

# THE INCREDIBLE YEARS IRELAND STUDY

Parents, Teachers, and Early Childhood Intervention:

Long-term outcomes of the Incredible Years Parent and  
Teacher Classroom Management training programmes  
(Combined 12-month Report)

A report prepared for Archways

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## Executive Summary

This report presents a summary of the key findings relating to two separate long-term (12-month) follow-up evaluations of (i) the Incredible Years BASIC Parent Training programme and (ii) the Incredible Years Teacher Classroom Management programme. The full reports pertaining to each evaluation may be obtained from the research team.

## Background

Early childhood behavioural difficulties are becoming more prevalent (Collishaw et al., 2004) and increase the risk of poorer outcomes later in life, including academic difficulties, antisocial behaviour, criminality, and poor social adjustment. A growing body of literature highlights the importance of early intervention and prevention programmes, such as parent-training or school-based programmes, for the prevention and treatment of early childhood behavioural problems and promotion of child well-being.

The Webster-Stratton Incredible Years (IY) Parent, Teacher and Child Training Series was designed for the early treatment and prevention of conduct disorders in childhood (Webster-Stratton & Hancock, 1998). The IY series comprises a suite of comprehensive, specially designed programmes, which target children aged 0-12 yrs, and their parents and teachers, with a view to improving social and emotional functioning and reducing or preventing emotional and behavioural problems. The implementation of the IY programme in several community-based agencies and schools in Ireland began in 2004 - spearheaded by Archways, the national co-ordinator of the IY programme in Ireland - as a means of preventing and treating emotional and behavioural difficulties in children.

The *Incredible Years Ireland Study* involves a comprehensive and methodologically rigorous, community-based evaluation of the effectiveness of different elements of the IY suite of programmes, including the Incredible Years BASIC parent training programme (IYBP) and the Incredible Years Teacher Classroom Management (IYTCM) programme. To date, the short-term outcomes of two separate Randomised Controlled Trials (RCTs) of the IYBP and the IYTCM programme have been reported. The findings support the short-term effectiveness and cost-effectiveness of both programmes (see McGilloway et al., 2009; McGilloway et al., 2010; McGilloway et al., 2012a; Furlong & McGilloway, 2011; O'Neill et al, 2011). The findings from the longer-term (12-month) post-intervention outcomes of the IYBP and the IYTCM programme are reported here

## Study 1 (Section 1): Examining the longer-term benefits of the Incredible Years BASIC parent training programme in Ireland

Study 1 involved a one-year follow-up of families (n=103) who received the IYBP intervention and who had previously participated in an RCT evaluation of the programme. This study explored the extent to which the IYBP was likely to improve child behaviour and parenting competency and well-being in the longer term. The study also involved a qualitative follow-up (one-to-one interviews with parents) who had completed the programme and a cost analysis based on service utilisation data.

## Study 2 (Section 2): Examining the longer-term utility and implementation of the Incredible Years Teacher Classroom Management Programme in Ireland

Study 2 involved a one-year follow-up of teachers (n=11) who participated in the IYTCM programme and who had previously taken part in an RCT evaluation of the programme. This study explored the longer-term impact of the IYTCM programme on teacher classroom management skills and their classroom experiences. This study was carried out using a combination of quantitative, observational and qualitative methodologies.

## KEY FINDINGS

### IMPLICATIONS OF THE FINDINGS

#### Longer-term outcomes of the IYBP

- Significant reductions in child conduct disorder and hyperactive-type behaviour were seen at the 12-month follow-up, as well as significant improvements in prosocial behaviour. In total, 71% of children showed improvements in behaviour.
- The intervention had a significant beneficial effect on parental well-being and psychosocial functioning in the longer term. Parents reported lower levels of stress and distress at the 12-month follow-up.
- Parenting skills were improved with parents using more positive and fewer negative parenting strategies in the longer-term.
- Parents who took part in the one-to-one interviews described significantly improved child-behaviour, as well as closer parent-child relationships, enhanced sibling behaviour and family dynamics.
- Substantial psychosocial benefits for parents themselves were also reported, with parents describing enhanced social networks and improved coping skills. Parents' belief in their competency as a parent was also strengthened.
- A small number of parents reported that their child's behaviour had relapsed since the intervention. However, most parents managed to reinstate positive outcomes for their children and integrate the parenting skills into their daily lives.
- All parents were very satisfied with the course and would recommend the programme to other parents.
- The findings indicate a decline in service use over time (health, special educational and social care services) amongst those families who took part in the IYBP. These findings support the overall cost-effectiveness of the IYBP when compared to primary care services and the long-term cost-benefits of the programme.

#### Longer-term outcomes of the IYTCM programme

- Teacher classroom management skills were significantly improved at the 12-month follow-up, with teachers using more positive classroom management strategies and fewer negative classroom management strategies.
- Teachers found that they were able to easily transfer the skills learned to a new class and they reported that the programme continued to be of use 12 months post-intervention.
- The one-to-one interviews highlighted a positive post-TCM classroom environment. Teachers described the classroom as a calmer, more pleasant place in which to work and learn.
- Post-intervention, teachers were more confident in their ability to manage their classrooms effectively and to deal with disruptive behaviour. Overall, teacher well-being was enhanced as a result of participating in the IYTCM programme
- Teachers reported strengthened relationships with the pupils in their class and a greater focus on developing positive teacher-pupil relationships
- Teachers reported improved child adjustment in school and were more active in encouraging prosocial and positive child development.
- Generally teachers regarded the IYTCM strategies to be of considerable practical use in the classroom. However, it was noted that for a minority of children (e.g. children with special needs in mainstream classrooms), some techniques were ineffective.
- All teachers unequivocally stated that they would recommend the TCM programme to a colleague.
- Teachers recommended that the programme should be implemented on a whole-school basis.

## FOR PARENTS, TEACHERS AND SCHOOLS...

- Positive child behaviour/adjustment was sustained over the longer-term, with fewer incidences of disruptive and challenging behaviour in the home and in the classroom.
- Benefits for parents and teachers as a result of taking part in the IY programmes included improvements in overall well-being, and increased confidence and skills for managing challenging child behaviour. Overall, the strategies and techniques gained by parents and teachers from the IY programmes continued to be of value one year later.
- These findings are important as both the child's home and school environments play a crucial role in enhancing and promoting positive child well-being and outcomes in later life.
- Parents and teachers were very satisfied with the IY programmes and were more confident in their parenting and teaching competencies; in particular, schools might consider implementing the IYTCM programme on a whole-school basis in order to maximise its benefits and value in both the short and longer term.

## FOR POLICY MAKERS...

- The adverse effects of emotional and behaviour difficulties and their long-term consequences in late childhood and adolescence, point to the need for effective early intervention and preventative measures. The findings from this research, which support the longer-term effectiveness of the IY BASIC parent programme and the IY Teacher Classroom Management programme, are important in informing future public health and educational policy and initiatives in Ireland (and elsewhere).
- The National Children's Strategy (2000) recognises the important role of the child's environment, both in the welfare of children and in determining key outcomes for children. It also highlights a commitment by the Irish Government to promote the emotional and behavioural well-being of children through the provision of early intervention supports and services. Overall, our findings show that evidence-based programmes, when implemented with fidelity and in some of the most disadvantaged settings in Ireland, can result in sustained improvements in child behaviour and adjustment, as well as improvements in parent and teacher well-being.
- The findings also point toward the cost-effectiveness of the IY Parent and Teacher programmes and their potential utility for tackling longer-run social inequalities. Considerable cost savings may be generated in the longer-term through a reduced reliance on health, social care and special educational services.

## FOR RESEARCHERS...

- Research on the longer term effectiveness of parenting and teacher programmes on child outcomes is limited. Further longitudinal research is needed to investigate the longer term effects on child outcomes (and attendant costs) of intervention programmes when implemented in the early years.
- The moderating and mediating factors which facilitate or hinder positive outcomes of early intervention and prevention interventions (e.g. family characteristics, behaviour change or socioeconomic variables), should also be explored. A thorough understanding of what works best for whom and under what circumstances, can help to enhance the effectiveness of such interventions and ensure optimal outcomes for all children.
- The combination of parenting programmes with child and/or school-based interventions may help to further promote and foster positive child outcomes. Future research should explore the cost-effectiveness of these kinds of supplementary interventions as a means of enhancing the support for parents and children alike. Future work might also consider the possible resource implications of introducing a universal parenting programme in an Irish context.



## BACKGROUND

### Early childhood emotional and behavioural problems

Early emotional and behavioural difficulties may be evident in the form of oppositional, aggressive and non-compliant behaviour, and in extreme cases can include formal psychiatric conditions such as Conduct Disorder (CD), Oppositional Defiant Disorder (ODD), and Attention Deficit Hyperactivity Disorder (ADHD). Such emotional and behavioural difficulties are the primary cause of functional disability in young children and have become increasingly common and disabling for families (Collishaw et al., 2004). Recent research in Ireland, based on both parent and teacher reports, indicates that 7%-8% of children (aged 9 years) experience abnormal emotional and behavioural problems (Growing up in Ireland, 2009); however, such difficulties tend to be more prevalent in children from socioeconomically disadvantaged backgrounds. Numerous studies indicate that early onset problem behaviour has serious negative consequences later in life (e.g. Fergusson, 2005; Colman et al., 2009). Children who display behavioural difficulties at an early age are at an increased risk of poor educational outcomes and early school leaving (Evans et al., 2003; Drugli et al., 2010), mental health and social difficulties (Loeber, 1990), substance abuse (Odgers et al., 2008), as well as poor employment prospects and increased reliance on welfare and social care systems (Scott, 2005). It is now widely recognised that a lack of understanding and treatment of childhood conduct problems has significant implications for adolescent well-being and adult adjustment and productivity, thereby highlighting the need for effective early intervention and prevention programmes and strategies (Cummins & McMaster, 2006).

### The etiology of emotional and behavioural problems

The emergence of emotional and behavioural difficulties in childhood has been attributed to a number of interacting factors which include individual child characteristics (e.g. gender, temperament, cognitive functioning) and contextual/environmental factors (e.g. family, neighbourhood, socioeconomic conditions). Commonly, the development of conduct disorder in childhood has also been attributed to an accumulation of risk factors, whilst a relationship between the number of risk factors experienced by a child and the incidence of serious antisocial behaviour, has also been demonstrated (Loeber & Farrington, 2001). The effect of familial factors, such as parental involvement and family adjustment, on child emotional and psychological well-being has been well researched. Much evidence suggests that inadequate parenting practices, such as inconsistent and aversive disciplining strategies, low levels of parent-child involvement, and parental psychopathology play a significant role in the development and incidence of childhood behavioural problems. An increasing body of literature also highlights the importance of schooling and teacher-child relationships for child adjustment. Positive teacher-child relationships and schooling environments can play an important role, both academically and psychologically, in encouraging positive child development (Hamre & Pianta, 2005; Brophy-Herb et al., 2007).

