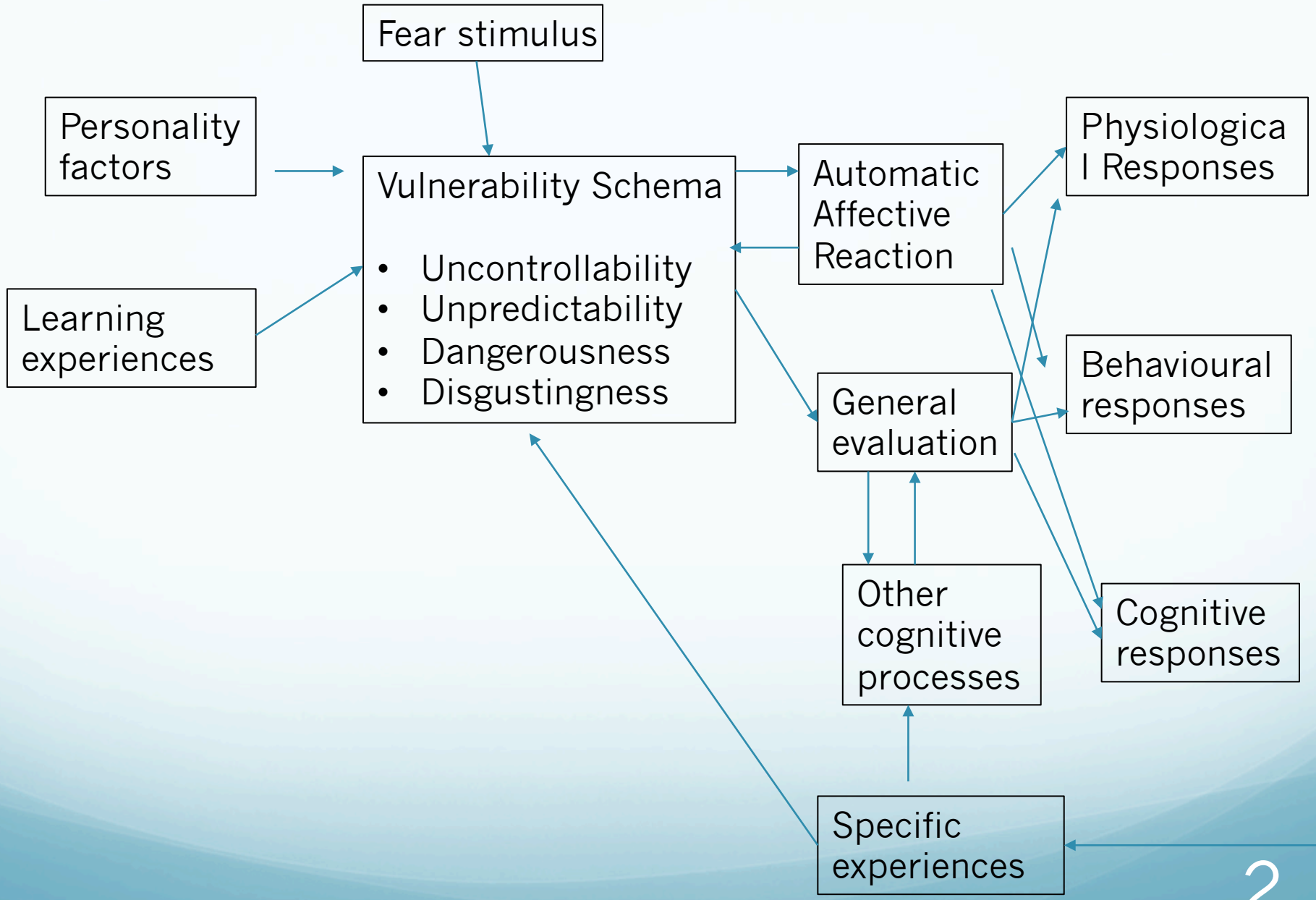
About Anxiety

- Normal, adaptive reactions to potentially threatening stimuli
- Cognitive, affective, physiological, and behavioural process activated
- For safety of the organism
- Over-activation of the protective resources ➔Pathological Anxiety

Cognitive vulnerability Model of Fear (Armfield, 2006)



Cognitive biases in anxiety

- Attentional biases
  - More attention paid to threatening stimuli
  - Hypervigilance
- Interpretive biases
  - Ambiguous stimuli or events interpreted as negative or threatening
  - Threat-relevant schema directs cognitive processing
  - Low perceived control over threat

Anxiety disorders a/c DSM-5 (2013)

Anxiety Disorders DSM-5 (2013)

