development and sociocultural context.

# Erikson's Stages of Psychosocial Development

Stage	Basic Conflict	Important events	Outcome
Infancy (birth to 18 months)	Trust vs. Mistrust	Feeding	Children develop a sense of trust when caregivers provide reliability, care, and affection. A lack of this will lead to mistrust.
Early Childhood (2 to 3 years)	Autonomy vs. Shame and Doubt	Toilet Training	Children need to develop a sense of personal control over physical skills and a sense of independence. Success leads to feelings of autonomy, failure results in feelings of shame and doubt.

# Erikson's Stages of Psychosocial Development

Preschool (3 to 5 years)	Initiative vs. Guilt	Exploration	Children need to begin asserting control and power over the environment. Success in this stage leads to a sense of purpose. Children who try to exert too much power experience disapproval, resulting in a sense of guilt.
School Age (6 to 11 years)	Industry vs. Inferiority	School	Children need to cope with new social and academic demands. Success leads to a sense of competence, while failure results in feelings of inferiority.
Adolescence (12 to 18 years)	Identity vs. Role Confusion	Social Relationships	Teens needs to develop a sense of self and personal identity. Success leads to an ability to stay true to yourself, while failure leads to role confusion and a weak sense of self.

# Problems in Diagnosing Children

- Interaction between social stressors and other biological or illness-related factors may influence either symptoms presentation or outright development of the illness.
- Many children reflect moods of their parents.
- Symptoms might be non-specific.

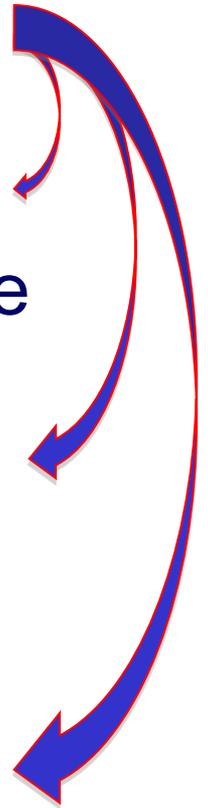
# Five Key Questions

- Symptoms
- Impact - distress and impairment
- Risks - predisposing, precipitating, perpetuating and protective factors
- Strengths - of family and child
- Explanatory model - belief and expectations



# 4 Symptom Domains

- *Emotional symptoms* - anxiety, fears, depression, obsession/compulsion.
- *Conduct problems* - defiance, opposition, aggression, antisocial behaviour, substance abuse.
- *Developmental delays* - attention/activity, speech and language, motor skills, bladder/bowel control.
- *Relationship difficulties*

