A first-level evaluation of a school-based family programme for adolescent social, emotional and behavioural difficulties

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Abstract
This study is a first-level evaluation of an intervention targeted at adolescents with social, emotional and behavioural difficulties in Irish post-primary schools. It is a combined implementation of the Working Things Out adolescent programme and the Parents Plus Adolescent Programme (WTOPPAP). Overall, 47 parents and their children (mean age: 13.81 years) took part in the study. The study used a repeated measures design to assess change at pre- and post-intervention and 5-month follow-up using the Strengths and Difficulties Questionnaire, McMaster General Functioning Scale, Goal Attainment (parent- and adolescent-rated), Parent Stress Scale and Kansas Parenting Satisfaction Scale (parent-rated) as assessment measures. This study found that parent-rated child total difficulties and adolescent-rated emotional difficulties significantly improved from pre-test to 5-month follow-up. Parent- and adolescent-rated goals, and parent-rated child conduct difficulties, parental stress and satisfaction with parenting also significantly improved from pre- to post-test. These gains were largely maintained at 5-month follow-up. These findings indicate that the WTOPPAP may be an effective intervention for adolescents with emotional and behavioural difficulties and their parents. It was demonstrated that a manualised family intervention could be effectively rolled out at a number of school locations, with delivery and evaluation being conducted by school staff. Further implications are also discussed.

Keywords
Parents Plus, family intervention, school-based intervention, social, emotional and behavioural difficulties, adolescent difficulties

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Introduction

Social, emotional and behavioural difficulties in adolescents

Social, emotional and behavioural difficulties (SEBD) are a relatively common problem for adolescents, and the prevalence rates have been increasing (Banks & McCoy, 2011; Collishaw, Maughan, Goodman, & Pickles, 2004). SEBD can negatively impact their mental and physical health, social relationships, and engagement in school and educational attainment and increase the risk of poor outcomes in later life (e.g. A. Goodman, Joyce, & Smith, 2011; Ingul, Klöckner, Silverman, & Nordahl, 2012; Reijnjtes, Kamphuis, Prinzie, & Telch, 2010; Wolitzky-Taylor, Bobova, Zinbarg, Mineka, & Craske, 2012). They can also lead to disrupted routines, financial strains and caregiver burden in families and schools as young people with SEBD require more mental health and academic support than their peers (Brannan & Heflinger, 2001; Suhrcke, Pillas, & Selai, 2008; Turnbull & Turnbull, 2001). The development of SEBD may be best understood from a bio-psycho-social model (see Cooper & Jacobs, 2011). There is a considerable body of research evidence indicating that negative parenting behaviours, for example, can contribute to SEBD in adolescents (Hughes & Ensor, 2007; Hurth-Bocks & Hughes, 2008).

Rationale for family interventions

A wide range of interventions that aim to improve young people’s SEBD have been developed. These interventions can involve adolescents alone or can take a family-based approach where only parents or both parents and children are the focus of the intervention (e.g. Baruch, Vrouva, & Wells, 2011; Gillham et al., 2006; Schoenfeld & Janney, 2008). The most up-to-date empirically supported interventions for improving adolescent mental health problems include cognitive behaviour therapy (CBT) and parent management training (PMT) where positive parenting behaviours (e.g. responsiveness, good communication, rule setting and monitoring) are strengthened. However, CBT may be most effective at improving internalising problems (Chorpita et al., 2011), while PMT has consistently shown to improve behaviour difficulties with gains maintained at a 1-year follow-up (see Carr, 2014). Although not the focus during intervention, PMT has also shown to improve parental functioning and mental health (Barlow, Smailagic, Huband, Roloff, & Bennett, 2012).

Research suggests that family interventions targeting parents and children, rather than children or parents alone, may be more effective at improving SEBD, but in particular behavioural problems (see Carr, 2014). Carr’s (2014) review of meta-analyses, systematic literature reviews and controlled trials on the effectiveness of family interventions on youth mental health difficulties and disorders indicates that such interventions are more effective at improving emotional and behavioural difficulties than treatment as usual with young people (e.g. Kaslow, Broth, Smith, & Collins, 2012; Woolfenden, Williams, & Peat, 2002). Moreover, the review identified two studies which showed that the combination of PMT and CBT for young people with SEBD is more effective than either treatment alone (Kazdin, 2010; Webster-Stratton & Reid, 2010).

