Outcomes of an Incredible Years Classroom Management Programme with Teachers from Multiple Schools

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Abstract

Pre-intervention, post-intervention, and follow-up measures of teacher strategies, teacher efficacy, and pre-intervention and post-intervention measures of child behavioural strengths and difficulties were combined with written structured teacher feedback to evaluate the effectiveness of an Incredible Years Classroom Management Training Programme (Webster-Stratton & Reid, 2002) delivered to 15 teachers from multiple schools in a single Irish Education Centre setting over a period of 5 months. Participation in the programme was followed by significant positive change in emotional and behavioural difficulties in key children on whom the teachers focused as part of their training and by significant positive changes post intervention and at follow-up in teachers' sense of efficacy with regard to student engagement and classroom management. Limitations such as lack of control group and limited generalisability of findings are addressed.

Background to the Study

The Incredible Years (IY) Parent and Child Programmes have demonstrated effectiveness in reducing problem behaviours in children at risk of conduct disorder, oppositional defiant disorder and attentional problems through working directly with children and their parents (Axberg, Hansson, & Broberg, 2007; Foster, Olchowski, & Webster-Stratton, 2007; Gardner, Burton, & Klimes, 2006; Hartman, Stage, & Webster-Stratton, 2003; Jones, 2007). The authors of the Incredible Years programme have also developed a curriculum to promote social and emotional competence that is based in schools and delivered as part of the input to the general class by the teacher (Reid & Webster-Stratton, 2001; C. Webster-Stratton, Reid, & Hammond, 2004; C. Webster-Stratton, Reid, Kazdin, & Weisz, 2003), in an effort to extend the contextual learning opportunities and to build a "stacked" approach to intervention with reciprocal strengthening effects (Foster, Olchowski, & Webster-Stratton, 2007; C. Webster-Stratton, 2001). In order to ensure the effectiveness of the school-based programme, Webster-Stratton developed a teacher training programme that would enhance teachers' classroom management skills: "Promoting Positive Academic and Social Behaviours" (Webster-Stratton & Reid, 2002). This programme is sometimes also referred to as the "Incredible Years Classroom Management Programme" or the "Incredible Years Teacher Training Programme". The approach is based on the concept of the "Teaching Pyramid" (Webster-Stratton, 1999), a model that advocates building strong supportive relationships with children in combination with positive teaching strategies in order to achieve both behavioural and academic goals. It draws on behavioural and social learning theory as well as Webster-Stratton's own extensive research and experience in the

area of early intervention with emotional and behavioural skills deficits in predicting that

developments in teacher skills will lead to progress in child social and academic skills.

A number of published studies investigated the effectiveness IY Classroom Management

Programme with both preschool and primary school populations (Hutchings, 2006; Raver et al.,

2008; C. Webster-Stratton, Reid, & Hammond, 2004). In general, findings from these studies

are encouraging, showing significant positive changes in behaviour management as well as

classroom climate and teacher sensitivity. In terms of treatment effectiveness with populations

culturally similar to that in the Republic of Ireland, results of one Welsh study of the classroom

management programme showed measurable positive change in teacher strategies as compared

with controls as a result of participation in the programme (Hutchings, 2006). In Ireland, a

number of agencies have introduced this programme to teachers in both single school and

multiple school community contexts and have communicated positive (Richard Egan, personal

communication, March 12, 2008). The current study sought to evaluate the effectiveness of

implementing the programme in a state sponsored Education Centre with teachers from a range

of primary schools in rural and suburban areas on the East Coast of Ireland.

Method

Subjects

 15 teachers, selected on the basis of first response to advertisement of an Incredible Years

Teacher Training Course, attended a five month programme consisting of two consecutive

afternoons (3.30 pm to 6.30 pm) per month at an Education Centre in the Greater Dublin Area

from February to June 2007. Schools represented were from both suburban and rural settings.