### The importance of early intervention and prevention

Early intervention and prevention programmes consist of a wide range of interventions designed to improve the lives of young children and their families (Webster-Stratton & Taylor, 2001). Programmes which aim to reduce in childhood emotional and behavioural difficulties may be parent or teacher/school- and/or child-focused in their orientation. Empirical evidence indicates that appropriate interventions when implemented early in childhood can prevent the development of conduct problems (Lacourse et al., 2002; Hartman et al., 2003; Beuchaine et al., 2005; Tremblay, 2010). Indeed, it has been argued that the early years of a child's life represent a particularly important period with respect to brain and behavioural development and, consequently, what occurs in these formative years may predict future outcomes (Allen, 2011). It is during this important stage of development when treatments and interventions for behavioural problems can be most effective (Currie, 2000; Dawson et al., 2000, Allen, 2011). There are also key questions in relation to cost-effectiveness as conduct disordered behaviour in childhood is associated with substantial costs to special educational, health and social care services (Scott et al., 2001a). Thus, interventions introduced early in childhood can help to prevent long-term negative outcomes for children and promote positive outcomes, whilst also yielding potential economic benefits in terms of reduced spending on formal services.

<sup>1</sup> This research will be examined in more detail later in the report.

## The Incredible Years Parent, Teacher and Child Training Series

The Webster-Stratton Incredible Years (IY) Parent, Teacher and Child Training Series was designed for the early treatment and prevention of conduct disorders in childhood (Webster-Stratton & Hancock, 1998). The IY series comprises a suite of comprehensive, specially designed programmes, which target children aged 0-12 yrs, and their parents and teachers, with a view to improving social and emotional functioning and reducing or preventing emotional and behavioural problems (see Fig. 1).



Fig 1: The Incredible Years suite of programmes

The Incredible Years Basic parent training programme (IYBP) and the Incredible Years Teacher Classroom Management (IYTCM) programme are core elements of the Incredible Years (IY) series. Both programmes are guided by the behavioural principles of operant conditioning and social learning, and aim to strengthen parent and teacher skills respectively and ultimately improve child outcomes. Considerable work has been undertaken in developing, assessing and refining the IY series (e.g. Webster-Stratton, 1989; Webster-Stratton & Hancock, 1998; Reid & Webster-Stratton, 2001) and both programmes, particularly the IYBP, have been extensively researched. Indeed, a growing body of research supports the effectiveness of the IY programmes, indicating that the IYBP and IYTCM programme can result in considerable benefits for child adjustment. However, despite robust evidence in the short-term, relatively little is known about the longer-term impact of these kinds of programmes on parent, teacher and child outcomes.

## The Incredible Years Ireland Study: An overview

This research report presents the findings from two separate, long-term follow-up evaluations of: (1) the IYBP and (2) the IYTCM programme. The implementation of the IY programme in several community-based agencies and schools in Ireland began in 2004 - spearheaded by Archways, the national co-ordinator of the IY programme in Ireland - as a means of preventing and treating EBD for parents of children identified as high risk for conduct disorders. This work provided the foundation for the *Incredible Years Ireland Study*.

The *Incredible Years Ireland Study* involves a comprehensive and methodologically rigorous, community-based evaluation of the effectiveness of different elements of the IY suite of programmes. Our first Randomised Controlled Trial (RCT) evaluation of the IYBP programme highlighted the short-term effectiveness of the parent-focussed programme as an intervention for early childhood behavioural problems in disadvantaged community-based settings in Ireland (McGilloway et al., 2009; O'Neill et al., 2011; McGilloway et al., 2012; Furlong et al., 2012). The second RCT, involving the evaluation of the IYTCM programme, highlighted the short-term effectiveness of the teacher-focussed programme in providing teachers with the appropriate skills and strategies to reinforce positive child behaviour and to promote appropriate classroom behaviour (McGilloway et al., 2010). An additional third, small-scale RCT has just been completed which examined the combined effects of parent plus DINA training on children with symptoms of ADHD (McGilloway et al., 2012b).

The findings from the longer-term (12-month) post-intervention outcomes of the IYBP will be presented in Section 1 of this report. In Section 2, the longer-term (12-month) outcomes of the IYTCM programme will be reported. Additional findings on service utilisation and costs are presented in Section 3.

## SECTION 1:

### EXAMINING THE LONGER-TERM BENEFITS OF THE INCREDIBLE YEARS BASIC PARENT TRAINING PROGRAMME IN AN IRISH CONTEXT

In this section, we report on the longer-term (12-month) findings from the evaluation of the Incredible Years BASIC parent training programme (IYBP). Our previous, short-term findings from a Randomised Controlled Trial (RCT) demonstrated how the IYBP can reduce conduct disordered behaviour amongst young children, strengthen parenting skills and improve parent well-being whilst also showing good evidence of cost-effectiveness (McGilloway et al., 2010; McGilloway et al., 2012a; O'Neill et al., 2011). The aim of the study reported here, was to establish whether the benefits of the IYBP seen in the short-term, were maintained in the longer term, at one-year post-intervention.

## Introduction

Research has demonstrated that ineffective parenting practices are consistently linked with the development of childhood conduct disorders and socioemotional problems (Campbell, 1995; Shaw & Winslow, 1997; Collins et al., 2000). Inconsistent parenting practices and low levels of parental supervision and involvement can increase the risk of behavioural deviance and psychological maladjustment. This, in turn, can initiate a maladaptive trajectory for childhood conduct disordered behaviour, increasing the risk of poorer outcomes in later life (Patterson et al., 1990).

Parenting programmes have become increasingly popular and have been identified as an important element of early intervention strategies that aim to improve child functioning (Gardner et al., 2006; NICE, 2007; Allen, 2011). There is now strong evidence to show that parenting-focused interventions, which are based on behavioural and social cognitive principles and which aim to improve parent-child relationships and strengthen parenting skills, are effective in tackling EBD in childhood (Brestan & Eyberg, 1998; Barlow et al., 2005; Allen & Smith, 2008; Barlow et al., 2010; Furlong et al., 2012). The Incredible Years Basic parent training programme (IYBP) is considered a “model” parenting programme (NICE, 2007) for tackling early childhood behavioural problems. A considerable body of research suggests that the IYBP significantly improves parent-child interactions and child behaviour outcomes in the short-term (e.g. Webster-Stratton, 1989; Webster-Stratton & Hancock, 1998; Reid & Webster-Stratton, 2001; Reid et al., 2004). More recent research in the UK, Canada and Norway has also shown promising results (e.g. Scott et al., 2001b; Gardner et al., 2006; Hutchings et al., 2007a; Larsson et al., 2009; Bywater et al., 2009). However, despite the evidence in support of the effectiveness of parenting programmes such as the IYBP, less is known about their longer-term impact (Weisz et al., 2005). To date, only a relatively small number of studies have shown that the effects of parent training on child adjustment, including reductions in misbehaviour and non-compliance, are maintained in the years following parent-training intervention.

## Aims and objectives of the current study

The study reported here, involved a one-year follow-up of families who received the IYBP intervention and who had previously participated in an RCT evaluation of the programme. The specific research questions were as follows:

- To what extent is the IYBP likely to improve child behaviour (e.g. conduct and hyperactivity problems and pro-social skills) in the longer term?
- Is it likely that the intervention will result in longer term changes in parenting competency and psychosocial well-being?
- How do the experiences of parent participants change over time and what factors influence the perceived effectiveness of the programme in the longer term?
- What are the patterns of service utilisation (health, social and special educational) amongst intervention children over time and what are their associated costs?

## Study Design

The study involved three separate, but inter-related elements including: (1) a longer-term follow-up study; (2) a qualitative study involving one-to-one interviews with parents who had completed the programme approximately six months earlier (and for a reduced subsample approximately 12 months earlier); and (3) a cost analysis based on service utilisation data.

## The Intervention: The Incredible Years BASIC parent training programme

- The IYBP programme is a **brief, group-based intervention** guided by the principles of behavioural and social learning theory:
  - It consists of 12–14 weekly sessions, each of which lasts for 2 to 2.5 hours. Two group facilitators help to deliver the programme.
  - Approximately 12 parents participate in each group and partners are encouraged to attend.
- The programme uses a **collaborative approach**:
  - Group discussions, videos, role play and modelling are some of the methods used to help parents adopt positive parenting strategies.
- The programme **promotes positive parenting**:
  - Improvements in parent-child relationships are targeted through the promotion of child-directed play.
  - Parents are also encouraged to use praise and incentives to reinforce positive child behaviour.
  - Problem behaviours are addressed by non-aversive parenting strategies such as limit setting.
- **Barriers to programme attendance** are addressed by offering transport, refreshments and childcare.
- The IYBP intervention is considered a ‘model programme’ for tackling childhood behavioural problems (NICE, 2007).

(Webster-Stratton, 1989)

# 1. THE LONGER-TERM FOLLOW-UP STUDY OF THE INCREDIBLE YEARS BASIC PARENT TRAINING PROGRAMME

## Design of the study

In the previously reported RCT evaluation, participants were blindly and randomly allocated to either the IYBP intervention (n=103) or a waiting-list control group (n=46) and then followed up and compared after six months (please see McGilloway et al., 2009, 2012a for further information). For the purposes of the study reported here, the intervention group families were subsequently followed up again at 12-months post-baseline assessment. Only families allocated to the IYBP intervention group at baseline were included in the 12-month post-intervention assessments. For ethical reasons, the control group was offered the intervention after the six month follow-up assessments and could not, therefore, be assessed at the 12-month follow-up.

## Participants and settings

This study was carried out in typical community-based services in Ireland. These services were based in four urban areas which, as indicated by demographic profile, social class composition and labour market situation, were designated as socioeconomically disadvantaged (Haase & Pratschke, 2008).

At baseline, the intervention group participants included 103 parents and their children (aged 32–88 months) who had been referred to the IYBP programme due to persistent and clinically significant conduct problems and oppositional behaviour.

## Participant Characteristics

- The mean age of parents who took part in the study (mostly mothers) was 34 (SD=7.45).
- Most parents (73%) were married (21% were lone parents and 11% were separated or divorced).
- 64% of participating families were considered to be 'at risk' of poverty.
- 63% (60/103) of the child participants were boys. The children taking part in the study were, on average, 5 years old (SD=15.4).
- On average, children in the study were at risk of developing conduct disorder. Risks for conduct disorder include: single parenthood; teenage parenthood; parental depression; family poverty; and parental history of drug abuse or criminality.

## Study retention

At the six-month follow-up, 95 (92%) intervention group participants completed the assessments. At the 12-month follow-up, 87 (84%) of the original 103 families allocated to the parenting programme were successfully contacted and re-interviewed.

## Assessments/Measures

A battery of standardised psychometric measures and a 'live' observation were used to assess child behaviour and social skills and parenting competency and well-being.

## Child-related measures

The primary outcome measure, the Eyberg Child Behaviour Inventory (ECBI; Eyberg & Pincus 1999), was used to assess the frequency and intensity of problem behaviours ('Problem' and 'Intensity Scales' respectively) in the index child; this was also administered to the sibling closest in age (where applicable). The Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) was used to ascertain the nature and extent of conduct problems, hyperactivity, emotional symptoms, peer problems and pro-social behaviours. The Conners Parent/Teacher Rating Scale (Conners, 1994) was employed to measure hyperactivity whilst pro-social behaviour and communication were assessed using the Social Competence Scale (Corrigan, 2002).

## Parent-related measures

The background of parents and their overall health and well-being were assessed using: a Profile Questionnaire (PQ) (e.g. demographic and health risks); the Parenting Stress Index (PSI; Abidin, 1995); and the Beck Depression Inventory (BDI; Beck et al, 1961).

## Independent Observation

The Dyadic Parent-Child Interaction Coding System (DPICS; Robinson & Eyberg, 1981) was used to observe parent-child interaction in the home and, in particular, to record incidents of positive and critical parenting practices. All members of the fieldwork team received intensive training in the use of this method.