Rationale for delivering family interventions in the school setting

Despite the advantages of family interventions, the majority are conducted in clinical settings (Shriver & Allen, 2010), and this can limit both the generalisability of such programmes to ‘real-world’ settings and the access to the intervention (Michelson, Davenport, Dretzke, Barlow, & Day, 2013). Young people are, in general, hesitant to seek professional support when encountering difficulties (Rickwood, Deane, & Wilson, 2007), and families can be reluctant to seek support in clinical settings because of the stigma and expense associated with them (Hoganbruen, Clauss-Ehlers,
Nelson, & Faenza, 2003). Thus, the provision of easily accessible, familiar and non-threatening interventions for adolescents with SEBD is crucial, and schools are increasingly being considered the most natural and effective setting to facilitate such support (Fantuzzo, McWayne, & Bulotsky, 2003; Lean & Colucci, 2010; McLennan, Reckord, & Clarke, 2008).

Basing mental health interventions in schools can reduce the impact of issues such as cost and transportation to families (Gulliver, Griffiths, & Christensen, 2010). It can allow for greater sharing of information among health professionals, schools and families (Van Acker & Mayer, 2009). As well as being less stigmatising for families, it could help demystify the institution for those parents with memories of school as an unwelcoming place (LaBahn, 1995) and, in turn, increase parent involvement (PI). Increasing PI in school is widely known to have benefits for teachers, parents and students including improving students’ SEBD (Christenson & Haysy, 2004; Hornby & Witte, 2010; Patrikakou & Weissberg, 2007).

There is a relatively large body of research dealing with school-based intervention programmes for students’ externalising problems (Barnes, Smith, & Miller, 2014; Wilson & Lipsy, 2007). For example, a meta-analysis conducted by Wilson and Lipsy (2007) indicated that such programmes can be effective at reducing problem behaviours in young people, with the most effective programmes being CBT- and counselling-based. There is also a growing number of reviews of school-based emotional and social learning interventions for internalising problems (Cooper & Jacobs, 2011; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Sancassiani et al., 2015). A meta-analysis by Durlak et al. (2011) revealed that these interventions yield significant positive effects on young people’s social-emotional competencies and internalising problems. Cooper and Jacobs’ (2011) review identified the CBT-based FRIENDS programme (often delivered by teachers) as highly effective at improving the anxiety and self-esteem of children.

However, family interventions with PMT alone, or in combination with a child intervention, are rarely delivered in school settings (Cooper & Jacobs, 2011; Valdez, Carlson, & Zanger, 2005). Valdez et al. (2005) identified eight studies between 1980 and 2002 that evaluated family interventions delivered in schools. They reported the efficacy of the majority of these in improving young people’s SEBD at home and in school. While Cooper and Jacobs (2011) did not identify any PMT provided in schools in their review, they referenced that many parents attending an Incredible Years Parenting Programme reported a concern that their child’s teachers were not involved and felt that they could benefit from the intervention they themselves received (Kelleher & McGilloway, 2006). Teachers may be well placed to facilitate parenting programmes in schools, as they too could apply skills in managing SEBD, which can lead to higher levels of student engagement and, in turn, reduce the risk of SEBD (Buyse, Verschueren, Dounen, Van Damme, & Maes, 2008; Cooper & McIntyre, 1996; Corkum, McKinnon, & Mullane, 2005; LaRusso, Romer, & Selman, 2008).

The intervention

The National Behaviour Support Service (NBSS) works in partnership with second-level schools in Ireland providing whole-school support at three levels to address the SEBD and academic needs of students. The first tier is the universal level that targets all pupils with basic positive behaviour support, which is generally sufficient for 80% of the population. The second tier focuses on students who are at-risk of SEBD (~15%) by supplementing mainstream education with behavioural support and learning support teams. Finally, the third tier targets high-risk students with specific challenges (~5%) who are managed within the school with support from external agencies and guided by Individual Education Plans. The NBSS prioritised increasing PI as a means of making their interventions more effective and sought to implement the combined version of the existing Parents Plus Adolescents Programme (PPAP; Sharry & Fitzpatrick, 2012) and Working Things Out...
(WTO; Fitzpatrick, Brosnan, & Sharry, 2009) Programme (WTOPPAP) for parents and adolescents, respectively. There are three other Parents Plus Programmes including Parents Plus Early Years (PPEY; Griffin, Guerin, Sharry, & Drumm, 2010), Parents Plus Children’s Programme (PPCP; Coughlin, Sharry, Fitzpatrick, Guerin, & Drumm, 2009) and Parents Plus–Parenting When Separated (PP-PWS; Keating, Sharry, Murphy, Rooney, & Carr, 2015).

