



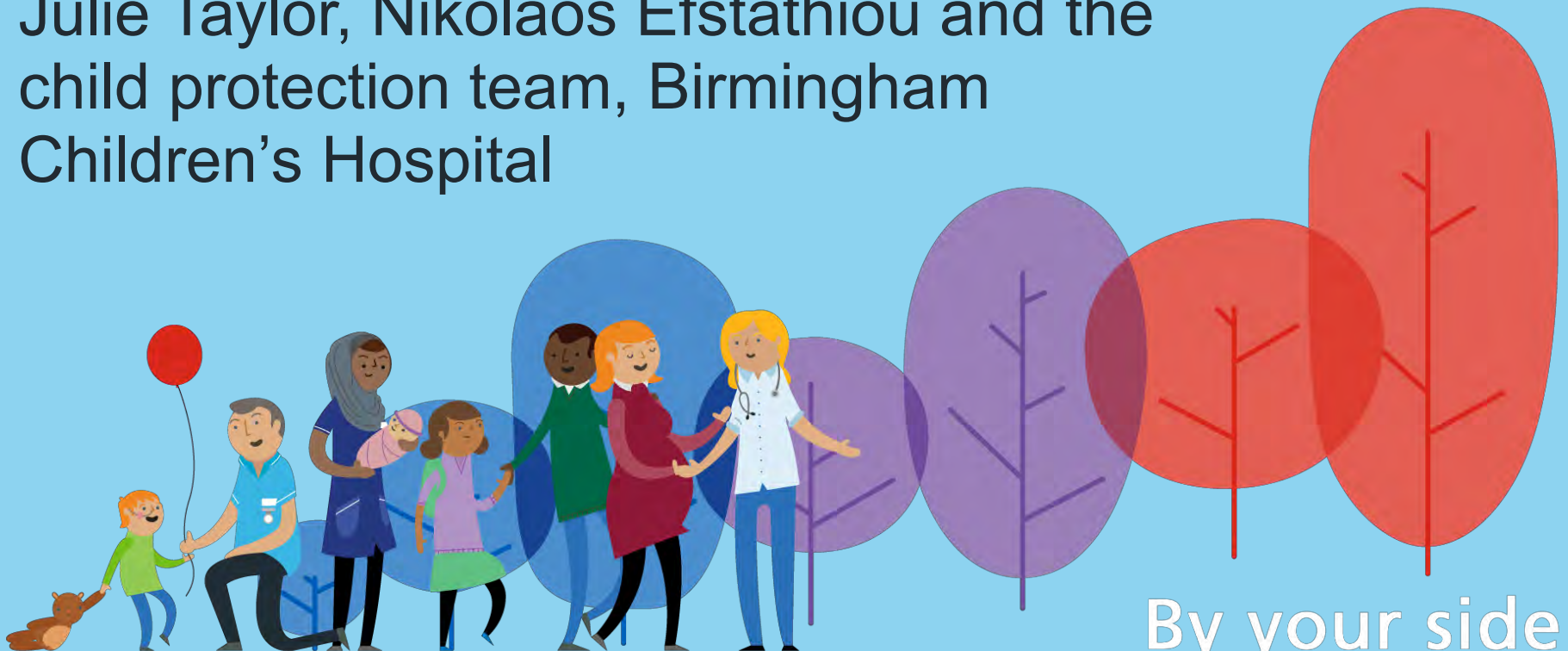
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Non accidental and neglectful injuries in children: Patterns and typology

Julie Taylor, Nikolaos Efsthathiou and the
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Non-accidental injury...

- NAI (physical abuse or battery) includes injuries that result from deliberate actions against a child or a failure to prevent injury (Thomas 2016)
- Non-accidental acts of physical force by a child's parent/caregiver that result, or have potential to result, in physical harm to a child or which evoke significant fear (Slep et al 2015, proposal for ICD-11)





- NAI is suspected for >10% of death in children <12m
- #1 cause of death is head injury
- 60% of cases with previous history or clinical evidence of maltreatment
- 22% with involvement of child welfare agencies
- 32% with misdiagnosis
 - Viral gastroenteritis or influenza
 - Sepsis
 - Accidental head injury





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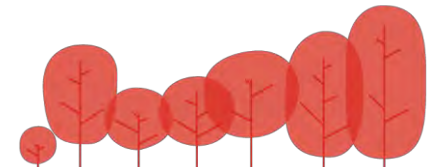
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Consequences of NAI

- Death
- Disability – mental, cognitive, physical
- Scars
- Disfigurement
- PTSD
- Behavioural, physical, emotional



Is maltreatment the cause of the alerting feature?