## Key Findings: 12-Month Outcomes

Statistical analyses were conducted to compare child and parent scores on all key measures from baseline to 6-month and 12-month follow-up. Overall, the findings demonstrate significant improvements in both child and parent behaviour from baseline to 12-month follow-up, for the intervention condition (on all measures). There were no statistically significant differences between the 6- and 12-month follow-ups. Hence, it may be inferred, albeit in the absence of a control group comparison, that the post-intervention improvements in child and parenting behaviour observed at the six-month follow-up, were likely to have been maintained in the longer-term.

### Child Outcomes

- Significant reductions in conduct disordered behaviour were seen at the 12-month follow-up on both the ‘intensity’ and ‘problem’ sub-scales of the ECBI. A mean difference of 37.45 between baseline and 12-month follow-up was found on the ECBI intensity scale (95% confidence interval (CI) 30.13 to 44.78,  $p < 0.001$ ) with a large effect size of 0.97. Similarly, a significant difference in problematic behaviours was found with a mean difference of 9.13 on the problem scale (CI 7.25 to 11.01,  $p < 0.001$ ) and an effect size of 1.09. There were no statistically significant differences on either of the ECBI subscales between the 6- and 12-month follow-up time points, indicating that the substantial improvements in child behaviour were likely to have been maintained at the 12-month follow-up (see Figs 2 & 3).
- Significant reductions in hyperactive-type behaviours, as measured on the Conners scale and the SDQ hyperactivity subscale, were found to be sustained at the 12-month follow-up, whilst improvements in pro-social behaviour were also evident.
- Significant longer-term improvements in child social adjustment, as measured by the Social Competence scale, were also found. Scores relating to peer-problems showed that the effect of the intervention was likely to have been maintained at the 12-month follow-up.
- Overall, the findings suggest a robust effect of the intervention indicating that the IYBP programme is likely to result in longer term reductions in problematic child behaviours, such as aggressive, externalising, hyperactive and oppositional/non-compliant behaviours.

- In total, 71% (73/103) of child participants from the intention-to-treat sample showed at least modest change (on the main outcome measure, the ECBI) with respect to the intensity of problem behaviour between the baseline and 12-month follow-up. Within this sub-group, 58 participants showed a large change, while 41 participants made a very large change in the longer-term (i.e. 56% and 41% of the total intervention group sample (n=103) respectively).
- A significant reduction was also seen with respect to problem sibling behaviour from baseline to the 12 month follow-up. Indeed, large effect sizes of 0.63 (95% confidence interval 0.36 to 0.89) on the intensity subscale and 0.69 (0.41 to 0.97) on the Problem subscale at 12-month follow-up, suggest longer term accumulative benefits for sibling behaviour. Notably, these were not seen at the six-month follow-up.

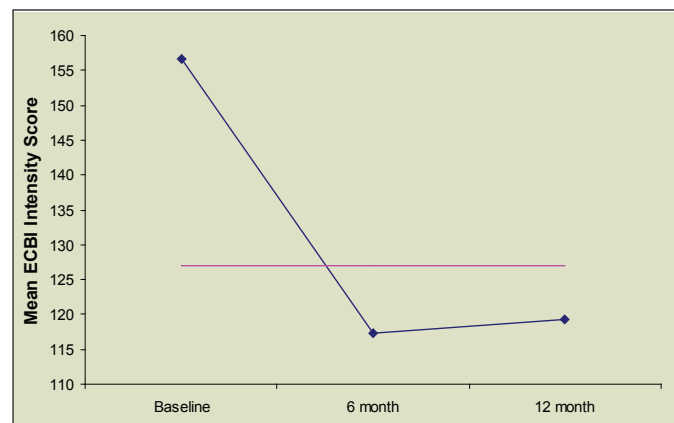


Fig.2: ECBI mean ‘intensity’ scores for the intervention group at the baseline, 6-month and 12-month follow-ups

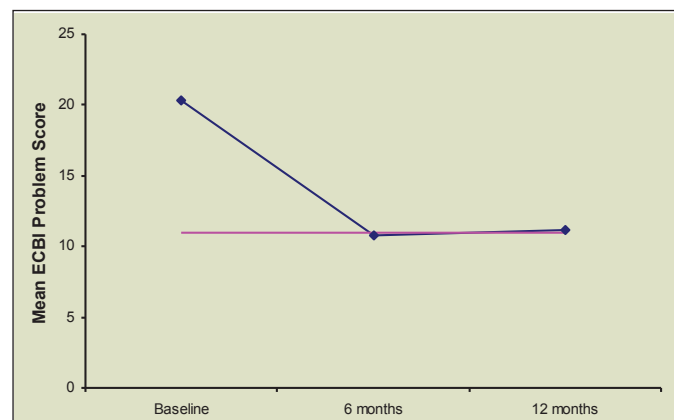


Fig.3: ECBI mean ‘problem’ scores for the intervention group at baseline, 6-month and 12-month follow-ups

<sup>1</sup> Effect sizes at 6 months: Intensity subscale=0.41, confidence interval 0.15 to 0.66; Problem subscale=0.49, confidence interval 0.19 to 0.78.

**Parent outcomes**

- The intervention had a significant positive effect on parental well-being and psychosocial functioning in the longer term. At the 12 month follow-up, parents reported lower levels of stress and psychological distress indicating possible sustained benefits with respect to parental psychosocial functioning (Fig 4).
- Analyses of the observational data highlighted an additional sustained effect of the intervention on parenting skills. Figure 5 shows a significant increase in the observed use of positive parenting strategies between baseline and the 12-month follow-up. A mean difference of 14 (95% confidence interval 21.21 to 7.6,  $p < 0.001$ ) was found between the baseline and 12-month follow-ups on observations of positive parenting during parent-child interaction. These improvements in positive parenting were supplemented by a significant decrease in negative or critical parenting strategies, which were also maintained at the 12-month follow-up (Fig 5).
- A further sustained positive effect of the IYBP intervention was found with regard to marital adjustment; higher mean scores at the 6- and 12-month follow-ups when compared to baseline were found on the O’Leary-Porter scale. This suggests that parents were less likely to report conflict with their spouse with respect to disciplinary matters, or in the presence of the child.

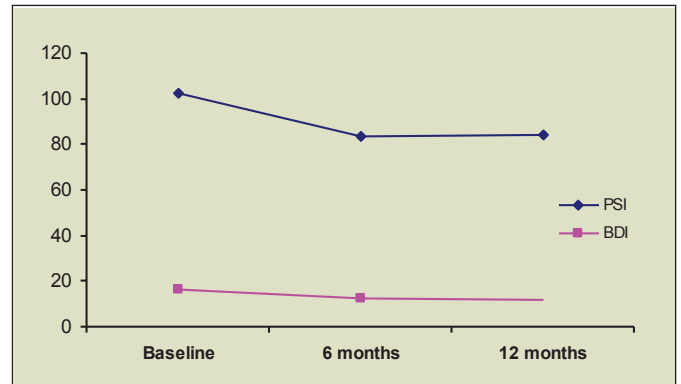


Fig.4: Parent PSI and BDI mean scores for intervention group at baseline, 6-month and 12-month follow-up

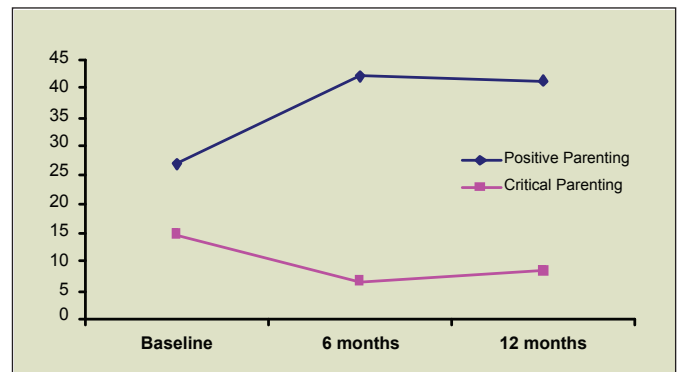


Fig.5: Mean scores for Positive Parenting and Critical Parenting for the intervention group at baseline, 6-month and 12-month follow-up

## 2. THE QUALITATIVE STUDY: PARENTS' EXPERIENCES AND VIEWS

### Participants/interviewees

A series of one-to-one semi-structured interviews was undertaken at the 12-month follow-up with 20 parents (16 mothers and 4 fathers) who had participated in the IYBP programme. A further 8 parents (7 mothers and 1 father) were also interviewed at the 18-month follow-up. All of these parents had also participated in the 12-month follow-up interviews. All interviews took place in the parents' homes.

### Procedure/analysis

An interview schedule was devised to guide and provide a framework for the interview. The data from the semi-structured interviews were analysed using Constructivist Grounded Theory (Charmaz, 2006). Emergent themes were summarised and organised to establish their inter-relationships and generate a number of super-ordinate themes. Each is described separately below.

### Key Findings

Previous findings highlighted the considerable benefits of the IYBP intervention which parents attributed to learning positive parenting skills and gaining non-judgmental support from the group, as well as in- and post-intervention challenges of learning the new skills. At the 12-month follow-up, parents described some notable continuities and discontinuities in their experiences since the short-term follow-up. Three key themes were identified including: (1) maintaining and improving upon positive change; (2) coping with relapse in child positive behaviour; and (3) reflections on improving course delivery.

### Maintaining and improving upon positive changes

- Many of the parents reported that they had succeeded in maintaining, and in some cases, improving upon the positive outcomes that they had achieved post-intervention. They described considerably improved child behaviour at home and in school, although some children still experienced some social interaction problems with their peers. These findings support and amplify the outcomes from the quantitative analysis.
- Overall, parents reported closer parent-child relationships, enhanced sibling behaviour and family dynamics, as well as substantial benefits for parents themselves including an increased capacity to cope with parenting stresses.

- Many parents had incorporated the skills naturally into their daily lives whereas other parents still found it 'hard work' and had to make an ongoing conscious commitment to implementing the skills or else they would let them 'slide'. Parents also attributed their success in changing their parenting strategies to feelings of increased confidence in their competency as a parent. In addition they reported taking more time out for themselves (e.g. developing interests and an identity aside from being a parent) and benefiting from an improved social support network (through staying in contact with parents from group).

**Father (5-year-old girl):** "I spend some time with her every day. It doesn't always have to be play. It could be cooking or gardening. We do that all the time. She helps me looking after the vegetables."

**Mother (6-year-old girl):** "You have to be willing to put the work into it all the time and it will work. I think the temptation when you finish the course is to say, 'Right, I've finished the hard work. The kids are fine. That's it now'... You have to be willing to keep learning because no two days stay the same. It's a new challenge everyday you get up with the kids... just because you might be a million times better than before you might still have a bit of work to do around a certain theme. And sometimes I question, 'Am I being a harsh parent?'...It's tough...but it's worth it because your child is only going to turn out how you helped it."

**Mother (5-year-old boy):** "I learned to appreciate myself whereas before I thought I was a terrible parent. Other people can often be full of lecturing or pretending their kid has no problem so it's hard not to feel judged. It's so easy to feel on your own as a mother and that everyone has it sorted but you. But there was no judging in there [in the IY group]. Everyone just supported each other..."

