When adversity turns into trauma
Understanding the long term effects of adverse childhood experience

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What is the right of a child?
National Child Traumatic Stress Network (NCTSN)

• Being safe
• Being seen
• Being wanted
• Being competent
• Being a contributor
Since 2014 nearly 1.3m records have been put on the Merlin database of vulnerable individuals notified to social services by Metropolitan Police (Guardian FoI, 6/7/2019)
The highest number of records (nearly half a million) relate to 'child care/welfare' notified to social services by Metropolitan Police (Guardian FoI, 6/7/2019)
ACEs – prevalence and impact

More than **half of young people** are exposed to potentially traumatic events.

Trauma exposure has a substantial **direct impact on the mental health** of young people (e.g. PTSD, depression, anxiety, attachment disorders).

Many mental health disorders in adults are associated with childhood trauma.

Psychological trauma is a transdiagnostic vulnerability factor.

**Multifinality:** one specific developmental factor may lead to different developmental outcomes, depending on its interaction with other factors.
TRAUMA

SUD

PTSD

Depression

Anxiety

Increased risk of chronic diseases

High comorbidity

Increased risk of chronic diseases

Self-esteem issues

Revcitimisation risk

Interpersonal problems

Insecure attachment

Reactive attachment disorder

Diminished problem-solving capacity

Suicidal ideation

Self-harm

Withdrawal

Lower earnings

Delinquency

Fewer assets

Aggression

Somatic problems

Quasi-autism

Reduced wellbeing

Impaired memory and executive function

Impaired mentalizing capacity

Elevated basal cortisol

Indiscriminate friendships

Poorer literacy and numeracy

Impaired problem-solving capacity

Poor attention

PTSD

Impaired memory and executive function

Insecure attachment

Delinquency
What could mediate such a bewildering range of outcomes across multiple domains?
Early adversity as an ecophenotype

- Earlier age at onset of psychopathology
- Greater symptom severity
- Higher levels of comorbidity (also with somatic)
- Greater risk for self harm and suicide
- High risk of re-victimisation and other interpersonal problems
- Poorer response to treatment

Equifinality: patients with the same diagnostic label differ considerably in the extent to which they experienced early adversity but those with a history show similarities

Teicher & Samson, 2013
### Trauma and transdiagnostics

#### More difficult to identify a disorder to which childhood maltreatment is not linked than to identify a disorder to which it is linked with specificity (Vachon et al., 2015)

#### Childhood maltreatment influences broad, general factors (e.g., internalizing, externalizing) common to multiple different types of disorders rather than specific disorders or clusters of symptoms (Conway et al., 2018)

<table>
<thead>
<tr>
<th>Stress embedding:</th>
<th>Stress generation:</th>
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<tbody>
<tr>
<td>• neural changes in threat systems lay down a vulnerability to later disorders.</td>
<td>• maltreated individuals behave in ways that contribute to the occurrence of other negative events in their lives</td>
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#### Stress sensitization:

• exposure to early maltreatment generates more vulnerability to later proximal stressors

#### Stress sensitivity:

• some individuals are genetically more or less sensitive to environmental influence (Belsky, 2015)

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Involves an etiological chain with at least four stress related processes.
Stress Embedding: EEG responses for Angry faces

Maltreated group

Comparison group

(Source: Cicchetti & Curtis, 2005, Dev. & Psychopath.)
Threat processing

- how individual perceives, processes, responds to and shapes their social ecology
- Increase risk of exposure to stressor events
- Degraded social support

Social Cognition

- Misunderstanding intentions
- Symbolic thinking deficits
- Social hypervigilance

Emotion Regulation

- Failure to monitor, evaluate, and modify emotional reactions
- Disorganized attachment

Memory Processing

- Inadequate processing of trauma experience
- Privileging negative memories relative to positive memories

McCrory et al., 2011, 2013; Majeu et al., 2010; Tottenham et al., 2011, 2017; White et al., 2012; Dannlowski et al., 2012
Mehta et al., 2010; Goff et al., 2013; Hanson et al., 2015; Dennison et al., 2016; Tottenham et al., 2017
Gee et al., 2013; Marusak et al., 2010; Puetz et al., 2014, 2016; McLoughlin et al., 2015
The intergenerational impact of child abuse

<table>
<thead>
<tr>
<th>Past</th>
<th>Present</th>
<th>Future</th>
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<tr>
<td>Of all those who were <strong>abused</strong> by a family member</td>
<td><strong>36%</strong> went on to be <strong>abused by a partner</strong> or ex</td>
<td><strong>41%</strong> has <strong>child who witnessed this violence</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>34%</strong> who witness domestic abuse go on to be abused</td>
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Summary points from available evidence

- The importance of individual or *personalised* understanding of children exposed to early maltreatment and neglect

- Not to let headline issues from their past or from diagnoses OR “quasi-diagnoses” cast a shadow over individual needs

- Neurobiological research emphasises that: *Adversity breeds Diversity*

- Avoid thinking of these children solely in terms of “attachment & trauma” [cf ASF] to get the right support, in the right families, at the right time
Overshadowing & Masking

