Understanding childhood trauma with The Child Attachment and Play Assessment: evidence from psychological and physiological perspectives

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The Child Attachment and Play Assessment (CAPA)

- Uses narrative stem stories to assess attachment, play and mentalising in children aged 3-11 years.
- Theory basis: DDM, Winnicott's Potential Space.
- 6-8 stories, play-based procedure with props.
- Video taped, then analysed by a reliable coder. Observation of behaviours instead of verbal content.
- CAPA Coding Manual (Farnfield, 2015)

Research questions for today

- Psychological:
- Can CAPA reliably assess unresolved trauma in young children?
- Do different outcomes of CAPA indicate different risk of psychiatric symptoms?

- Physiological:
- Can biochemicals provide evidence for arousal levels observed in CAPA?
- Different pictures for different strategies?

The participants

Control (11 children)

- 3-8 years living with at least one biological parent, no involvement with mental health or social service.

Trauma (21/30 children)

- 3-8 years referred by social services, no LD.

Design: same for all!

- Psychometric: Trauma Symptoms Checklist for Young Children (Briere, 2001)

RL - response level
ATR – alleviated trauma response
ANX – anxiety
DEP – depression
ANG – anger
PTS-1 – post trauma stress-intrusion
PTS-AV – post trauma stress-avoidance
PTS-AR – post trauma stress-arousal
PTS-TOT – post trauma stress-total
DIS – dissociation
SC – sexual concerns

- Language: Test for Auditory Comprehension of Language-3 (Carrow-Woolfolk, 1999)
- Developmental and trauma history questionnaire
- CAPA
- Saliva samples: 5 throughout a baseline day, then 5 on the day of CAPA (before&after CAPA, and 3 more at 30 minute intervals.

Preliminary findings: Psychological

- Utr modifier is a strong predictor for higher T scores in ANX, DEP, ANG, PTS-I, PTS-AV, PTS-AR, PTS-TOT, DIS and SC, and almost ATR (sig=0.07)
- Being in the trauma group only predicted higher T scores in ANX, PTS-I, PTS-AR, PTS-TOT, and almost ANG (sig=0.051), DIS (sig=0.052)
- Children whose strategies were A&C5+ scored significantly higher on ANX, ANG, PTS-I, PTS-AV, PTS-AR, PTS-TOT,DIS and SC, compared to B and A&C-
- A&C3,4 scored significantly higher on PTS-AR, PTS-TOT, DIS than B,A&C-
- A&C5+ only had higher PTS-AR than A&C3,4

Biochemicals

- Cortisol is a hormone, indicator of elevated psychological stress. Salivary level elevation detected with a time delay of 10-30 minutes. Diurnal pattern, decreasing through the day. Normative levels differ with gender and age.
- Alpha-amylase is an enzyme, indicator of Sympathetic Nervous System dominance. Salivary level elevation detected instantly. Diurnal pattern, increasing through the day. Normative levels differ with gender and age.

