

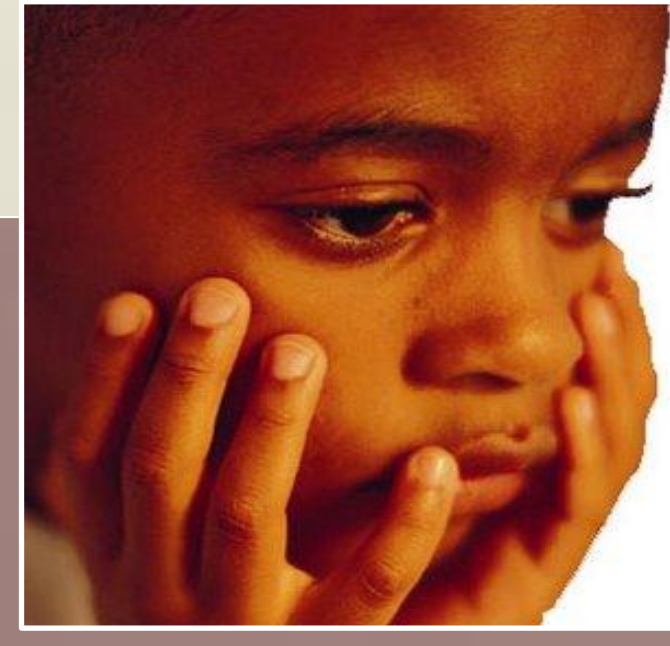
Study of children at risk for panic disorder

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Introduction:

Panic disorder (PD) affects 3.7% of Canadians 15 years and older⁽¹⁾. It is a serious mental disorder with tragic costs to the individual, family, and society. The primary objectives of the study were to:

- Determine whether developmental stage modifies the expression of risk markers in children at high and low risk for anxiety disorders
- Evaluate the stability of risk markers over a 2 year period
- Investigate the influence of genotype and stressor history on the expression of risk markers.



Hypothesis:

- High risk children will demonstrate an altered psychological and biological profile and exhibit less stability in risk markers at 12 and 24 months than low risk children.
- Genotype and stressor history will modify the expression of risk markers and be more evident in high risk than low risk children.



Methodology:

1. Telephone screen

2. Diagnostic assessment of parents

3. Clinical assessment of children

4. Cortisol & heart rate variability

5. Saccadic eye movement

Facial recognition task

Stress response

6. Change of risk markers

7. Monitoring clinical status

Assessment instruments:

1. CASI (Childhood Anxiety Sensitivity Index)⁽²⁾

- Assesses beliefs children have about the negative consequences of anxiety (18 items rated on a 3-point scale).

- Discriminates between children (ages 6-17 years) with and without anxiety disorders and predicts onset of spontaneous panic.



2. STAIC (State-Trait Anxiety Inventory for Children)⁽³⁾

- Two 20-item scales that assess state and trait anxiety in children and adolescents (ages 6-18 years).
- Three-point scale, with higher scores reflecting higher levels of state and trait anxiety.

Assessment instruments:

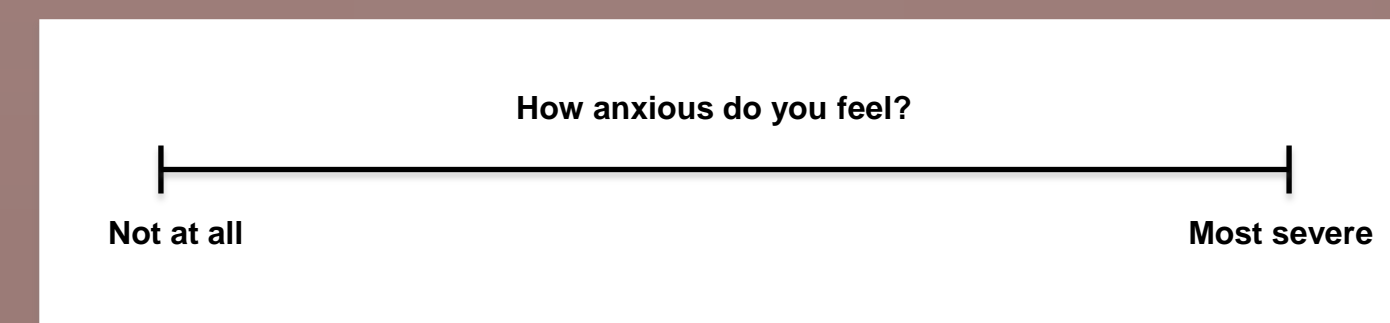
3. CSRI (Childhood Self-Report of Inhibition-V.2)⁽⁴⁾

- Assesses childhood behavioural inhibition (30-items; 5-point scale).
- Behaviours include: separation anxiety, withdrawal from social situations, general and specific fears, and a number of different complaints related to illness.



4. VAS-A (Visual Analogue Scale for Anxiety)⁽⁵⁾

- Used to measure subjective state anxiety during the laboratory stressor.



