Evidence-Based Practice Review Report

Is the Parents Plus Programme, delivered in a community setting, an effective parenting intervention for improving children and young people's social and emotional adjustment?

Summary

The Parenting Plus Programme (PPP) is an evidence-based parenting intervention that aims to support parents whose children are experiencing social, emotional and behavioural difficulties. The intervention has developed into three strands, each of which cater for different ages and developmental stages associated with children and adolescents. The programme was originally developed for use in mental health settings for children diagnosed with Oppositional Defiance Disorder or Conduct Disorder. The most recent development in research regarding the PPP is examining its effectiveness when delivered in a community setting by community based professionals or staff. A literature search was conducted and five studies were identified that examined the effect of the PPP in a community environment. The current review intends to explore the delivery shift, in relation to the social and emotional adjustment of C&YP. The studies were reviewed and evaluated according to Gough's (2007) weight of evidence framework. The review found that PPP delivered in a community setting was effective in improving levels of social and emotional adjustment in children and young people. Recommendations for future areas of research are outlined.

Introduction

The Parents Plus Programmes (PPPs) are evidence-based parenting interventions that have been developed in both clinical and community (e.g. schools, community centres and pre-school) settings in Ireland. The PPP is a video-modelled programme, which is mainly delivered to groups of parents or caregivers. The aim of the programme is to help parents and caregivers develop and maintain positive relationships with their children by teaching non-coercive techniques to discipline and promot

e pro-social behaviour (Hand, McDonnell, Honari, & Sharry, 2013; Coughlin, Sharry, Fitzpatrick, Guerin, & Drumm, 2009).

The PPPs have been developed in to three categories that target distinct developmental stages in relation to different ages of children and young people. The three programmes are:

1. The Early Years Programme (for parents of children aged 1 to 6)
   Examples of topics covered include: Being a responsive parent, promoting children's language and managing tantrums.

2. The Children's Programme (for parents of children aged 6 to 11)
   Examples of topics covered include: Encouragement and praise, Setting rules and helping children keep them and solution building with children.

3. The Adolescent's Programme (for parents of young people aged 11 to 16)

Examples of topics covered include: Getting to know and connecting with your teenager, teaching teenagers responsibility and managing conflict.

Each programme consists of 1 session per week that lasts approximately 2 hours over a period of 6 to 12 weeks with a group of 6-12 adults. The programme materials include DVD footage and a facilitator's manual. Facilitator training courses are available for the PPP but this is not compulsory in order to run the programme. The manual contains a guide of how to prepare and run each session along with hand-outs and homework assignments for parents. The videos contain real parenting scenes and parent-child interactions that demonstrate key principles. The video scripts are written in an Irish idiom. A typical session includes: a review and reflection of the practised ideas learnt from the previous session: introduction of the new topic: video input and discussion: role play and skills rehearsal: planning for the next week and a session précis (Fitzpatrick, 2004).

The PPP theoretical underpinning stems from three psychological approaches: Social learning theory, Cognitive-behavioural therapy and Solution focused therapy. The cognitive behavioural and social learning principles emphasize what is required for learning and behavioural change to take place.

Through the use of video materials, role-play, skills rehearsal, reviewing and reflecting on parental practices. The PPP draws on elements associated with social learning theory, which stipulates learning occurs via the process of observation, modelling and reinforcement (Bandura, 1977) while also facilitating cognitive and emotional mediation (Hupp, Reitman & Jewell, 2008). This occurs through the

acknowledgment and exploration of the parent's thoughts and feelings that arise during role-play and practical application of strategies outside of the session.

A central tenant of the PPP is the incorporation of techniques from Solution Focused Therapy. Facilitators work collaboratively with parents, emphasising their positive attributes; building upon their strengths, existing skills, knowledge and resources (Fitzpatrick, 2004). Parents are encouraged to use research based techniques in conjunction with their own naturally emergent solutions that may better suit the unique context the behaviour arises in. The authors argue this empowers parents to draw on their own creative strengths to generate solutions as well as accessing and utilising traditional forms of behavioural parent training approaches informed by research evidence. The PPP therefore facilitates change by providing parents with research based and self-generated techniques that allow them to change their behaviour in the social environment and via the examination of their thought processes in relation to how this affects their behaviour and how behaviour can be monitored and altered (Hupp et al., 2008).

The effectiveness of the PPP intervention delivered in clinical settings by clinically trained staff has been established (Behan, Fitzpatrick, Sharry, Carr, & Waldron, 2001; Coughlin et al., 2009; Griffin, Guerin, Sharry, & Drumm, 2010; Quinn, Carr, Carroll, & O'Sullivan, 2006; Quinn, Carr, Carroll, & O'Sullivan, 2007). Clinically based parenting interventions are not generally accessible to parents or caregivers in the wider community nor can mental health services meet the needs of all children with mental health problems in the community (Kilroy, Sharry, Flood, & Guerin, 2011). Current literature regarding the PPP is now examining its effectiveness as a community based parenting intervention (Hand et al., 2013). The aim is to establish

and evaluate the effectiveness of the PPP in a community context and ascertain if it supports parents as a universal preventative intervention that addresses a range of developmental and social challenges that arise throughout children's and young people's lives (Nitsch, 2011).

Working within the community context is an integral part of an educational psychologist's (EPs) role (Farrell et al., 2006). It is therefore pertinent for EPs to know the implications and potential benefits of parenting interventions that are available to community based institutions such as schools and children centres. In order to provide the community with research based evidence regarding effective parenting education that will promote and support the healthy development of family relationships and children and young people's mental health.

The review question for this paper will therefore seek to ascertain:
Is the Parents Plus Programme, delivered in a community setting, an effective parenting intervention for improving children and young people's social and emotional adjustment?

Critical Review of the Evidence Base

The Durlak (2003) literature review protocol was employed to conduct a comprehensive literature search in December 2014. An electronic data base search was undertaken using PsycINFO, Medline (EBSCO) and ERIC (Educational Resource Index and Abstracts). To identify all studies related to the PPP. The following search terms were used:

Table 1: Search terms applied to databases: ERIC (EBSCO), PsycINFO, Medline

Databases:	**Search terms:**
PsycINFO, Medline (EBSCO) and ERIC	"Parents Plus Children's Programme" (Fields: title, abstract and all) "Parent Plus Programme" (Fields: title, abstract and all) "Parents Plus Early Years Programme" (Fields: title, abstract and all) "Parents Plus Adolescents' Programme" (Fields: title, abstract and all)

The electronic database search identified 29 articles in total, once the duplicates were removed. The remaining 19 articles were then screened by abstract or full text and the inclusion/exclusion criteria were applied (see table 2).

