Positive Parenting for Healthy Living: A randomised controlled trial of a brief group program for parents of children with asthma or eczema

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  ▫ Prof Matt Sanders
  ▫ A/Prof Jennifer Fraser
  ▫ Dr Scott Burgess
Childhood Chronic Illness

- Ongoing impairment characterised by a physical condition causing use of health services beyond routine care
- Common & rates on the rise
- Burden of illness is greatest in childhood (AIHW, 2005)
- Prescribed medical regimen; but adherence is low (AIHW, 2005)
- Impact on child and family (Halterman, et al., 2004; Moore, et al., 2006)
- More behavioural and adjustment problems (Hysing, Elgen, Gillberg, Lie, & Lundervold, 2007; Hysing, Elgen, Gillberg, & Lundervold, 2009)
Existing interventions

- Most focused on medical adherence and health outcomes
- Meta-analytic data for interventions to improve adherence
  - moderate effect sizes
  - significant variability between studies in outcomes (Graves, et al., 2010)
- Behavioural interventions more effective than educational interventions (Cushing & Steele, 2010)
- Most interventions focus on knowledge (Warschburger, et al., 2003)
- Limited data on parenting interventions for chronically ill children:
  - single case studies (Bagner, et al., 2004; Gorski, et al., 2004)
  - interventions for adolescents (Bruzzone et al., 2008)
  - single disorder studies (Applegate et al., 2003)
Role of parents in illness management

- Parenting factors and family stress can predict illness onset and disease course (Gustafsson, et al., 2002; Mrazek, et al., 1999)
- Positive, confident and effective parenting associated with better management of chronic health conditions, and better child adjustment (Davis, et al., 2001)
Pathways of Impact

Family Stress

Parenting Practices

Child health and wellbeing

Wood, et al., 2007
Common parenting traps

- Different expectations for behaviour (Walker, et al., 1995)
- Discipline child less often and more inconsistently (Walker, et al., 1995; Wilson, et al., 1993)
- Reluctant to discipline their child to prevent distress that results worsening of the condition (Daud, et al., 1993)
- Disagreement between parents about severity and management (Eiser, et al., 1991)
Intervention targets

- ↑ positive parenting practices
- ↓ ineffective, coercive and inconsistent strategies
- ↑ daily routines
- ↓ child and family stress

- ↓ child behaviour problems
- ↑ child adjustment
- ↓ child resistance to health-related activities
- ↑ quality of life for the child and family
- ↑ medical adherence and child health
1. brief psychoeducation component
2. strategies for effective illness management
3. information to assist parents to understand the link between illness and behavioural and emotional adjustment and impact of family environment
4. strategies to prevent emotional and behavioural problems
5. strategies to assist parents in preventing and managing their child’s anxiety
6. strategies to prevent and manage child behavioural difficulties
Delivery Considerations

- in conjunction with appropriate medical management
- in the context of the child’s existing treatment
- burden of intervention for families
- consideration of how illness-specific information communicated to parents
Efficacy Trial

- Randomised controlled trial
- Parents of 3-10 year old children suffering asthma and/or eczema
- Random allocation to discussion group or care as usual
- Two x 2 hr parent discussion groups
- Assessment: self-report, monitoring, observation
  - baseline, 4 weeks post-intervention, 6 month follow-up
<table>
<thead>
<tr>
<th>Domain of Assessment</th>
<th>Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociodemographic</td>
<td>Family Background Questionnaire</td>
</tr>
<tr>
<td>Parenting efficacy</td>
<td>Asthma Parent Tasks Checklist +/ Parenting Self-Efficacy with Eczema Care Index</td>
</tr>
<tr>
<td>Child illness behaviour</td>
<td>Asthma Behaviour Checklist +/ Eczema Behaviour Checklist</td>
</tr>
<tr>
<td>Parenting behaviour</td>
<td>Parenting Scale</td>
</tr>
<tr>
<td>Child behaviour &amp; adjustment</td>
<td>Eyberg Child Behavior Inventory CAPES Emotional subscale</td>
</tr>
<tr>
<td>Child quality of life</td>
<td>PedsQL4.0 Generic Core Scale</td>
</tr>
<tr>
<td>Family quality of life</td>
<td>PedsQL Family Impact Module</td>
</tr>
<tr>
<td>Parent adjustment &amp; stress</td>
<td>DASS-21</td>
</tr>
<tr>
<td>Illness severity (monitoring)</td>
<td>Asthma Diary +/ Eczema Diary</td>
</tr>
<tr>
<td>Child &amp; parent behaviour</td>
<td>Home Observation</td>
</tr>
</tbody>
</table>
Assessed for eligibility \( (n=136) \)

