CONCLUSIONS

- Bibliotherapy would be a cheap and easy to deliver option, 483 USD per recovered case of CP.
- ICER Comet vs Book 8,375 USD (5,087 USD – 24,054 USD) per recovered case of CP.
- Suggested “stepped care” approach depending on budget constraints and problem severity.

BACKGROUND

Conduct disorders and its consequences are costly and entail a high burden to the individual, families and society. Parenting interventions are effective in the treatment of conduct problems (CP) but few studies compare different interventions within the same randomised controlled trial (RCT).

METHODS

Interventions

Group-based parenting programs: Comet, Connect, Incredible Years (IY), Cope

Bibliotherapy: a self-guided book on parenting strategies (“Five times more love”)

Control: 4-month waitlist control

Study design

Parents of 3-12 year old children screened for conduct problems

Parents were randomized to: a program, a book, a waitlist.

Study population

961 parents: 635 program, 167 book, 159 waitlist

Economic evaluation

Within trial comparative cost analysis followed by a cost-effectiveness analysis with a 4-month time horizon and a limited health sector perspective (including parents’ time costs)

Outcome measures

Proportion of “recovered” cases of conduct problems

Instrument: Eyberg Child Behavior Inventory

Costs

Intervention costs

Training costs: training fees, allowance for training time, travel costs, marketing

Operating costs: practitioners time, material, rent of venue, program license

Other costs impacted by the interventions

Parents’ time costs in attending the sessions, homework, reading the book

Total costs

20% training costs + operating costs

RESULTS

Table 1. Costs (US$) 2014 prices

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Cost (US$)</th>
<th>Comet (n=172)</th>
<th>Connect (n=186)</th>
<th>Incredible Years (n=92)</th>
<th>Cope (n=175)</th>
<th>Bibliotherapy (n=167)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cost (parents’ time)</td>
<td>8375</td>
<td>5087 to 24,054</td>
<td>207,040</td>
<td>102,133</td>
<td>162,391</td>
<td>129,994</td>
</tr>
<tr>
<td>Total operating cost (with parents’ time)</td>
<td>162,266</td>
<td>80,288</td>
<td>153,644</td>
<td>118,273</td>
<td>23,402</td>
<td></td>
</tr>
<tr>
<td>Average operating cost per child</td>
<td>943</td>
<td>410</td>
<td>1670</td>
<td>676</td>
<td>140</td>
<td></td>
</tr>
</tbody>
</table>

Table 2. Results from the comparative cost and cost-effectiveness analyses

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Average cost (US$) (SD)*</th>
<th>Recovered cases of CP**</th>
<th>Comparative cost analysis (cost/recovered case)</th>
<th>ICER (US$/recovered case)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comet</td>
<td>1107.84 (26.54)</td>
<td>0.2954</td>
<td>3741</td>
<td>Primary analysis</td>
</tr>
<tr>
<td>Connect</td>
<td>469.51 (8.79)</td>
<td>0.1376</td>
<td>-</td>
<td>Bootstrapped (95% CI)</td>
</tr>
<tr>
<td>Incredible Years</td>
<td>1682.56 (62.71)</td>
<td>0.2501</td>
<td>6668</td>
<td></td>
</tr>
<tr>
<td>Cope</td>
<td>496.17 (14.06)</td>
<td>0.2503</td>
<td>1972</td>
<td>8375 (5087 to 24,054)</td>
</tr>
<tr>
<td>Bibliotherapy</td>
<td>84.00 (2.23)</td>
<td>0.1731</td>
<td>483</td>
<td>(Comet vs Bibliotherapy)</td>
</tr>
<tr>
<td>Waitlist control</td>
<td>0 (0)</td>
<td>0.0743</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

*All average costs and recovered cases of CP are bootstrapped.

All values very close to those in the primary analyses. Group costs were linked to data on parents’ participation in the interventions to estimate individual level costs reported in this table.

Fig. 1. Group Intervention costs and group average cost per child

Fig. 2. Cost-effectiveness plane of bootstrapped incremental costs and incremental effects for Comet versus Bibliotherapy.

AIM

This study aimed to determine the cost-effectiveness of an RCT where the group-based parenting programs: Comet, Incredible Years (IY), Cope and Connect, and bibliotherapy were compared to a waitlist control with a time horizon of 4 months, targeting CP in children aged 3-12 years.