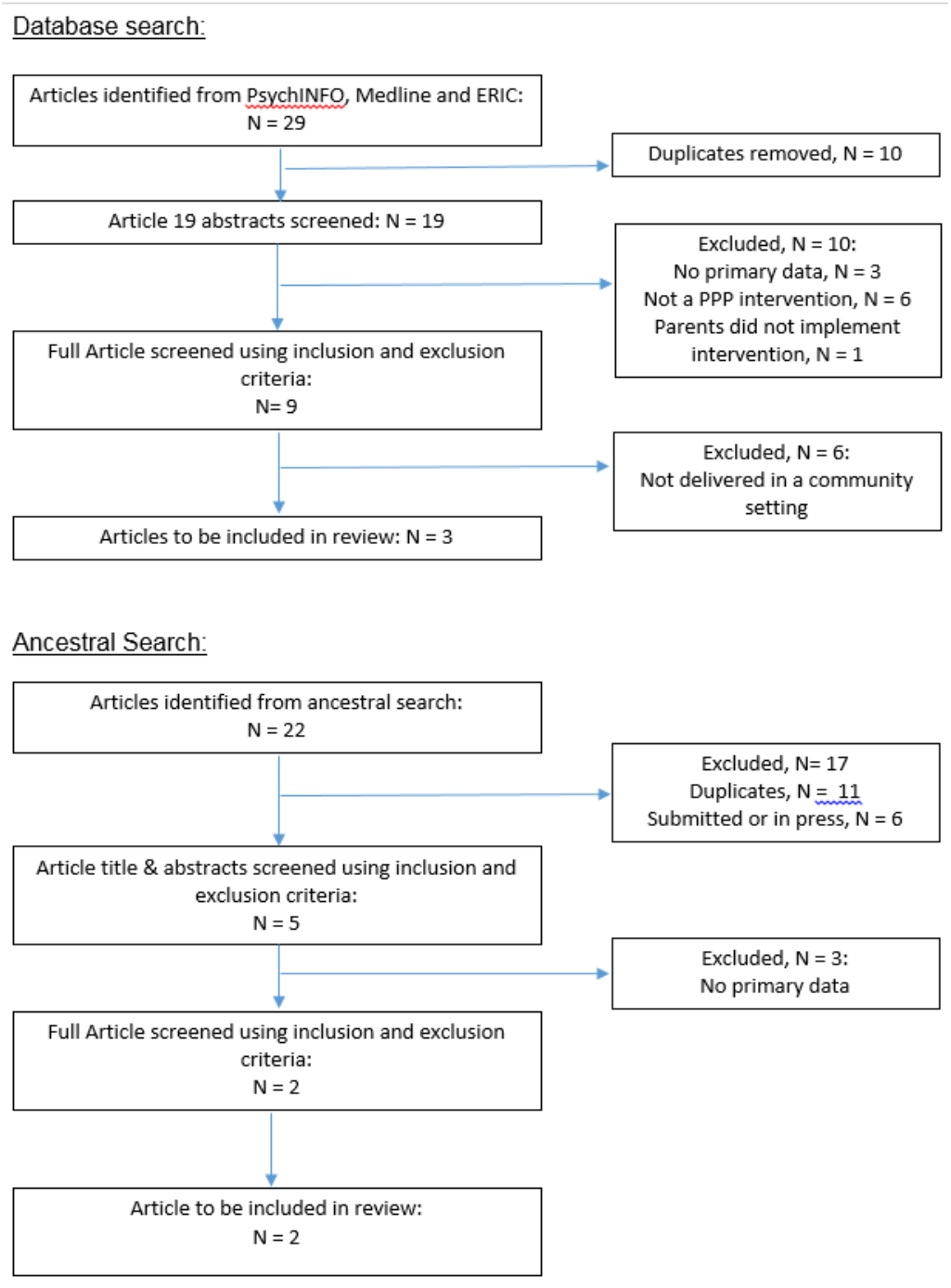
Table 2: Inclusion and Exclusion Criteria

Inclusion Criteria	**Exclusion Criteria**	**Rationale**
1. Publication type Peer reviewed articles, thesis papers or reports.	Submitted or in press papers will not be included	To reduce publication bias of studies with effects only Submitted or in press papers were not available at the time the review was being conducted
2. Language The study is written in English	The study is not written in English	To enable the reviewer to read the information
3. Intervention The Intervention must be a Parent Plus Programme The intervention was delivered to parents by trained staff	The Intervention is not a Parent Plus Programme The intervention was not delivered to parents by trained staff	This is the area of interest for the review question

4. Participants Parents or carers with children between the ages of 1-16	Parents or carers who do not have children between the ages of 1-16	This is the age range targeted by the parent plus programme.
5. Measures Children and Young people whose social and emotional development is measured	Children and Young people who did not have their social and emotional development measured	To examine the effectiveness of the Parent Plus Programme and its aim to improve children and young peoples' social and emotional development
6. Date Studies published before December 31st 2014	Studies published after December 31st 2014	Final search date before analysis and write up was conducted
7. Setting Intervention was conducted in a community setting (e.g. school, Children's centre)	Intervention was not conducted in a community setting (e.g. school, Children's centre)	To examine the effectiveness of parenting interventions delivered in a community setting
8.Data a) The study contains primary empirical data	The study does not contain primary empirical data (e.g. review paper)	This will allow the review to examine the effectiveness of the Parent Plus Programme
b) The study collects outcome data on social and emotional adjustment of children	The study does not collect outcome data on social and emotional adjustment of children	The review is examining changes in social and emotional adjustment

Ten studies were excluded using information obtained via the abstracts and a further six studies were excluded after a full text screening. Three studies from the database search were included for the review. An ancestral search was then conducted on the included articles reference lists (no articles were identified) and on a reference list provided by J. Sharry (personal communications, January 9, 2015) the co-author of the PPP. A further twenty-two articles were then screened by title, abstract and full-text using the inclusion/exclusion criteria. A total of two studies were included for the review from the ancestral search. See Figure 1 for a flow diagram of the study selection process.

Figure 1: Flow diagram of study Selection process



For a list of studies excluded at full text level and the accompanying rationale, please see Appendix 1. This review is based on five papers' (see table 3), a summary of key features for each paper can be found in Appendix 2. The reviewed studies were

critically appraised using Gough's (2007) Weight of Evidence's (WoE) framework. The papers' are analysed in terms of four categories. The first is WoE A: methodological quality, which examines the generic quality of the research paper. WoE B: methodological relevance, which assesses the methodology in relation to the review question. WoE C: question relevance, considers the papers evidence in terms of their ability to answer the review question. The weightings for each category are averaged and produce WoE D: the overall weighting the paper achieved. Please see table 4 for the WoE ratings. The criteria and rationale for WoE is detailed in Appendix 3, followed by the coding protocols in Appendix 4.

Table 3: List of studies included in the systematic literature review

Full references:
Hand, A., Ni Raghaillaigh, C., Cuppage, J., Coyle, S., Sharry, J. (2012). A Controlled Clinical Evaluation of the Parents Plus Children's Programme for Parents of Children Aged 6 – 12 with Mild Intellectual Disability in a School Setting. *Clinical Child Psychology and Psychiatry*, 18 (4), 536-555.
Hand, A. McDonnell, E., Sharry, J. (2013) A community led approach to delivery of the parents plus children's programme for the parents of children aged 6-11 *International Journal of Clinical and Health Psychology*, 13, 81-90.
Hayes, N., Siraj-Blatchford, I., Keegan, S. and Goulding, E. (2013). *Evaluation of the Early Years Programme of the Childhood Development Initiative*. Dublin: Childhood Development Initiative (CDI).
Kilroy, S., Sharry, J. Flood, C., Guerin, S. (2010) Parent training in the community: linking process to outcome. . *Clinical Child Psychology and Psychiatry* 16(3), 459–473. doi:10.1177/1359104510384338.
Nitsch, E. (2011) Positive Parenting: *A Randomized Controlled Trial Evaluation of the Parents Plus Adolescent Programme in Schools*. Submitted doctorate thesis, University of Limerick.