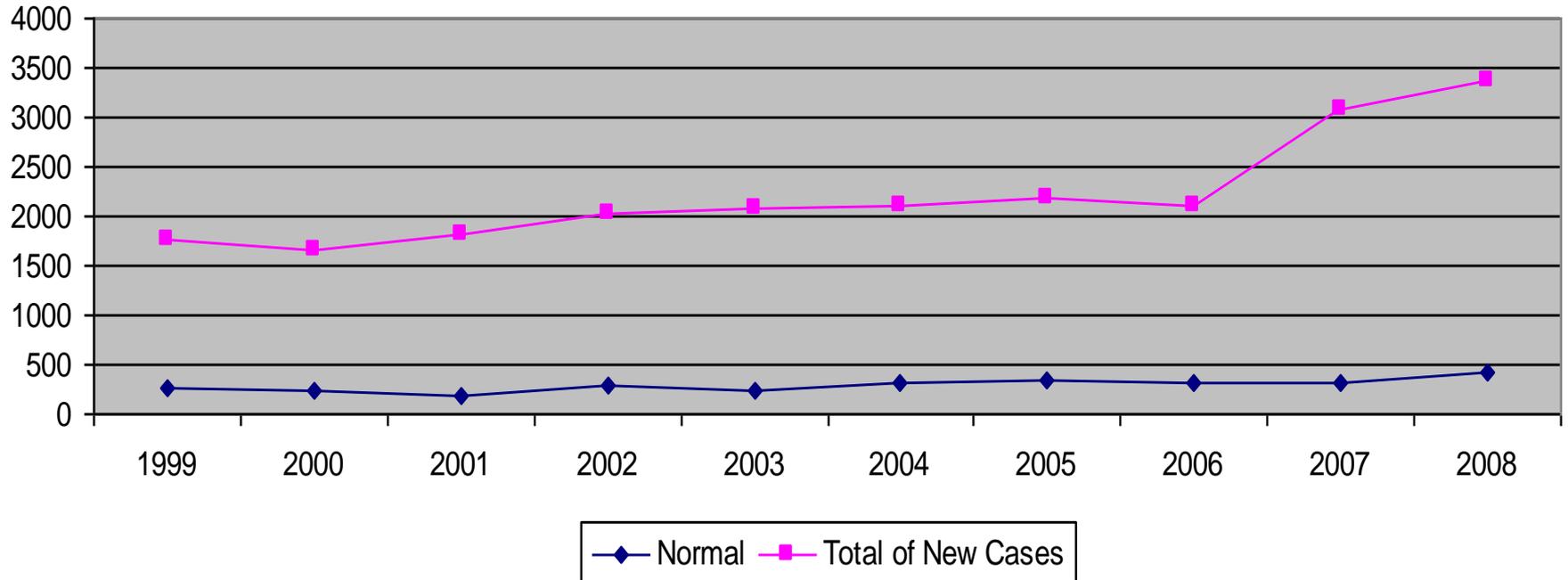


# Childhood Disorders

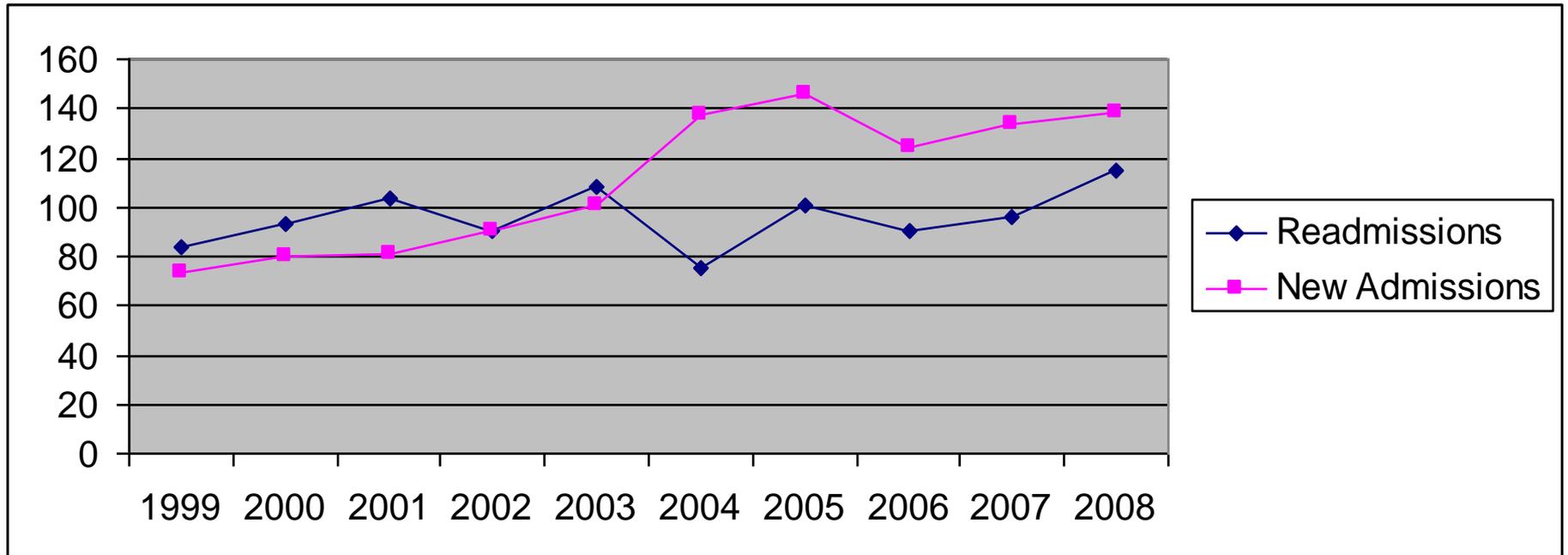
Common Problems (Community survey) <i>SMJ 2007 48(12): 1100</i>	Problems with greatest impact (%DALYs) <i>SMJ 2009 50(5): 468</i>	DCAP Diagnosis (Outpatient and Inpatient) <i>IMH HIS 2008</i>	
Internalising disorders 12.2%	ASD 20.7%	ADHD 27%	Psychosis 25.2%
Externalising disorders 4.9%	ADHD 6%	Anxiety and Stress related 17%	Depression 13.5%
	Anxiety and Depression 5.6%	LD 11%	MR 11.7%
		CD 7%	CD 10.4%

