Cognitive Behavioural Strategies to Promote Mental Health in School Children: Outcomes of the Aussie Optimism Dissemination Project

Clare Roberts
Yolanda Pintabona
Rachael Williams
Robert Kane

Curtin
University of Technology
Funding and Collaborators

• Australian Research Council
• Western Australian Department of Health – Office of Mental Health
• Western Australian Department of Education & Training
• Australian Rotary Health Research Fund
The Aussie Optimism Program

A school- and family-based mental health promotion program designed to prevent depression and anxiety in children and adolescents. The program is aimed at late primary and early secondary school children aged 11 – 13 years who are preparing for transition to high school or middle school.
Aussie Optimism aims to:

• Decrease anxiety and depression symptoms.
• Decrease the prevalence & incidence of anxiety and depressive disorders.
• Enhance self esteem, optimism, & social & emotional competence.
• Promote positive, supportive family environments in adolescence.
Social Life Skills

- Feelings
- Decision making
- Communication
- Assertiveness & Negotiation
- Coping skills
- Social support
Optimistic Thinking Skills

- Thoughts and feelings
- Thinking styles
- Challenging negative thinking styles
- Preparing for adolescence
Preparation for the changes ahead

Working together as a family

Optimistic thinking

Friendship, peer pressure and bullying

Preparing for the move to high school
Research Design

• Cluster randomised control trial – 63 primary schools randomised to 3 intervention conditions.
• Two intervention groups: AOP + teacher training; AOP + teacher training + coaching.
• One control group – usual health education program.
• Assessment at pre-, post-test, & 12 month follow-up.
• Multiple assessments & informants:
  – Emotional symptoms – parent & student report
  – Anxiety and depressive disorders
  – Health risk behaviours - drinking alcohol, smoking cigarettes
<table>
<thead>
<tr>
<th>Pre-test Year 6 Recruitment</th>
<th>Group 1 - Training</th>
<th>Group 2 – Training &amp; Coaching</th>
<th>Group 3 – Usual Care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Schools</strong></td>
<td>20</td>
<td>22</td>
<td>21</td>
</tr>
<tr>
<td>69%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td>865</td>
<td>794</td>
<td>630</td>
</tr>
<tr>
<td>70%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parents</strong></td>
<td>798</td>
<td>747</td>
<td>579</td>
</tr>
<tr>
<td>65%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test Year 7 Retention</td>
<td>Group 1 - Training</td>
<td>Group 2 – Training &amp; Coaching</td>
<td>Group 3 – Usual Care</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------</td>
<td>------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>Schools</strong></td>
<td>19</td>
<td>19</td>
<td>21</td>
</tr>
<tr>
<td>94%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td>827</td>
<td>761</td>
<td>630</td>
</tr>
<tr>
<td>97%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parents</strong></td>
<td>664</td>
<td>622</td>
<td>568</td>
</tr>
<tr>
<td>87%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-up Year 8</td>
<td>Group 1 - Training</td>
<td>Group 2 – Training &amp; Coaching</td>
<td>Group 3 – Usual Care</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------</td>
<td>-------------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Retention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td>791</td>
<td>729</td>
<td>592</td>
</tr>
<tr>
<td>94%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parents</strong></td>
<td>632</td>
<td>603</td>
<td>501</td>
</tr>
<tr>
<td>64%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Measures

• Parent Demographic Questionnaire
• Strengths & Difficulties Questionnaire – Student & Parent versions (Goodman, 1999)
• The Diagnostic Interview for Children and Adolescents IV (Reich, Welner & Herjanic, 1997).
• Health risk behaviours
  – "Have you smoked a cigarette in the last 4 weeks?" (Hill, White & Effendi, 2002)
  – “Have you drunk an alcoholic drink in the past 4 weeks?” (McBride, Farringdon, Midford, Meuleners, & Phillips, 2003)
Results

• Mental health difficulties
• Pro-social behaviour
• Incidence and recovery for anxiety & depressive disorders, and suicidal ideation.
• Uptake of health risk behaviours – smoking & drinking
SDQ-S: Total Difficulty Score

- SDQ-S: Total Difficulty Score scale ranges from 0 to 12.
- The graph compares the scores for Intervention 1, Intervention 2, and Control groups at the beginning of Year 6 (Beg of Yr 6), end of Year 7 (End of Yr 7), and end of Year 8 (End of Yr 8).

The asterisk (*) indicates a statistically significant difference between the groups.
SDQ-S: Pro-social Behaviour

- **Beg of Yr 6**
- **End of Yr 7**
- **End of Yr 8**

Legend:
- Blue: Intervention 1
- Purple: Intervention 2
- Yellow: Control

* indicates significant difference.
Baseline Prevalence of Disorders & Suicidal Ideation in At Risk Students.
Incidence of depressive disorders in at risk children

- Intervention 1 (n = 63)
- Intervention 2 (n = 40)
- Control (n = 39)
Recovery from Depressive Disorders

![Graph showing recovery from depressive disorders across different interventions and control groups.](image-url)
Incidence of Anxiety Disorders in At Risk Children

End of Yr 7
- Intervention 1 (n = 47)
- Intervention 2 (n = 37)
- Control (n = 39)

End of Yr 8
Recovery from Anxiety Disorders

- **Intervention 1** (n = 41)
- **Intervention 2** (n = 21)
- **Control** (n = 6)
Incidence of Suicidal Ideation & Behaviour in At Risk Children

![Bar graph showing incidence of suicidal ideation & behaviour in at risk children over the end of Year 7 and Year 8, with data for Intervention 1 (n = 40), Intervention 2 (n = 17), and Control (n = 5). The graph indicates a significant reduction in incidence for Intervention 1 compared to Intervention 2 and the Control group.]
Recovery from Suicidal Ideation & Behaviour

![Graph showing recovery from suicidal ideation & behaviour with data points for Intervention 1 (n = 48), Intervention 2 (n = 25), and Control (n = 14).]
Prevalence of recent smoking for the total sample

- Intervention 1
- Intervention 2
- Control

Beg of Yr 6  End of Yr 7  End of Yr 8

*
Prevalence of recent alcohol drinking in the total sample

![Bar graph showing prevalence of alcohol drinking over time for different groups.](image-url)
Results 1

Aussie Optimism plus teacher training with or without coaching resulted in:
- increased recovery from depressive disorders at follow-up
- reduced incidence of suicidal ideation & behaviour at follow-up

Aussie Optimism plus teacher training and coaching resulted in:
- reduced mental health difficulties at follow-up
- maintenance of pro-social behaviour compared to normative reductions at follow-up
- increased recovery from suicidal ideation & behaviour at post-test
- reduced likelihood of drinking at post-test & follow-up & reduced likelihood of smoking at follow-up.
Results 2

Aussie Optimism plus teacher training with or without coaching did not:

– decrease the incidence of depressive or anxiety disorders.
– differentially enhance recovery from suicidal ideation or behaviour at follow-up.
– reduce the likelihood of children taking up smoking at post-test.
Conclusions

The Aussie Optimism Program was delivered universally by primary school teachers under usual educational delivery conditions, works best when teachers have access to quality training and coaching.

The effects of the program under these conditions relate to overall mental health symptoms, pro-social behaviour, and recovery from depressive disorders and suicidal ideation & behaviour rather than depression or anxiety prevention effects.

Associated effects on health risk behaviours such as smoking and drinking are preventative and are more apparent once children begin secondary school.