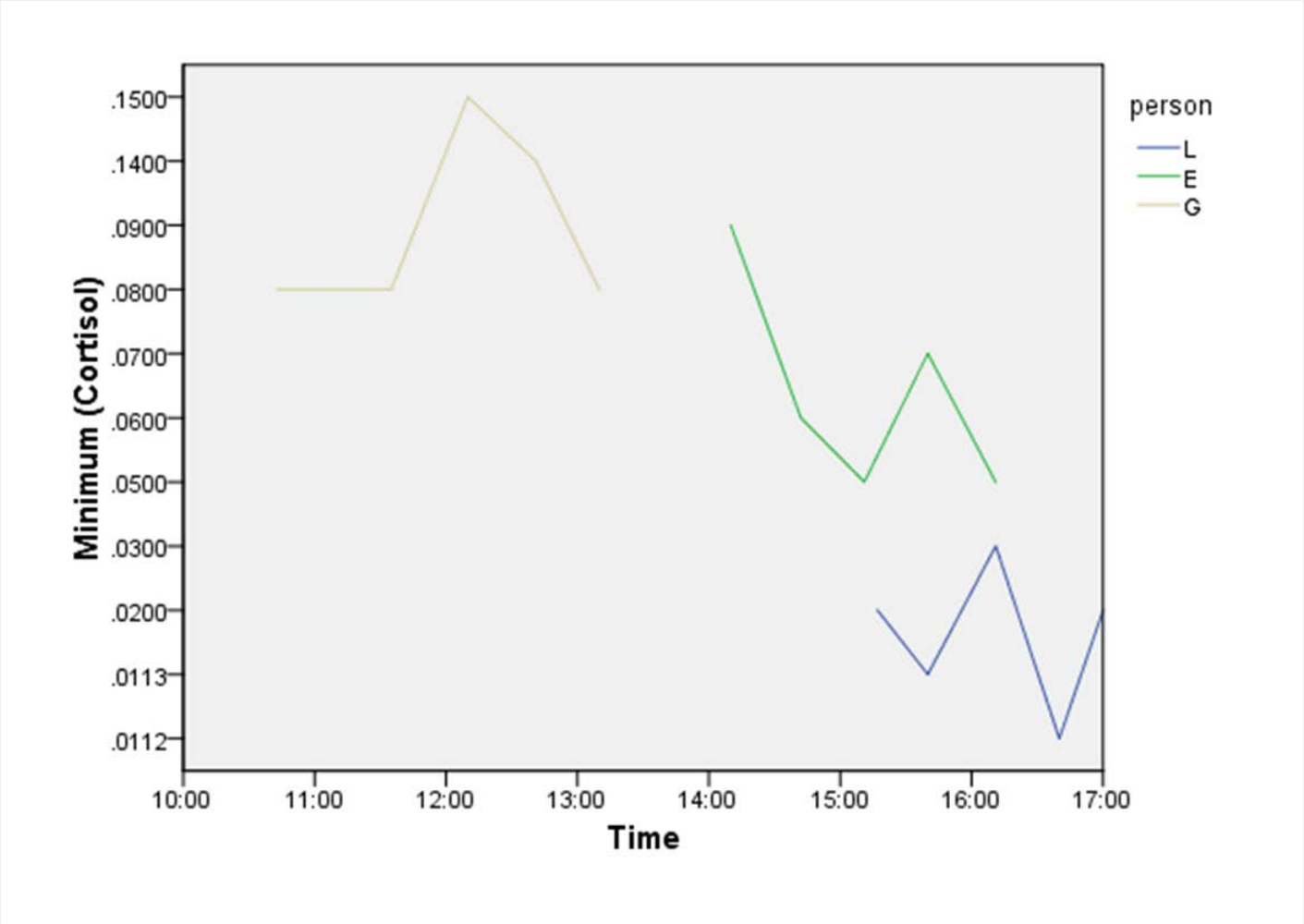
Preliminary findings: 3 children

- L is an 8 year old girl, whose strategy is A1.
- E is a 5 year old girl, B5 and L's sister.
- G is a 5 year old boy, whose strategy is C1,2.

Despite being the youngest, G had the highest cortisol daily baseline measure means. However, this difference was not significant.
G's daily cortisol mean was almost significantly higher than E, someone near his own age (sig=.052).

There was significant difference in mean daily alpha-amylase levels on baseline day. G still the highest. (Sig=.003)
No significant difference between L and E, but G's alpha-amylase mean was significantly higher than both L and E (Sig=.005 and .003 respectively).