Table 4: Weight of Evidence Ratings

Study	WoE A	WoE B	WoE C	WoE D
Hand et al. (2012)	Medium (2)	Medium (2)	Low (1)	Medium (1.7)
Hayes et al. (2013)	Medium (2)	Medium (2)	Medium (2)	Medium (2)
Hand et al. (2013)	Medium (2.4)	High (3)	Medium (2)	High (2.5)
Kilroy et al. (2010)	Low (1)	Low (1)	Medium (2)	Low (1.3)
Nitsch (2011)	High (2.8)	High (3)	Medium (2)	High (2.6)

Participants

The number of parent participants in each study ranged from 29 – 310. All studies in the review, except for Hayes (2013), were statistically under powered. The ethnic and socioeconomic status of the participating families were only reported in Nitsch (2011) and Hayes et al. (2013). The latter study operated the intervention in a largely disadvantaged community and the families who were asked to participate in the study were identified as “most in need.” Kilroy et al. (2010) noted that the participants were families recruited via home-school liaison teachers or family support works from various locations. The age range of the children (whose parents participated) ranged from 1- 16 years. The reported characteristics of the Children and Young

People (C&YP) whose parents were undertaking the PPP varied greatly among the studies in the review. Three studies explicitly reported the number of children involved (Hand, 2012; Hayes, 2013; Nitsch, 2011). There were approximately 553 C&YP in total (where no figure was given, the number of parents were used to give an approximate number of C&YP). Nitsch, (2013) reported 39% boys and 61% girls and Hayes et al. (2013) reported 53% boys and 47% girls. The remaining studies did not report the gender ratio. In three studies 10% of the C&YP were either diagnosed or in receipt of a service such as Speech and Language therapy (Hand, 2012; Hayes, 2013; Nitsch, 2013). The majority of studies in the review included a range of parents and C&YP from community contexts. However, there was great variability between the studies in terms of what information was provided in regard to the community, in terms of the direct (parents) and indirect (C&YP) sample. This may impact the studies ability to generalise their findings, particularly among male and female C&YP.

Setting

Hand et al's (2012) investigation was conducted in a special school and the Parent Plus Children's Programme (PPCP) was open to all parents whose children were within the appropriate age range (6-11), this study received a strong rating for site of implementation included for WoE A, this was due to the study being conducted in a school setting. For WoE A Hand et al. (2013) and Nitsch (2011) also received a strong rating for site of implementation due to both studies carrying out the PPP intervention in primary and secondary school settings, whereas Hayes et al. (2013) and Kilroy et al. (2010) received a promising rating for site of implantation as there interventions were carried out in nurseries and a family centre respectively.. There

were no exclusion criteria but the children had to be the appropriate age for the PPP being offered. The reviewed studies all accessed the community population via educational and early years settings, with most being open to all members of the community who cared for children, although there were cases where vulnerable members (Hand et al., 2013) or disadvantaged communities (Hayes at al., 2013) were targeted. This is important for the review question and its ability to assess if the PPP is a universal or targeted community intervention.

Design & Measures

All papers' with the exception of Kilroy et al. (2010) employed randomised control trials (RCT). RCT are associated with experimental rigour and increases the likelihood of establishing a causal relationship between the PPP intervention and C&YP's social and emotional adjustment. This was reflected in the studies WoE A. Hand (2013) and Nitsch (2011) used RCT with wait-list controls and were given a high rating for WoE B compared to a medium WoE B for Hayes et al. (2013) and Hand et al. (2012) who used RCT in conjunction with a no treatment control. This distinction was made because clinical effectiveness has been established (Sharry, 2005) and the intervention was delivered in the field. It was deemed as more ethical to enable control group (CG) parents' access to the PPP and its potential beneficial effects (Barker, Pistrang & Elliot, 2002). Two studies that were given a medium WoE B rating, examined the effectives of PPP on C&YP's social and emotional adjustment pretest and postest for both the CG and IG (Hand et al., 2012; Hayes et al., 2013). In addition to the pretest-postest of IC and CG, a further two studies, both of whom received a high WoE B, followed up the IG 6 months later (Hand et al., 2013; Nitsch, 2011). Kilroy (2010) employed an intervention group (IG) only, repeated design with

no follow up. This was reflected in both its WoE A and B, which were given a “Low” rating. Therefore in reviewing the studies it was important to consider the extent to which they examined social and emotional adjustment not just within group but between the equivalent groups and if these reductions in difficulties were maintained in the long term, once the programme had ceased.

All Studies used the Strengths and Difficulties Questionnaire (SDQ) to measure C&YP’s social and emotional adjustment. Two studies discussed its validity and reliability (Nitsch, 2013; Hand et al., 2012). A further two studies described the instrument and reported the measures’ relevance for their sample representativeness (Hayes, 2013; Hand, 2013). Kilroy (2010) only described the measures. The differing information reported with regard to the SDQ was reflected in the studies WoE A. Establishing validity and reliability particularly in relation to the participant sample under investigation is integral to establishing if there is a relationship between the PPP and the social-emotional adjustment in C&YP.

In regard to sources of data collection four studies only collected data from parents. Hayes et al. (2013) was the only exception, SDQ data was collected from both parents and nursery staff (nursery staff data was not included in this review because the SDQ-TD scores was not reported). The reviewed studies were therefore not able to establish generalizability and provide evidence of the potential reduction in C&YP’s difficult behaviours in different contexts (Brennan, 2010)

Intervention

A key issue for the effective delivery of evidence-based parenting interventions is implementation fidelity and facilitator delivery (Lindsay et al., 2011). All studies in the review delivered the intervention via at least one community facilitator that was either trained or accredited. Hand et al. (2013) and Hand et al. (2012) both investigated the PPCP designed for children between the ages of 6-11. Hand et al. (2012) made adaptations to the PPCP to suit the developmental needs of the parents' children. The modifications were fully documented. Nitsch (2011) implemented the Parents Plus Adolescent Programme (PPAP) targeting the 11-16 age range. Both the PPAP and PPCP were implemented over eight weeks for two hours once a week. Hayes et al. (2013) and Kilroy et al. (2010) examined the Parents together community course, which is a six week version of the Parents Plus Early Years programme (PPEYP). However NICE recommends parenting programmes are run for at least eight weeks to be effective. The aforementioned studies all achieved a high weighing for implementation fidelity in accordance with Kratochwill's (2003) coding protocol.

All reviewed studies were conducted in Ireland. All course content and materials reflect the cultural norms of the Irish culture.

Outcomes

The review question's aim is to examine the PPP's effect on social and emotional adjustment of C&YP and will therefore focus on the SDQ-Total Difficulties (SDQ-TD) scale. Goodman and Goodman (2011) found that the SDQ-TD score was an accurate measurement of child mental health for the general population and argued that these scores closely predict clinical levels of mental disorder in C&YP. The SDQ-TD scores indicate "normal," borderline" and "clinical" levels of social and

emotional functioning. This will enable the review to assess if the PPP programme can support parents and their children, in the community, by reducing levels of difficulties. All studies collected outcome data on the level of difficulties observed in C&YP via the SDQ-TD scale.

All studies measured the behavioural outcome pre intervention (Time 1(T1)), post intervention (Time 2 (T2)) and where applicable at follow-up (Time 3 (T3)). Depending on the design of the study these outcomes were reported for CG and/or IG both within and between subjects. In light of the research designs employed in the studies. The Pretest-Posttest Control Group; standardised mean difference (PPC-SMD; Morris, 2008) will be used to calculate effect sizes between the IG and CG, examining the difference between the two group's means at T1 and T2 for four studies in this review (see Table 5).