Measures

 Each of the teachers completed the Incredible Years Teacher Strategies Questionnaire (TSQ) and the Teacher Sense of Efficacy Scale at commencement, upon finishing the course, and finally one year after the commencement of the original course. They also each completed the Strengths and Difficulties Questionnaire (SDQ) for a number of children upon whom they chose to focus their teaching and management skills in order to bring about improvement in the children in terms of emotional and behavioural difficulties. 51 SDQs were completed by the 15 teachers, with individual teachers ranging from 1 to 4 SDQs completed at both pre- and post-intervention. The modal number of SDQs per teacher completed at both time-points was 4 (10 of the 15 teachers completed 4 SDQs).   Teachers were also asked to complete a qualitative evaluation of the course by way of the Incredible Years Evaluation form (E).

Results

Analysis:

A nonparametric approach was used for all data as the samples involved were small convenience samples and normal distributions could not be assumed.

The SDQ was compared at pre- and post-intervention using the Wilcoxon Signed Ranks Test across all children as a single group in terms of measures of change in Emotional Symptoms, Conduct Problems, Hyperactivity, Peer Problems, Total Difficulties, and Prosocial Behaviour.

Change in the Impact of Difficulties (on Self, Peers and Class) post-intervention, as measured by Part Two of the SDQ, was analysed using The McNemar Test.

The Teacher Sense of Efficacy Scale was compared at pre- and post-intervention using the Wilcoxon Signed Ranks Test in order to measure change in teacher perceived self-efficacy scores in the areas of Student Engagement, Instructional Strategies, Classroom Management, and Total Efficacy across these categories.

The Teacher Strategies Questionnaire (Webster-Stratton (F)) was compared across pre- and post-intervention also using the Wilcoxon Signed Ranks Test in terms of the frequency of use and the usefulness of different categories of teacher strategy: Praise and Incentives, Proactive strategies, Limit-setting, Total Positive Approaches, and Inappropriate strategies. Frequency of use of strategies that involved working with parents was also measured at both time points.

Qualitative results from the evaluation questionnaire were grouped and listed according to frequency of occurrence under the respective headings.

Given the number of calculations involved, the level of acceptable statistical significance for all measures was set at $p = .01$. However, because change was expected in a specific direction based on previous studies of the programme (Hutchings, 2006; C. Webster-Stratton, Reid, & Hammond, 2004), one-tailed tests were used throughout to analyze the data.

Quantitative Findings

Strengths and Difficulties Questionnaire (SDQ)