- At 18 months, six parents continued to report accumulative positive outcomes for their children, siblings and themselves, and indeed three parents reported a substantial improvement in their child's social skills. At this point, these parents appeared to have assimilated the skills naturally into their lives, were adept at fine-tuning their skills and had become increasingly fluent in knowing which skills to use in which situation.



## Coping with relapse in child positive behaviour

- At the 12-month follow-up, 8 parents reported that their child's behaviour, albeit varying in intensity and duration (ranging from one to four months), had relapsed considerably since the six-month follow-up assessment. Relapses in child behaviour were associated with:
  - a. the relinquishment of parenting skills in stressful times; and
  - b. the negative influence of an unsupportive partner, school or antisocial neighbourhood.
- Despite relapses in child behaviour, all but two of the parents had managed to reinstate positive outcomes for their children when interviewed at the 12-month follow-up. Key indicators of the successful recovery of parenting skills included: self-empathy; being proactive in seeking support; improved parent confidence in their ability to cope with their child's behavioural challenges; and decreased feelings of isolation.
- At 18 months, only 2 of the 8 interviewed parents experienced increasing difficulties in applying the skills. These parents had suffered a relapse between the 6- and 12-month periods, due to relinquishing parenting skills in stressful times, but had regained some measure of equilibrium at the 12-month follow-up stage. However, at 18 months, they admitted that they often found it easier to return to their old parenting method rather than persevere with conscientiously applying the new IYBP skills. There was also some evidence that both parents were confused in their application of techniques, such as rewards, 'ignore' and time-out whilst they had also experienced a significant number of other personal stresses in their lives.

**Mother (6-year-old girl):** "You are so busy and because everything else in life is pulling you in all different directions and sometimes you are actually neglecting them without realising, like playing with them, you know... and sometimes you have a bad day in work and you just break all the house rules, like shout and roar at them... and of course it affects them, you would see a slip in their behaviour...I felt so far gone that I couldn't bring it back. It took me at least a few months to bring back the basics again."

**Mother (5-year-old boy):** "And I mean at the end of the day if something happens you just say, 'Ok, forget it. Let's move on' - rather than always concentrating and dwelling on their bad behaviour and your bad behaviour and beating yourself up inside, to just move on."

## Reflections on improving course delivery

- All parents said that the course far exceeded their expectations and all parents indicated that they would like to attend the IY Advance Parenting course and that they had been enthusiastically recommending others to take part in the IYBP programme.
- Parents believed that the future implementation of the programme could be enhanced through improving early referral systems. For example, it was suggested that more public health nurses, pre-schools and national schools could be informed about the programme. Introducing post-course support for parents at stressful junctures was also suggested. Although some parents sought support from the group facilitators during relapse, others reported that they would like the group facilitators to take a more proactive role in contacting them, or in establishing intermittent follow-up meetings in order to offset any emergent feelings of inadequacy and shame.

Other suggestions for improvement included:

- Changing aspects of course delivery and content including reducing the number of sessions dedicated to play, and allocating more time to problem-solving; dealing with fighting between siblings; dealing with bullying; and teaching parents how to manage their own emotions and coping skills during times of personal stress.
- Introducing a break every four weeks to provide time for skill consolidation and practice.
- Modernising, and involving Irish parents in, the programme material and vignettes.
- Increasing the participation of partners in the course.

**Mother (5-year-old girl):** “I didn’t want the course to end, but looking at it long-term, if they want to roll it out across Ireland, they may have to think about the 14 weeks...I definitely think that some parts could be shortened, like I grasped what they were saying around child-led play very quickly so they could have cut some of those sessions. But then again they kind of rushed through the problem solving part and I would have liked more time around that...I know people need time to practise as well though. I wonder could it be cut without losing what it’s about, you know?”

**Mother (4-year-old boy):** “The only thing I felt let down by was that once the course was finished, there should have been meetings even once every three months, even just for the first year...I was going through a real bad patch and I’d gone so far out of the programme that I needed help. I know I should have rung them [the group facilitators] but what stopped me was that I hadn’t heard from them since the end of the course and it’s weird to speak to someone after that time and say, ‘Do you remember me? I was the one in a session in April nine months ago’. I felt stupid that they wouldn’t remember me or that they would be like, ‘We gave you all the tools so you should know what to do’... They probably wouldn’t have said that, but I just felt so low and ashamed of myself.”

### 3. SERVICE UTILISATION AND COST ANALYSIS

The third and final study involved an analysis to examine the potential longer-term impact of the IYBP intervention on service utilisation and associated costs. Detailed information on the use of health, social and special educational services was collected at the baseline, 6-month and 12-month follow-up time points and then costed in order to assess the potential longer term impact of the IYBP programme on service-related costs.

#### Participants

The sample of 103 parents who were originally randomly assigned to the intervention group, constituted the base sample size for the service utilisation cost analysis at the 12-month follow-up. Of the 103, 16 failed to provide any valid follow-up data on service use (7 of these were missing at the 6-month follow-up whilst an additional 9 parents were lost to follow-up at the 12-month assessment). Thus, service use and cost data were available for 86 participating parents at all three assessment points.

#### The cost analysis

An adapted version of the Client Service Receipt Inventory (CSRI) was used to record the frequency with which health, educational and social services were used by parents and their children during the previous six months. The adapted CSRI was administered along with the other parent-report measures described earlier. The costs associated with service usage were also collated from a variety of sources and agencies.

#### Key Findings: Longer-term costs of service use

- The most commonly used services in the primary care sector were GPs, nurses and speech therapists. The use of Special Needs Assistants (SNAs) was also commonly reported.
- The findings from the 12-month follow-up indicate a decline in service use for the intervention group. In particular, there was a substantial decline in the use of many primary care services, as well as less contact with social workers for those who received the intervention (Table 1). This decline in service use is consistent with improved child behaviour seen in the intervention group and enhances the overall cost-effectiveness of the programme.
- In some cases, additional declines in service use over and above those reported in our previous work, were apparent. For example, the proportion visiting a GP fell a further 8 percentage points and, after 12 months, was 40% when compared to 65% at baseline. Likewise, there was an additional decline in the numbers visiting speech therapists.
- Data relating to participant service use was combined with service utilisation costs in order to estimate the change in service use costs which may be associated with attending the IYBP programme. Hospital services and special education needs accounted for the bulk of the service costs. The fall in service use over the three waves of data collection resulted in a reduction in associated service costs. Indeed, the cost of service use amongst the intervention group was only 60% of that observed at baseline.
- If we further infer that short-term reductions in health, social care and special education services, as a result of the IYBP intervention, are likely to persist into the future, then further savings may also accrue. These findings support the overall cost-effectiveness of the IYBP when compared to primary care services and the long-term cost-benefits of the programme.

Service	Sample (n=103)		
	Baseline	6 month follow-up	12 month follow-up
GP	65	49	40
Nurse	8	5	2
Speech Therapist	24	15	9
Physiotherapist	6	2	3
Social Worker	10	1	2
Community paediatrician	5	3	0
Special Needs Assistant	11	11	13
Casualty department (A & E)	15	14	11
Outpatient consultant appointment	22	14	16
Overnight stay in hospital	7	8	6

Table 1: Proportion (%) using health and social care, and education support services at baseline and follow-up

- Additional findings:** If we further infer that short-term reductions in health, social care and special education services, as a result of the IYBP intervention, are likely to persist into the future, then we can calculate the present value of the reduction in costs for the intervention due to lower service use for a range of assumed years and using different discount rates. For instance, our six-month results showed an average reduction in costs per child of €174 for the use of all services during the first six months post intervention. However, the 12-month results showed that, in addition to these savings, the costs for the following 6-month period were a further €421 lower giving a combined savings over the year of €595. If we assume that this effect persists for 10 years, we can calculate a saving (per child) of either €4824 (assuming a discount rate of 5%) or €4021 (assuming a discount rate of 10%) (see Table 2) during that period.

Years (N)	Costs savings	
	5% Discount	10% Discount
3	€1701	€1627
5	€2705	€2481
10	€4824	€4021

Table 2: Projected cost savings over the longer term

## DISCUSSION

This study involved a comprehensive assessment of the longer-term effectiveness of the IYBP intervention on child behaviour and parent adjustment. The collective findings presented here, suggest that the IYBP is likely to have been effective in producing longer-term, positive changes in child problem behaviour and parental well-being and competency in a sample of 'at-risk' families. Participation in the IY parenting programme led to a number of statistically significant improvements in child behaviour from baseline to 12-month follow-up. Positive effects with respect to parental competency and well-being were also found. The lack of any change between the 6- and 12-month follow-up assessments supports the study hypothesis and suggests that any benefits of the IYBP programme that were identified at six months, were likely to have been sustained for children and their families in the longer run.

These findings build upon our previous work (McGilloway et al., 2009; 2012a) by illustrating the maintenance of positive changes in child outcomes at 12-months post-intervention. However, it is important to reiterate that our previous short-term evaluation included a waiting-list control group who subsequently received the intervention (after six months). Whilst this strategy/design is typical of long-term outcome studies conducted elsewhere (e.g. Gardner et al., 2006; Bywater et al., 2009), the findings should, nonetheless, be interpreted with caution. However, the triangulation of findings from several sources, shows consistently maintained benefits for children across all primary and secondary outcome measures and no statistically significant changes in a negative direction; these findings suggest that any changes in child outcomes were unlikely to be due to chance alone.

### The impact of the IYBP on child and parent outcomes

Our results show that children of parents who attend IYBP training can make significant gains in socioemotional and behavioural adjustment in the longer term. At the 12-month post intervention assessment, parents continued to report significantly reduced levels of child conduct disordered and hyperactive-inattentive behaviours, as well as increases in pro-social behaviour. Participation in the IYBP programme helped to increase parents' use of positive parenting strategies and reduce the frequency of critical disciplinary strategies in the longer term. Positive parenting strategies, characterised by high levels of warmth and appropriate and proactive discipline, can strengthen the parent-child bond and help to reduce the risk of conduct disorder (Nicholson et al., 2005; Salekin & Lochman, 2008). Moreover, previous research has identified positive parenting as a key mediator of change in child outcomes in parent-training intervention trials (Gardner et al., 2006; 2010). Further benefits to parental psychosocial functioning were also evident, with parents reporting reductions in levels of stress and depression at the 12-month follow-up.

Almost three-quarters (71%) of children showed at least modest change in conduct disordered behaviour at one-year post intervention, while 40% showed a very large change. Nonetheless, a small, but significant proportion of children (29%) showed diminished benefit ( $<0.3SD$ ) at the 12-month follow-up. Thus, even with the most successful parent-training programmes, not all children may benefit. Previous research has found that almost one-third of children display persistent behavioural difficulties in spite of parent training intervention whilst some respond better than others (Serketich & Dumas, 1996; Beauchaine et al., 2005). For example, high levels of family adversity (e.g. lower socioeconomic status, family disruption and conflict, single parenthood, maternal psychopathology) predict less change in child behaviour in response to parent training (Webster-Stratton, 1990) and a large proportion of children in the current study were exposed to one or more of these risk factors; this may explain why some showed a comparatively weaker response to the intervention. Further research exploring moderating effects of parent-training outcomes is needed in order to address the key question of what works best, for whom and under what circumstances.