For the within group measures the within-person change (WPC) effect size (Becker,1988) will be used to calculate and examine the change within the IG in relation to time (T1 and T2) for all five studies included in the review (see Table 5). The WPC effect size (Becker, 1988) calculation will also be used to examine the change for children and young-people in the IG who had clinical-borderline SDQ-TD scores (see table 5). This was only calculated for Kilroy et al. because it was the only study that provided separate means for the clinical-borderline SDQ-TD scores from the IG. Table 6 uses the WPC effect size (Becker, 1988) to examine the change within the IG in relation to T1 and T3. Hand et al. (2013) and Nitsch (2011) were the only studies that included follow-up (T3) analysis.

The presence of a negative effect size indicates that the PPP programme produced a reduction in overall difficulties associated with social and emotional problems. A positive effect size would indicate that the PPP Programme may have increased the presence of social and emotional adjustment problems. All five studies in this review produced negative effect sizes ranging from not practically significant to large. The effect sizes were interpreted using Cohen's (1992) classification descriptors.

Table 5: SDQ-TD scores effect sizes

Study	Sample size at Pre-test	Outcome Measure	Effect size and descriptor**	Effect size and descriptor**	WoE D
			PPC-SMD	WPC	
Hand et al. (2012)	Control: 13 Intervention: 16	SDQ –TD score	-1.27 Large	- 1.04 Large	Medium (1.7)
Hayes et al. (2013) *	Control: 142 Intervention: 168	SDQ –TD score	-0.10 Small	-0.07 Small	Medium (2)
Hand et al. (2013)	Control: 31 Intervention: 44	SDQ –TD score	-0.51 Medium	-0.52 Medium	High (2.5)
Kilroy et al. (2010)	Intervention: 29	SDQ –TD score Clinical-borderline SDQ –TD score	- -	-0.51 Medium -1.65 Large	Low (1.3)
Nitsch (2011)	Control: 39 Intervention: 70	SDQ –TD score	-1.02 Large	-1.04 Large	High (2.6)

* Standard deviations were taken from Kilroy et al. (2010)
**Cohen's (1992) interpretation. PPC-SMD and WPC are not comparable.

Table 6: Effect sizes for Follow up data

Study	Sample size at Pre-test	Outcome Measure	Effect Size And Descriptor* WPC	WoE D
Hand et al. (2013)	CG: 31 IG: 44	SDQ –TD score T1 & T3	-0.51 Medium	High (2.5)
Nitsch (2011)	CG: 39 IG: 70	SDQ –TD score T1 & T3	-1.33 Large	High (2.6)

*Cohen's (1992) interpretation

With the exception of Hayes et al. (2013), all RCT studies (Hand et al., 2012; Hand 2013; Nitsch, 2011) found significant differences between the IGs and CGs pre and post-test SDQ-TD scores, producing medium to large effect sizes, among all three studies (see Appendix 2). Apart from Hayes et al. (2013), the remaining four studies (Hand et al., 2012; Hand et al. 2013; Nitsch, 2011 & Kilroy et al., 2010) found all parents who received the intervention reported a significant reduction over time in overall difficulties (see Appendix 2), the effect sizes ranged from medium to large for each study and in relation to the between group effect and the within group effect (see Table 5).

Hand et al. (2012) and Nitsch (2011) both conducted 6 month follow ups for the IG. The follow-up analysis of T1 and T3 revealed a medium and large effect size respectively (See Table 6). This demonstrates the effect of the intervention (a

reduction in overall difficulties) was maintained long-term for all parents that completed the intervention programme. This is promising evidence as both studies obtained high overall weighting of evidence.

A cautionary proviso must be noted in relation to sources of data collection. Hand et al. (2012); Hand 2013; Nitsch (2011) and Kilroy et al. (2010) only used one source of data collection (i.e. parents), so the ability to generalise the reduction in difficulties to different contexts is problematic.

Hayes et al. (2013) found no significant differences between the CG and IG. The study received a “Medium” WoE D. There was a high attrition rate (32%) for the intervention group. A further consideration, is that the SDQ data analysis for the IG included the parents who did not attend the PPP. Therefore the effects of the PPP may not have been detected due to the data analysis procedure.

Kilroy et al. (2010), found a medium effect between the pre and post scores for the IG. Further analysis conducted on the combined clinical and borderline SDQ-TD scores from the IG revealed a large effect size. For WoE C this study received a “Medium” due to the reporting of the statistical mean difference of clinical SDQ scores. This enabled an effect to be explored for C&YP who have clinical level difficulties within the community. This data has the potential of promising inferences, however this study received a “Low” rating for both WoE A and WoE B due to methodological limitations. Hand et al’s (2012) entire sample were from a clinical population. This study also yielded large effect sizes for both between and within group effects. Furthermore Nitsch (2013) analysed the frequency of clinical-borderline scores in the IG and CG. 34% of the IC and 33% CG obtained clinical-

borderline SDQ-TD scores at T1. For the IG this reduced to 4% at T2, whereas no change was observed in the CG.

Conclusion

The 5 group-based studies were systematically reviewed to examine the effectiveness of the PPP, delivered in a community setting, to improve the social and emotional adjustment of C&YP. Overall the majority of studies found the PPP delivered in a community setting was an effective parental intervention for reducing C&YP's social and emotional difficulties in the short and long term. Some results suggest that the PPP may be a potentially useful intervention that supports parents with their C&YP who experience mental health problems in communities but whom may not be able to access child and adolescent mental health services. However this must be treated tentatively at this stage as further research that consists of a rigorous methodological approach such as RCT is warranted.

The breadth of the PPP in terms of age range and developmental phases enabled the studies in question to investigate effectiveness in relation to a broad age range (1-16 years) but also in a range of community contexts, that were primarily educational settings. The majority of studies in the review only collected outcome data from one source (i.e. parents or carers). Due to the programme being implemented in an educational setting it would be beneficial for future research to employ a multi-source design and collect outcome data from teachers, children and young people. This would allow investigators to promote generalisation and establish if social and emotional adjustment is occurring in other contexts, while also considering if the change is perceived by the children and young people.

The results for the parents' together community course yielded the most variable results (Kilroy, 2010 & Hayes et al.). Future research for this particular PPP would benefit from RCT in order to establish its potential effectiveness and to determine the impact of shortening the programme to six weeks.

The reviewed research indicates that the PPP can be useful for both the general parenting community as well as parents with C&YP who experience levels of difficulty associated with a clinical threshold. In order to further establish this inference, future research would need to explicitly explore the effect of the PPP on C&YP classified with "normal," "borderline" and "clinical" via the SDQ-TD scoring system. This will help to better determine if the intervention is preventative in nature.

The overall evidence currently available suggests that the PPP programme delivered in a community setting could be a universal and targeted community based intervention that can support parents and their C&YP with social and emotional adjustment.

All studies in the review were conducted in Ireland. A recommendation from this review is that future research investigates the effect of the PPP in a UK sample, which begins to develop culturally relevant programme material for a UK based population.

References

Bandura, A. (1977). *Social Learning Theory*. Upper Saddle River, NJ: Prentice Hall.