 One-tailed Wilcoxon Signed Ranks Test comparing SDQ scores pre- and post-intervention showed a statistically significant and moderate clinically significant improvement in the children's scores on Hyperactivity (p = .000; effect size = .46), Peer Problems (p = .0005; effect size = .47), Prosocial Behaviours (p = .004; effect size = .52), and Total difficulties (p = .000; effect size = .62). Improvement approached level of statistical and clinical significance on both Emotional Difficulties (p = .015; effect size = .3) and Conduct Problems (p = .015; effect size = .25). (Figure 1)
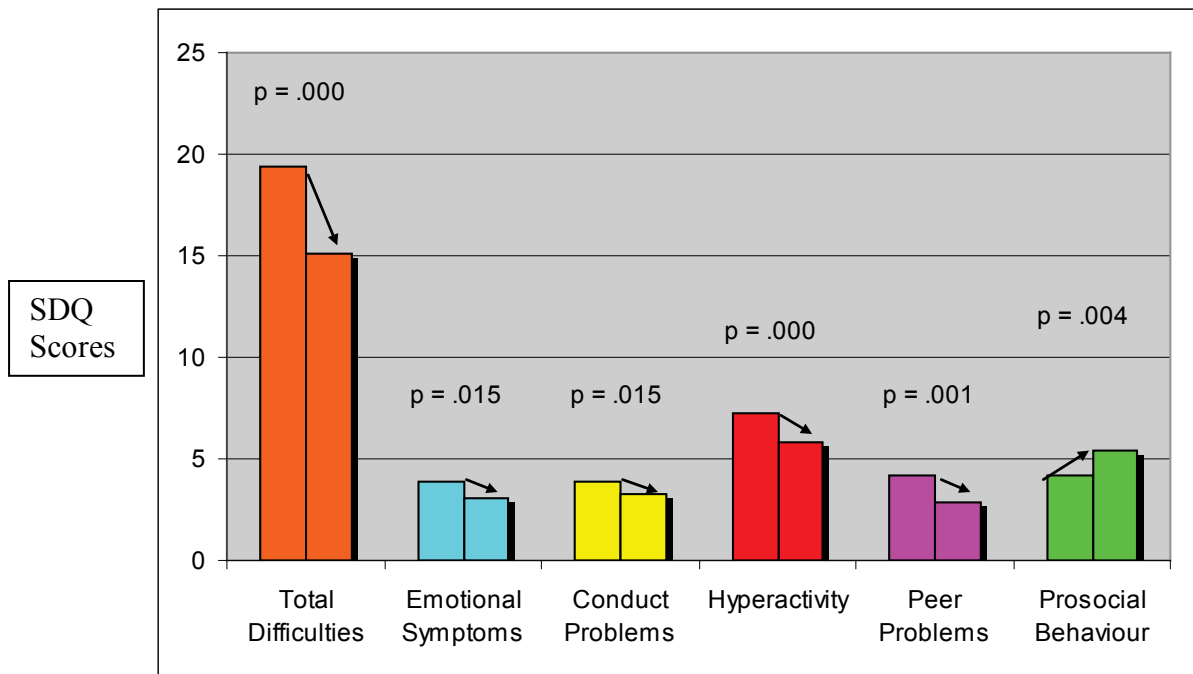
SDQ Total Scales and Subscales Pre- and Post-Intervention

Figure 1: *Mean pre and post scores for the subscales and total score of the SDQ"*

Impact of Difficulties (SDQ.

One-tailed McNemar Test comparing *Impact of Difficulties* Pre- and post-intervention showed a statistically significant improvement over time in the proportion of children perceived as having no or minor difficulties as opposed to definite or severe difficulties (p = .008).