ASD: Autism Spectrum Disorders; CD: Conduct Disorders; LD: Learning Disorders; MR: Mental Retardation; DALY: Disability-Adjusted Living Years

# Outpatient New Cases



# Inpatient Admissions



# Anxiety Disorders In Children

- Anxiety symptoms encompass excessive worries, fears and misery .
- Considerable overlap of symptoms.
- Often runs in families.
- Presence of adverse life events.
- Often arises from threatened or actual separations from key attachment figures.
- Different developmental stages in life pose different risks of certain types of anxiety, e.g. separation anxiety and simple phobias for younger children

- Genetic predisposition
- Chronic physical illness
- Stressful life events
- Adverse early childhood experiences
- Family discord

- Worrying about safety of themselves or their parents
- School refusal
- Reluctance to sleep alone
- Headache or stomachache
- Clinging to caregiver
- Panic or tantrums when separated from caregiver
- Fear of talking to strangers
- Worrying about things before they happen
- Poor concentration

- Separation anxiety disorder
- Generalised anxiety disorder
- Simple phobia
- Social anxiety disorder
- Panic disorder
- Obsessive compulsive disorder
  
- Persistent symptoms and signs (s/s)
- Participation in age appropriate activities affected
- S/s inappropriate or exaggerated for child's age

# Case Example

- Nurul, a 6-yr old girl, has been admitted to pediatric hospital for altered mental state. She has been crying non-stop and seems unable to recognize her family members. Investigations and brain scan were normal
- She has recently been fostered out and has missed seeing her siblings for weeks. She is also starting a new school and she is unable to cope with her studies
- When she was allowed regular visits to her biological family and became more acquainted with her foster parents who used behavioural approaches to encourage her and reinforce positive behaviour, she was happier and no longer complained of symptoms

# Anxiety Disorders in Children

- 1. Separation Anxiety Disorder (SAD)
  - when intensity of anxiety is developmentally inappropriate and leads to substantial social incapacity eg. School refusal.
  - 2% to 4% of children, commoner in females.
  - Parents' own anxiety could exacerbate child's anxiety.

- 2. Generalized Anxiety Disorder (GAD)
  - Typical worries on future, past and personal competence.
  - Inability to relax, self-consciousness and somatic complaints.
  - About 3% with female preponderance.
- 3. Specific phobias
  - Affects 2% to 4% of children, commoner in girls.

# School Refusal

- School refusal could arise from various causes. Most common are separation anxiety, specific phobia, adjustment difficulties, depression and psychosis.
- School refusal peaks at 3 ages : 5-6 on starting school, around 11 after transfer to secondary school and in early teens.

- ADHD:
  - Mood Disorders - 15% to 20%
  - Anxiety Disorders - 20% to 25%
- Bipolar Mood Disorders
- Conduct Disorders
- Learning Disorders
- Psychotic Disorders and Schizophrenia
- Some medical conditions, e.g.  
hypothyroidism, chronic illnesses, cancers,  
autoimmune disorders etc.