- Common features
  - Excessive fear & anxiety

	Trigger	Physical	Cognitive	Behaviours
Fear	Real / perceived imminent threat	Autonomic arousal	Immediate danger	Escape behaviours
Anxiety	Future threat	Muscle tension & vigilance	Future danger	Cautious / avoidant behaviours

Anxiety Disorders DSM-5 (2013)

- Separation Anxiety Disorder
- Selective Mutism
- Specific Phobia
- Social Anxiety Disorder (Social Phobia)
- Panic Disorder
- Agoraphobia
- Generalized Anxiety Disorder
- Substance / medication-induced Anxiety Disorder
- Anxiety Disorder due to another medical condition
- Other Specified Anxiety Disorder
- Unspecified Anxiety Disorder

Anxiety Disorders DSM-5 (2013)

- Differentiation among Anxiety Disorders
  - Types of situations/objects that trigger fear/anxiety
  - Cognitive Ideations
- Differentiation from developmentally normative fear/ anxiety
  - Beyond the developmentally appropriate periods
  - Being persistent
- Cultural and contextual factors to be considered
- Many develop in childhood and persist till adulthood if not treated
- Females affected more in general

Separation anxiety disorder

Separation Anxiety Disorder_1

- Developmentally inappropriate & excessive fear/anxiety concerning attachment figures in
  - anticipating or experiencing separation
  - worrying about losing or possible harm to them
  - Worrying about an untoward event that causes separation
- Manifestations
  - Refusal to leave home
  - Refusal to be alone
  - Refusal to sleep away from the attachment figure
  - Repeated nightmares on separation
  - Repeated complaints of physical symptoms in association with separation
- Persistence : ≥ 4 weeks in children & adolescents
- Exclusionary criteria
  - Insistence on sameness in ASD
  - Symptoms attributable to other mental disorders
- Associated features among children
  - Perceived danger specific to developmental level & cultural context
  - Social withdrawal, apathy, sadness, concentration difficulty even in play
  - School refusal ➔ academic difficulties, social isolation
  - Anger & aggression
  - Report of unusual experiences

Separation Anxiety Disorder_2

- The most prevalent anxiety disorder in children under 12 years of age
- Gender prevalence
  - Clinical sample : equal
  - Community sample: females more
- Prognosis
  - Onset as early as pre-school age
  - Majority free of impairing anxiety disorder over their lifetimes

Selective Mutism

Selective Mutism_1

- Consistent failure to speak in specific social situations despite speaking in other situations for ≥ 1 mth (other than the 1st month in school)
- Not attributable to
  - The capacity to speak
  - Other mental disorders
- Associated features
  - Marked by high social anxiety
  - Difficult to meet with school requirement
  - More ready to use non-verbal participation
  - Social withdrawal, clinging, compulsive traits, negativism, temper tantrums, mild oppositional beahviours

Selective Mutism_2

- Rare disorder
- More likely to happen among young children
- Onset
  - Usually before 5
  - Concern usually started at school age
- Prognosis
  - unknown

Specific Phobia

Specific Phobia

- Marked fear or anxiety about a specific object or situation (e.g. flying, heights, animals, injection, seeing blood)
  - Children may manifest with crying, tantrums, freezing, clinging
- Phobic object/situation provokes Immediate fear or anxiety
- Phobic object / situation actively avoided or endured with intense fear or anxiety
- Fear / anxiety out of proportion to actual danger & the sociocultural context
- Persistent fear/anxiety/avoidance for at least 6 months
- Clinically significant distress / impairment in functioning
- Not better explained by another mental disorder

Phobic stimulus

- Animal
  - Spiders
  - Insects
  - dogs
- Natural environment
  - Heights
  - Storms
  - water
- Blood-Injection-Injury
  - Needles
  - Invasive medical procedures
- Situational
  - Airplanes
  - Elevators
  - Enclosed places
- Other
  - Occasions with the possibility of choking / vomiting
  - Loud sounds
  - Costumed characters

Multiple phobic objects common

Development

- Possible precipitating experiences
  - Traumatic event
  - Information
- Majority onset before 10 years
- The older the age of onset, the more difficult is the condition to remit
- Among children
  - Manifestation of the anxiety
  - Collateral information about avoidance
  - Transitory & 'normal' fear responses

Social anxiety disorder

Social Anxiety Disorder_1

- Marked fear / anxiety about ≥ 1 social situations in which the individual is exposed to possible scrutiny by others
  - Interactions
  - Being observed
  - Performing
- In children, anxiety may occur in peer settings
- Concern about being negatively evaluated on their behaviours
- Social situations almost always provoke fear / anxiety
  - Children may express by crying, tantrums, freezing, clinging, shrinking or failing to speak
- The social situations are avoided or endured with intense fear/anxiety
- Fear / anxiety out of proportion to the actual threat even sociocultural context considered
- Persistent and typically lasting for ≥ 6 mths