The PPAP is a solution-focused positive parent training programme for parents of adolescents aged 11–16 years. PPAP draws on social learning principles and employs DVD footage to model parenting skills and techniques. The aim of PPAP is to build on parents’ existing strengths and resources and provide them with the skills to build good relationships with their teenagers, while also being firm and influential in their lives. Beattie, Fitzpatrick, Guerin, and O’Donoghue (2007) found that parents of children attending a Child and Adolescent Mental Health Service (CAMHS) who completed the PPAP ($n=38$) reported significant improvements in their children’s total, peer and conduct difficulties when compared to the routine clinical care group ($n=17$). A randomised controlled trial (RCT) study evaluating the PPAP within secondary schools also revealed that the PPAP group ($n=70$) reported significant reductions in adolescent total and conduct difficulties, decreased parental stress, increased parental satisfaction and greater progress in achieving their goals compared to the waiting list control group ($n=39$; Nitsch, 2011).

The WTO programme is an intervention for adolescents that promotes their positive mental health and supports them in overcoming specific problems. It is skill oriented and draws on CBT principles to highlight the connection between thoughts, feelings and actions. Findings from an evaluation of the WTO programme in CAMHS revealed that the adolescent participants ($n=33$) reported a significant reduction in their emotional and behavioural difficulties and used significantly more ‘good’ coping strategies 3 months after completion of the programme. This study is currently being written up for publication.

**Aims**

The purpose of this study is to evaluate the impact of running the WTO and PPAP programmes together as a family intervention in a school setting with adolescents and their parents. It is expected that participants will see improved outcomes in terms of parent- and adolescent-rated SEBD, general family functioning, parent stress and satisfaction with parenting from baseline to 5-month follow-up. It is also expected that participants will see improvements in goal attainment from baseline to post-intervention.

**Method**

**Study design**

This study utilised a repeated measures design to assess change within the intervention group. Time was the primary independent variable. Schools and participants were offered the intervention in January 2012. Participants were assessed pre-intervention (Time 1), post-intervention (Time 2) and at 5-month follow-up (Time 3). A number of dependent variables were examined; these were adolescent SEBD, participant goals, general family functioning, parent stress and satisfaction with parenting. Participant’s goals were measured at Times 1 and 2.

**Participants**

Participants were a targeted group of 47 adolescents and their 47 parents/guardians who were accessing one of the three tiers of the NBSS in their school. Participants were recruited by
The participants were drawn from eight schools in the Republic of Ireland, with a relatively wide geographic spread (e.g. Dublin, Cork, Wicklow, Cavan, Wexford) ensuring a diverse range of participants both from rural and urban settings and from a broad socioeconomic background. Of the adolescents who took part in the study, 30 (64%) were male. The average age for adolescents was 13.81 years, with ages ranging from 11 to 17 years. All of the parents who took part in the study were mothers; one father took part in the intervention, but has been excluded from the present analysis in order to control for parental gender. Only one parent per family participated. Ethical approval for the study was granted by the Research Ethics Committee of the Mater Misericordiae Hospital, Dublin. Parents/guardians provided written informed consent for them and their children to participate, and informed assent was obtained from adolescents on the day.

**Procedure**

PBL and HSCL teachers attended 3 days of training in the delivery of both the PPAP and the WTO programmes. In order to maintain fidelity in the implementation of the programmes across sites, facilitators were provided with manualised programmes and were given supervision and support as they facilitated the groups. After an initial invitation to take part in the evaluated programme, families were invited to attend an individual screening meeting to obtain further information and complete assessment measures. The programmes for adolescents and parents ran in parallel over 8 weeks. Two joint individual family sessions were held after sessions 3 and 6. Topics covered in the courses (see Table 1) and the materials distributed to participants were integrated to ensure that the intervention reflected a whole-family.

Upon completion of the two programmes, adolescents and parents completed the assessment measures for the second time and again at 5-month follow-up. Goal attainment was assessed at Times 1 and 2 only.