- Children would be directed to indicate the severity of anxiety (not at all to most severe) at a particular moment by transecting the 100mm-line with a vertical line.

5. LES (Life Events Scale for Children and Adolescents)⁽⁶⁾

- Self-report instrument that records the occurrence of specific life events and assigns a weighting for the impact of the event in children 8-19 years of age.
- Events relate to family, school, and social activities.

6. PBI (Parental Bonding Instrument; children's version)⁽⁷⁾

- Self-report measure to assess parental bonding in children to their parents (both mother and father)
- Twenty-five item scale; higher scores reflect higher parental bonding:

1 (not at all like him/her) to
4 (very much like him/her)

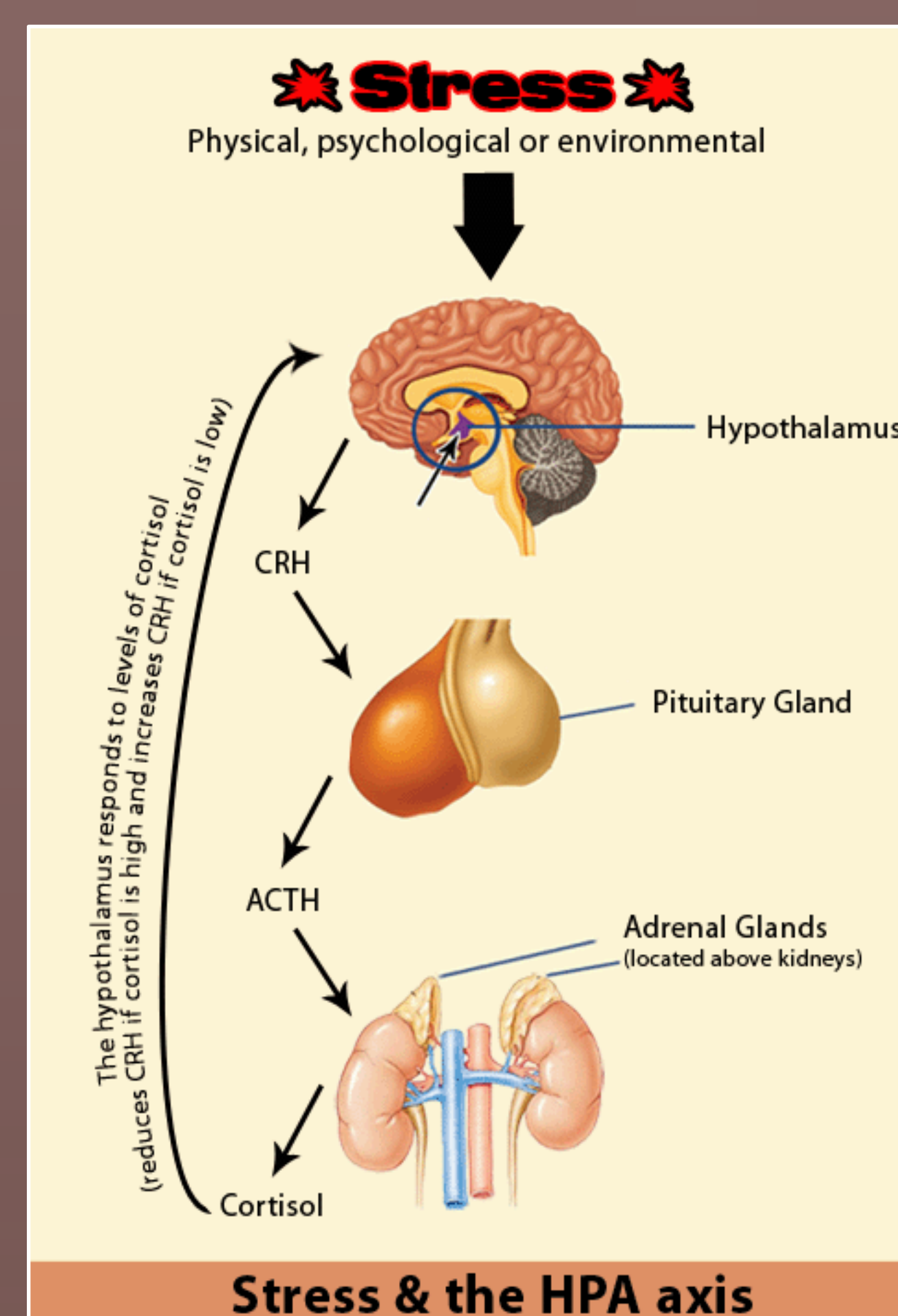


Biological measurements:

1. Cortisol:

Salivary cortisol evaluates the HPA axis under basal and stressful conditions⁽⁸⁾.