Barker, C., Pistrang, N., & Elliot, R. (2002). *Research methods in clinical and counselling psychology*. John Wiley & Sons

Behan, J., Fitzpatrick, C., Sharry, J., Carr, A., & Waldron, B. (2001). Evaluation of the Parenting Plus Programme. *Irish Journal of Psychology*, *22*``(December 2014), 1–2. doi:10.1080/03033910.2001.10558283

Brennan, R. L. (2010). *Generalizability theory*. (E. B. and B. M. Penelope Peterson, Ed.) (Third Edit., pp. 27–34). Elsevier Science. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/j.1745-3992.1992.tb00260.x/abstract

Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159.

Coughlin, M., Sharry, J., Fitzpatrick, C., Guerin, S., & Drumm, M. (2009). A controlled clinical evaluation of the parents plus children's programme: a video-based programme for parents of children aged 6 to 11 with behavioural and developmental problems. *Clinical Child Psychology and Psychiatry*, *14*(4), 541–558. doi:10.1177/1359104509339081

Farrell, P., Woods, K., Lewis, S., Rooney, S., Squires, G., & Connor, M. O. (2006). *RESEARCH A Review of the Functions and Contribution of Educational Psychologists in England and Wales in light of " Every Child Matters : Change for Children ."* London: DFES.

Fitzpatrick, C. (2004). Nice Health Technology Appraisal. Manufacturers' / sponsors' submission on the PARENTS PLUS PROGRAMMES.

Goodman, A., & Goodman, R. (2011). Population mean scores predict child mental disorder rates: Validating SDQ prevalence estimators in Britain. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, *52*, 100–108. doi:10.1111/j.1469-7610.2010.02278.x

Gough, D. (2007). Weight of evidence: a framework for the appraisal of the quality and relevance of evidence. *Research Papers in Education*, *22*(2), 37–41. doi:10.1080/02671520701296189

Griffin, C., Guerin, S., Sharry, J., & Drumm, M. (2010). A multicentre controlled study of an early intervention parenting programme for young children with behavioural and developmental difficulties. *International Journal of Clinical and Health Psychology*, *10*, 279–294.

Hand, A., McDonnell, E., Honari, B., & Sharry, J. (2013). A community led approach to delivery of the Parents Plus Children's Programme for the parents of children aged 6-11. *International Journal of Clinical and Health Psychology*, *13*, 81–90. doi:10.1016/S1697-2600(13)70011-5

Hand, A., Ni Raghaillaigh, C., Cuppage, J., Coyle, S., & Sharry, J. (2012). A Controlled Clinical Evaluation of the Parents Plus Children's Programme for Parents

of Children Aged 6 – 12 with Mild Intellectual Disability in a School Setting. *Clinical Child Psychology and Psychiatry*, 18 (4), 536-555.

Hayes, N., Siraj-Blatchford, I., Keegan, S. and Goulding, E. (2013) Evaluation of the Early Years Programme of the Childhood Development Initiative. Dublin: Childhood Development Initiative (CDI).

Hupp, D., A., Reitman, D., & Jewell, D. (2008). Cognitive Behavioural Therapy. In Hersen, M., & Gross, A., M. (Eds.), *Handbook of Clinical Psychology : Vol. 2. Children and Adolesecents*. New Jersey: John Wiley & Sons.

Kilroy, S., Sharry, J., Flood, C., & Guerin, S. (2010). Parenting training in the community: linking process to outcome. *Clinical Child Psychology and Psychiatry*, *16*(3), 459–473. doi:10.1177/1359104510384338

Lindsay, G., Strand, S., Cullen, M. a, Cullen, S., Band, S., Davis, H.,& Evans, R. (2011). *Parenting Early Intervention Programme Evaluation.* DFE: London.

Morris, S. B. (2008). Estimating Effect Sizes From Pretest-Posttest-Control Group Designs. *Organizational Research Methods*, , 364–386. doi:10.1177/1094428106291059

Nitsch, E. (2011). *Positive Parenting: A Randomized Controlled Trial Evaluation of the Parents Plus Adolescent Programme in Schools*. Submitted doctorate thesis, University of Limerick.

Quinn, M., Carr, A., Carroll, L., & O'Sullivan, D. (2006). An evaluation of the parents plus programme for pre-school children with conduct problems: a comparison of those with and without developmental disabilities. *The Irish Journal of Psychology*, , 168–182. doi:10.1080/03033910.2006.10446239

Quinn, M., Carr, A., Carroll, L., & O'Sullivan, D. O. (2007). Parents Plus Programme 1 : Evaluation of Its Effectiveness for Pre-School Children with Developmental Disabilities and Behavioural Problems. *Journal of Applied Research in Intellectual Disabilities*, *20*, 345–359.

Sharry, J. (2005). An Evaluation of the Parents Plus Early Years Programme: A Video-based Early Intervention for Parents of Pre-school Children with Behavioural and Developmental Difficulties. *Clinical Child Psychology and Psychiatry*, *10*(3), 319–336. doi:10.1177/1359104505053752

Wolfson, L.M. (2011). *Educational Psychology*. London: Pearson.

Appendices

Appendix 1:

Excluded studies and Rationale

Database search; studies excluded at Full text

Excluded Paper	Rationale for exclusion
Behan, J., Fitzpatrick, C., Sharry, J., Carr, A., & Waldron, B. (2001). Evaluation of the Parents Programme. *The Irish Journal of Psychology*, *22*, 238–256.	6. Intervention not conducted in a community setting (e.g. school)
Coughlin, M., Sharry, J., Fitzpatrick, C., Guerin, S., & Drumm, M. (2009). A controlled evaluation of the Parents Plus Children's Programme: A video-based programme for parents of children aged 6–11 years with behavioural and developmental problems. *Clinical Child Psychology & Psychiatry*, *14*, 541–558.	6. Intervention not conducted in a community setting (e.g. school)
Quinn, M., Carr, A., Carroll, L., & O'Sullivan, D. (2006). An evaluation of the parents plus programme for pre-school children with conduct problems: a comparison of those with and without developmental disabilities. *The Irish Journal of Psychology*, *27*(December 2014), 168–182.	6. Intervention not conducted in a community setting (e.g. school)
Quinn, M., Carr, A., Carroll, L., & O'Sullivan, D. O. (2007). Parents Plus Programme 1 : Evaluation of Its Effectiveness for Pre-School Children with Developmental Disabilities and Behavioural Problems. *Journal of Applied Research in Intellectual Disabilities*, *20*, 345–359.	6. Intervention not conducted in a community setting (e.g. school)
Sharry, J. (2005). An Evaluation of the Parents Plus Early Years Programme: A Video-based Early Intervention for Parents of Pre-school Children with Behavioural and Developmental Difficulties. *Clinical Child Psychology and Psychiatry*, *10*(3), 319–336.	6. Intervention not conducted in a community setting (e.g. school)
Griffin, C., Guerin, S., Sharry, J., & Drumm, M. (2010). A multicentre controlled study of an early intervention parenting programme for young children with behavioural and developmental difficulties. *International Journal of Clinical and Health Psychology*, *10*, 279–294.	6. Intervention not conducted in a community setting (e.g. school)

Appendix 2:
Key Features of reviewed studies

Study	Parent Sample:	C&YP Characteristics	Setting	Study Design	Type of Parent Plus Programme	Outcome Measure:	Findings
Hand et al. (2012)	Parents, N = 29 Intervention N = 16 Control N = 13 Fathers, N = 8 Mothers, N = 21	6-12 years old Children, N = not explicitly stated Clinical Sample: Learning disability N = 16 Autism, N = 2 Down syndrome, N = 3 Dyspraxia, N = 3 Prader-Willi syndrome, Williams-Beuren syndrome, epilepsy & Speech delay, N = 5	Special School Country: Ireland	RCT Intervention group (IG) and control group (CG) Pre &Post-test No follow up Duration: 8 wks Frequency: 1 session per week for 2.5 hour Intervention Delivery: Group sessions; parent/carers only	Parents Plus children's Programme (PPCP) Age range: 6-11 Facilitators:	SDQ Total difficulties (SDQ-TD): Parent reported only	Time effect (Pre-post effect) for Intervention group: Parents who received the intervention reported a significant reduction over time in overall behavioural difficulties (SDQ-TD (p = 0.003) Time x Group Interaction effect: There was a significant difference between the control and treatment group for SDQ total difficulties (p = 0.007).