**Assessment measures**

*The Strengths and Difficulties Questionnaire (SDQ)* is a 25-item questionnaire that assesses young people’s behaviours, emotions and relationships (R. Goodman, 1997, 2001). The 25 items are divided into five scales: conduct, hyperactivity, emotional, peer problems and pro-social. The scores from these scales, excluding the pro-social scale, are summed to generate a total difficulties score. The Cronbach’s alpha of the parent- and self-rated versions was satisfactory at .81.

<table>
<thead>
<tr>
<th>Topic</th>
<th>PPAP</th>
<th>WTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Positive communication</td>
<td>Getting started</td>
</tr>
<tr>
<td>2</td>
<td>Getting along with your teenager</td>
<td>How we think affects what we feel and do</td>
</tr>
<tr>
<td>3</td>
<td>Encouraging your teenager</td>
<td>Managing feeling down</td>
</tr>
<tr>
<td>4</td>
<td>Listening to your teenager</td>
<td>New ways of thinking</td>
</tr>
<tr>
<td>5</td>
<td>Establishing rules</td>
<td>Stop and think – the key to solving problems</td>
</tr>
<tr>
<td>6</td>
<td>Using consequences/having a discipline plan</td>
<td>Dealing with anger and conflict</td>
</tr>
<tr>
<td>7</td>
<td>Dealing with conflict</td>
<td>Communicating well and building relationships</td>
</tr>
<tr>
<td>8</td>
<td>Problem solving</td>
<td>Planning for the future and making positive choices</td>
</tr>
</tbody>
</table>

The McMaster Family Assessment Device (FAD) is made up of seven subscales which measure problem solving, communication, roles, affective responsiveness, affective involvement, behaviour control and general functioning in families (Epstein, Baldwin, & Bishop, 1983). The General Functioning scale used in this study assesses the overall health/pathology of the family. Parents and children rated their agreement with how well an item describes their families (Cronbach’s alpha was satisfactorily above .80).

The Kansas Parental Satisfaction Scale (KPS) is a three-item scale; it measures parental satisfaction with their child’s behaviour, with their parenting role and with their relationship with their child (Schumm & Hall, 1994). The three questions are summed to give an overall satisfaction score, and items are scored on a 7-point Likert scale. Cronbach’s alpha approached satisfactory at .65.

The Parental Stress Scale (PSS) is a self-report scale that contains 18 items representing themes of parenthood that are positive (emotional benefits, self-enrichment, personal development) and negative (demands on resources, opportunity costs and restrictions; Berry & Jones, 1995). Respondents are asked to agree or disagree with items in terms of their typical relationship with their child and to rate each item on a 5-point Likert scale: ‘strongly disagree’ (1), ‘disagree’ (2), ‘undecided’ (3), ‘agree’ (4) and ‘strongly agree’ (5). The eight positive items are reverse scored so that possible scores on the scale can range between 18 and 90. Higher scores on the scale indicate greater stress. Cronbach’s alpha was satisfactory at .81.

The Goal Attainment measure designed for this study requires parents to pick two goals for their child and two personal goals and adolescents to pick two goals for their family and two personal goals that they would work towards during the intervention. Participants rated them using a visual analogue scale (i.e. 0 = not very close to achieving goal and 10 = have reached the goal).

Statistical strategy

Data were analysed using SPSS (version 20). Repeated measures analysis of variance (ANOVA) was used to examine changes in the intervention group over the three assessment times. Post hoc analyses were conducted with paired-samples t-tests and a Bonferroni-corrected significance value of \( p < .017 \). Only paired-samples t-tests were used to analyse goal attainment.

Results

Descriptive statistics

Participants’ mean scores, standard deviations and range of scores at baseline on the assessment measures completed can be seen in Table 2. The number of adolescents with SEBD in the clinical range and participants rating their family’s general functioning above the cut-off can be seen in Table 3.

Repeated measures ANOVA and post hoc paired-samples t-test

Repeated measures ANOVA results for parent- and adolescent-rated assessment measures at baseline, post-intervention and 5-month follow-up can be seen in Table 4. Post hoc paired-samples t-test results can be seen in Table 5.

Parent-rated adolescent difficulties. As can be seen in Table 4, parents reported a significant improvement in total difficulty scores according to repeated measures ANOVA, and the effect size for this
improvement was large. Post hoc paired-samples $t$-tests (see Table 5) indicated that there was a large effect size for the improvement in scores from T1 to T3.