Social Anxiety Disorder_2

- Associated features
  - Inadequately assertive or excessively submissive or highly controlling of the conversation
  - Rigid body posture, inadequate eye contact, overly soft voice, blushing
  - Shy or withdrawn
  - Seeking occupation that can accommodate the difficulties
  - Self-medication (e.g. drinking)
- Gender ratio:
  - females more
  - More pronounced in adolescence
- Course :
  - Median age of onset : 13 years (75% of individuals between 8-15 yr)
  - Typically runs a chronic course with rare total remission

Hypotheses derived from the adult cognitive models and etiological models of social anxiety

- Dysfunctional beliefs and assumptions
  - Socially anxious children are more likely than non-socially anxious children to hold dysfunctional beliefs and assumptions about themselves and their social world(Clark, 2001; Heimberg et al., 2010; Rapee & Heimberg, 1997).

- Perceived social danger
  - Socially anxious children are more likely than non-socially anxious children to
    - (i) interpret ambiguous social events in a negative fashion and
    - (ii) catastrophize in response to unambiguous, mildly negative social events (Clark & Wells, 1995; Clark, 2001).

- Focus of attention
  - Socially anxious children are more likely than non-socially anxious children to
    - (i) show enhanced self-focused attention and self-monitoring linked with reduced processing of external social cues when anxious in social situations (Clark & Wells, 1995; Clark, 2001), and,
    - (ii) direct their attention externally in search of threat cues (Rapee & Heimberg, 1997) or any evaluation-related cues (Heimberg et al., 2010) when anxious in social situations.

Hypotheses derived from the adult cognitive models and etiological models of social anxiety

- Use of misleading internal information
  - Socially anxious children are more likely than non-socially anxious children to use internal information (in particular anxious feelings, intrusive distorted and negative images/mental representations, and diffused body perception of 'felt sense') to make (erroneous) inferences about how they appear to others (Clark & Wells, 1995; Clark,2001).
- Safety-Seeking Behaviors
  - Socially anxious children are more likely than non-socially anxious children to engage in safety-seeking behaviors when socially anxious (Clark & Wells, 1995; Clark, 2001; Heimberg et al., 2010; Rapee & Heimberg, 1997).
- Anticipatory and post-event processing
  - Socially anxious children are more likely than non-socially anxious children to engage in negatively biased
    - (i) anticipatory and
    - (ii) post-event processing (Clark & Wells, 1995; Clark, 2001; Heimberg et al., 2010).

Hypotheses derived from the adult cognitive models and etiological models of social anxiety

- Performance factors
  - Socially anxious children are more likely than non-socially anxious children to experience social failure due to
    - (i) social skills deficits, and
    - (ii) some aspect of anxiety that inhibits the expression of skilful behavior (Rapee & Spence, 2004).
- Peer interactions
  - Socially anxious children are more likely than non-socially anxious children to be
    - (i) judged negatively and rejected, and/or
    - (ii) victimized by their peers (Ollendick & Hirshfeld-Becker, 2002; Rapee & Spence, 2004).
- Parenting styles and behaviors
  - Parents of socially anxious children are more likely than parents of non-socially anxious children to
    - (i) engage in parental overcontrol,
    - (ii) negative information transfer,
    - (iii) modelling and
    - (iv) negative behaviors (Ollendick & Benoit, 2012; Ollendick & Hirshfeld-Becker, 2002; Rapee & Spence, 2004

Panic Disorder

Panic Attack

- An abrupt surge of intense fear or discomfort (from a calm or anxious state) that reaches a peak within minutes with 4 of following
  - Palpitations
  - Sweating
  - Trembling
  - Shortness of breath
  - Choking sensation
  - Chest pain/discomfort
  - Nausea / abdominal distress
  - Dizziness, unsteady, light-hearted, faint
  - Chills / heat sensations
  - Paresthesias
  - Derealizations or depersonalization
  - Fear of losing control or going crazy
  - Fear of dying
- Not a mental disorder
- Can occur in any anxiety disorders and medical conditions

Panic Disorder_Diagnostic Criteria

- Recurrent unexpected panic attacks
  - An abrupt surge of intense fear or intense discomfort that reaches a peak within minutes
    - Palpitations
    - Sweating
    - Trembling
    - Shortness of breath
    - Choking sensation
    - Chest pain/discomfort
    - Nausea / abdominal distress
    - Dizziness, unsteady, light-hearted, faint
    - Chills / heat sensations
    - Paresthesias
    - Derealizations or depersonalization
    - Fear of losing control or going crazy
    - Fear of dying

