Building Bridges Triple P: A pilot study with families who have an adolescent with autism

Trevor Mazzucchelli, Marian Jenkins, Kate Sofronoff, and Alan Ralph
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Disclosure statement

- The Triple P—Positive Parenting Program is owned by the University of Queensland (UQ). Triple P International Pty Ltd (TPI) is licensed by UQ to disseminate the program worldwide.

- Royalties are distributed according to the University of Queensland’s intellectual property policy to the Faculty of Health and Behavioural Sciences, School of Psychology and contributory authors.

- Dr Mazzucchelli, A/Prof Sofronoff, and A/Prof Ralph have received, are currently receiving, or may in the future receive royalties and/or consultancy fees from TPI.
Children and adolescents with Autism Spectrum Disorder

- Autism spectrum disorder (ASD) occurs in almost 1.5% of children (Christensen et al., 2016)
- A major public health concern (Simonoff et al., 2008)
- Substantially greater risk of emotional and behavioural problems

  More anxious, more depressed, more social and attention problems (Skokauskas & Gallagher, 2012)

  70% of children aged 10- to 14-years have a comorbid mental health disorder (Simonoff et al., 2008)

  Children with ASD and an intellectual disability are at even greater risk of a co-morbid mental health condition (Brereton et al., 2006)
The significance of adolescence

- A time of increased vulnerability to emotional and behavioural problems (Sawyer et al., 2012)
  - A time of significant physical, emotional, cognitive, and environmental change
  - A time of increased expectations and social pressure

- The onset and prevalence of mental health problems is highest during adolescence and young adulthood (Kessler et al., 2007)
  - 50% of all lifetime mental disorders start by age 14, 75% by age 24

- Young people with ASD may be more vulnerable to stressors (Fung et al., 2015)
The experience of parents

- Parents also report high levels of stress and depression during the adolescent years (Hartley et al., 2012)

- Parents must contend with normative sources of stress, but also additional challenges that accompany disability (Hamilton et al., 2014)

- Parents report that many of the behaviour support strategies they used are no longer practical or socially acceptable (Hamilton et al., 2014)

- Adolescents report dissatisfaction with their relationship with parents (Skär, 2003)

- Parents report receiving little or no practical support (Mazzucchelli & Moran, 2017)
The promise of parenting programs

- Parenting programs are effective in preventing and treating mental health problems and improving family life
  
  Younger children who are developing typically (e.g., Sanders et al., 2014)
  
  Adolescents who are developing typically (e.g., Ralph, 2018)
  
  Children with a developmental disability (e.g., Tellegen & Sanders, 2013)

- Preliminary work with families of adolescents with a disability:
  
  **Signposts** — However, lowest positive effect sizes found for older participant group (13- to 18-years)
  
  **Growing Up with Autism** — However, impact on youth is unknown, also requires a time commitment of 30 hours from parents

- There is a need for an efficient and tailored parenting program for parents of adolescents with ASD and other developmental disabilities
Building Bridges Triple P

- 8 sessions (11.5 hours) manualised behavioural family intervention
- Draws together elements of Teen Triple P and Stepping Stones Triple P
- Includes content targeting:
  - Promoting positive parent-adolescent relationships
  - Managing problematic adolescent behaviour and risk taking
  - Supporting teens to manage their emotions and to develop social skills and peer relationships
- May be delivered in a flexible manner
  - Partial group format involving both group sessions and individual sessions has advantages.
    - Efficient, normalises difficulties, promotes peer support
    - Provides individualised attention and support
## Program outline

<table>
<thead>
<tr>
<th>Session</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Positive parenting</td>
<td>120 minutes</td>
</tr>
<tr>
<td>2. Encouraging appropriate behaviour</td>
<td>120 minutes</td>
</tr>
<tr>
<td>3. Managing problem behaviour and parenting routines</td>
<td>120 minutes</td>
</tr>
<tr>
<td>4. Getting teenagers connected and teaching survival skills</td>
<td>120 minutes</td>
</tr>
<tr>
<td>5. Implementing parenting routines 1</td>
<td>30 minutes</td>
</tr>
<tr>
<td>6. Implementing parenting routines 2</td>
<td>30 minutes</td>
</tr>
<tr>
<td>7. Implementing parenting routines 3</td>
<td>30 minutes</td>
</tr>
<tr>
<td>8. Program close</td>
<td>120 minutes</td>
</tr>
</tbody>
</table>
Aims

- Assess the feasibility of delivering the content in an eight-week (11.5 hour) partial group format
- Investigate the acceptability of the program to parents of adolescents with ASD
- Explore potential intervention effects of BBTP in terms of:
  - Reducing the behavioural and emotional problems of adolescents with ASD
  - Increasing parents’ confidence in managing common behaviour problems
  - Reducing dysfunctional parenting practices
  - Improving parental adjustment
Method

- Pre-test post-test single group design

- Outcome measures

  Child Adjustment and Parent Efficacy Scale—Developmental Disability (CAPES-DD; Mazzucchelli, Sanders, & Morawska, 2011)

  Parenting Scale—Adolescent Version (PSA; Irvine, Biglan, Smolkowski, & Ary, 1999)

  Depression Anxiety Stress Scales—21 (DASS-21; Lovibond & Lovibond, 1995)