The findings in relation to sibling behaviour are also notable and indicate that the IYBP intervention can have beneficial effects on other children in the family in the longer term. Our earlier findings from the six-month RCT evaluation indicated that siblings did not fare better than their control group counterparts at the six-month follow-up (McGilloway et al., 2012a). The longer term findings reported here, indicate that the benefits of the IYBP for sibling behaviour tend to accrue over time and may, at least to some extent, reflect ' sleeper effects ' whereby the effects of the intervention may only emerge over a longer period of time (Barrera et al., 2002). Indeed, it may well be that parents who receive the IYBP intervention, tend to initially focus their newly augmented parenting skills on the child exhibiting the most behavioural problems, but may later apply these strategies to other children in the family.

## The experience of participating in the IYBP

The results of the extensive qualitative analysis support and amplify the quantitative outcomes and further highlight the benefits of the IYBP for parents, children and family adjustment. The findings also provide critical insights into how the effects were maintained and even enhanced, in some cases, with parents reporting improvements in child social skills at the 18-month follow-up. Increased parent confidence and the assimilation of positive parenting skills into daily life were noted at both follow-up periods. The qualitative findings further serve to highlight potential barriers to the longer term effectiveness of the IYBP programme for both child behaviour and parent competencies. For example, some parents experienced a period of sustained relapse in child positive behaviour during the 6- to 12-month interval that was not evident at the 6-month follow-up stage. Notably, however, the majority of parents were able to assimilate positive parenting skills into their daily lives and recover positive parenting skills and improvements in child behaviour even in the event of considerable relapses in child behaviour.

The reasons for such relapses have received little research attention, to date, and in the current study, it appears that under conditions of stress (including busy lives, bereavement, illness, separation from partner), parents reverted to using previous parenting behaviours and abandoned their newly learned skills, which still required a considerable level of conscious effort for these parents. This difficulty in perseverance suggests that these parents had not yet consolidated the skills into their lives in a habitual manner. However, once the stressful period had subsided, or parents had learned to cope with it, they were then able to re-introduce the parenting skills. This pattern suggests that the application of new parenting skills places extra demands on some parents, as it does not easily become second-nature to them, but reassuringly, their subsequent recovery demonstrates that they had not lost the skills or their newly acquired knowledge. These findings underline parents' concerns that the process of participating in the programme should prepare them for periods of relapse post-intervention and perhaps provide support beyond parent training for some of the most vulnerable parents.

Parent participants recommended early referral to the programme and a number of alterations to course delivery were also suggested (although the need to maintain treatment integrity must be noted). These suggested changes related, firstly, to considering the 'goodness of fit' between programme-components and the needs of parents, such that sessions dedicated to play could potentially be reduced and those allocated to problem-solving (and other issues) could perhaps be increased. Parents also believed that positive outcomes would be enhanced if more efforts were made to involve partners and fathers in the programme (Mockford et al., 2004).

## Service utilisation costs related to the IYBP

The results of the third study – the service utilisation and cost analysis – highlight further the potential cost benefits of the intervention in terms of a reduced reliance on primary health care, social and educational services over the longer term. Our findings show that contact with these services was substantially reduced at the 12-month follow-up; this suggests a positive and consistent pattern of decreased service use which may be due to improvements in child behaviour. Indeed, the cost of service use at the 12-month follow-up (€626.91) amongst the intervention group was reduced to 60% of baseline expenditure on formal services (€1047.91). If the reduction in service use and associated costs reported here is maintained into the future, wider economic and societal benefits may well be achieved.

These findings further indicate that the positive changes seen in child and parenting behaviour reported from the follow-up study were maintained in the context of reduced support from primary health care and social care services. This supports the general utility of the IYBP parenting programme for tackling child behaviour problems and improving family well-being, whilst also highlighting the dual social and economic benefits of parenting programmes (O'Neill et al., 2011). Our previous findings (McGilloway et al., 2009; O'Neill et al., in press) have also shown that group-based parenting programmes, such as the IYBP intervention, are relatively inexpensive to implement and may result in significant long-run benefits for society.

## Strengths and limitations of the study

This is one of only a small number of studies within a European context that have examined the longer-term effects of a parenting intervention for vulnerable, socially disadvantaged families. Firstly, it involved a triangulation of psychometric, observational and qualitative methodologies which together provided a robust and in-depth account of the longer-term effectiveness of the IYBP programme. A service utilisation and cost-analysis was also carried out to assess any longer term impact on costs. Secondly, the research team adhered closely to high quality practices including the use of trained fieldworkers, psychometrically robust measures and the use of observational data to complement parent-report measures. Thirdly, sample attrition was very low at both follow-up time points, with 84% of participants completing assessments at the 12-month follow-up. While no significant differences existed between those who were retained in the study and those who were lost to follow-up, an intention-to-treat approach using a multiple imputation method for missing data was used to ensure that any effects of the programme under real-world conditions were not over-estimated (Hollis & Campbell, 1999).

Some limitations of the research should also be noted. Firstly, and for ethical reasons (as noted earlier), the control group was offered the intervention after initial follow-up and, therefore, a comparative analysis between conditions at 12 months was not possible. Secondly, researchers were not blind to the intervention condition at the 12-month follow-up. Nevertheless, the positive baseline-to-six-month outcomes for the intervention group remained largely stable when assessed at the 12-month follow-up. Thirdly, it may be argued that a 12-month time frame is a relatively short period in terms of child development. The relatively low rate of programme attendance for the participant sample was an additional weakness despite the local delivery of the programme and the considerable efforts made to maximise programme engagement (see McGilloway et al., 2009). However, Middlebrook and colleagues (1983) report an overall drop-out rate of 28% for parenting programmes whilst also noting that some studies report a drop-out rate as high as 50% (as cited by Reyno & McGrath, 2006). Previous research has also indicated that families who experience high levels of social adversity and who can potentially benefit the most from parenting interventions, can be difficult to engage and poor attendance may, therefore, be associated with poorer outcomes (Serketich & Dumas, 1996; Reyno & McGrath, 2006). Despite relatively low attendance, significant overall benefits of the intervention were still identified and appear to have been maintained in the longer term. Future research should explore ways in which difficult-to-reach populations can be more effectively engaged in intervention programmes.

## Conclusion and implications for policy and practice

Socioemotional and behavioural difficulties in childhood are detrimental at both an individual and community level and reinforce the need for appropriate, evidence-based and accessible early intervention. Indeed, changes to government policy in Ireland have supported the development of integrated services built around children's needs, with a focus on prevention and early intervention (Dept. of An Taoiseach, 2006). In the current study, the delivery of an evidence-based parenting programme in community settings significantly improved behavioural adjustment in at-risk children, with sustained effects in the longer term. Parents also showed improvements in parenting competency, as well as lower self-report levels of stress and depression which were likely to have been maintained over time. Overall, our results indicate that an evidence-based parenting programme when delivered with fidelity in community-based settings, offers an effective and cost-efficient means of reducing the risks associated with conduct and psychosocial difficulties in early childhood, whilst also possibly improving parental well-being in the longer term. These findings are important in guiding and informing future policy and practice decisions relating to identifying, resourcing and implementing appropriate evidence-based interventions for children with conduct problems and 'at risk' families in disadvantaged communities.

Future research should continue to explore the effectiveness and long-term outcomes of parenting programmes as they become more widely available in community-based settings. A more complete understanding of the circumstances and characteristics which promote or hinder the effectiveness of these kinds of interventions is also critical for researchers and service providers alike. Work is currently underway by the research team to examine some of the moderating and mediating factors with respect to the IYBP programme and to attempt to address questions such as 'what works best for whom and under what circumstances?' This research will explore ways in which positive change for families might best be supported and sustained in the longer-term.

## SECTION 2:

### EXAMINING THE LONGER-TERM UTILITY AND IMPLEMENTATION OF THE INCREDIBLE YEARS TEACHER CLASSROOM MANAGEMENT PROGRAMME IN AN IRISH CONTEXT

#### Introduction

In this section, we report on the longer-term (12-month) findings from the evaluation of the Incredible Years Teacher Classroom Management (IYTCM) programme as a classroom-based intervention. This is designed to strengthen teacher classroom management strategies, promote the successful management of classroom environments and improve children's pro-social behaviour. Our previous 6-month findings demonstrated how the IYTCM programme can benefit teacher practices and reduce behavioural difficulties amongst young children (McGilloway et al., 2010). The aim of the present study was to establish whether the benefits of the IYTCM seen in the short-term, were maintained in the longer term, at one-year post-intervention. The evaluation involved two separate, but related studies including: (1) a longitudinal quantitative, follow-up with the intervention group teachers who participated in the RCT; and (2) a qualitative study involving interviews with a small sub-sample of teachers in order to assess their views and experiences.

Conduct problems in school are associated with a range of negative outcomes such as academic underachievement (Raver & Knitze, 2002; Pierce et al., 2004), peer rejection and poor relationships with teachers (Coie, 1990; Scott, 2005), lower occupational status and welfare dependence (Hinshaw, 1992; Collishaw et al., 2004) and juvenile delinquency and criminality (Scott et al., 2001b; Loeber et al., 2009). According to teacher ratings, 11% of Irish children (aged 9 years) experience borderline or abnormal levels of conduct disordered behaviour and 21% are considered to engage in negative behaviour in the classroom (Williams et al., 2009). Challenging behaviour in the classroom has further adverse affects on the health and well-being of teachers (TUI, 2006; House of the Oireachtas Joint Committee on Education and Skills, May 2010). For example, survey results from the Teachers Union of Ireland show that approximately half of the teachers (51%) reported that discipline among students leaves them either "quite drained" or "completely drained" with 44% stating that discipline among students leaves them either "quite stressed" or "completely stressed" (TUI, 2006). These findings suggest a pressing need to address rising levels of indiscipline in the classroom.

#### The value of effective teacher classroom management for child outcomes

Effective classroom management includes establishing an orderly environment and positive relationships in the classroom. In order to achieve a positive classroom environment, teachers must be competent in classroom management strategies, both to provide instructional support and to deal adequately with disruptive behaviour in the classroom (Brouwers et al., 2000). Research has shown that when classrooms are well managed, teacher-student and peer relationships tend to be more positive, students' behaviour improves and they are more engaged in learning (Kellam et al., 1998; Webster-Stratton et al., 2004). Many studies show that effective use of praise and positive attention can encourage positive child behaviour (Shernoff & Kratochwill, 2007; Raver et al., 2008). Teachers are in an ideal position to help children with their social, emotional and behavioural development. Positive experiences in school can act as a protective factor in a child's life and teachers can play an important role in encouraging positive child development and reducing aggressive behaviour (NICE, 2008).

The current study evaluated the longer-term utility and implementation of the Incredible Years Teacher Classroom Management (IYTCM) programme (Webster-Stratton & Reid, 1999). To date, evaluations of the IYTCM programme have been conducted largely in combination with parent and child training programmes (e.g. Webster-Stratton et al., 2004), with results supporting the effectiveness of the intervention in improving classroom environment and teacher skills. For example, Webster-Stratton and colleagues (2008) found that teachers who received IYTCM training showed less harsh and critical strategies and were more consistent when dealing with inappropriate behaviour, while they also showed more socio-emotional teaching. Considerable improvements in child behaviour in the classroom as a result of the intervention were also reported, although it is not clear to what extent these effects were due to the additional provision of child and/or parent training. Only two independent evaluations of the IYTCM programme as a stand-alone intervention have been undertaken to date - one in Wales and one in Jamaica (Hutchings et al., 2007b; Baker-Henningham et al., 2009). Both of these studies highlight significant short-term benefits for teacher and child behaviour. However, little is known about the longer-term utility and implementation of teacher classroom management training and its impact on daily life in the classroom.