    ≥ 4

- ≥ 1 attacks followed by ≥ 1 mth of
  - Persistent concern / worry about additional panic attacks or their consequences; and/or
  - Significant maladaptive change in behaviour related to the attacks

Panic Disorder

- Female to Male : 2 to 1
- Overall prevalence low among children and older adults

agoraphobia

Agoraphobia_1

- Marked fear or anxiety about (≥2)
  - Using public transportation
  - Being in open spaces
  - Being in enclosed places
  - Standing in line, being in a crowd
  - Being outside of the home alone
- Concern about
  - ‘escape might be difficult’
  - ‘help might not be available if I have panic’
  - ‘embarrassing symptoms’
- The situations
  - almost always provoke fear/anxiety
- Coping
  - Avoidance
  - Soliciting company
  - Endurance with intense fear / anxiety
- Persistent for ≥ 6 mth

Agoraphobia_2

- Relevant prevalence
  - Female more than males
  - Incidence peak in adolescence & early adulthood
- Course
  - Typically persistent with rare total remission unless treated
  - Rates of full remission ↓ while rates of relapse & chronicity ↑
- Risk
  - Has the strongest and most specific association with the genetic factor that represents proneness to phobias

Generalized Anxiety Disorder (GAD)

Generalized Anxiety Disorder (GAD)

- Excessive anxiety & worry for ≥ 6 months about a number of events or activities
- Difficult to control the worry
- ≥ 1 (for children) physical symptoms
  - Restlessness or feeling keyed up or on edge
  - Easily fatigued
  - Difficulty concentrating or mind going blank
  - Irritability
  - Muscle tension
  - Sleep disturbances
- Significant distress or impairment in functioning
- Often seeks assurance from adults
- Avoidance
- Children with GAD tend to worry excessively about their competence or the quality of their performance

GAD

- Average age of onset later (Median: 30)
- Female to Male : 2 to 1

DSM-5 Anxiety Disorders

	Types of Trigger	Cognitive Ideations
Separation Anxiety Disorder	Anticipation or actual separation from major attachment figures	• I Might lose the attachment figures
Selective Mutism	A situation that requires speaking	
Specific Phobia	Actual or imaginary phobic stimulus	• This is dangerous
Social Anxiety Disorder	Social situations	• I will act in an embarrassing way • They will reject me
Panic Disorder	Nil specific	• I will lose control • I cannot bear with the situation – having a heart attack, going crazy
Agoraphobia	• Public transport • Open space • Enclosed space • Standing in line / in a crowd • Outside home alone	• Escape might be difficult • Help might not be available if I go panic • I might embarrass myself with the symptoms
GAD	• Free floating	• Non specific

An aggregate of understanding

Summary of understanding

- Anxiety disorders in childhood & adolescence is a public health priority
  - Most common child & adolescent psychiatric conditions with an estimated cumulative prevalence rate among 13-18 yr. olds of 31.9% for any anxiety disorder (Bennett, 2015)
  - 6.5% - 21% children suffer from any one of the anxiety disorders
  - Females report higher rates than males (38.0 vs. 26.1%)
- Lifetime comorbidity between anxiety & other disorders (primarily depression is substantial
- Anxiety disorders during adolescence confer a stronger risk for an anxiety and /or depressive disorder in adulthood
- Only 20-30% of afflicted children & youth are identified & receive mental health service