Study	Parent Sample:	C&YP Characteristics	Setting	Study Design	Type of Parent Plus Programme	Outcome Measure:	Findings
Hayes et al. (2013)	Parents, N = 310 Intervention group: N = 168 (113 parents took part in PPP) Female parent / carer, N = 136 Fathers, N = 16 Mother and Father together, N = 16 Control Group: N = 142 Female parent / carer, N = 131 Fathers, N = 10	Children, N = 311 (Boys, N= 177; Girls, N=154) Intervention group: N=165 Boys, N = 82 girls, N = 83 Diagnosed need, N = 9 Control Group: N = 166 Boys, N = 95 Girls, N = 71 Diagnosed need, N = 6	Multi - site: Pre-schools Country: Ireland Community over-Representation of families experiencing poverty.	Design: RCT IG and CG Pre &Post-test 6 week intervention programme	Parent Plus community Course (PPCC) Age range: 1-6 Facilitators: 2 community trained	SDQ TD: Parent reported SDQ caseness % reported by condition	There were no significant differences between the control and intervention group for the SDQ total difficulties. SDQ-TD caseness: Pre: IG – Normal: 62.9% IG – Borderline: 16.9% IG – Abnormal: 20.1% Post: IG – Normal: 73.3% IG – Borderline: 10.6% IG – Abnormal: 16.1% Pre: CG – Normal: 68.2% CG – Borderline: 13.4% CG – Abnormal: 18.3% CG – Normal: 67.2% CG – Borderline: 12.3% CG – Abnormal: 20.3%

	Mother & Father together, N = 1						
Study	**Parent Sample:**	**C&YP Characteristics**	**Setting**	**Study Design**	**Type of Parent Plus Programme**	**Outcome Measure:**	**Findings**
Hand et al. (2013)	Parents, N = 75 10 Males (13%) 65 Females Pre: Intervention N = 31 Control N = 44 Post: Intervention N = 27 Control N = 36 Intervention follow up:	6-11 years old Families identified by school staff as 'most in need' No clinical services being received Children, N = Not stated	3 Primary Schools <u>Country</u>: Ireland	RCT wait-list control Pre & post-test IG & CG IG only follow up at 6 months	PPCP Age range: 6-11 <u>Duration:</u> 8 wks <u>Frequency:</u> 1 session per week for 2.5 hour <u>Delivery</u>: Group sessions; parent/carers only <u>Facilitators:</u>	SDQ TD: Parent report only	<u>Time x Group Interaction effect:</u> There was a significant difference between the control and Treatment group for SDQ total difficulties (p =4.87). <u>Time effect (Pre-post effect) for Intervention group:</u> There was a significant difference between pre and post-test measures for the SDQ total difficulties $p < .001$. Intervention parents reported a reduction in their children's overall behavioural difficulties. These reductions in problem behaviour were maintained at the 6 month follow up.

	Intervention N = 20						
Study	**Parent Sample:**	**C&YP Characteristics**	**Setting**	**Study Design**	**Type of Parent Plus Programme**	**Outcome Measure:**	**Findings**
Kilroy (2010)	Parents, N = 29	Children, N = 29 1-9 years old	4 schools 1 community family centre <u>Country</u>: Ireland	<u>Design:</u> repeated measured IG only No follow up	PPCC Age range: 1-6 <u>Duration</u>: 6 weeks <u>Frequency</u>: unknown <u>Delivery:</u> Group sessions; parent/carers only <u>Facilitators</u>: 2 Community	SDQ TD: Parent report only N = 13 (45%): Pre SDQ-TD scores were clinical or borderline.	<u>Pre & Post:</u> There was a significant difference between pre and post total SDQ difficulties score ($p < .001$) Parents reported a significant reduction in overall problem behaviours. <u>Borderline & Clinical pre and post SDQ results:</u> Significant differences for the total SDQ score ($p < .001$). Parents who rated their children as having clinical or borderline SDQ scores. Reported a significant reduction in overall behavioural difficulties.
Study	**Parent Sample:**	**C&YP Characteristics**	**Setting**	**Study Design**	**Type of Parent Plus Programme**	**Outcome Measure:**	**Findings**
Nitsch (2011)	Parents, N = 109 Intervention group:	11-16 years olds Mean age = 12.34 N=109	Primary and secondary schools Througho	RCT Wait-list Control	Parent Plus adolescence Programme <u>Age range:</u>	SDQ TD: Parent report only	<u>Time main effect</u> <u>Intervention group:</u> There was a significant main time effect between pre, post and follow up for the SDQ

	N = 70 Female parent/carer, N = 61 Male parent, N = 9 <u>Waiting list control</u>, N = 39 Female parent/carer, N = 33 Male parent, N = 6 Employment status reported: 49% employed	Young people's parents in Intervention Group: Male, N = 27 Female, N = 43 Receiving a service: Yes, N = 7 No, N = 63 Difficulties: Yes, N = 8 No, N = 62 Wait-list Group: Male, N = 16 Female, N = 23 Receiving a service: Yes, N= 3 No, N = 36 Difficulties: Yes, N = 5 No, N = 34	ut the country. <u>Country</u>: Ireland	Pre and Post test IG & CG Intervention group Follow up at 6 months	11-16 <u>Duration:</u> 8 wks <u>Frequency:</u> 1 session per week for 2.5 hour Group sessions; parent/carers only Facilitators: Community 1 accredited 1 trained	Reported frequencies of combined clinical-borderline SDQ-TD scores.	total difficulties (p,< .001). Intervention parents reported a reduction in their children's overall behavioural difficulties. The reduction in problem behaviours were maintained at the 6 month follow up. <u>Time x Group Interaction effect:</u> There was a significant difference between the control and Intervention group for SDQ total difficulties (*p* =.001). <u>Clinical-borderline frequencies:</u> IG – T1 = 34.5% IG – T2 = 4.3% IG – T3 = 2.3% CG – T1 = 33.3% CG – T2 = 33.3%

Appendix 3:
Weight of Evidence (WoE) Criteria and Rationale

WoE A: Methodological Quality

The rating for WoE A is derived from the adapted Kratochwill's (2003) coding protocol for group based design. The coding protocol enables the generic examination of key features of the intervention study relating to methodological quality. The following methodological components from Kratochwill's summary of evidence will be included for WoE A; *measurement* (criteria included: reported reliability and validity and evidence of multi-source and multi-method data collection); *comparison group* (criteria included: type of comparison group (e.g. active comparison group); counterbalancing of change agents, attrition rates and type of group equivalence used); *Intervention fidelity* (criteria included: level of manualisation, level of adherence and if applicable specified adaptations); *site of implementation* (Criteria included: school site or non-school site) and *follow up assessment* (Criteria included: timing of follow up, number of participants followed up and consistency of assessment method used).