Cortisol Clinical Day Samples



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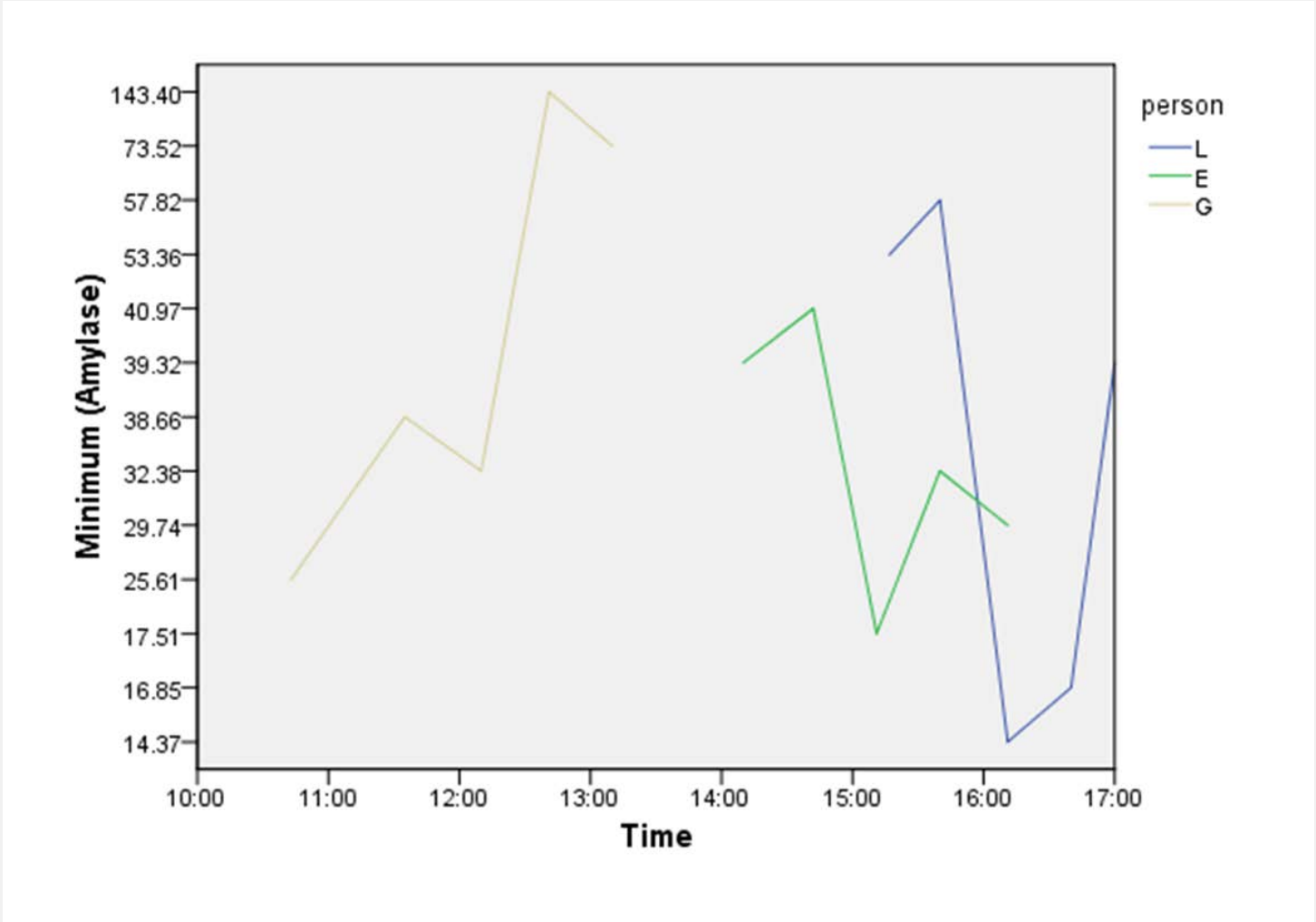
Alpha-amylase Clinical Day Samples



Early Conclusions

- CAPA is a reliable and valid assessment for symptoms of trauma and other psychiatric disorders in young children.
- Children whose CAPA outcomes indicated high A&C strategies do experience more severe mental health issues.
- The importance of trauma arousal need to be further explored.
- Among normative children, C strategy could be proven to have higher arousal level than A and B, but less fluctuation.
- Alpha-amylase may be a better stress level indicator than cortisol for short assessments.

Thank you!

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