- Excluded \( (n=50) \)
  - Time & other commitments (\( n=20 \))
  - No concerns (\( n=15 \))
  - Did not complete T1 assessment (\( n=13 \))
  - Child developmental delay (\( n=1 \))
  - Currently seeing psychologist (\( n=1 \))

Randomised \( (n=85) \)

- Allocated to intervention \( (n=42) \)
  - Received allocated intervention (\( n=29 \))
  - Attended one session only (\( n=3 \))
  - Awaiting next group sessions (\( n=7 \))
  - Did not receive allocated intervention
    - Time commitments (\( n=1 \))
    - Not interested (\( n=1 \))
    - Not contactable (\( n=1 \))

- Allocated to care as usual \( (n=43) \)

Lost to follow-up \( (n=5) \)
- Withdrew (\( n=4 \))
- Not contactable (\( n=1 \))

Lost to follow-up (withdrew) \( (n=2) \)
Preliminary Results: Demographics

- Mean child age = 5.16 years
- 54.1% boys
- Median age at diagnosis (parent-reported)
  - Asthma: 2 years (6mo-8yrs)
  - Eczema: 6 months (birth-8yrs)
- 25.0% hospitalised in past
  - 32.1% asthma
  - 12.2% eczema

Diagnosis (GP confirmed)

- Asthma (51.8%)
- Eczema (81.2%)
- Both (32.9%)
Baseline: Key outcome measures

- Parenting Scale: 45.2% in clinical range
Baseline: Key outcome measures

- ECBI Problem 50.0% in clinical range
- ECBI Intensity 47.6% in clinical range

Asthma Behaviour Checklist

Eczema Behaviour Checklist
Preliminary analyses: Parenting style
(PS total scores)

Intervention $n=29$
Care As Usual $n=38$

$F(1,65)=7.14, p=.009$
Child behaviour difficulties
(ECBI Problem scores)

<table>
<thead>
<tr>
<th>Group</th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
<th>6-month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>(22)</td>
<td>(26)</td>
<td></td>
</tr>
<tr>
<td>Care as usual</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Intervention $n=29$
- Care As Usual $n=38$

$F(1,65)=1.53, \ p=.220$
Asthma behaviour problems
(ABC Extent scores)

Top 3 problems at baseline:
1. Becomes anxious when having a breathing problem
2. Complains about asthma symptoms
3. Uses preventer incorrectly

Intervention $n=12$
Care As Usual $n=20$

$F(1,30)=2.26, \ p=.143$
Parent confidence: asthma behaviour
(ABC Confidence scores)

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean score</th>
<th>Pre-intervention</th>
<th>Post-intervention</th>
<th>6-month follow-up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Care As Usual</td>
<td>14</td>
<td></td>
<td></td>
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</tbody>
</table>

Intervention $n=12$
Care As Usual $n=20$

$F(1,30)=0.34$, $p=.562$
Eczema behaviour problems
(EBC Extent scores)

Top 3 problems at baseline:
1. Damages skin further by scratching
2. Complains about wanting to scratch
3. Complains about being itchy

Mean score

Pre-intervention
Post-intervention
6-month follow-up

Intervention n=24
Care As Usual n=31

F(1,53)=2.03, p=.160
Parent confidence: eczema behaviour
(EBC Confidence scores)

Intervention $n=24$
Care As Usual $n=31$

$F(1,53)=4.05, p=.049$
Asthma parenting problems
(APTC Extent scores)

Top 3 problems at baseline:
1. Helping child avoid asthma triggers
2. Monitoring asthma symptoms
3. Identifying asthma triggers

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<th>Mean Score</th>
<th>Top 3 Problems</th>
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<tbody>
<tr>
<td>Pre-intervention</td>
<td>(9)</td>
<td>1. Helping child avoid asthma triggers</td>
</tr>
<tr>
<td>Post-intervention</td>
<td>(14)</td>
<td>2. Monitoring asthma symptoms</td>
</tr>
<tr>
<td>6-month follow-up</td>
<td>(14)</td>
<td>3. Identifying asthma triggers</td>
</tr>
</tbody>
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Intervention  n=12
Care As Usual  n=20

\[ F(1,30)=3.86, \ p=.059 \]
Eczema parenting confidence (PASECI scores)

Top 3 problems at baseline:
1. Managing scratching behaviour
2. Getting child to follow his/her management plan
3. Managing to avoid things that irritate/aggravate eczema

Intervention:
- $n=24$

Care As Usual:
- $n=31$

$F(1, 53)=4.07, p=.049$
Conclusions

• Preliminary results demonstrate:
  ▫ $\downarrow$ ineffective parenting strategies
  ▫ $\uparrow$ parent confidence with disease-specific behaviours
  ▫ $\downarrow$ problems and $\uparrow$ confidence with disease mgt

• Parenting and family factors important in management of childhood chronic illness

• Parenting interventions have potential to improve child health outcomes
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