The Teacher Sense of Efficacy Scale

One-tailed Wilcoxon Signed Ranks Test comparing Teacher Sense Of Efficacy Scale scores pre-intervention, post-intervention, and follow-up showed a statistically significant improvement in the teacher's scores on Student Engagement (pre-post: p = .007, pre-follow-up: p = .002), Classroom Management (pre-post: p = .008, pre-follow-up: p = .005), and Total Teacher Efficacy (pre-post: p = .008, pre-follow-up: p = .004). Change in teachers' sense of efficacy in Instructional Strategies following intervention was in the desired direction but below level of significance (pre-post: p = .02, pre-follow-up: p = .024). (Figure 2)
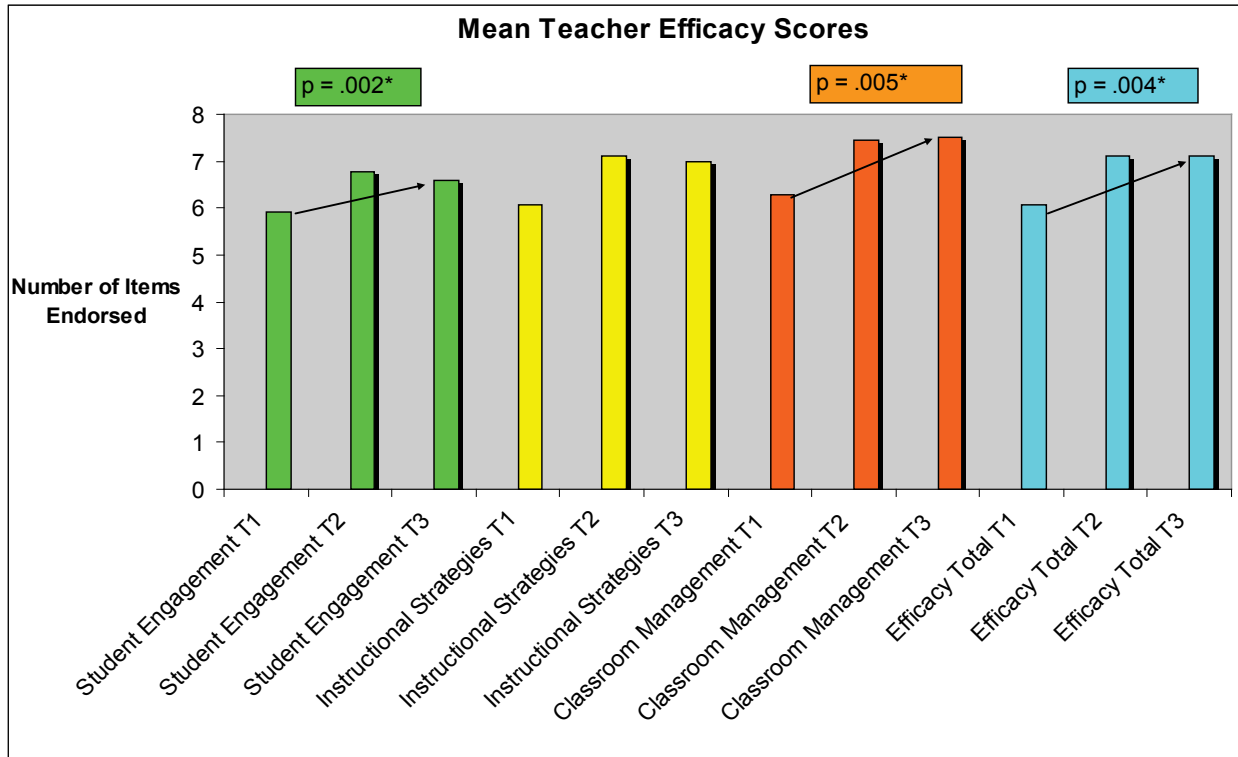
Sense of Efficacy Total Scales and Subscales Pre and Post Intervention

Figure 2: *Teacher Sense of Efficacy: pre and post intervention*

Teacher's Strategies Questionnaire (TSQ): Frequency of Use of Teacher Strategies.

 One-tailed Wilcoxon Signed Ranks Test comparing TSQ scores pre-intervention, post-intervention and at one-year follow-up showed no statistically significant improvement in the teacher's frequency of use of the strategies of Praise and Incentives, Proactive strategies, Limit-Setting, or Proactive Strategies with Parents, or in the frequency of (non)use of inappropriate strategies (p = .02). (Figure 3).