## Background to the IYTCM study: Short-term outcomes (6 months)

Our previous findings, based on results from both a quantitative (RCT) study and qualitative (interview-based) study revealed that the IYTCM programme offers significant benefits in terms of teachers' skills and child behaviour in the class in the short-term (McGilloway et al., 2010). Teachers also reported a fundamental change and improvement in previous classroom management techniques in addition to enhanced psychological and emotional well-being due to the success of positive behaviour strategies. Furthermore, they perceived the programme to be acceptable, effective and appropriate for managing challenging behaviour in primary schools.

## The long-term follow up: Aims and objectives of the current study

The study reported here, involved a one-year (12-month) follow-up of those teachers (N=11) who received the IYTCM training as part of the RCT evaluation of the programme. It was not possible to include a control group comparison, as the control group teachers (N=11) were offered the intervention after the six-month follow-up assessments had been completed. Furthermore, the 110 children previously assigned to intervention teachers at baseline, moved up a grade and, as they were no longer taught by an intervention group teacher, were not included in the study. Consequently, we were unable to properly assess the longer-term effectiveness of the IYTCM programme. Therefore, this study focused on exploring how teachers fared with respect to their classroom management at 12-months post-baseline assessment (with a new sample of children) and whether they continued to implement the IYTCM programme in their classrooms in the longer-term. The main aim of this study, therefore, was to explore 'process outcomes' related to the longer-term implementation of the programme and its utility for teachers in their day-to-day management of the classroom.

The specific research questions were as follows:

- To what extent do teachers continue to implement the IYTCM programme in the classroom? For example, do IYTCM strategies become embedded in teacher practice in the longer-term and do teachers transfer IYTCM strategies to a new classroom environment?
- Does the IYTCM programme allow teachers to create more manageable classrooms and assist in preventing and reducing incidences of disruptive behaviour?
- How do the experiences of teacher participants change over time and what factors influence the perceived effectiveness of the programme in the longer term?

- What aspects (if any) of the programme work best for teachers and what are the potential barriers to implementing the IYTCM programme in the longer term?

## Study Design

This study comprised two separate but related components designed to explore the longer-term utility and implementation of the IYTCM programme. The first quantitative study consisted of observations of teacher and child behaviour conduct assessments on the 11 teachers allocated to the IYTCM intervention.

The 110 children previously assigned to intervention teachers at baseline had now moved up a grade and, as they were no longer taught by an intervention group teacher, were not eligible for inclusion in the study. Consequently, this study focused on exploring how teachers fared in their classroom management at one-year post intervention with a new sample of children. Questionnaire data relating to teachers' self-reported use of a range of teacher classroom management strategies were also collected.

The second qualitative study involved one-to-one interviews with six teachers in order to assess their perceptions of the long-term use of the strategies learnt and whether their continued use of these strategies has resulted in an improved classroom atmosphere and a reduction in disruptive behaviour. Importantly, it was necessary to ascertain whether these techniques were deemed to be as useful with new classes. The qualitative element also addressed teacher recommendations for the TCM programme. Interviews were audio-recorded, transcribed verbatim and subjected to a thematic analysis (Pope et al., 2000; Ritchie & Spencer, 2002).

## The Intervention: The Incredible Years Teacher Classroom Management Programme

- The IYTCM programme is a **brief, group-based intervention** guided by the principles of behavioural and social learning theory:
  - It consists of 5 monthly sessions. Two group facilitators help deliver the programme
  - Approximately 12 teachers participate in each group

The programme uses a **collaborative approach**:

- **Group discussions, videos, role play** and **modelling** are some of the methods used to help teachers adopt positive teacher classroom management strategies
- The programme promotes **positive teacher classroom management strategies**:
  - Teachers are encouraged to **build positive relationships** with their students
  - Teachers are also encouraged to use **praise, incentives and modelling strategies** to reinforce positive child behaviour and to introduce clear classroom rules
  - Problem behaviours are addressed by **non-aversive and proactive/preventative** classroom management strategies such as limit setting

## KEY FINDINGS FROM THE LONGER-TERM FOLLOW-UP

This section presents the main findings from the long-term (12-month) follow-up of the IYTCM programme. The findings from both the quantitative and qualitative studies will be presented together.

### Teacher outcomes

Both the quantitative and qualitative data illustrated considerable improvements in teachers' classroom management skills at the 12-month follow-up time point. Teachers used significant fewer negative classroom management strategies and considerably more positive management strategies on a day-to-day basis.

### Changes in teacher classroom management

- Teachers reported that their frequency and use of positive classroom management strategies significantly increased at 12-months post-intervention when compared to baseline levels. They reported using more encouragement and other positive disciplining strategies with their pupils, and fewer harsh or critical statements and negative commands at 12-month follow-up (see Fig. 6). This was corroborated by our independent observations of teacher behaviour in the classroom which showed that, in addition to increased use of positive strategies, teachers' use of negative classroom management strategies had also declined over the course of the study. The results further demonstrated a reduction in the use of indirect commands whereby teachers allowed pupils in their class more time to comply with instructions and questions (see Fig. 7).

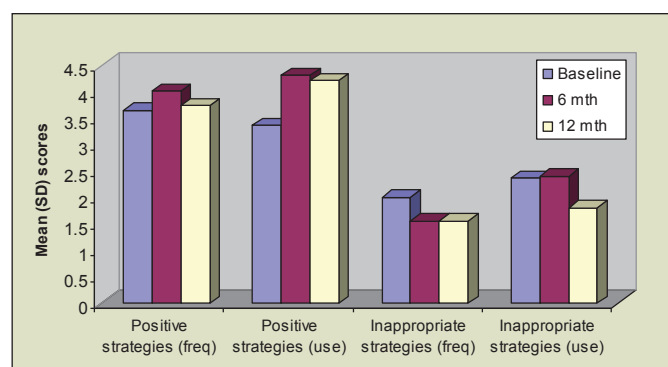


Fig. 6: Mean scores of teacher reported strategies at baseline, 6 months and 12 months

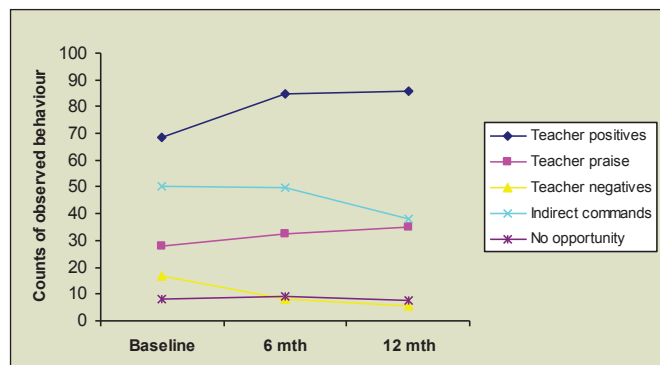


Fig. 7: Mean scores of observed teacher behaviour at baseline, 6 months and 12 months

- Teachers were highly satisfied with the programme 12 months post-intervention and continued to incorporate IYTCM skills routinely into their teaching practices. Despite the difficulty of relinquishing old, less effective, classroom management strategies, they found that they were able to easily transfer the skills learned to a new class and the programme was perceived to be of practical and constructive use over the longer-term:

“Your first instinct is ‘sit down’, you know ‘go to your seat’. It was just retraining yourself to say it. So that was kind of the last year, just reminding yourself ‘right, positive, positive, positive’. When I saw then how it did work last year, it’s easier this year... It becomes part of the routine. So it’s like that, just time and like with anything just keep doing it and it just becomes second nature.” (T15)

- The use of praise emerged as a significant strategy for building relationships with pupils and in improving the overall classroom environment. The perceived simplicity of the technique and its ease of implementation were widely reported as being particularly beneficial in managing low levels of disruption in class (ie. inattention and attention seeking behaviour). Children immediately responded in a positive manner to proximal praise:

“Proximal praise, it’s unreal how well that works within a classroom environment. I mean if someone isn’t sitting down, instead of roaring ‘sit down’, you just compliment someone and say ‘oh so and so is sitting lovely and quietly’.” (T17)

Overall, teachers were committed to the programme and its principles and found the IYTCM training to be both easy to implement in the classroom and useful for classroom management. This is corroborated by the observational data and indicates the long-term utility of the IYTCM programme for daily teaching practice. Teachers' classroom management skills continued to improve in the longer-term. These findings illustrate that teachers had moved away from using more negative and harsh disciplining techniques toward more positive and preventative classroom management strategies.

## A positive classroom environment

- The interviews with teachers also highlighted a positive post-TCM classroom environment. At 12-month follow-up, they reported that the children wanted to learn and co-operate, leaving them free to teach from the distraction of ongoing behavioural challenges and classroom conflict. Three of the six teachers specifically cited the classroom as having a calmer, more positive atmosphere in which to work and learn:

“Just overall having a warm, positive classroom environment, the kids are happier in themselves as well. Because before if you were constantly roaring or giving out, it drains you and it's not good.” (T17)

- Continued implementation of the TCM programme also resulted in a reduced need to use strategies such as ignoring, or time-out. Consequently, at the beginning of a new academic year, teachers were able to focus on further implementing and developing an enhanced classroom environment:

“Like this year I find I don't have to use much of the (problem behaviour management) strategies, where last year I was being very conscious of them and being very aware of them because I had a more challenging class. I felt I had to use them every day; I had to keep on top of them. Sometimes I find here like you can use some of them and they will you know, the classroom is much calmer and I find I don't have to.” (T11)

- Positive changes in the classroom environment were also recognised by other teachers who sought information on the TCM programme. This reinforced their perceptions of programme success and further encouraged them in the continued application of TCM strategies. At 12-month follow-up, it was apparent that many teachers had shared TCM tips and strategies with their colleagues:

“So the good news is going out around the school. You know, so I find it's not only this classroom, but the entire school it's helped... the others (colleagues) have taken up on it as well, and it's brilliant. So it's throughout the school.” (T15)

These findings indicate that the IYTCM programme continued to offer teachers a means of creating classroom cohesion in the longer-term with new groups of children.

## Changes in teacher well-being

Before training, teachers' confidence was generally low and they often questioned their own ability to manage their classroom and, in particular, to deal with behaviourally challenging children. Post-training findings revealed greater confidence and an enhanced ability to deal with misbehaviour as a result of the knowledge gained from participating in the training programme:

"I'd be more knowledgeable now and more confident to deal with behaviour within my classroom, having done the course. And not really a lot would faze me, whereas before you'd probably be 'oh God', if you think you're going to get a child with x, y and z. I just think now having done the course, you'd have lots of different things you could draw on and try to use with the children. So I suppose I'd be a more confident teacher in some ways, definitely in relation to dealing with behavioural issues."