**Diagnostic overshadowing** is when a person’s additional comorbid symptoms are identified...

- but mistakenly subsumed under their primary condition or status
- e.g. LAC

**Diagnostic masking** is when comorbid symptoms are **not** identified...

- due to focusing solely on the existing condition / status
- e.g. trauma
Unusual & unique phenotypes
(in which common disorders still identifiable)

Mood

Sleep

Anxiety

Neuro: ADHD & Autism

Attachment

Behavioural

Trauma

Learning disability

Social skills deficits

School problems
Models of covariation of symptoms/diagnoses

A. Correlated-Factors Model

MDD  GAD  Fears  CD  SUD  ADHD  Schz  BPD  OCD

From Caspi & Moffitt (2018)
Models of covariation of symptoms/diagnoses

From Caspi & Moffitt (2018)
A general psychopathology factor in early adolescence

Praveetha Patalay, Peter Fonagy, Jessica Deighton, Jay Belsky, Panos Vostanis and Miranda Wolpert

Background
Recently, a general psychopathology dimension reflecting common aspects among disorders has been identified in adults. This has not yet been considered in children and adolescents, where the focus has been on externalising and internalising dimensions.

Aims
Examine the existence, correlates and predictive value of a general psychopathology dimension in young people.

Method
Alternative factor models were estimated using self-reports of symptoms in a large community-based sample aged 11–13.5 years (N=23,477), and resulting dimensions were assessed in terms of associations with external correlates and future functioning.

Results
Both a traditional two-factor model and a bi-factor model with a general psychopathology bi-factor fitted the data well. The general psychopathology bi-factor best predicted future psychopathology and academic attainment. Associations with correlates and factor loadings are discussed.

Conclusions
A general psychopathology factor, which is equal across genders, can be identified in young people. Its associations with correlates and future functioning indicate that investigating this factor can increase our understanding of the aetiology, risk and correlates of psychopathology.

Declaration of interest
None.
Bi-factor model with the item-loadings

Community-based sample aged 11-14 years (N=23,477)

# Logistic regression predicting future caseness

<table>
<thead>
<tr>
<th>Predictor</th>
<th>B</th>
<th>Wald</th>
<th>Odds-ratio</th>
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<tbody>
<tr>
<td><strong>2-factor model</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internalising</td>
<td>.49***</td>
<td>76.4</td>
<td>1.80</td>
</tr>
<tr>
<td>Externalising</td>
<td>1.41***</td>
<td>689.64</td>
<td>4.11</td>
</tr>
<tr>
<td><strong>Bi-factor model</strong></td>
<td></td>
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</tr>
<tr>
<td>Internalising</td>
<td>.22</td>
<td>4.43</td>
<td>1.25</td>
</tr>
<tr>
<td>Externalising</td>
<td>1.43***</td>
<td>413.74</td>
<td>4.16</td>
</tr>
<tr>
<td>P-Factor</td>
<td>2.33***</td>
<td>479.01</td>
<td>10.30</td>
</tr>
</tbody>
</table>

N=10,270
Child Maltreatment and psychopathology: Comparing structural models

1. Classical Model: Three correlated factors (*p<0.01)

   - History of Child Maltreatment
     - Internalising
     - Externalising
     - Thought Disorder

   - Caspi, A., et al. (2013)

2. Bifactor Model: P Factor (*p<0.01)\]

   - Factors (*p<0.01)

   - .210*
When does adversity become traumatic? Attachment, social isolation and trauma.
Mentalization based definition of trauma links social context and individual experience

Adversity becomes traumatic when it is compounded by a sense that one’s mind is alone: normally an accessible other mind provides the social referencing that enables us to frame a frightening and otherwise overwhelming experience.

(Allen & Fonagy, 2010; Fonagy, Luyten, Campbell and Allison, 2018)
Trauma as non-shared experience of adversity

- Adversity is ubiquitous
- **Trauma is** not the event but the experience associated with the event
- Experience of **adversity** is likely to entail a failure of mentalizing → disconnection from others
- The rate at which mentalizing is recovered to process the event will determine the extent to which it has traumatic impact
- The **social context** (social referencing) in which the experience of the event is processed can mitigate the traumatic consequence
- **Isolation**, the absence of sharing of mental states, is the hallmark of adversity becoming traumatic
What is it that does not happen in caregiving environments characterised by adversity?

Where the social context gives **insufficient resources** to devote attention to the child

• It signals physical **aggression** is more **likely to be needed** to ensure survival

This is the **mechanism for the transgenerational transmission** of aggressive interpersonal strategies

• Increase likelihood of not desisting.

The child’s **mind and body** needs to be **prepared for violent competition** for resources

• Alternative but **incompatible strategies** for ways of relating to others (intra-species **collaboration**) are **sacrificed**.

What is sacrificed?

• Namely, the **uniquely human capacity to envision mental states** in our fellow humans in order to understand their actions.
What does not happen: Curiosity about minds

How must it feel to be you right now, boss?

I know that I don’t KNOW what you must think, boss, but I can wonder what that is…

Why do I keep getting into trouble over my rabbit habit…?

Is there something about me and rabbits that stems from my childhood, I wonder…?
What does not happen: Capacity to Trust