# Anxiety Disorders In Adolescents

# Case Example

- Peter was referred to the clinic as he was starting to wash his hands excessively after a recent flu illness
- He would avoid people including his brother as he felt the latter was dirty and unhygienic
- Peter knew he would not die from the infection but could not get the thoughts out of his head despite his effort to disregard the perceived threats
- His repetitive behaviour became worse during school term and generally became better during school holidays

- Anxiety Disorder characterised by:
  - Recurrent obsessive ruminations
  - Compulsive behaviour to “neutralise” anxiety
  - Magical thinking
  - “Fear of the Unknown”
  - Distressing
  - Adolescent usually tries to resist
  - Severe cases: may be debilitating

# Obsessive Compulsive Disorder (OCD)

- Important to watch longitudinally, some may be early psychosis or prodromal schizophrenia
- Usually strong family of OCD or OC personality
- Usually affects equal numbers of males and females
- Affects about 2% of population

# Case Example

- Rachel is a 16 yr old Sec 4 student who has been suffering from recurrent panic feelings lately, exacerbated by upcoming exams.
- Has an anxious personality in primary school. Worries too much about her performance in exams and how her teachers would assess her.
- Studies have been increasingly tough and she is afraid of failing. She could not sleep, her mind is always about thoughts of her exam before bedtime. In the daytime, she felt she could not breath and had giddy spells in class, especially during test and exam times.

# Panic Disorder

- Discrete periods of panic attacks (physical symptoms)
- Perceived loss of control
- Thinks he/she may die or go crazy
- Anticipatory fear about next attack
- Frequently associated with agoraphobia

# Depression in Children and Adolescents

# Case Example

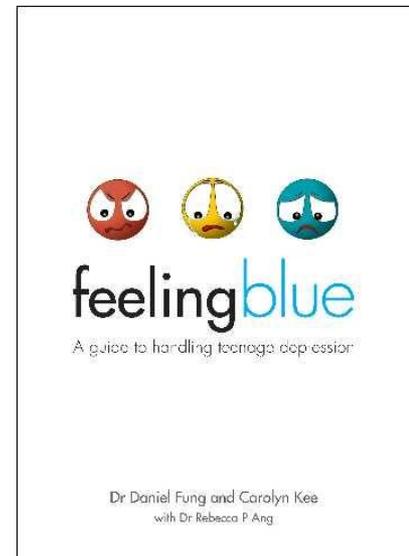
- Christine has been feeling low in her mood since she was in upper primary. She was a loner and had no close friends. She felt that even if she had one, she would usually leave her for someone more popular and pretty looking than her.
- Her studies were not that good and she felt she was a failure in life. “Everyone is doing far better than me” was her prevalent thoughts.
- She had recently quarreled with her parents over her wish to buy a new phone. She perceived that they favored her younger brother because he got one and she did not. She hid in her room and cut herself. She felt like dying. She proceeded to overdose on tablets of Panadol.

## Neurocognitive symptoms

- Depressed mood, guilt feelings
- Poor concentration
- Social withdrawal
- Anhedonia
- Sense of hopelessness
- Negative thinking, suicide preoccupation

## • Biological symptoms

- Disturbance in sleep (too little or too much)
- Appetite/weight loss
- Fatigue
- (reduced sexual drive)



- Symptoms must persist for at least 2 weeks, resulting in social incapacity and distress.
- Deterioration of school grades or absenteeism.
- About 50% of depressed children have at least one other psychiatric disorder, typically anxiety and conduct disorder.

- Fortunately, they tend to become better with time and with an increase in self-esteem and maturity of thoughts
- However, many adolescents with major depression chose to default treatment or are irregular with their treatment, hence recovery is difficult to predict
- Majority experience waxing and waning of symptoms, mostly triggered by academic or interpersonal stressors
- About 50 - 70% persist to adult depression

- Present like adults
- Temper tantrums, rejection sensitivity, mood reactivity
- Conduct problems, poor school performance, school refusal, social withdrawal
- Headache, stomachache, body aches
- Eating / sleeping excessively
- Girls: depression, anxiety
- Boys: running away, theft, drug abuse

- Less sleep and appetite disturbances
- Less guilt / hopelessness
- Suicide plans less lethal, suicide attempts less frequent
- Higher frequency of co-morbid separation anxiety disorder, phobias, somatic complaints, conduct problems