The subsections were rated on a four-point scale to classify the level of evidence. A score of "0" indicates no evidence, "1" indicates weak evidence, "2" indicates promising evidence and "3" indicates strong evidence. To calculate WoE A the scores are averaged to produce an overall total for methodological quality.

To achieve a "High" weighting for methodological quality, a study must have an average rating of 2.5 or above.

To achieve a "Medium" weighting for methodological quality, a study must have an average rating of 1.5 – 2.4.

To achieve a "Low" weighting for methodological quality, a study must have an average rating of 1.4 or below.

Weight of Evidence A: Methodological Quality

Study	Measures	Comparison Group	Fidelity	Site of implement-tation	Follow-up	Overall Quality of Methodology
Hand et al. (2012)	3	2	2	3	0	Medium (2)
Hayes et al. (2013)	2	3	3	2	0	Medium (2)
Hand et al. (2013)	2	2	3	3	2	Medium (2.4)
Kilroy et al. (2010)	1	0	2	2	0	Low (1)
Nitsch (2011)	3	3	3	3	2	High (2.8)

WoE B: Methodological Relevance

Methodological relevance considers whether the design of the study was appropriate for evaluating the effect of the Parent Plus Intervention Programme on the social and emotional adjustment of children and young children, delivered in a community setting.

WoE B Weighting	Description
High – 3 points The study must satisfy all:	• Randomised allocation to groups • Uses a wait-list control • Pre, post and follow up outcome data for intervention group • Pre and post outcome data for both groups

Medium – 2 Points The study must satisfy all:	• Randomised allocation to groups • Uses a no intervention control • Pre and post outcome data for control and intervention group.
Low – 1 point The study must satisfy all:	• No control • Pre and post outcome data for intervention group only

N.B. Weightings are allocated if the study meets the majority of criteria

To achieve a “High” rating the study must have randomly allocated participants to groups and have a wait-list control, in order to account for selection bias and to ensure that the control participants were not denied an intervention that may have potential beneficial effects, while still incorporating a comparison group. The study must have three data points (pre-post and follow up) for the intervention group and at least two data points (pre and post) for the control group in order to attempt to illustrate the effect of the intervention.

For the study to achieve a “Medium” rating it must have randomly allocated participants to groups, to account for the potential of selection bias. If a study employed a no treatment control group it was considered to be of a lower rating because the intervention has an established body of evidence that suggests it’s clinical effectiveness (Coughlin, 2009) therefore parents with clinical behavioural difficulties in the community are being denied a potentially effective intervention. The study must have at least two data points(pre and post) for the intervention and control group.

To achieve a “Low” rating the study will not have a control group and only have two points of data from the intervention group. Therefore the data will not have a control group to compare potential effects against.

WoE C: Topic Relevance

This weighting considers the extent to which the study and its findings are relevant to the review question.

WoE C Weighting	Description
High – 3 points The study must have:	• 2 community facilitators (e.g. teacher/ nursery staff) that were either trained or accredited PPP facilitators • Study examined relationship between the intervention and pre-post borderline & clinical SDQ total difficulty scores • Study used 2 or more sources of data collection methods (e.g. Parent, child & teacher)
Medium – 2 points The study must have at least 2 of the following	• At least 1 community trained facilitator • Study examines relationship between the intervention and pre-post clinical SDQ total difficulty scores • Study uses 2 sources of data collection methods (e.g. Parent & teacher)
Low – 1 point The study must have at least 1 of the following	• Trained facilitators (unknown if they are community or specialist staff) • Study does not examine relationship between the intervention and pre-post clinical SDQ total difficulty scores • Study uses 1 source for data collection (e.g. parents)

N.B. If the low criteria is not met a score of 0 will be allocated.

To achieve a “High” rating the study must have 2 community facilitators delivering the intervention. The importance of having a community facilitator is for the review to ascertain if the intervention will be effective if delivered by frontline community staff or professionals in a community context (Kilroy et al., 2010). Fitzpatrick (2004) recommends the PPP is run by two facilitators; one to deliver the programme and one to observe group-dynamics and emerging themes. The study must also analyse the impact of pre-post borderline and clinical scores independently. This will allow the review to assess its impact among the two groups of children and young people.

(Identifying if the PPP programme can act as a preventative measure for borderline children whom are approaching a clinical level and an intervention for clinical cases in the community.) Lastly the study must have at two or more sources of data collection, to establish reliability and validity of the measure.

To achieve a “Medium” rating the study must at least 1 community facilitator, examine the impact of pre and post of the clinical scores and have at least two sources of data.

To achieve a “Low” rating the study will not provide details of the type of facilitators or analyse SDQ-TQ scale in terms of clinical scores.

WoE D: Overall Weight of Evidence

The overall weight of evidence was calculated using the weighting score or points obtained for WoE A, B and C. These scores were then averaged to give an overall weight of evidence score.

To achieve a “High” overall weighting of evidence the study must receive an average score of at least 2.5 or above.

To achieve a “Medium” overall weighting of evidence the study must receive an average score of between 1.5 and 2.4.

To achieve a “Low” overall weighting of evidence the study must receive an average score of less than 1.4.

Appendix 4:
Kratochwill (2003) Coding protocol

Coding Protocol: Group-Based Design

Domain:

- ☐ **School- and community-based intervention programs for social and behavioral problems**
- ☐ **Academic intervention programs**
- ☒ **Family and parent intervention programs**
- ☐ **School-wide and classroom-based programs**
- ☐ **Comprehensive and coordinated school health services**

Name of Coder(s): _____ **Date**: 1/2/2015

M / D / Y

Full Study Reference in APA format: Nitsch, E. (submitted) Positive Parenting: A Randomized Controlled Trial Evaluation of the Parents Plus Adolescent Programme in Schools. Dept. of Psychology, University of Limerick.

Intervention Name (description from study): Parents Plus Adolescent Programme

Study ID Number (Unique Identifier): 4

Type of Publication: (Check one)

- ☐ **Book/Monograph**
- ☐ **Journal article**
- ☐ **Book chapter**
- ☒ **Other (specify):**

I. General Characteristics

A. General Design Characteristics

A1. Random assignment designs (if random assignment design, select one of the following)

- A1.1 ■ Completely randomized design
- A1.2 ☐ Randomized block design (between-subjects variation)
- A1.3 ☐ Randomized block design (within-subjects variation)
- A1.4 ☐ Randomized hierarchical design

A2. Nonrandomized designs (if nonrandom assignment design, select one of the following)

- A2.1 ☐ Nonrandomized design
- A2.2 ☐ Nonrandomized block design (between-participants variation)
- A2.3 ☐ Nonrandomized block design (within-participants variation)
- A2.4 ☐ Nonrandomized hierarchical design
- A2.5 ☐ Optional coding of Quasi-experimental designs (see Appendix C)

A3. Overall confidence of judgment on how participants were assigned (select one of the following)

- A3.1 ☐ Very low (little basis)
- A3.2 ☐ Low (guess)
- A3.3 ☐ Moderate (weak inference)
- A3.4 ☐ High (strong inference)
- A3.5 ■ Very high (explicitly stated)
- A3.6 ☐ N/A
- A3.7 ☐ Unknown/unable to code