Further repeated measures ANOVA analyses with the SDQ subscales indicated a significant change over time only for the Conduct subscale, $F(2, 30) = 8.381, p = .001, \eta^2 = .36$, with a large effect size for this change. Post hoc paired-samples $t$-tests indicated that there was a similar significant change from T1 ($M = 3.19, SD = 2.25$) to T2 ($M = 2.00, SD = 1.98$), $t(31) = 3.881, p = .001, \eta^2 = .327$, and from T1 to T3 ($M = 1.97, SD = 1.91$), $t(31) = 3.849, p = .001, \eta^2 = .323$, with large effect sizes observed.

### Table 2. Descriptives of assessment total scores at baseline.

<table>
<thead>
<tr>
<th>Measure</th>
<th>N</th>
<th>Minimum score</th>
<th>Maximum score</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDQ</strong></td>
<td>46</td>
<td>2</td>
<td>30</td>
<td>15.48 (6.64)</td>
</tr>
<tr>
<td><strong>PSS</strong></td>
<td>44</td>
<td>25</td>
<td>71</td>
<td>40.68 (9.56)</td>
</tr>
<tr>
<td><strong>KPS</strong></td>
<td>44</td>
<td>8</td>
<td>20</td>
<td>14.45 (3.07)</td>
</tr>
<tr>
<td><strong>McMaster</strong></td>
<td>44</td>
<td>1.16</td>
<td>3</td>
<td>1.97 (0.41)</td>
</tr>
<tr>
<td>Personal goal</td>
<td>13</td>
<td>1</td>
<td>6</td>
<td>2.50 (1.60)</td>
</tr>
<tr>
<td>Child goal</td>
<td>23</td>
<td>0</td>
<td>9</td>
<td>2.60 (2.10)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measure</th>
<th>N</th>
<th>Minimum score</th>
<th>Maximum score</th>
<th>M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDQ</strong></td>
<td>46</td>
<td>0</td>
<td>29</td>
<td>13.59 (6.19)</td>
</tr>
<tr>
<td><strong>McMaster</strong></td>
<td>45</td>
<td>1</td>
<td>3.17</td>
<td>2.05 (0.54)</td>
</tr>
<tr>
<td>Personal goal</td>
<td>31</td>
<td>1</td>
<td>8</td>
<td>3.53 (1.96)</td>
</tr>
<tr>
<td>Family goal</td>
<td>25</td>
<td>0</td>
<td>8</td>
<td>3.91 (2.30)</td>
</tr>
</tbody>
</table>

SDQ: Strengths and Difficulties Questionnaire; PSS: Parent Stress Scale; KPS: Kansas Parenting Satisfaction; McMaster: McMaster General Functioning; SD: standard deviation.

### Table 3. Numbers of participants in the clinical range for the McMaster and SDQ at all three time points.

<table>
<thead>
<tr>
<th>Measure</th>
<th>n</th>
<th>T1 Abnormal</th>
<th>T1 Normal</th>
<th>T2 Abnormal</th>
<th>T2 Normal</th>
<th>T3 Abnormal</th>
<th>T3 Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDQ</strong></td>
<td>32</td>
<td>17 (53%)</td>
<td>15 (47%)</td>
<td>13 (41%)</td>
<td>19 (59%)</td>
<td>13 (41%)</td>
<td>19 (59%)</td>
</tr>
<tr>
<td><strong>McMaster</strong></td>
<td>31</td>
<td>19 (61%)</td>
<td>12 (39%)</td>
<td>11 (35%)</td>
<td>20 (65%)</td>
<td>13 (42%)</td>
<td>18 (58%)</td>
</tr>
</tbody>
</table>

**Parent measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>n</th>
<th>T1 Abnormal</th>
<th>T1 Normal</th>
<th>T2 Abnormal</th>
<th>T2 Normal</th>
<th>T3 Abnormal</th>
<th>T3 Normal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SDQ</strong></td>
<td>33</td>
<td>9 (27%)</td>
<td>24 (73%)</td>
<td>13 (39%)</td>
<td>20 (61%)</td>
<td>12 (36%)</td>
<td>21 (64%)</td>
</tr>
<tr>
<td><strong>McMaster</strong></td>
<td>31</td>
<td>20 (65%)</td>
<td>11 (35%)</td>
<td>13 (42%)</td>
<td>18 (58%)</td>
<td>15 (48%)</td>
<td>16 (52%)</td>
</tr>
</tbody>
</table>

Adolescent measures

The 'clinical' category for the SDQ includes cases in the 'borderline' range.