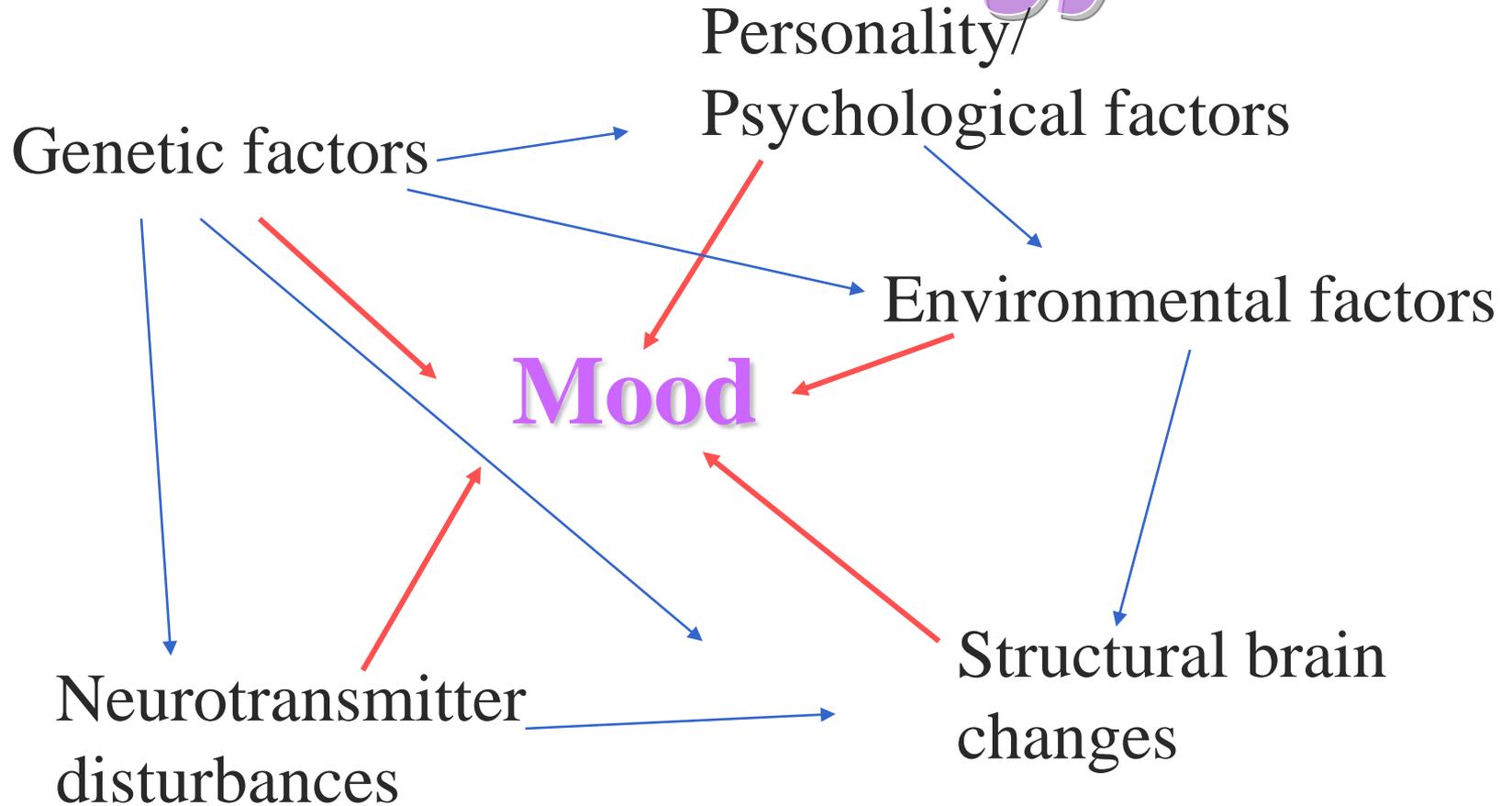
- May lack vocabulary to express themselves
- Listless, weepy, poor feeding, poor weight gain, sleep problems, tummy aches
- Persistent engagement in activities / play with themes of death, self destruction, suicide

- Prevalence increase with age
- Adolescents
  - Prevalence 2-5%
  - Female:male = 2:1
- School age children
  - Prevalence 1-2%
  - Female:male = 1:1
- Preschoolers
  - Prevalence < 1%