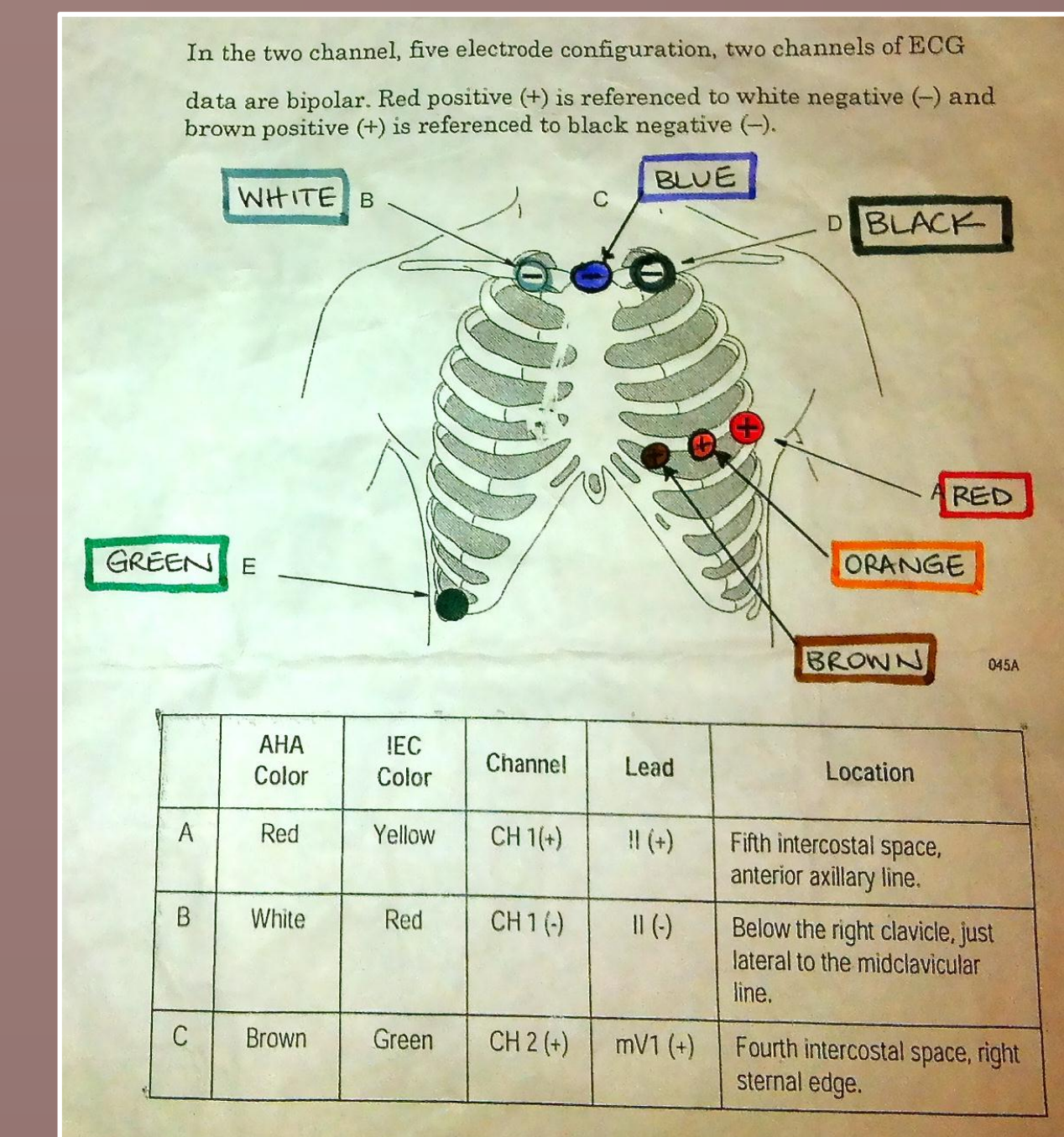
Saliva samples will be collected in the child's natural environment and during the laboratory stressor and will be stored at -20°C until assayed.



Biological measurement:

2. HRV (Heart Rate Variability)

Measured with a Seers MC (GE Medical systems) ambulatory ECG monitor. Participants will wear the Halter monitor for 24-hours in their natural surroundings and during the laboratory stressor



3. Facial recognition task:

Participants will be presented with pictures displaying one of 5 emotions (happiness, sadness, anger, fear, surprise) or a neutral expression. There are 36 trials divided into 6 blocks of 6 pictures each (3 males and 3 females); each block will include pictures of all 5 emotions and a neutral expression that the participant has to identify. In the last block, participants will be asked to rate how anxious they felt while viewing each picture.



Ekman and Friesen's Pictures of Facial Affect (PFA)⁽⁹⁾

Results and conclusion:

The study is still ongoing at the data-collection level. Samples are being sent to the appropriate laboratories for analysis, and data is entered into a database for storage and managing.

Therefore, there are no preliminary results to report yet. However, the hope is that this study, along with future research, will help diagnose children at risk for anxiety disorders at an early stage of their development.

Acknowledgements and references:

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