- Teachers also reported feeling less isolated in the classroom, having met with other teachers who experienced similar challenges:

"It was great hearing from other teachers about things like they'd have bold behaviours in their classroom and what they'd do. To hear what they do and their experience, so that you don't feel like you're the only one." (T1)

- Importantly, the emotional well-being of teachers was also shown to have improved post-training. Previously, teachers reported feeling 'bogged down' and 'drained' when managing classroom misbehaviour. At 12 months, they felt considerably calmer and less stressed:

"For me then the techniques to just kind of de-stress, you know not to get so bogged down, definitely was a help and I don't feel as kind of stressed out in the classroom as I would have before. So it's definitely better all round, yeah! For teacher and children!" (T15)

- Teachers' stress levels declined considerably as a result of the strategies they learned to support their teaching tasks and they were better able to maintain their composure when dealing with stress-provoking situations and to ignore certain types of misbehaviour:

"I'm not as stressed because I've more strategies up my sleeves. You might have gotten very cross with a child who was like jumping up and down. You would have gotten cross. But now it's like ignore and redirect and give them something else to do and if they won't, just maybe let them read a book. And not feeling like that's wrong, feeling that it's ok to do that. Maybe this child just can't do that right now. So maybe let them do something else for a while." (T1)

Both the quantitative and qualitative data illustrate that teachers reported more frequent use of the proactive, positive strategies compared to the inappropriate strategies. Overall, the TCM training increased teachers' use and perceived utility of positive strategies, and led to reductions in the use of negative classroom strategies in the longer-term. Prior to training, teachers' classroom management in dealing with misbehaviour was typically ineffective and resulted in an often tension-fraught environment in the classroom.

## Child outcomes

### Positive teacher-pupil relationships and child adjustment

- At the 12-month follow-up, a greater focus was placed on fostering positive teacher-pupil relationships and the development of prosocial classroom behaviour. Indeed, follow-up interviews demonstrated that teachers had a greater appreciation of their potential influence on child adjustment. The qualitative data suggested that the focus of teachers had shifted away from the management of misbehaviour, towards proactively encouraging prosocial and positive child development:

“I’m very aware of building up the positive relationship with the child. Spending time with them in the morning, positive reinforcement of behaviour and proximal praise.” (T7)

- Children who did not readily participate in class activities and who were withdrawn, either due to individual differences in personality or due to problems stemming from their home background, were seen to benefit from the programme both in school and at home:

“She was too serious and wouldn’t smile and just had a really serious head on her. So I just worked on her with the Happygrams and the praise. And like the parents came in then two weeks ago to the parent teacher meeting- that’s after two months of school and you know like ‘she’s a changed child from all that- the Happygrams and all that kind of thing. Do you know, that she’s a totally changed personality.’” (T1)

- At 12-month follow-up, teachers noted a significant reduction in the occurrence of time-out strategies. Observations of child behaviour at 12 month follow-up showed high levels of child compliance and low incidences of inappropriate classroom behaviour. However, it is difficult to interpret these observational findings as this was a new class of pupils for whom no baseline measures were available. It may be that children who were observed at the 12-month follow-up were less compliant and demonstrated significantly fewer child positive behaviours at this time point.

## Implementing the IYTCM programme in Irish classrooms

The one-to-one interviews at 12-month follow-up were also used to identify and explore issues and potential barriers related to implementing the IYTCM programme in the classroom over the longer-term. This section presents additional findings which relate to teachers’ feedback on the programme, challenges and suggestions for future improvements.

### Ingredients and challenges for successful longer-term implementation

- Teachers generally found the IYTCM programme easy to implement in the classroom and identified real and practical benefits for both themselves and the pupils in their charge. The programme was found to strengthen teachers’ understanding of child problem behaviour and improved their ability to effectively manage the classroom. Overall, at 12-month follow-up, teachers held more positive perceptions of their role in promoting positive child adjustment and their knowledge of strategies to counteract difficult behaviours when they arise:

“We all know what we should be doing, and praising and using verbal cues but you just forget that with everything that is going on that it can go out the window. So I think it’s making a conscious decision that today I’m going to really try to use this.” (T11)

- All teachers viewed the workload associated with participating in the programme as of value in the long-term. Only one teacher stated that, initially, she had found the workload somewhat cumbersome, but commented that it was worth the effort. In fact, many teachers stated that there was no additional burden involved in the programme:

“I don’t think it’s any extra burden at all. I mean you’re not going off doing extra, big massive plans. So there’s no point in writing out a load of stuff if you’re not actually going to do it. So it was just very simple written work and it was more- your work was in the classroom. You had to just implement it every day, so that’s your job. So I don’t think there was any extra hassle or work at all... and it’s going to help you in the long run.” (T11)

- Some challenges and barriers to the full implementation and utility of the strategies were noted. Generally, teachers regarded the IYTCM strategies to be of practical use in improving classroom discipline, although it was also noted that for a minority of children, some techniques were ineffective. For example, the inclusion of children with special needs in the mainstream classroom and class size/age of pupils were seen as a challenge to implementation. Overall, teachers recognised that the programme worked, but not for every child:

“In general (the TCM techniques are) a dream to use with the classes like. But there’s always going to be, there always seems to be one kid in every class that’ll just wear you out like, you know? And you need to keep changing things I suppose with them. They’ll work for a time but then they’ll get bored of it.” (T1)

Although all teachers were using much of their newly acquired TCM knowledge in the classroom, some reported potential longer term challenges to implementation. For some teachers, the most significant perceived barrier was that of forgetting or becoming distracted. The constant demands placed on the teacher’s attention often undermined their ability to draw on more preventative and positive classroom management strategies.

## Suggestions for the future

Teachers offered several suggestions on ways in which the IYTCM programme might continue to offer support in the longer term. There was an acknowledgement of the teachers’ individual role in programme maintenance, particularly in relation to re-familiarising themselves with the range of materials and notes and refreshing their own knowledge of the programme principles. However, some suggested the availability of ongoing resources or a refresher session to those who had completed the training programme:

“If there was a session, maybe once a year... kind of a quick refresher course. Something like a booster, something like that might be of benefit to me.” (T7)

- All teachers unequivocally stated that they would recommend the IYTCM programme to a colleague. Indeed, an identical pattern to that reported at 6-month follow-up emerged, with teachers recommending wider availability of IYTCM within schools as best practice. All teachers believed that the programme would be best implemented on a whole-school basis; in some cases, interviewees recommended including all those who are involved in the life of a child, from teachers to SNAs, and a possible extension into the home with parental involvement:

“I would definitely recommend it. Yeah, I think it would be great for a whole-school thing as well. Because I know (another school) that they did- all the teachers did it. And I think it’d be brilliant if everyone did it. So from juniors up then, it’d be a really good idea.” (T3)

- All teachers considered their participation in the IYTCM programme as a worthwhile endeavour and expressed very positive views about the programme, its content, delivery methods and importantly, its measurable outcomes:

“When you’re hearing it in a programme, that it’s actually been researched and it’s worthwhile and that like- you actually feel like this is actually as important as teaching a lesson. To get them to work harder and whatever, do you know? I think it’s every bit as important, doing stuff like this, like praising and rewarding, as doing Irish or English or whatever. You know? So they’ll become better pupils like, you know?” (T1)

## DISCUSSION

The aim of this study was to build on our earlier short-term findings and to examine the longer-term impact and 'process' outcomes of the IYTCM programme with respect to: (i) teacher classroom management skills; (ii) the classroom environment; (iii) the generalisability of the programme to new classroom settings; and (iv) teachers' experiences and views of implementing the IYTCM programme. The findings from both the quantitative and qualitative elements of the study demonstrate that improved classroom management skills were utilised at 12 months post-IYTCM training. Teachers' increased use of positive strategies and decreased use of negative strategies were supported and amplified by the observational and self-report data which, overall, highlight considerable benefits for teacher practice in the classroom in the longer-term. Teachers' use of indirect commands was also significantly reduced at 12-month follow-up, demonstrating that they were allowing their pupils more time to comply with instructions. The findings further indicate that trained teachers continued to use the strategies when teaching a new class.

However, the extent to which we were able to ascertain the longer term effectiveness of the IYTCM programme for teacher outcomes was constrained by the study design. Our previous short-term evaluation of the IYTCM programme included a waiting-list control group who, for ethical reasons, subsequently received the intervention (after 6-month follow-up) and could no longer be included, therefore, in a comparative analysis. For the same reason, researchers (and observers) were not blind to condition at the 12-month follow-up assessment. Additionally, at the 12-month follow-up, the intervention group teachers were managing a new classroom of pupils; this is typical of Irish primary schools, where the rotation of teachers tends to occur on an annual basis. However, this may have influenced, to some degree, the teachers' use of specific classroom management strategies. For example, it is possible that the new pupils may have been significantly better behaved than those children included in the study at baseline and 6-month follow-up which, in turn, may have reduced the need for the use of negative or punitive strategies.

To our knowledge, this is the first study to examine the longer-term utility and implementation of the IYTCM programme as a stand alone intervention and the extent to which the IYTCM strategies can be successfully transferred to new classrooms at 12-months post-intervention. The findings, which are based on a robust mixed methods approach (including observational, psychometric and qualitative methods), add considerably to our understanding of the long-term utility of the IYTCM programme for teachers and children, whilst they also make a significant contribution to a relatively small, but growing body of research which explores the long-term outcomes of classroom management interventions (Van Lier et al., 2004; Kellam et al., 2008). Importantly the findings illustrate that teachers continued to value the programme and implement the strategies in the classroom in the

longer term as verified by our interview and observational assessments. Thus, the IYTCM programme appeared to be embedded in day-to-day teacher practices and was perceived as helping to build stronger relationships with pupils, while preventing inappropriate or challenging behaviour in the classroom. Moreover, the experiences of teachers in implementing the programme in the longer run were also explored, and indicated that the IYTCM programme would appear to have other positive 'spin-off' benefits in terms of impacting positively on teacher confidence and effectiveness and reducing work-related stress whilst also helping to strengthen teacher-pupil relationships. These findings are important and add to our understanding of the longer-term utility and implementation of the programme.

### The impact of IYTCM training on teacher and child outcomes

Participation in the IYTCM programme resulted in significant rewards for teachers' classroom management. At the 12-month follow-up, the new classroom strategies were implemented by teachers in the classroom on a daily basis. The programme provided a range of practical solutions for classroom management and contributed significantly to improved teacher practice at 12-months post-intervention. Overall, teachers' attitudes and their use of positive and preventative classroom management strategies were significantly improved. In particular, proximal praise emerged as the most commonly implemented strategy in reducing and managing inappropriate behaviour

The qualitative findings, while based on only a small number of teachers, are important and illustrate that teachers found the programme to be very helpful in improving child outcomes as well as strengthening teacher-pupil relationships. Teachers reported a shift in focus from managing misbehaviour at six months to the fostering of positive teacher-pupil relationships and the development of student prosocial skills at 12 months. Increasingly, classrooms were regarded by teachers, not just as places of learning; they were also places of encouragement and of positive relationships and, overall, teachers reported calmer, more positive classroom environments. These findings are important as negative patterns of teacher-pupil interaction and disruptive child behaviour have consistently been linked to a maladaptive academic and social trajectory for young children and poorer outcomes in later life (Hughes et al., 2001).



The qualitative findings further demonstrate that the benefits of the programme seen at six months, in terms of teacher stress and confidence (McGilloway et al., 2010), were maintained in the longer run. The collaborative group-based format of the programme was an important factor in this process in allowing teachers to discuss the challenges they experience in the classroom with other teachers who faced similar difficulties and, in so doing, minimise feelings of isolation and promote greater confidence

Teachers also reported that participating in the IYTCM programme enhanced their understanding of child behavioural and socioemotional challenges and there was a new awareness of the importance of their role in developing the social and emotional skills of young children. The fostering of teacher self-efficacy was also a critical factor in the continuation of programme implementation and was directly related to the practical knowledge relating to effective classroom management that teachers had gained through their participation in the programme. Perhaps the most striking finding was that teachers continued to recommend at one year post-intervention, that the IYTCM programme be implemented as best practice on a widespread and whole-school basis. Indeed, the programme is ideally intended to be implemented in this way to encourage a positive whole-school ethos. Importantly, teacher participants believed that the IYTCM programme should be made available to all teachers and preferably earlier in a teacher's career in order to ensure that poor teacher classroom management skills do not become a barrier to positive schooling experiences for both children and teachers alike.