TSQ Frequency Score Means Pre, Post & Follow-up
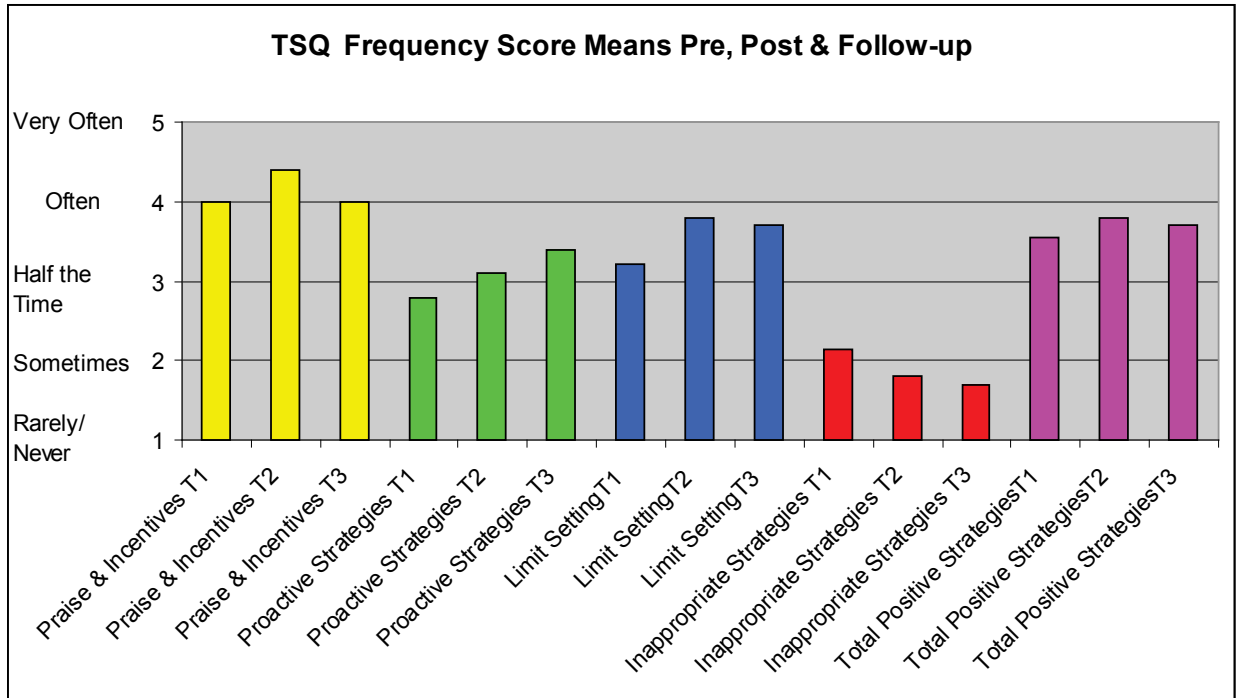
TSQ Total Frequency Scales and Subscales at Pre-Intervention, Post-intervention and follow-up

Figure 3: *Frequency of Use of Teacher Strategies: at pre-Intervention, post-Intervention, & one-year follow-up*

Teacher's Strategies Questionnaire (TSQ): Perceived Usefulness of Teacher Strategies.

One-tailed Wilcoxon Signed Ranks Test comparing TSQ scores pre- and post-intervention showed no statistically significant improvement in the teacher's perceptions of the usefulness of the strategies of Praise and Incentives, Proactive strategies, or in the perceived (non)usefulness of inappropriate strategies. The exception was the statistically significant difference in scores from pre-intervention to follow-up in the case of limit-setting ($p = .006$) (Figure 4).

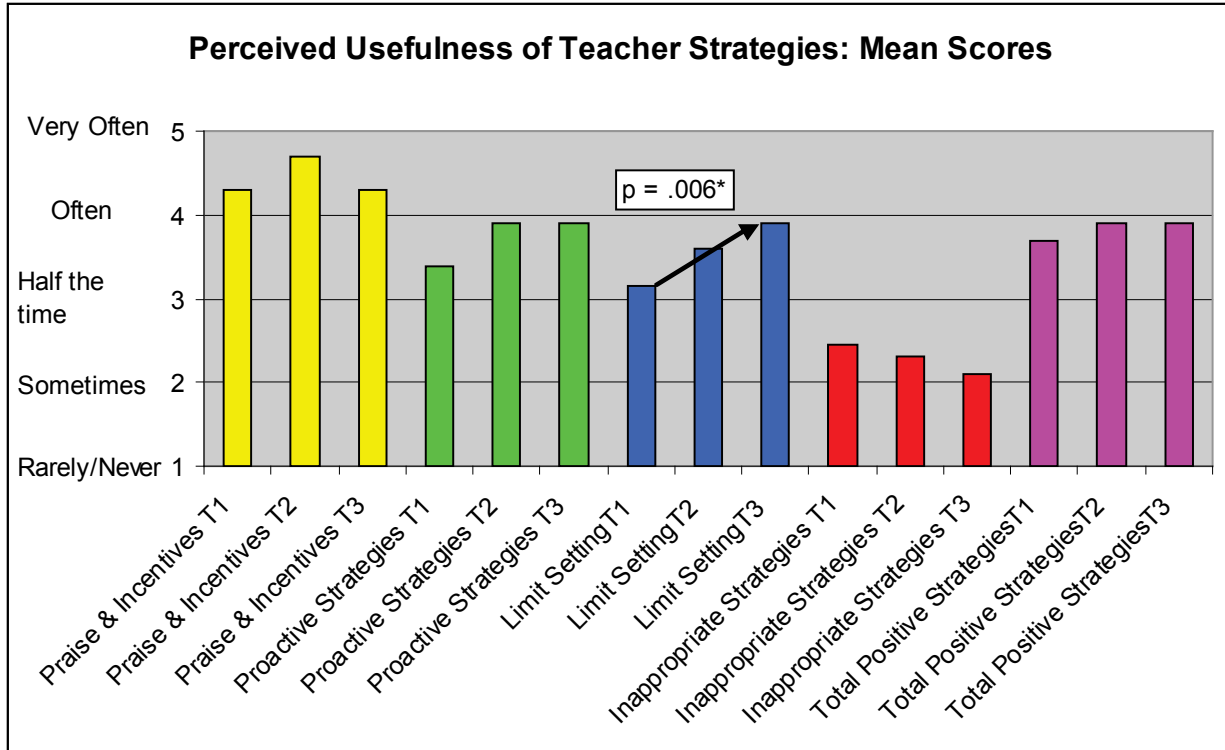**Perceived Usefulness of Teacher Strategies: Mean Scores**