- Major depressive disorder
- Dysthymia
  - Chronic mild symptoms most of the day, more days than not, for at least 1 year
  - Impaired functioning / distress
- Adjustment disorder with depressed mood
  - Symptoms shortly after an identifiable stressor
  - Symptoms do not outlast stressor > 6 months

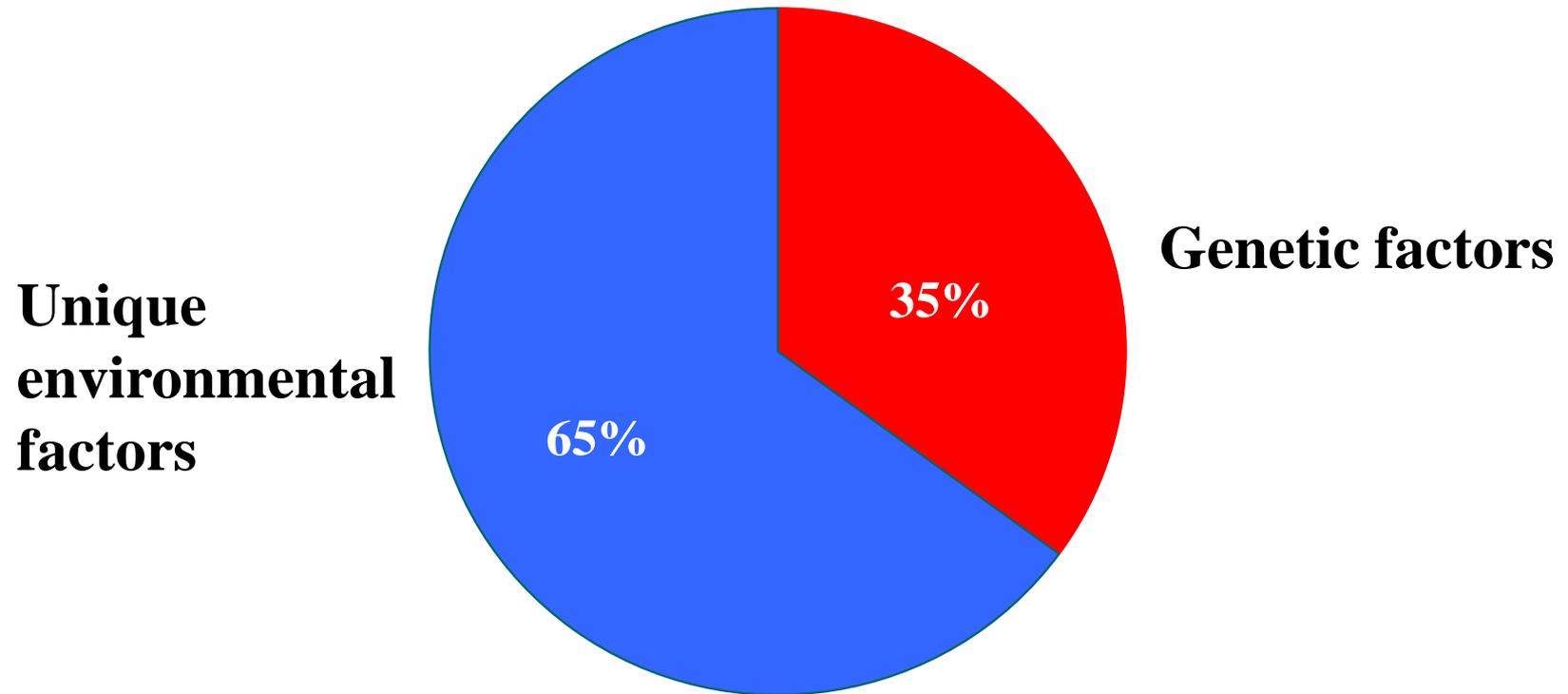
- Anxiety disorder
  - 2 to 25 times commoner
- Conduct / oppositional defiant disorder
  - 3 to 10 times commoner
- Attention Deficit Hyperactivity Disorder
  - Inattentive / combined subtype