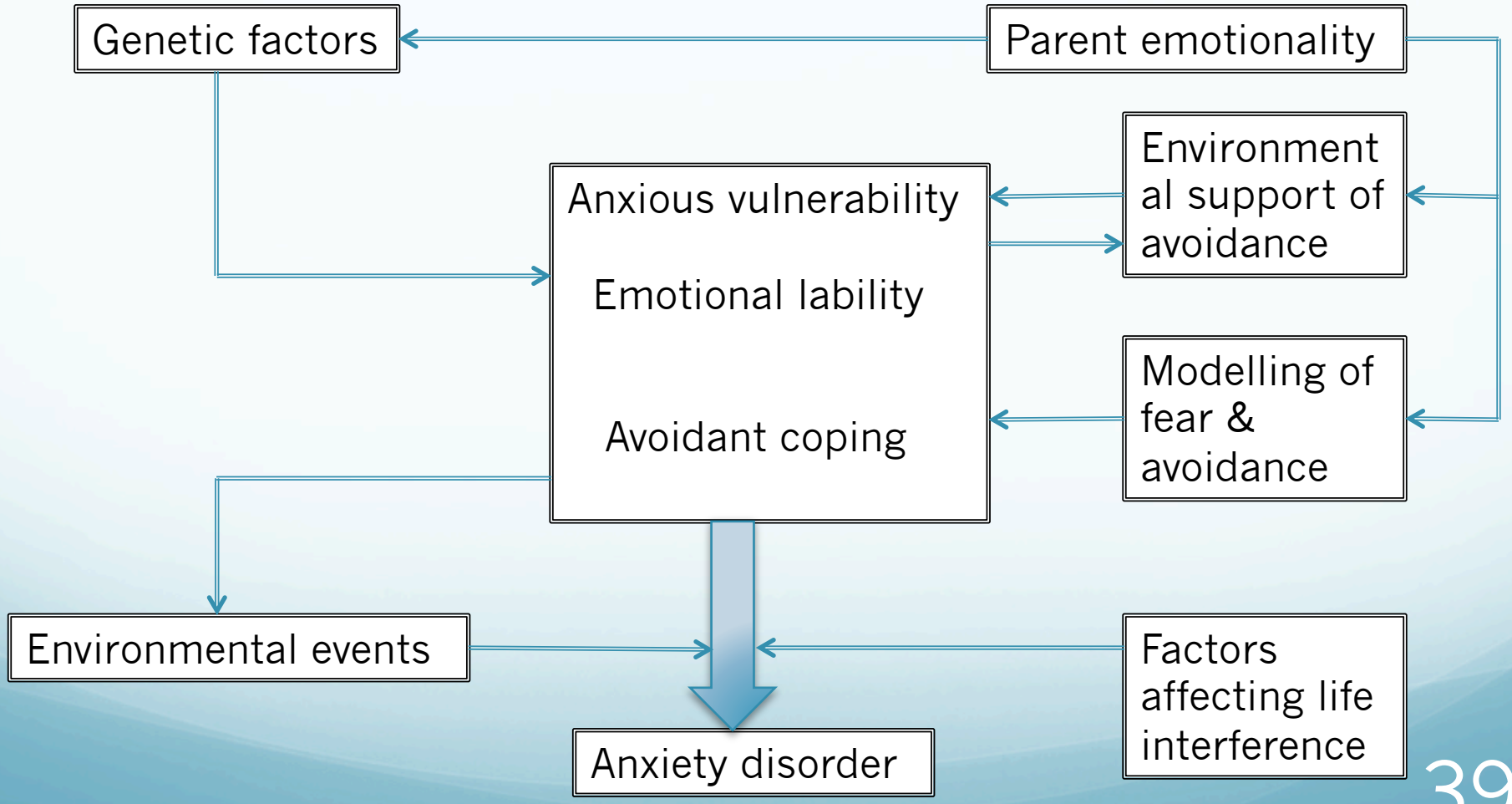
Summary of understanding

- Anxiety
  - Comorbid concerns
  - Evidence does not support that kids will outgrow the problems related to anxiety
  - Often a gateway problem
  - Runs in family
  - Girls more susceptible
  - Other factors
    - Behaviourally inhibited infants & toddlers
    - Childhood trauma, abuse & early life stressors
    - Parents – models, overprotective
  - Impairment
    - Educational attainment, life satisfaction, delayed developmental milestones in adulthood

Etiology

- No single cause
- Often run in families, but no ‘anxiety gene’ found yet
- ? Reward system activity implicated
  - Less motivated by reward
  - More risk averse
- Temperament
  - High levels of emotionality & neuroticism
  - Low levels of effortful control
  - Behavioural inhibition
- Parental factor
  - Modeling anxious behaviours
  - Communication about harm & safety
  - Tendency to interpret ambiguous situation as threatening
  - Reinforce avoidance of anxiety-provoking situations
  - Excessive reassurance
  - Overcontrol
  - High levels of criticism & rejection
  - Depression & maternal bipolar disorder
- Pre-school behaviours
  - Subclinical symptoms can lead to negative functional outcomes when avoidance is involved

Model of the development of Anxiety disorders in children (Perini & Rapee, 2014)



Treatment

- The Child & Adolescent Anxiety Multimodal Study (CAMS)(Piacentini et al, 2014)
  - 46 – 68% of combination therapy achieved remission
  - FU 6 years later · ~ 50%of the children who initially responded to treatment had relapsed
- CBT or SSRI/SNRI is supported by high quality research (Bennett, 2016)
- 4 SSRIs (fluoxetine, fluvoxamine, paroxetine, sertraline) and 1 SNRI (venlafaxine) are associated with benefit on the treatment global improvement.
- Combination therapy (CBT + sertraline) is superior to CBT alone, sertraline alone and placebo at post-treatment (Walkup, 2008).
- Findings for combination & web/computer-based treatment are encouraging but call for future research.
- CBT & exposure-based therapy continue to be the most well-established treatments for child & adolescent anxiety. Approximately 60% of children respond positively to treatment