Figure 4: *Perceived Usefulness of Teacher Strategies: at pre-Intervention, post-Intervention, & one-year follow-up*

Qualitative Evaluation of the Programme.

All Participants reported feeling confident or very confident that they were able to manage current behaviour problems and that they would be able to manage future behaviour problems. All would recommend the workshop to colleagues. All endorsed the approaches that had been suggested to change students' behaviour as appropriate. All reported an improvement in the behaviour of individual students on whom specific guided interventions had been targeted.   Participants expressed liking for the Practical elements of the course: immediate & helpful feedback on behaviour plans, clear handouts, video vignettes, units that

promoted positive strategies. Some participants would change the time of the course (3.30 pm to 6.30 pm) or the timing of course (February to June). Some expressed a wish for greater focus on work with parents and a desire to see video vignettes of children in Irish school settings.

Feedback from Teachers on Specific Aspects of the Programme

Workshop Strategies. All Participants found the following types of workshop strategies useful or extremely useful: information presented by group leader; suggested classroom activity assignments; and, the book, *How to Promote Children's Social and Emotional Competence (Webster-Stratton, 1999)*. Most found videotape vignettes and group discussion /sharing of ideas either useful or extremely useful.

Classroom Strategies. All participants thought that certain Incredible Years Classroom Strategies (praise & encouragement, use of incentives and redirects/distraction) were either useful or extremely useful. Most also endorsed the use of ignoring and loss of privileges/logical consequences. However, although most endorsed the usefulness of time out as an effective element of classroom management, a significant minority (almost a third) did not.

Discussion

Following a five month (two half-days per month) training course in Promoting Positive Social and Academic Behaviours, teachers from a range of different schools reported a significant improvement in their teaching efficacy in terms of their ability to engage students and to manage classrooms and this improvement was sustained at one-year follow-up. However, in response to

direct questions about their use of specific teaching strategies that had been taught as part of the course, the teachers did not report significant change in the frequency of their use of such strategies, nor in their perceived usefulness either at the end of the course or at one-year follow-up. The exception was limit-setting, a strategy which teachers perceived significantly differently (more useful) at one year follow-up as compared with pre-intervention. One possible explanation of these apparent contradictions is that, because post-intervention measures were taken at a point in time when the course was ending, findings may reflect teachers' perceptions of being better equipped to prevent and respond to problematic classroom situations although they may not yet have had many opportunities to draw on their increased behavioural repertoire. Another possible explanation is that the high number of non-responses to various items in the TSQ may have weakened the statistical power of the (positive trend) difference in scores pre- and post-intervention. It would appear, however, that the teachers did alter their approaches to the specific children on whom they chose to focus through individualized behaviour programmes. Also, the focal children showed significant positive changes on the SDQ in terms of their total emotional and behavioural difficulties scores as well as specifically in terms of their hyperactivity, peer problems, and prosocial behaviour. In addition to the interpretations of minimal TSQ changes referred to above, it may be that the low level of change reflects a slower change in the teachers' strategies with the "class in general", and that the generalisation of skills learned in working with the focal children could eventually lead to higher TSQ scores in the future. (The follow-up scores on the perceived usefulness of limit-settings support this interpretation.) In effect, post-intervention, teachers are likely to have broadened their positive response repertoire, but have yet to make full use of that repertoire across the continuum of problems that emerge from the whole class.