SDQ: Strengths and Difficulties Questionnaire; McMaster: McMaster General Functioning; T1: baseline; T2: post-intervention; T3: 5-month follow-up.
Table 4. Repeated measures ANOVA results for assessment total scores at all three time points.

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>F (p)</th>
<th>( \eta^2 )</th>
<th>T1 (M, SD)</th>
<th>T2 (M, SD)</th>
<th>T3 (M, SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parent measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDQ</td>
<td>32</td>
<td>3.93 (.030^)</td>
<td>.21^</td>
<td>14.56 (7.02)</td>
<td>12.63 (7.28)</td>
<td>12.16 (7.63)</td>
</tr>
<tr>
<td>McMaster</td>
<td>31</td>
<td>3.24 (.054)</td>
<td>.18^</td>
<td>1.96 (.46)</td>
<td>1.79 (.46)</td>
<td>1.81 (.45)</td>
</tr>
<tr>
<td>PSS</td>
<td>30</td>
<td>8.69 (.001^)</td>
<td>.38^</td>
<td>40.57 (10.52)</td>
<td>35.03 (9.78)</td>
<td>37.53 (11.32)</td>
</tr>
<tr>
<td>KPS</td>
<td>30</td>
<td>5.69 (.008^)</td>
<td>.29^</td>
<td>14.67 (3.14)</td>
<td>16.63 (3.06)</td>
<td>16.40 (3.06)</td>
</tr>
<tr>
<td><strong>Adolescent measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDQ</td>
<td>34</td>
<td>.182 (.834)</td>
<td>.011</td>
<td>13.27 (6.52)</td>
<td>12.94 (6.1)</td>
<td>12.79 (6.54)</td>
</tr>
<tr>
<td>McMaster</td>
<td>31</td>
<td>2.97 (.067)</td>
<td>.170^</td>
<td>2.02 (.53)</td>
<td>1.84 (.47)</td>
<td>1.85 (.44)</td>
</tr>
</tbody>
</table>

ANOVA: analysis of variance; SDQ: Strengths and Difficulties Questionnaire; PSS: Parent Stress Scale; KPS: Kansas Parenting Satisfaction; McMaster: McMaster General Functioning; SD: standard deviation.

^Large effect size.
^Significant at \( p < .05 \).

Table 5. Paired-samples \( t \)-test comparing assessment total scores across all three time points.

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>T1–T2</th>
<th></th>
<th></th>
<th>T2–T3</th>
<th></th>
<th></th>
<th>T1–T3</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>( p )</td>
<td>( \eta^2 )</td>
<td>( p )</td>
<td>( \eta^2 )</td>
<td>( p )</td>
<td>( \eta^2 )</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parent measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SDQ</td>
<td>32</td>
<td>.043</td>
<td>.13^</td>
<td>.610</td>
<td>.010</td>
<td>.011^</td>
<td>.19^</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>McMaster</td>
<td>31</td>
<td>.020</td>
<td>.17^</td>
<td>.783</td>
<td>.003</td>
<td>.078</td>
<td>.10^</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSS</td>
<td>30</td>
<td>.000^</td>
<td>.38^</td>
<td>.274</td>
<td>.040</td>
<td>.154</td>
<td>.07^</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KPS</td>
<td>30</td>
<td>.002^</td>
<td>.29^</td>
<td>.603</td>
<td>.010</td>
<td>.010^</td>
<td>.21^</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal goal</td>
<td>14</td>
<td>.000^</td>
<td>.75^</td>
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<td>Child goal</td>
<td>15</td>
<td>.002^</td>
<td>.50^</td>
<td>–</td>
<td>–</td>
<td>–</td>
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<td><strong>Adolescent measures</strong></td>
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<tr>
<td>SDQ</td>
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<td>.651</td>
<td>.006</td>
<td>.819</td>
<td>.002</td>
<td>.549</td>
<td>.011</td>
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<td>McMaster</td>
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<td>.030</td>
<td>.15^</td>
<td>.822</td>
<td>.002</td>
<td>.042</td>
<td>.13^</td>
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<tr>
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<td>.000^</td>
<td>.67^</td>
<td>–</td>
<td>–</td>
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<td>–</td>
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<tr>
<td>Family goal</td>
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<td>.000^</td>
<td>.63^</td>
<td>–</td>
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SDQ: Strengths and Difficulties Questionnaire; PSS: Parent Stress Scale; KPS: Kansas Parenting Satisfaction; McMaster: McMaster General Functioning.