  Goal Achievement Scales (GAS; Hudson, Wilken, Jauernig, & Radler, 1995)
## Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Adolescent Age</th>
<th>Adolescent Gender</th>
<th>ABAS III GAC range</th>
<th>SCQ Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mother</td>
<td>16, 8</td>
<td>Male</td>
<td>Low</td>
<td>/</td>
</tr>
<tr>
<td>Father</td>
<td></td>
<td></td>
<td>Low</td>
<td>8</td>
</tr>
<tr>
<td>Mother</td>
<td>13, 3</td>
<td>Female</td>
<td>Below average</td>
<td>11</td>
</tr>
<tr>
<td>Mother</td>
<td>15, 9</td>
<td>Female</td>
<td>Low</td>
<td>25*</td>
</tr>
<tr>
<td>Father</td>
<td></td>
<td></td>
<td>Below average</td>
<td>21*</td>
</tr>
<tr>
<td>Mother</td>
<td>16, 9</td>
<td>Female</td>
<td>Below average</td>
<td>12</td>
</tr>
<tr>
<td>Mother</td>
<td>13, 3</td>
<td>Male</td>
<td>Low</td>
<td>9</td>
</tr>
<tr>
<td>Father</td>
<td></td>
<td></td>
<td>Low</td>
<td>6</td>
</tr>
<tr>
<td>Mother</td>
<td>14, 11</td>
<td>Male</td>
<td>Extremely low</td>
<td>20*</td>
</tr>
</tbody>
</table>

*Note.* *Exceeds clinical cut-off, / participant refused to complete measure.*
Participant attendance

- Mean number of sessions attended:
  - 4.8 group sessions
  - 2.6 telephone sessions
- 44% of parents attended all 5 group sessions and 3 telephone sessions
Protocol adherence

- **Content delivered:**
  - 100% of group session content
  - 99% of telephone session content

- **Independent assessment of group sessions containing program content** confirmed protocol adherence
Adolescent behavioural problems

$\textit{d} = 0.96^{***}$  

$\textit{d} = 1.24^{***}$
Adolescent emotional problems

$d = 0.65^{**}$

$d = 0.22$
Adolescent prosocial behaviour

$d = 0.27$  $d = 0.27$

Prosocial Behaviour

Pretest  Posttest  Follow-up
Parental self-efficacy

Pretest  | Posttest  | Follow-up

$d = 0.69^{**}$  
$d = 1.83^{***}$
Parental laxness

- Pretest: $d = 0.26$
- Posttest: $d = 0.87^{***}$
Parental overreactivity

- Pretest: $d = 0.55^*$
- Posttest: $d = 0.49^*$
- Follow-up

![Bar chart showing parental overreactivity across pretest, posttest, and follow-up with effect sizes indicated.](chart-image)
Parental depression

$d = 0.48^*$

$d = 1.05^{***}$
Parental stress

$d = -0.11$

$d = 1.05^{***}$
Adolescent behaviour

% in Clinical Range

- Behavioural Problems
- Emotional Problems
- Prosocial

Bar chart showing the percentage in the clinical range for Behavioural, Emotional, and Prosocial problems pre, post, and follow-up (FU).
Parental self-efficacy

% in Clinical Range

Self-efficacy

Pre  Post  FU
Parenting style

% in Clinical Range

Laxness

Overreactivity

Pre  Post  FU
Parental depression, anxiety and stress

% in Clinical Range

Depression
Anxiety
Stress

Pre  Post  FU

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Goal achievement

- Follow Mum's requests: 100%
- Appropriately seek Mum's company: 70%
- Spend less time on computer or iPad: 100%
- Appropriately seek help from Dad: 100%
- Talk positively to siblings: 100%

% Success
Satisfaction with Building Bridges Triple P

Quality of program
Received help wanted
Met needs
Satisfied with amount of help
Gained sufficient knowledge to use strategies
Intend to implement strategies
Satisfied with content
Satisfied with format
Would come back
Developed skills for other family members
Satisfaction with group format

- Would have preferred individual delivery
- Needs of participants were too diverse for a group
- Needs too complex for a group
- Learnt from other parents

Strongly agree | Undecided | Strongly disagree
Use of strategies

- Spending time
- Talking with your teenager
- Showing affection
- Providing interesting activities
- Setting up activity schedules
- Using a good example
- Coaching problem solving
- Using directed discussions
- Using clear family rules
- Making clear calm requests
- Routine for dealing with emotional...
- Routine for dealing with risky...
- Strategies for dealing with teenagers...
- Use family survival tips
- Monitor teenagers activities

Helpful  Not helpful
Summary

- **Feasibility**
  
  Participants attended 92% of the 8 sessions.
  On average, 99% of each session’s content was delivered.

- **Acceptability**
  
  Participants satisfied with:
  
  - the help they received
  - the content and format of the program

  44% reported that almost all or most of their needs had been met.

  Participants reported attempting the majority of strategies.

  Most participants found the strategies they attempted to be helpful.
Conclusions

- **Intervention effects**

  - Large reductions in adolescent behavioural problems
  - Small to large improvements in parenting practices
  - Medium to very large improvements in parenting confidence
  - Large reductions in symptoms of depression and stress (at follow-up)
  - Parents reported maintenance and in many cases further improvements at follow-up
  - All parents who undertook monitoring (56%) achieved or made significant progress towards their individually selected goals.
Limitations and future directions

- Adolescents were relatively high-functioning
- The research design did not control for a number of potential sources of invalidity—a randomised controlled trial is needed
- Self-report measures could be usefully augmented with independent observer-based outcome measures
- Future studies should seek the perspective of adolescents
- Teacher rating scales would help to assess generalisation effects
Questions

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