Psychological treatments

- CBT
  - Developing awareness of anxious feelings, thoughts (i.e. self-talk) & behaviours (e.g. avoidance)
  - Learning skills to cope
  - Use relaxation
  - Parental involvement
  - Between session exposure tasks
- Computer-based & computer-assisted programmes
- Mindfulness-based CBT
- Parent training programme

Prevention

- Universal, selected or indicated
- Treat parental anxiety & accommodating behaviours
- Early identification
- Transition point intervention before the problems arise
- The Child & Adolescent Anxiety Multimodal Study (CAMS)
  - 46 – 68% of combination therapy achieved remission
  - FU 6 years later - ~ 50%of the children who initially responded to treatment had relapsed

Anxiety in medical settings

The preoperative anxious kids

- Risk factors
  - Children : high trait anxiety, low sociability, high parental anxiety
  - Adolescents: anxiety, depression, somatization, fearful temperament

- Responses to stress surgery:
  - Separation anxiety, decreased sleep, delirium, behavioural problems, increased distressed in the recovery phase
  - Preoperative anxiety lead to longer postoperative recovery with more Cx & prolonged wound healing

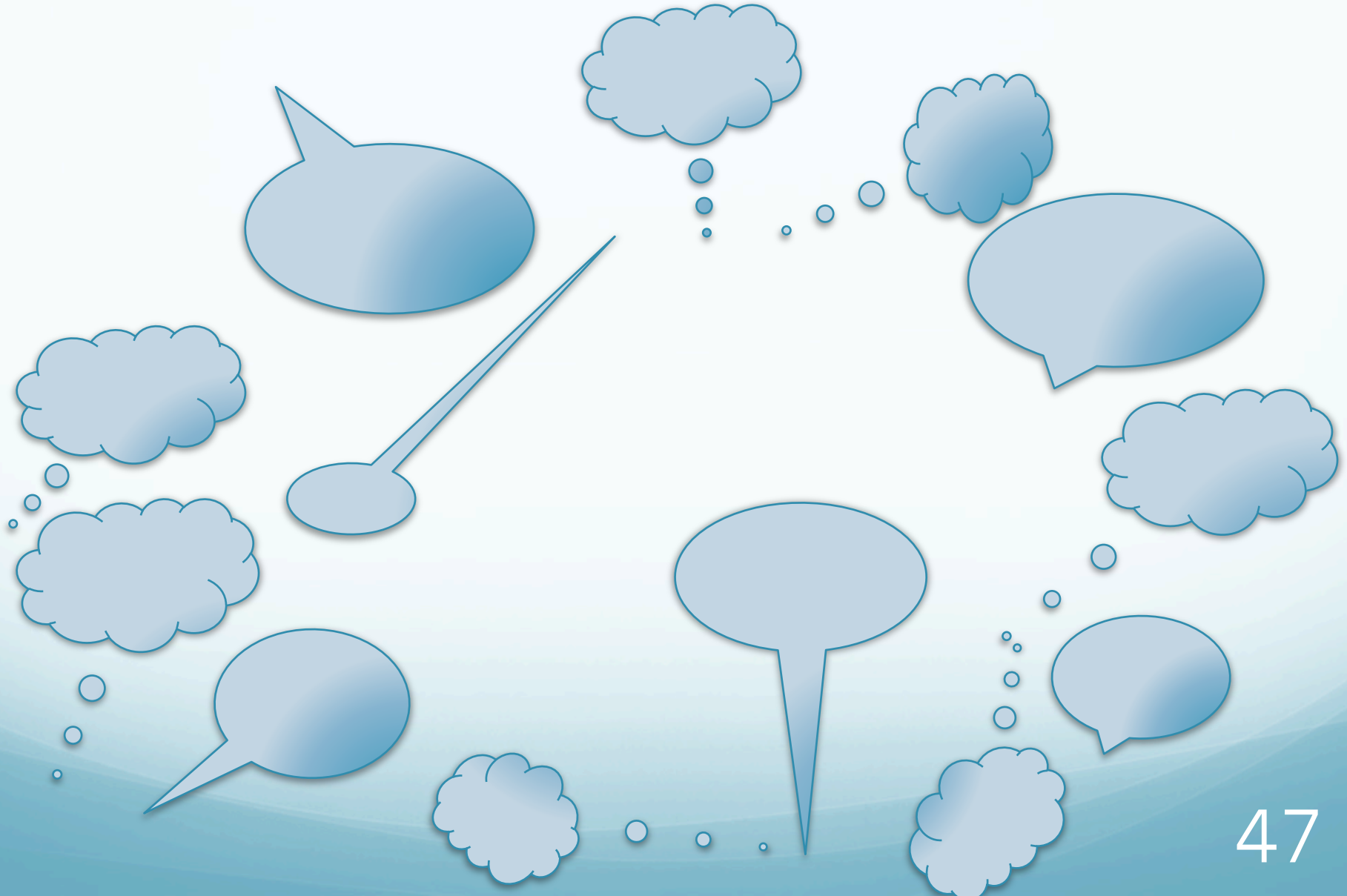
- Intervention
  - Non-pharmacological interventions as effective as pharmacological interventions
  - Non-pharmacological interventions
    - Psychological preparation by reading, games etc
  - AV interventions promising. Most AV interventions are effective in reducing children's preoperative anxiety
    - Videos, multifaceted programmes & interactive games are more effective than Standard Care & other active interventions – to gather more control, learn better about the complex procedures
    - AV interventions with procedural information alone might be sufficient for a child to cope with the perceived anticipatory threat. Multisensory stimulation potentially effective for intervention
  - Peer models should be age & developmentally matched
  - The more sensory modalitites (auditory, visual, kinesthetic, & tactile), the less attention available for the perceived threatening stimuli, thus potentially optimally attenuating the distress in perioperative procedures