- Consider: maltreatment is one of a range of explanations
- Suspect: a serious level of concern, but not proof
- Unsuitable explanation: implausible, inadequate or inconsistent
 - Presentation
 - Age and stage
 - Normal activities
 - Child v parental account
 - Between carers
 - Variation over time



Failure to recognise NAI

- Concern about missing a treatable disorder
- Fear of losing a positive relationship with family
- Discomfort of disbelieving/suspecting/wrongly blaming
- Divided duties between adult and child and breaching confidentiality
- Understanding why the maltreatment occurred and was not intentional
- Losing control/lack of confidence in child protection system
- Stress
- Personal safety
- Fear of complaints



The study

- Retrospective case note review all paediatric NAI over five year period
- Phase One – develop typology (n=100, 72 random useable)
- *[Phase two – hotspot mapping (n= 2000)]*
- Protocol approved Integrated Research Application Services (IRAS)
- Sponsorships, approvals
- Team - Staff development project
 - Winter pressures
 - Case note restrictions – 20 sets/archives
 - Porters and stairs



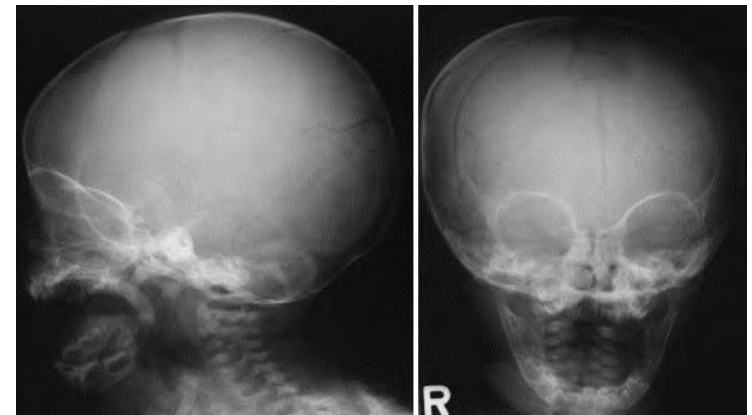
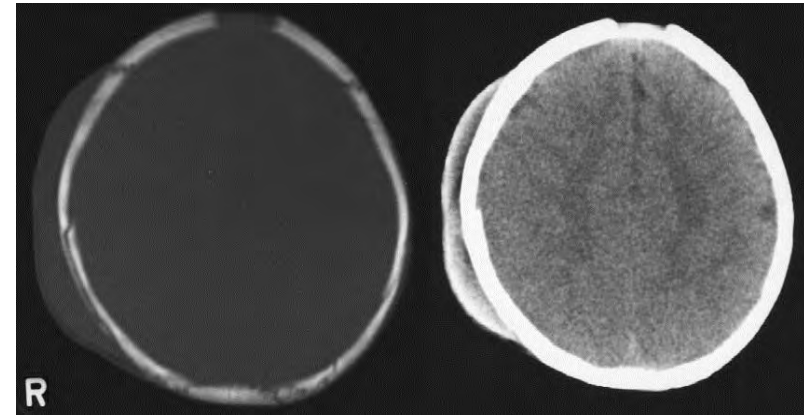
Causation

- Abuse
- Neglect
- Fabricated and induced illness



Head injuries

- Abusive head trauma
- EDH
- Skull fractures
- SDH
- Retinal haemorrhage





Skeletal fractures

- Ribs
- Clavicle
- Scapular
- Vertebral
- Metaphyseal
- Fingers
- Multiple





Thermal injuries

- Burns
- Scalds
- Acids

Visceral injuries

- Thorax
- Abdomen
- Kidneys
- Liver
- Spleen



Cold injuries

- Swollen red hands or feet
- Hypothermia

Ingestions and poisonings

- Bleach
- Methadone
- Drugs
- Salt



Soft tissue injuries

- Bites
- Lacerations
- Bruises
- Periorbital
- Intraoral

Asphyxiations and cardiac arrest

- Non-fatal submersion
- Out of hospital cardiac arrest
- Strangulation
- Apparent life-threatening events



