Patterns of post traumatic stress in child-parent pairs after PICU treatment

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What is known

- **Evidence for PTS in PICU parents**
  (Balluffi et al 2004; Rees et al 2004; Colville & Gracey 2006)

- **Evidence for PTS in PICU children**
  (Rennick et al 2002, 2004; Rees et al 2004)

- **Evidence of interaction between parents and kids**
What we need more info on

- Long term follow up of at risk populations
- Longitudinal course of PTS
  (Ehlers & Clark 2003 natural history)
- Interactions between child and parent PTS
- Child self report of PTS symptoms
Children’s Memories Project

Prospective cohort design:
- Interview at 3m; Telephone follow up at 1y

Measures:
- Parent: SPAN (4 items from Davidson Trauma Scale)
- Child: Child Revised Impact of Event Scale (8 item version)
Sample

- Survivors over 7 years of age (n=102) and parent (81 mothers; 18 fathers; 3 other)
PTS prevalence: Parents
Parent PTS

Post Traumatic Stress above cut off

0%
5%
10%
15%
20%
25%
30%
35%
40%
45%
50%

3 months
1 year
SPAN items at 3 months

![Box plot showing distributions of SPAN items at 3 months](image)
PTS prevalence: Children
Child PTS

![Graph showing the percentage of Child PTS over time from 3 months to 1 year.](image)
Child avoidance and intrusion at 3 mths
Predictors* of Post traumatic stress: Parents

3 mths
- Emergency admission (p<0.001)

1 yr
- Emergency admission (p<0.001)
- PTS score at 3m (p<0.001)
- Anxiety score at 3m (p<0.001)
- Depression score at 3m (p<0.001)

* Spearman correlations
Predictors* of Post traumatic stress: Children

3 mths
- Emergency admission (p<0.01)
- Delusional memories inc hallucinations (p<0.05)

NB 1 in 3 children reported delusional memories

1 yr
- Post traumatic stress score at 3m (p<0.01)

* Spearman correlations
Child-parent Interactions
Possible interactions:

- Traumatised parent doesn’t attend to child’s needs as much as normal because of their own distress
- Parent avoids reminders and in doing so avoids exposing child
- Child avoids discussing trauma as this makes parent upset
- Child gets more upset

parent distress ➔ child distress
Or alternatively

- Child just not themselves - withdrawn, fearful, avoidant, refusing to talk about trauma
- Parent upset to see change in child and distressed at their own inability to lift child’s mood or help them come to terms with what has happened

child distress  →  parent distress
Maybe both?
Spearman correlations for PTS scores (n=66)

3m          1y
parent span  parent span

0.38**

child ies  child ies
0.44**
Spearman correlations for PTS scores (n=66)

<table>
<thead>
<tr>
<th>3m</th>
<th>1y</th>
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<td>child ies</td>
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- Spearman correlation between parent span at 3m and parent span at 1y: 0.38**
- Spearman correlation between child ies at 3m and child ies at 1y: 0.44**
- Spearman correlation between child ies at 3m and parent span at 1y: 0.32**
- Spearman correlation between parent span at 3m and child ies at 1y: 0.01
Spearman correlations for PTS scores (n=66)

- Parent span
- Child avoid
- Child intrus
Spearman correlations for PTS scores (n=66)

3m
child avoid

1y
parent span

0.38**

child intrus
-0.08
Delayed PTS
Parents: new cases at 1 yr

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<thead>
<tr>
<th></th>
<th>0%</th>
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<td>3 mths</td>
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- new case
- case at 3m
Children: new cases at 1y

- 0% of cases are new at 1y
- 10% of cases are new at 3mths
- 20% of cases are new at 1 year

- 30% of cases are case at 3mths
- 40% of cases are case at 1 year
Sub group analyses

New child cases (n=9)
- More likely to have parent scoring above cut off at 1y (p<0.05)

New parent cases (n=8)
- Higher parental anxiety and PTS scores at 3m (p<0.01)
- Higher child avoidance at 3m (p<0.05)
Post traumatic stress patterns at 3 mths

- Parent PTS
- Child PTS
- Parent ok
- Child ok
Post traumatic stress patterns at 1 year

- Parent PTS
- Child PTS
- Parent ok
- Child ok
Main findings (1)

- Higher prevalence of PTS in parents (45%) than children (28%) at 3 mths
- Similar prevalence at 1y (29%, 26%)
- Nearly half of post traumatic stress cases at 1y are NEW cases (parents and children)
Main findings (2)

- New child cases more likely to have parent who is a case at 1y
- New and continuing parent cases more likely to have avoidant child at 3m
- Nearly half of pairs contain at least one member scoring above PTS cut-off at 1 yr