Cognitive behavioural intervention for children

CBT components_1

- Formulation & Psycho-education
  - The understanding of the link between thoughts, feelings & behaviour
- Cognitions
  - Thought monitoring
    - Identification of negative automatic thoughts, core beliefs and dysfunctional assumptions
  - Identification of cognitive distortions & deficits
    - Common dysfunctional cognitions, assumptions & beliefs
    - Pattern of cognitive distortions
    - Cognitive deficits
  - Thought evaluation
    - Testing and evaluating cognitions
    - Cognitive restructuring
    - Development of balanced thinking
  - Development of new cognitive skills
    - Distraction,
    - Positive diaries
    - Positive & coping self-talk
    - Self-instructional training
    - Consequential thinking
    - Problem solving skills

Eliciting thoughts from children



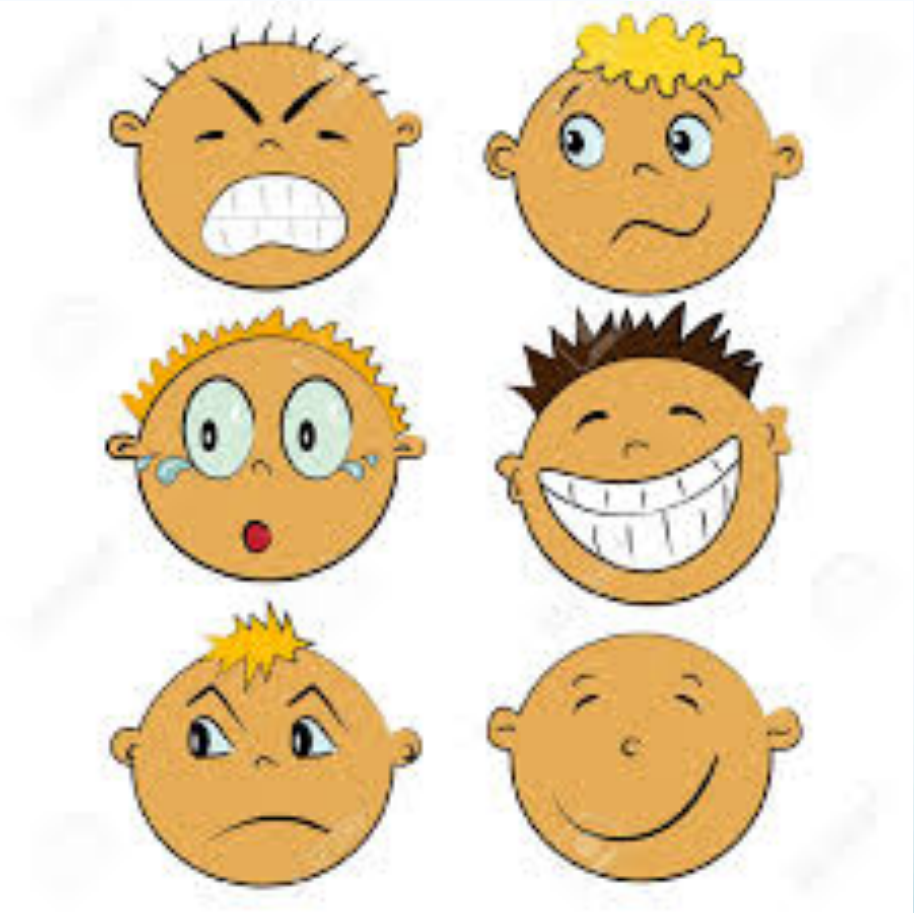
CBT components_2

- Behaviour
  - Activity monitoring
    - Link activity, thoughts and feelings
    - Identify maintaining reinforcers
  - Goal planning
    - Identify & agree goals
  - Target setting
    - Practise tasks
    - Increase enjoyable activiites
    - Activity rescheduling
  - Behavioural experiments
    - Test predictions / assumptions
  - Graded exposure / response prevention
  - Learn new coping skills / behaviour
    - Through Role play, Modelling, Rehearsal
    - Problem-solving, relaxation