Head trauma

Skeletal
fractures

Thermal
injuries

Visceral
Injuries

Cold injuries

Ingestions and
poisonings

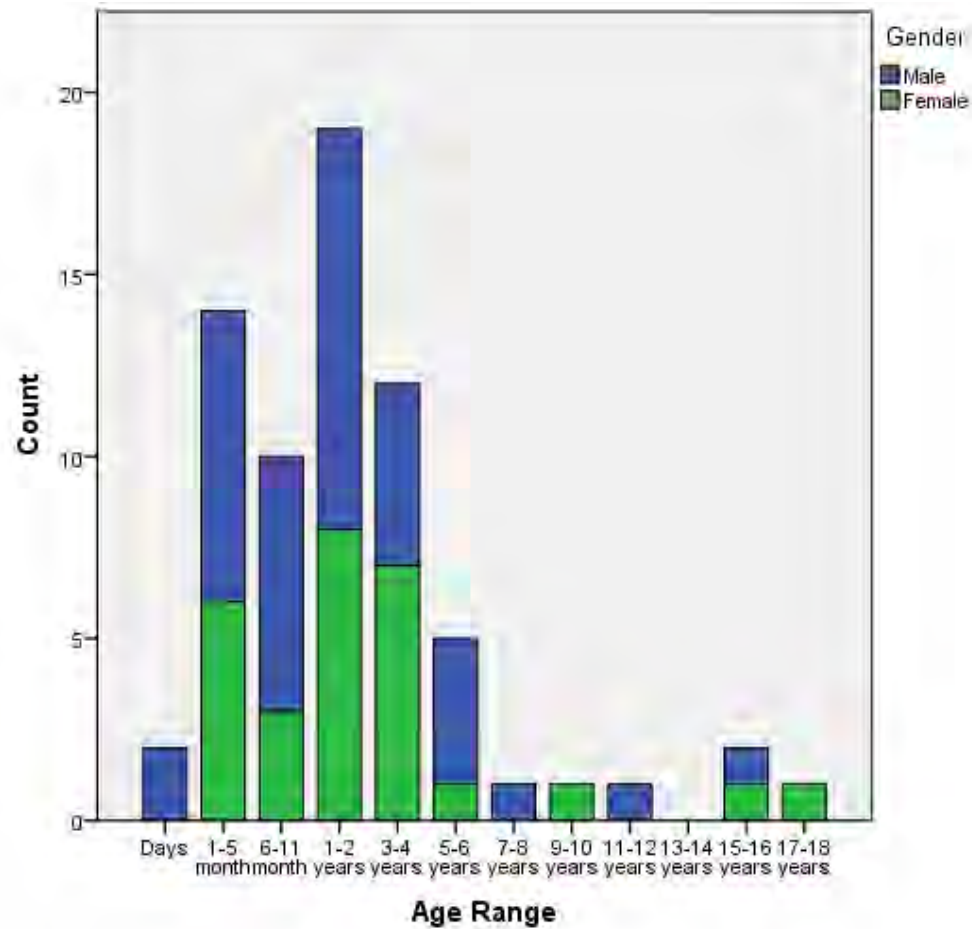
Soft tissue
injuries

Asphyxiations
and cardiac
arrests

Phase one findings

- Disabilities not recorded
- Ethnicity not recorded
- PICU have more fatalities
- Earlier cases 'gappy'
- Child protection concerns noted...but what?
- Grey areas for neglect injuries with age
- Big families – assumptions someone is watching
- We don't ask about domestic abuse

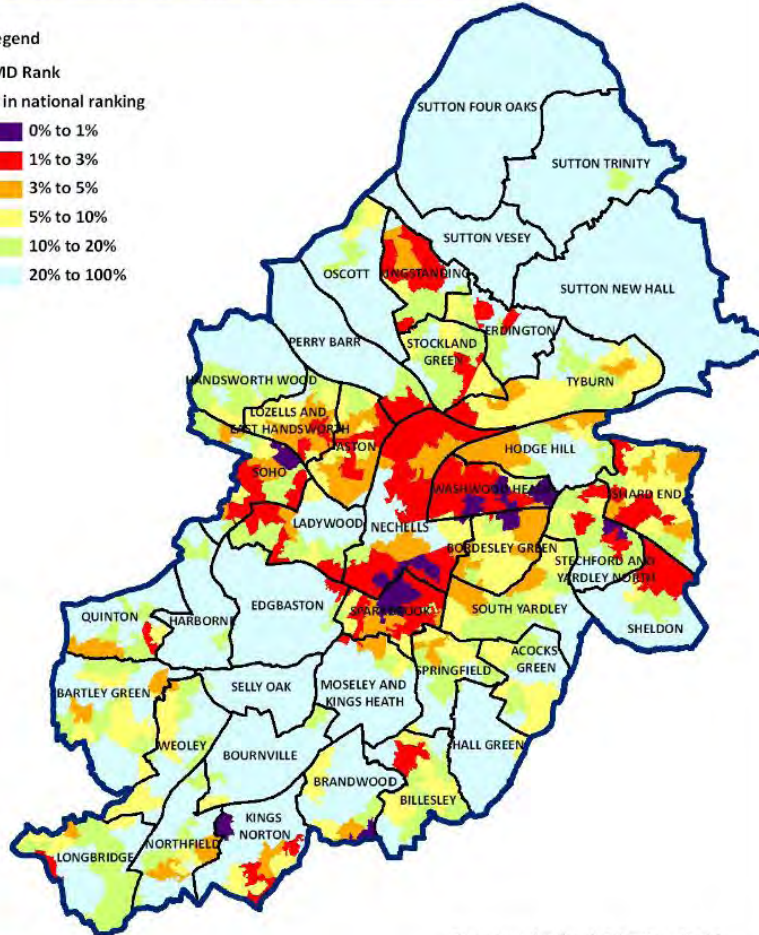






Index of Multiple Deprivation Deprivation by Lower Super Output Areas

- Legend
- IMD Rank
- % in national ranking
- 0% to 1%
 - 1% to 3%
 - 3% to 5%
 - 5% to 10%
 - 10% to 20%
 - 20% to 100%