Overall, this study adds to the cumulative evidence for the effectiveness of the Incredible Years programmes and demonstrates the relevance of such programmes in a new educational and cultural context.

Limitations of the Study

The primary limitation of this study was the lack of a control group. It cannot be assumed therefore that positive changes observed were due to any specific element or elements of the course. The small number of teachers in the study (N = 15) lowered the generalisability of the findings. Combining numbers of participants from this study with those from a future study might yield more robust findings.

The Teacher's Strategies Questionnaire is long and difficult to complete given the small typeface and large number of questions. Some teachers failed to complete the form, and anecdotal feedback suggested it was possibly for these reasons. This may have contributed to the low level of significance of TSQ scores. Using an A3 version of the same document, and leaving more time aside at the end of the last day of the course for completion of the TSQ might have facilitated greater compliance with questionnaire completion.

SDQs were analyzed as if they had been derived from an unrelated group. However, as teachers completed the SDQs on between one and four children per teacher, there may have been teacher factors influencing the group score. The small number of cases involved precluded any statistical analysis of such factor effects.

Recommendations for Future Studies

The Incredible Years Teacher Training Programme, "Promoting Positive Academic and Social Behaviours," has been proven to be effective in reducing problem behaviour and promoting positive academic and social skills among target children in previous studies in both the US (Raver et al., 2008; C. Webster-Stratton, Reid, & Hammond, 2004) and the UK (Hutchings, 2006) . The current study suggests that it is equally likely to be effective when delivered to teachers from multiple schools in an Education Centre setting in an Irish context.   However, the programme should be repeated in a similar context with the addition of some control measures such as wait-listing, or providing the control/comparison group using only written information in the form of the book "How to Promote Positive Academic and Social Behaviours" (Webster-Stratton, 1999). Combining the findings from the current study with those of a future controlled study may lead to more robust, more generalisable findings.   Adapting measures of teacher strategies as outlined above might yield greater compliance with form completion and help to clarify the relationship between teacher sense of efficacy, specific change in target behaviour, and change in overall teacher strategies. Inclusion of other measures of child behaviour and wellbeing beyond the SDQ would give more clarity regarding the nature and degree of behaviour change over the course of intervention.

Recommendations for Future Programmes

Teaching Time Out Strategies

Achieving a balance between maintaining treatment fidelity and accommodating to the specific needs of participants is always a struggle for those who deliver evidence-based intervention

programmes, particularly when the context of delivery is culturally distinct from that in which the original programme was developed. However, previous high fidelity applications of the Incredible Years Classroom Management Programme to populations outside the US have been able to demonstrate effective outcomes (Hutchings, 2006). There is sufficient latitude within the curriculum of the programme to allow facilitators to spend more time on particular areas that present greater adaptational challenges to participants because of cultural or novel learning factors. With this in mind, we would recommend that, with teachers in the Irish Primary School context, time out is targeted for particular attention when planning the total programme, not in terms of being afforded priority as a means of intervention, but in terms of ensuring that participants can address both the cognitive and behavioural inhibitions to using such programmes when they are required. While we observed that role-playing led to greater clarity about how and when to use time out in those participants who appeared to have already embraced the acceptability of the strategy, other participants might have benefited more from increased opportunities for cognitive adaptation to the use of time out through discussion of its appropriateness, of safeguards for the child's self-esteem, and of fears around how the strategy might be perceived by others.

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Appendices

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Author Note

Footnotes

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