# Aetiology



- Family history of psychiatric illness
- Co-morbid psychiatric disorders
- Stressful life events
- Loss / grief events
- Friendship / Relationship breakups
- Family discord
- Abuse / neglect
- Chronic bullying
- Chronic physical illness

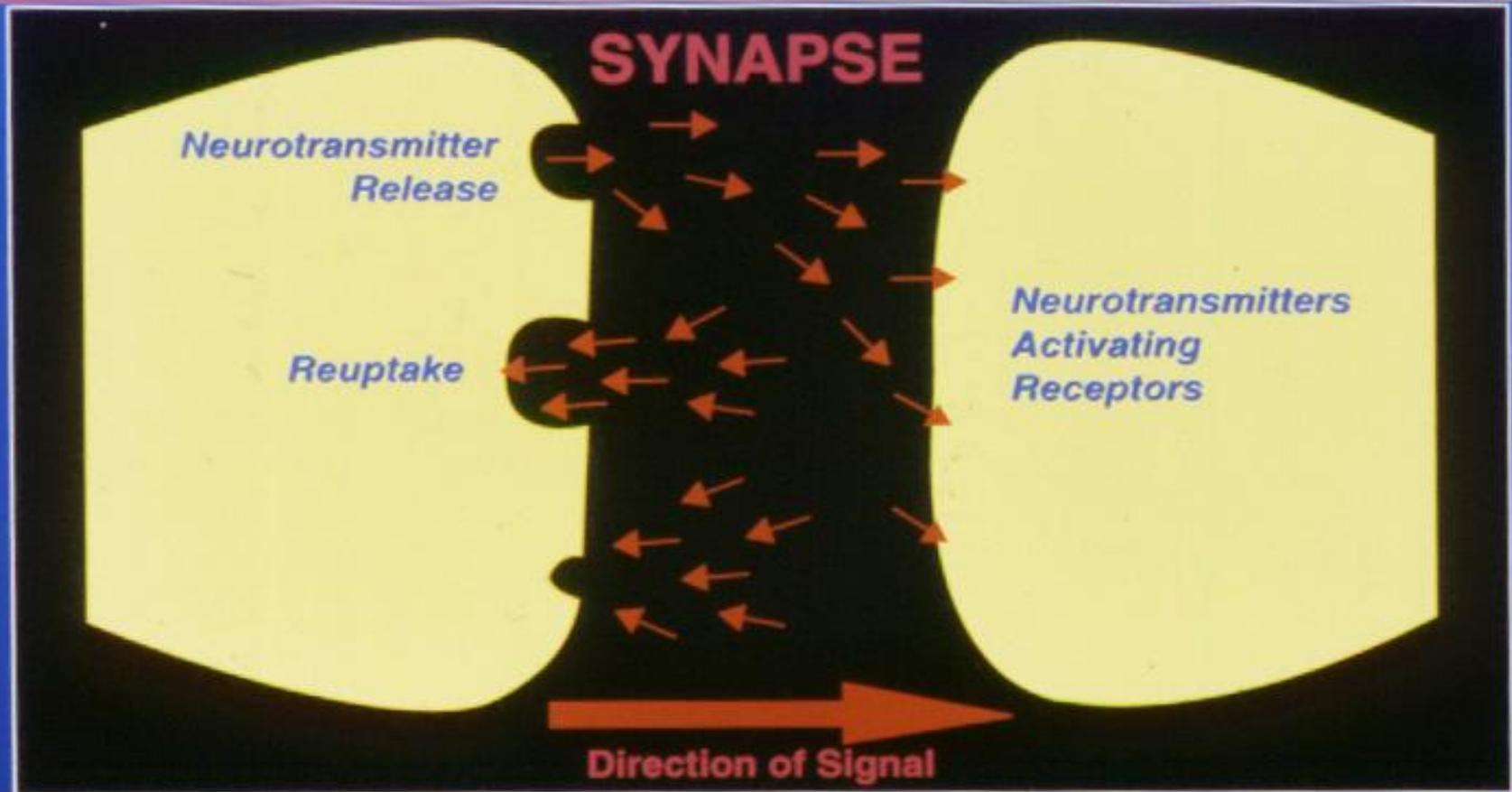
# Nature and Nurture: Genetic and Environmental Risk Factors in Depression



## Neurotransmitter Disturbances

- Serotonin
- Noradrenaline
- Dopamine
- Others- Biological evidence of Growth Hormone secretion abnormalities.