^Large effect size.
^Moderate effect size.
^Significant at \( p < .017 \).

Parent-rated general functioning. Improvements in parent-rated general functioning scores only approached significance, with a large effect size (Table 4). Likewise, post hoc paired-samples \( t \)-tests showed improvements from T1 to T2 that only approached significance.

Parent-rated stress. There was a strongly significant improvement in parent stress scores (see Table 4), with a very large effect size accompanying this. Post hoc tests showed a strongly significant decrease in parent stress from T1 to T2 (Table 5). There was a slight, non-significant increase in parent stress from T2 to T3 (small effect size), which meant that the T1–T3 improvement was not statistically significant.
Parent-rated satisfaction with parenting. Improvement for satisfaction with parenting scores was strongly significant, with a very large effect size for the change from baseline to 5-month follow-up (Table 4). Post hoc analyses showed that parenting satisfaction improved significantly from T1 to T2, with a large effect size. This improvement was maintained at follow-up, with a large effect size from T1 to T3.

Adolescent-rated difficulties. Repeated measures ANOVA analyses showed a non-significant improvement in adolescents’ total difficulties, with a small effect size for this improvement. However, further repeated measures ANOVA analyses with the SDQ subscales indicated a significant change for the Emotional subscale, $F(2, 32) = 3.735, p = .035, \eta^2 = .189$, with a large effect size for this change. Post hoc $t$-tests indicated a significant improvement in emotional difficulties from T1 ($M = 3.88, SD = 2.68$) to T3 ($M = 3.15, SD = 2.78$), $t(33) = 2.616, p = .013, \eta^2 = .172$, with a large effect size observed.

Adolescent-rated general functioning. Improvements in adolescent-rated general functioning scores only approached significance, with a large effect size (see Table 4). Likewise, post hoc paired-samples $t$-tests showed improvements from T1 to T2 and T1 to T3 that only approached significance.

Parent- and adolescent-rated goal attainment. Participants showed significant movement towards their goals from T1 to T2 with large effect sizes observed (Table 5).

Discussion
This study found that parents rated their children’s overall difficulties and adolescents rated their emotional difficulties as having significantly improved from pre-test to 5-month follow-up of the WTOPPAP intervention. Parents also rated their children’s conduct and their satisfaction with parenting as having significantly improved and their stress levels as having decreased significantly over the course of the intervention, with gains maintained at follow-up. In addition, parents and adolescents reported significant movement towards their goals by the end of the group.

These findings are consistent with outcomes from group family interventions delivered in school settings (e.g. Moretti & Obsuth, 2009; Valdez et al., 2005; Vitaro, Brendgen, & Tremblay, 2001; Wilson & Lipsey, 2007) and with previous investigations of the PPAP and WTO programmes (e.g. Beattie et al., 2007; Nitsch, 2011). The finding that parents reported a greater severity of adolescent difficulties and that parents and adolescents disagree on ratings of emotional and behavioural difficulties is relatively common in the literature (Martin, Ford, Dyer-Friedman, Tang, & Huffman, 2004; Van der Meer, Dixon, & Rose, 2008; Van Roy, Groholt, Heyerdahl, & Clench-Aas, 2010). Young people with externalising disorders are more likely to be identified as having difficulties and needing intervention due to the more visible nature of their problematic behaviours (Bradshaw, Buckley, & Ialongo, 2008), as was the case for many of the participants in this study. Moreover, parents are more likely to rate externalising behaviours as problematic (Van der Meer et al., 2008), while young people are more likely to rate internalising problems as being clinically significant than externalising problems they are experiencing (Martin et al., 2004; Van der Meer et al., 2008). Hence, it is considered best practice to obtain data from numerous sources.

As expected, the WTOPPAP intervention improved parental stress and satisfaction with parenting. This finding may partially explain the improvements in adolescent SEBD; parents’ ability to effectively implement adaptive parenting strategies and manage their children’s problematic behaviours can be adversely affected by stress and low confidence in parenting (T. L. Jones & Prinz, 2005; Morawska, Winter, & Sanders, 2009; Webster-Stratton, 1990). However, it is important to note that parental stress increased from the final session of the programme to the follow-up...
session, although not significantly. This finding emphasises that there is no ‘magic bullet’ intervention and that engagement and support for parents is an on-going and crucial aspect of the process of supporting young people with SEBD. Previous research has indicated that the provision of follow-up support sessions may help to maintain treatment effects after the conclusion of an intervention (Eyberg, Edwards, Boggs, & Foote, 1998). Therefore, it may be effective to increase contact with parents and adolescents in the months following the end of the WTOPPAP programme with additional family or parent-only sessions.