## Conclusion

Early schooling experiences play an important role in the well-being of young children. However, factors such as a child's social, emotional and behavioural adjustment in school, including socio-economic disadvantage, family disruption, peer rejection, negative teacher-pupil interaction and poor classroom management, may undermine their ability to develop and learn. It is also important to note that a wide range of other interacting factors, such as socio-economic status, family adjustment, child health, parental income, and parental education, may have a profound impact on child behaviour in a school context. It was beyond the scope of the study to assess these potentially influential factors whilst we were also unable to assess academic or learning outcomes which may be negatively affected by behavioural problems in the classroom. However, the provision of an orderly learning environment through effective teacher classroom management, can help to promote positive and protective schooling experiences for all children, especially those at risk of poor outcomes, and may, in the long run, help children to fulfil their psychological, social and academic potential (Irish National Teachers' Organisation, 2005).

Within an Irish context, the importance of child social, emotional and behavioural well-being and physical and mental health and their role in academic achievement, are highlighted in the National Children's Strategy (2000-2010). More recently, the House of the Oireachtas, Joint Committee on Education and Skills (JCES; May 2010) highlighted a lack of research on how to appropriately respond to the needs of children with emotional/behavioural difficulties in a school context, and the lack of prevention and early intervention strategies to engage children and parents in order to foster positive change. The INTO (2005) also recommend that classroom management skills be made available to teachers as part of pre-service and in-service education in order to tackle the rising levels of indiscipline within schools. Recent research indicates a gap between the (increasing) availability of evidence-based interventions and their practical application in schools, with the majority of teachers lacking sufficient knowledge to enable them to support appropriate child behaviour in the classroom (Stormont et al., 2011).

It is important to note that the sample size in the current study was small and may limit, to some extent, the generalisability of the findings. Nonetheless, the results are broadly consistent with other research undertaken in Wales (Hutchings et al., 2007) and Jamaica (Baker-Henningham et al., 2009), thereby suggesting that the programme may be transported successfully to different contexts. Our findings also indicate that the IYTCM programme can lead to considerable improvements in teacher classroom management skills and in their overall confidence and well-being, as well as enhancing the classroom environment and helping to build upon positive interactions between teachers and pupils and teachers and parents.

## OVERALL CONCLUSION

This report presented the findings from two separate long-term evaluations of (i) the Incredible Years BASIC parent training programme (IYBP) and (ii) the Incredible Years Teacher Classroom Management (IYTCM) Programme.

The current study addresses an important gap in research and educational policy and practice in Ireland in terms of, amongst other things, underscoring the importance of raising awareness amongst teachers of the value of evidence-based programmes in meeting the mental health and behavioural needs of children. Recent research has also indicated that the Irish educational system is underperforming within the OECD region (OECD, 2009), with striking falls in literacy and numeracy during the past decade. The best performing schooling systems, such as those in Finland, Canada and South Korea, set rigorous standards for teaching practice and teacher capability. Teacher efficacy and competence in maintaining a well managed classroom environment are crucial factors in the overall success of educational systems (OECD TALIS, 2009; Walsh, 2011). Arguably therefore, improvements are needed in an Irish context in terms of providing more innovative teacher training in this respect and more evidence-based, in-service, professional development training opportunities for teachers that focus on enhancing classroom management skills.

Furthermore, an integrated, holistic approach to early education, which reflects the importance of child well-being, and which fosters prosocial child adjustment and the development of meaningful teacher-pupil relationships, is of critical importance to the promotion of school success and longer term socioeconomic and psychological adjustment (Bagdi & Vacca, 2005; NICE, 2008). Thus, appropriate investment in early intervention programmes, such as the IYTCM programme, can reap considerable social as well as financial benefits in the longer term in terms of reduced costs associated with access to educational and clinical services. However, further research is needed to explore the longer term outcomes of classroom-based programmes in general and to develop a more complete understanding of the factors that promote or hinder the positive development of children in the classroom.

The findings from both studies are encouraging and demonstrate the likely longer-term benefits of both parent- and teacher-training intervention programmes for tackling childhood adjustment problems in the home and at school. Participation in the IYBP led to clinically significant improvements in child behaviour at 12-months post-intervention. Longer-term benefits for parental competency and well-being were also evident. The findings from the longer-term evaluation of the IYTCM also support the overall (self-reported) benefits of the teacher programme for teacher classroom management and teacher self-efficacy, as well as positive teacher-pupil relationships, and overall classroom environment. Notably, the IYBP is a more effective and

more intensive programme, than the IYTCM programme for reducing the incidence of conduct problems in early childhood. However, improvements in child behaviour as a result of parent training do not always transfer to the school environment. Thus, the findings in relation to improved teacher and classroom functioning are important. Indeed, the combination of parenting programmes with school-based interventions may help to further promote and foster positive child outcomes.

The combined findings from both studies make an important contribution to the national and international literature on tackling the emotional and behavioural needs of young children aged 3 to 7 years. In particular, a lack of research in an Irish context on how to appropriately respond to the needs of children with emotional/behavioural difficulties, and the attendant lack of an appropriate prevention and early intervention strategy to engage children and parents in order to foster positive change, have been highlighted (The Houses of the Oireachtas Joint Committee on Education and Skills May [JCES], 2010). Thus, these studies fill an important knowledge and practice gap and the findings should be used to inform service delivery and practice in Ireland as well as decision making at a wider policy level.

Both studies were carried out in accordance with strict quality criteria and robust mixed methods approaches to ensure appropriate rigour. Intervention fidelity was also closely monitored throughout both evaluations and an excellent rate of participant retention was also recorded. However, due to ethical reasons, the waiting-list control group used in both of our short-term analyses subsequently received the intervention and as a result, a controlled comparative analysis was not possible at 12-months post-intervention. For the same reason, researchers could not be blind to the intervention condition at follow-up. Furthermore for the IYTCM programme 12-month follow-up, a new cohort of children was included in the study, thereby precluding a proper analysis of the effectiveness of the IYTCM programme on teacher and child behaviour. Although a 12-month follow-up provides important insights into how participants were faring at one-year post-intervention, the more long term effects (i.e. into adolescence) of such interventions should also be explored in future research.

Early childhood experiences provide an important foundation for later adult adjustment. The importance of fostering positive pro-social behaviour and reducing aversive and conduct disordered behaviour during the early years is increasingly recognised by researchers, practitioners and policy makers alike (Shonkoff & Phillips, 2000). Within an Irish context, the importance of child social, emotional and behavioural well-being and physical and mental health and the rights of the child are recognised in the National Children's Strategy (2000-2010). The current study, along with a growing body of international literature (Currie, 2000; Webster-Stratton & Taylor, 2001; NICE, 2007), highlights the utility of prevention and early intervention programmes which target both parents and teachers as a means of improving children's emotional and behavioural difficulties and effecting later positive outcomes (NICE, 2007; Leflot et al., 2010; Allen, 2011). Evidence-based programmes, such as the IYBP and the IYTCM programmes when delivered with fidelity in community-based settings (i.e. local family centres, schools), can help to build a positive environment for child development and provide a useful means of promoting child, family and community well-being.

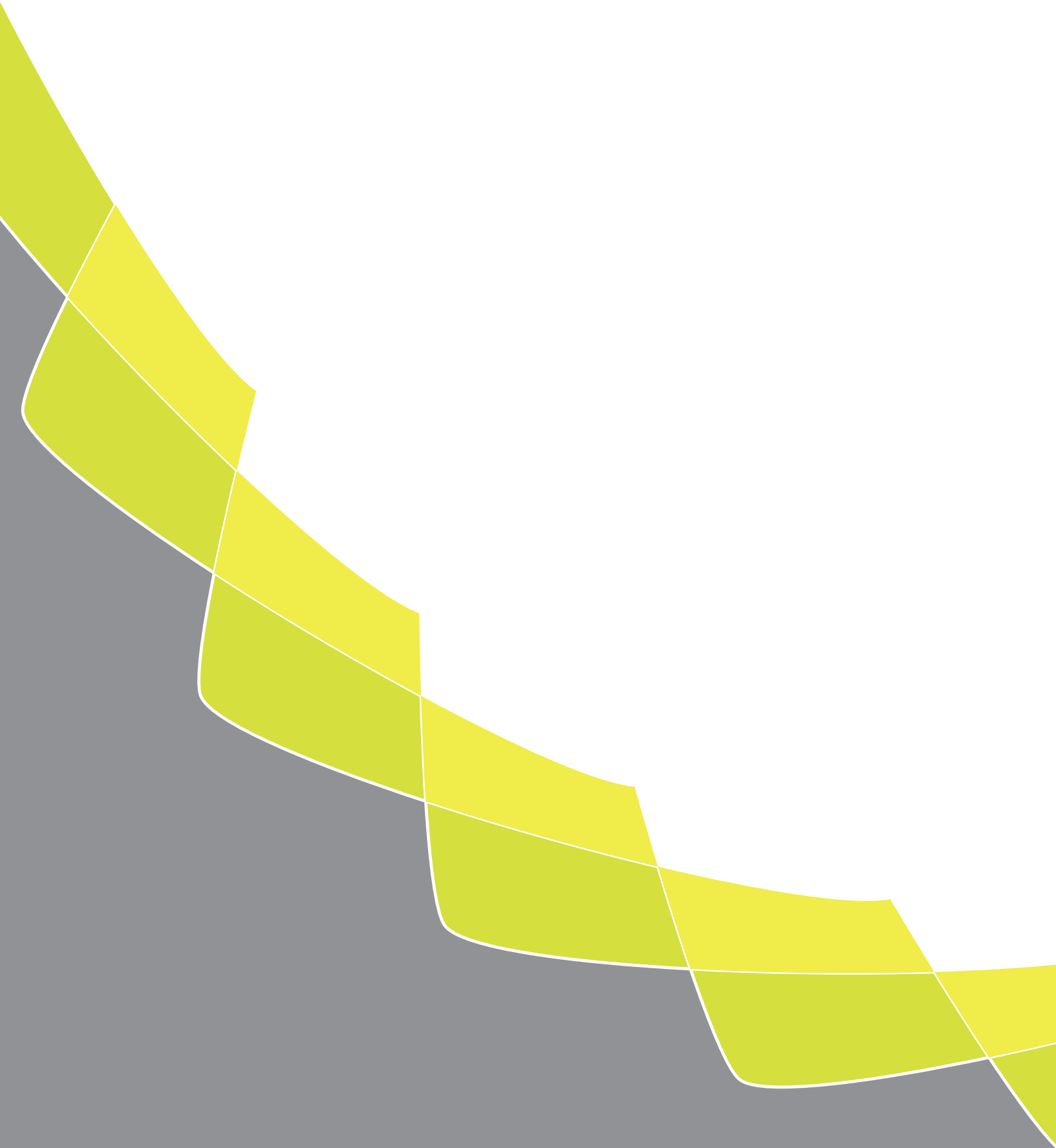
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