Children’s factual and delusional memories of Paediatric Intensive Care

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Great Ormond Street Hospital
Sample (n=102/132)

- Survivors over 7 years of age interviewed 3 months after discharge
  - 60 male, 42 female
  - Median child age 11.3yrs (7-17)
  - Median length of stay 2 days (0-38)

Exclusions
- Learning difficulties; readmitted to PICU; professional refusal (eg palliative care)
Psychological measures

Child
• ICU Memory Tool (factual v delusional memories)
• Child Revised Impact of Event Scale (post traumatic stress)

Parent
• SPAN brief screen for post traumatic stress
Reason for admission

- Trauma History
- Medical Other
- Medical Neuro
- Medical Resp
- Surgery Planned
- Surgery Emergent
Memories

63% remembered some factual information about PICU
Factual memories

- Family members 47%
- Staff 31%
- Alarms 23%
- Breathing tube (23/87) 26%
- Suction (13/87) 15%
Aug 2004
8 Sunday
{23-24-153}

2

2

In charging

hooking on tubes
Feelings on PICU

- Pain 17%
- Confused 33%
- Frightened 28%
Delusional Memories

• 1 in 3 children experienced hallucinations or unusually vivid dreams
## Correlations with delusions

<table>
<thead>
<tr>
<th></th>
<th>r</th>
<th>p</th>
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</thead>
<tbody>
<tr>
<td>Days on PICU</td>
<td>0.20</td>
<td>(0.05)*</td>
</tr>
<tr>
<td>Emergency admission</td>
<td>-0.01</td>
<td>(0.92)</td>
</tr>
<tr>
<td>Presence of head injury</td>
<td>0.07</td>
<td>(0.46)</td>
</tr>
<tr>
<td>PIM-2 score (n=100)</td>
<td>-0.06</td>
<td>(0.54)</td>
</tr>
<tr>
<td>Sepsis</td>
<td>-0.03</td>
<td>(0.75)</td>
</tr>
<tr>
<td>Midazolam &gt;2 days</td>
<td>-0.19</td>
<td>(0.06)</td>
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<tr>
<td>Morphine &gt;2 days</td>
<td>0.328</td>
<td>(0.001)**</td>
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</table>
Content of Hallucinations

Giant talking flower (+)
Butterflies and clouds (+)

Family members (inc deceased)
• “This isn’t my head!” “Where are my fingers?”

• Rats in cups moving across the wall

• Convinced ceiling was falling in

• Hell

• Terrorist attack
• All my friends jumping out of the window

• Massive beehive

• Loads of massive spiders – we had to throw stones at them

• Scorpions everywhere

• Men in a wood running after me – I had to run into the sunlight

• A man who looked like my dad…a woman who looked like my mum

• Loads of patterns – scary squiggly lines, orange on a black background

• Scary People walking on the ceiling

• Bad people took me away and were going to hurt my baby sister and throw her down a hole in the pub
Proportions of parents and children scoring above PTSD cut offs

$r=0.25^*$

[Bar chart showing proportions of parents and children scoring above PTSD cut offs]
## Correlations with child PTSD score

<table>
<thead>
<tr>
<th>Variable</th>
<th>$r$</th>
<th>$p$</th>
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<tbody>
<tr>
<td>Age</td>
<td>-0.12</td>
<td>0.26</td>
</tr>
<tr>
<td>Sex</td>
<td>-0.12</td>
<td>0.27</td>
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<tr>
<td>Length of stay</td>
<td>0.03</td>
<td>0.75</td>
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<tr>
<td>Emergency status</td>
<td>0.32</td>
<td>0.002</td>
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<tr>
<td>Factual memories</td>
<td>-0.05</td>
<td>0.63</td>
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<tr>
<td>Delusional memories</td>
<td>0.21</td>
<td>0.04</td>
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</table>
Implications of findings

• Ask children and families about withdrawal
• Weaning protocols
• Role of anti anxiolytic medication
• Alternative drug regimens
• Education
• Support
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