**Strengths and limitations**

The main strength of this research is how it demonstrated that a manualised family intervention can be effectively rolled out and evaluated in Irish schools in partnership with the NBSS and parents. There is always a trade-off between evaluating the effectiveness and efficacy of an intervention (Hoagwood, Hibbs, Brent, & Jensen, 1995), with both having positive and negative aspects (e.g. greater control over confounding variables, generalisability, attrition). As previous research into the PPAP and WTO programmes has shown the efficacy of both programmes in clinical settings (e.g. Beattie et al., 2007; Nitsch, 2011), this study was concerned more with the effective delivery of these programmes in a novel setting, and so the positive findings in relation to adolescent and parent outcomes are encouraging. Due to the number of different sites the study was conducted across, the findings of the study are also more readily generalisable and thus provide relatively robust evidence for the effectiveness of the intervention.

It has previously been stated that good implementation of an intervention is predictive of better outcomes (Wilson & Lipsey, 2007). Factors that are crucial to a high standard of implementation are the adequate training of facilitators, close and receptive supervision during the intervention and the provision of principal support (Gottfredson & Gottfredson, 2002). Another strength of this research was the adherence to these factors in the roll-out and evaluation of WTOPPAP, through the use of session rating forms, close supervision from the administrators of the programme and from NBSS staff, and the provision of intensive 3-day facilitator training prior to implementation. Furthermore, and due to the well-structured and manualised nature of the intervention coupled with on-going support provided to facilitators, it was possible to ensure a high degree of fidelity in the delivery of the programme across different schools.

A further strength of this research is that of the attrition rate: from the beginning of the intervention to its conclusion, four students (8.5%) and five parents (11%) dropped out of the programme. These figures are relatively low and compare favourably to similar interventions conducted in school settings (e.g. Baruch et al., 2011; Koning, Van den Eijnden, Verdurmen, Engels, & Vollebergh, 2011). Although the rate of attrition increases at the time of follow-up, this could be attributed to the relatively long duration of the follow-up period (5 months) and that the follow-up interview was not a therapeutic component of the intervention, meaning that families’ motivation to attend may have been reduced. This could potentially be offset in future evaluations using ‘booster’ family sessions in the period after the conclusion of the programme.

Naturally, a weakness of this study was the lack of a comparison group, to determine whether the outcome gains reported here can be directly attributed to participation in WTOPPAP. The provision of a comparison group was initially pursued during the design stage of the research; however, due to the complexity involved in the multi-location roll-out of the intervention, it was not possible to secure a comparison group which would have been of a size sufficient to conduct robust statistical analyses. However, due to the relative success of the implementation of the WTOPPAP, the use of a comparison group in future research is more feasible. Based on the positive findings
reported here, comparative analyses are considered a priority for further evaluation of the intervention, which is currently being developed.

It is a commonly encountered occurrence that mothers are more likely to participate in parenting programmes than fathers (see Fabiano, 2007); however, one potential limitation of this study is that all parents who participated were mothers. It is, therefore, not possible to infer what impact participation in WTOPPAP may have on fathers based on the present findings. Furthermore, in cases where both parents reside together, the implementation of parenting strategies can be more effective when they are consistently applied (Kaminski, Valle, Filene, & Boyle, 2008), which is facilitated by both parents attending parenting courses together. As this was a first-level intervention and the fidelity of implementation was prioritised, it was not possible to focus on recruiting parent dyads across the different settings in this study. However, future implementation of the WTOPPAP could place greater emphasis on facilitators recruiting both parents, where possible, as this could potentially result in greater improvements and maintenance of improvement in outcomes.

Conclusion

The findings of this first-level evaluation of the delivery of the combined WTOPPAP in Irish secondary schools broadly supported the effectiveness of the intervention. They also demonstrated that it is possible to effectively deliver a multi-modal family intervention in an Irish school setting and for school staff to conduct a valid evaluation of the intervention. These findings are encouragingly positive and support the further roll-out and evaluation of the WTOPPAP programme.

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References


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