## MECHANISM OF NEUROTRANSMISSION



- **School-related stress**
  - They tend to equate parents' provision of love to own academic achievement.
  - Tend to assume that parents' approval pivots on their results
  - Impose on themselves unrealistic goals
  - Attempts to escape e.g. suicide etc
  - Important to let children know that they are loved no matter how they do

# Childhood experiences

- Family dysfunction and life events associated with childhood depression
- Loss of mother
- Parental separation and discord
- Disruptive, hostile, negative environment
- Early childhood adversity e.g. physical, sexual abuse

# Causes

## Personality / Temperament :

Obsessive compulsive: perfectionists

Anxious

Introverted

Sensitive, unassertive

Dependent

- Adjustment disorder with depressed mood
- Neglect / abuse
- Substance-induced mood disorder
- Schizophrenic prodrome
- Anxiety disorder
- Conduct disorder
- Eating disorder
- Medical condition

- Major depressive disorder
  - 90% of episodes last 6-9 months
  - 70% develop 2<sup>nd</sup> episode with recurrence within 2 years in 40% of cases
- Dysthymia
  - Few years
  - High risk of major depressive episode
- Adjustment disorder with depressed mood
  - Few months, no recurrence

- Increased risk of depression in adulthood, substance abuse
- Impaired interpersonal relationships, social / vocational / academic functioning
- Increased mortality due to suicide
- Increased risk of criminality in adulthood in those with comorbid conduct disorder

# Impact on Children, Adolescents and Family

- They are not miniature adults.
- They do not employ the same coping styles. Level of understanding and interpretation of events are different.
- They have unique problems of their own - school-related, academic, disciplinary, peer relationships and parental issues.

- *Social impairment*
  - family life
  - classroom learning
  - friendships
  - leisure activities
- *Distress for the child*



# Impact on anxious or depressed child

- Poor academic performance
- Negative feedback from teachers
- Labeled as “crazy” or “emo”
- Friends do not like to be near or play with them
- Frequent issues at home, e.g. quarrels, outbursts, meltdowns
- Not understood by some parents
- Chronic low self-esteem
- Self-fulfilling prophecy
- Conduct problems

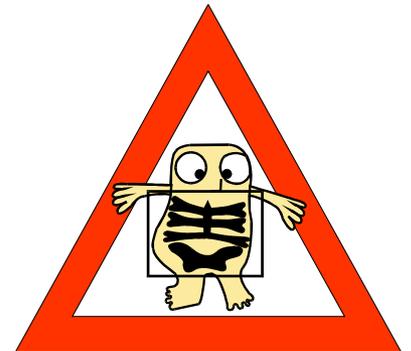
- *Disruption for Family*
  - Family schedules
  - Relationships with parents and siblings
  - Disciplinary measures
  - Marital discord
- *Disruption for others*
  - Classroom learning
  - Social activities
  - Playing
  - (Colleagues at workplace)

# Protective Factors

- Positive self image
- Affectionate relationships
- Supportive relationships with adults
- Stable personality
- High IQ and academic achievement
- High levels of parental supervision
- Clear discipline at home

# Child Risk Factors

- Mental Deficiency - as high as 40% risk
- Difficult temperament - introvert, socially withdrawn
- Physical illness - especially epilepsy
- Specific developmental delay - especially speech and communication
- Precipitating factors e.g. failure in school, stressful events
- Perpetuating factors e.g. Parental and peer expectations
- Presence of mental illness



# Family Risk Factors

- Family history of Anxiety, Depression, Dysthymia, Bipolar Disorders, Suicides
- Hostile, critical and invalidating relationships
- Ongoing psychosocial stressors

# Conclusion

- Anxiety and depressive symptoms occur more often than we thought in children and adolescents
- Some may not reach threshold level (sub-clinical), so hard to identify them
- Recognize that anxiety and depression can manifest in different ways – emotions, behaviours, learning problems
- They cause impairment in child's functioning
- Most conditions are largely and highly treatable

**Thank you**