CBT Components_3

- Emotions
  - Affective education
    - Distinguish between core emotions
    - Identify physiological symptoms
  - Affective monitoring
    - Link feeling with thoughts and behaviour
    - Scales to rate intensity
  - Affective management
    - New skills (e.g. relaxation, anger management)
- Reinforcement & rewards
  - Self-reinforcement, start charts, contingency contracts

Educating about Mood to children



FEAR plan (coping cat program) (Kendall, 1992)

- Fear
  - Recognizing bodily symptoms
- Expecting bad things to happen
  - Identifying anxious cognitions
- Attitudes and Actions can help
  - Developing a repertoire of coping strategies
- Results and Rewards
  - Contingency management

NICE guideline
CG159 Social Anxiety Disorder (2013)

- Individual CBT should consist of the following, taking into account the child or young person's cognitive and emotional maturity:
  - 8–12 sessions of 45 minutes' duration
  - psychoeducation, exposure to feared or avoided social situations, training in social skills and opportunities to rehearse skills in social situations
  - psychoeducation and skills training for parents, particularly of young children, to promote and reinforce the child's exposure to feared or avoided social situations and development of skills.

- Group CBT should consist of the following, taking into account the child or young person's cognitive and emotional maturity:
  - 8–12 sessions of 90 minutes' duration with groups of children or young people of the same age range
  - psychoeducation, exposure to feared or avoided social situations, training in social skills and opportunities to rehearse skills in social situations
  - psychoeducation and skills training for parents, particularly of young children, to promote and reinforce the child's exposure to feared or avoided social situations and development of skills.

- Consider psychological interventions that were developed for adults for young people (typically aged 15 years and older) who have the cognitive and emotional capacity to undertake a treatment developed for adults.

The uniqueness in the application

- the evidence and theoretical base for children is more limited than that for adults
- The developmental limitation of children, especially those of young age (more applicable to those aged 7 and above)
- Typically intend to remediate skills deficits or correct distortions in thinking, emotions, or action; best through through performance-based procedures.
- Cognitions, emotion, action and social environment are all involved but may vary in their potency across the different types of psychological difficulties and disorders
- Differentiation between cognitive deficits & cognitive distortions
  - Cognitive deficit: absence of thinking
  - Cognitive distortions: dysfunctional thinking
- Children and adolescents must, on their own, enjoy the experience, want to be there, and even come to see the potential benefits of therapy
- Adaptation of materials required
  - Concrete and simple materials
  - Clear & simple instructions

Pertinent factors in the conduct of CBT with children & adolescents

- How does the child come into treatment?
  - The tolerance and acceptance of the child's demeanour in the therapeutic situation, including unwillingness to talk about the problem, limitation in self-reflection
- What is the age/developmental level of the child?
  - Age appropriate mode of service delivery
    - To foster a positive therapeutic relationship
    - To create a window for more direct observation of the child's operating expectation and beliefs
    - To introduce and develop more adaptive behaviour and more constructive thinking about troubling issues
  - Play-related activities as an option (role play ± puppets/dolls, games, art activities, board games)
  - Attitude of the therapist
    - Teach in a playful manner, and play to teach
  - Capacity of the child
    - Memory, attention, language ability, conceptual reasoning
  - Psychosocial needs
  - Choice of reinforcement : from concrete to mastery
- What is the social context of the child?
  - The source of the problems
  - The resources to support the treatment
- What is the role of the therapist?
- What are the expectations of the child and his/her caretakers?

Working with adolescents

- Acknowledge their self-centredness
  - Questions to clarify and understand, with interest, rather than challenge
  - Present with choices
- Promote collaboration
  - allow space for choices, target setting, decision making
  - Therapist to advocate and convey the adolescent's views to significant others
- Promote objectivity
  - Encourage the seeking for evidence
  - Provides the structure for testing the assumptions, beliefs and thoughts
- Use Socratic questions
  - Direct, specific and concrete questions
- Challenge dichotomous thinking
  - Rating
  - The language used by the therapist (better instead of good, worse instead of bad)
- Involve other significant people

The involvement of the parents

- Nature of involvement varies across child problems and varies with development
- Possible roles
  - Consultants
    - Provision of information about the child
  - Co-clients
    - Contribution to or maintenance of some aspects of the child's problems
  - Collaborators
    - Assistance in the implementation of treatment requirements

May we find peace in times of chaos!