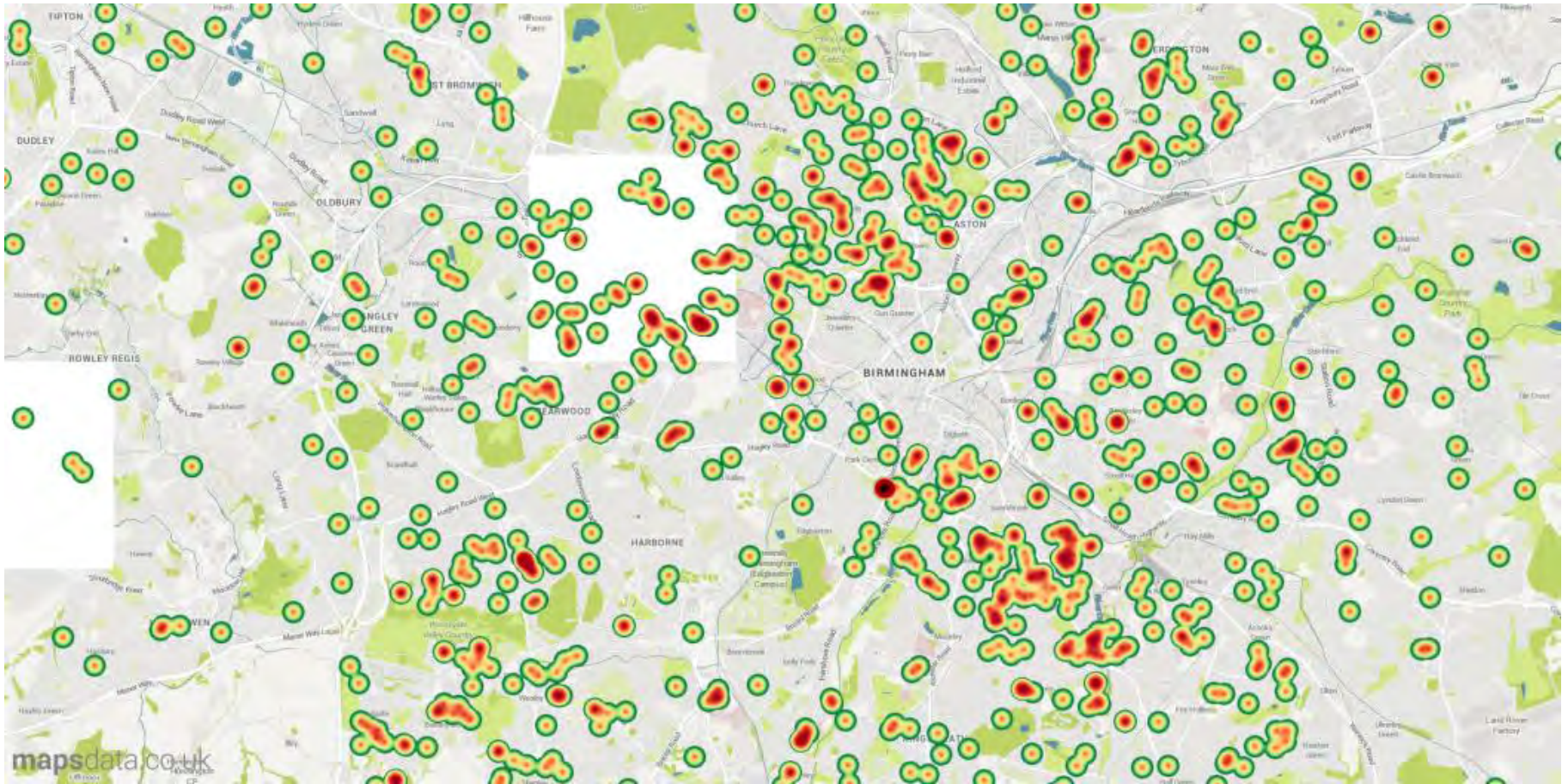
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Discussion

- Non-accidental or intentional?
- Role of neglect
- Malnutrition
- Out of hospital cardiac arrest
- FGM
- Self-harm
- Sexual trauma
- Omission v commission
- Sentinel injuries
- Mimics of inflicted injury






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