B. Statistical Treatment/Data Analysis (answer B1 through B6)

B1. Appropriate unit of analysis ■ yes ☐ no

B2. Familywise error rate controlled ■ yes ☐ no ☐ N/A

B3. Sufficiently large *N* ☐ yes ■ no

Statistical Test: ANOVA

_ level: 0.03

ES: medium

N required: 95

B4. Total size of sample (start of the study): 126 N

B5. Intervention group sample size: 82 N

B6. Control group sample size: 44 N

~~**For studies using qualitative research methods, code B7 and B8**~~

~~B7. Coding~~

~~B7.1 Coding scheme linked to study's theoretical-empirical basis (select one)~~ ☐ ~~yes~~ ☐ ~~no~~

~~B7.2 Procedures for ensuring consistency of coding are used (select one)~~ ☐ ~~yes~~ ☐ ~~no~~

~~Describe procedures:~~ _____

B7.3 Progression from abstract concepts to empirical exemplars is clearly articulated (select one) ☐ yes ☐ no

B8. Interactive process followed (select one) ☐ yes ☐ no

Describe process: _____

C. Type of Program (select one)

C1. ☒ Universal prevention program
C2. ☐ Selective prevention program
C3. ☐ Targeted prevention program
C4. ☐ Intervention/Treatment
C5. ☐ Unknown

D. Stage of the Program (select one)

D1. ☐ Model/demonstration programs
D2. ☒ Early stage programs
D3. ☐ Established/institutionalized programs
D4. ☐ Unknown

E. Concurrent or Historical Intervention Exposure (select one)

E1. ☐ Current exposure
E2. ☐ Prior exposure
E3. ☒ Unknown

II. Key Features for Coding Studies and Rating Level of Evidence/ Support

(3=Strong Evidence 2=Promising Evidence 1=Weak Evidence 0=No Evidence)

A. Measurement (answer A1 through A4)

A1. Use of outcome measures that produce reliable scores for the majority of primary outcomes. The table for Primary/Secondary Outcomes Statistically Significant allows for listing separate outcomes and will facilitate decision making regarding measurement (select one of the following)

A1.1 ■ Yes
A1.2 ☐ No
A1.3 ☐ Unknown/unable to code

A2. Multi-method (select one of the following)

A2.1 ■ Yes
A2.2 ☐ No
A2.3 ☐ N/A
A2.4 ☐ Unknown/unable to code

A3. Multi-source (select one of the following)

A3.1 ☐ Yes
A3.2 ■ No
A3.3 ☐ N/A
A3.4 ☐ Unknown/unable to code

A4. Validity of measures reported (select one of the following)

A5.1 ☐ Yes validated with specific target group
A5.2 ■ In part, validated for general population only
A5.3 ☐ No
A5.4 ☐ Unknown/unable to code

Rating for Measurement (select 0, 1, 2, or 3)**:** ■ **3** ☐ **2** ☐ **1** ☐ **0**

B. Comparison Group

B1. Type of Comparison Group (select one of the following)

B1.1 ☐ Typical contact
B1.2 ☐ Typical contact (other) specify:
B1.3 ☐ Attention placebo
B1.4 ☐ Intervention elements placebo
B1.5 ☐ Alternative intervention
B1.6 ☐ PharmacotherapyB1.1
B1.7 ☐ No intervention
B1.8 ■ Wait list/delayed intervention
B1.9 ☐ Minimal contact
B1.10 ☐ Unable to identify comparison group

Rating for Comparison Group (select 0, 1, 2, or 3)**:** ■ **3** ☐ **2** ☐ **1** ☐ **0**

B2. Overall confidence rating in judgment of type of comparison group (select one of the following)

B2.1 ☐ Very low (little basis)
B2.2 ☐ Low (guess)
B2.3 ☐ Moderate (weak inference)
B2.4 ☐ High (strong inference)
B2.5 ■ Very high (explicitly stated)
B2.6 ☐ Unknown/Unable to code

B3. Counterbalancing of Change Agents (answer B3.1 to B3.3)

B3.1 ☐ By change agent
B3.2 ☐ Statistical
B3.3. ☐ Other

B4. Group Equivalence Established (select one of the following)

B4.1 ■ Random assignment
B4.2 ☐ Posthoc matched set
B4.3 ☐ Statistical matching
B4.4 ☐ Post hoc test for group equivalence

B5. Equivalent Mortality (answer B5.1 through B5.3)
B5.1 ■ Low Attrition (less than 20% for Post)
B5.2 ■ Low Attrition (less than 30% for follow-up)
B5.3 ☐ Intent to intervene analysis carried out
Findings_____

~~**C. Primary/Secondary Outcomes Are Statistically Significant**~~

~~C1. Evidence of appropriate statistical analysis for **primary outcomes** (answer C1.1 through C1.3)~~

~~C1.1 ☐ Appropriate unit of analysis (rate from previous code)~~
~~C1.2 ☐ Familywise/experimenterwise error rate controlled when applicable (rate from previous code)~~
~~C1.3 ☐ Sufficiently large *N* (rate from previous code)~~

~~C2. Percentage of **primary outcomes** that are significant (select one of the following)~~

~~C2.1 ☐ Significant primary outcomes for at least 75% of the total primary outcome measures for each key construct~~

~~C2.2 ☐ Significant primary outcomes for between 50% and 74% of the total primary outcome measures for each key construct~~

~~C2.3 ☐ Significant primary outcomes for between 25% and 49% of the total primary outcome measures for any key construct~~

~~**Rating for Primary Outcomes Statistically Significant** (select 0, 1, 2, or 3)**:** ☐ **3** ☐ **2** ☐ **1** ☐ **0**~~

~~C3. Evidence of appropriate statistical analysis for **secondary outcomes** (answer C3.1 through C3.3)~~

~~C3.1 ☐ Appropriate unit of analysis~~
~~C3.2 ☐ Familywise/experimenterwise error rate controlled when applicable (rate from previous code)~~

C3.3 ☐ Sufficiently large *N* (rate from previous code)

C4. Percentage of **secondary outcomes** that are significant (select one of the following)

C4.1 ☐ Significant secondary outcomes for at least 75% of the total secondary outcome measures for each key construct

C4.2 ☐ Significant secondary outcomes for between 50% and 74% of the total secondary outcome measures for each key construct

C4.3 ☐ Significant secondary outcomes for between 25% and 49% of the total secondary outcome measures for any key construct

Rating for Secondary Outcomes Statistically Significant (select 0, 1, 2, or 3)**:** ☐ **3** ☐ **2** ☐ **1** ☐ **0**

C5. Overall Summary of Questions Investigated

C5.1 Main effect analyses conducted	(select one)	☐ yes	☐ no
C5.2 Moderator effect analyses conducted	(select one)	☐ yes	☐ no

Specify results: _____

C5.3. Mediator analyses conducted	(select one)	☐ yes	☐ no

Specify results: _____

C. Primary/Secondary Outcomes Statistically Significant (only list $p \leq .05$)

(list primary outcomes first in alphabetical order, followed by secondary outcomes in alphabetical order)

Outcomes	Primary vs. Secondary	Who Changed	What Changed	Source	Treatment Information	Outcome Measure Used	Reliability	ES	(1-_)
Outcome #1:	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown					
Outcome #2	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown					
Outcome #3:	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown					
Outcome #4:	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown					
Outcome #5:	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown					

Null Findings/Negative Outcomes Associated with the Intervention (listed alphabetically by outcome)

Outcomes	Primary vs. Secondary	Who Was Targeted for Change	What Was Targeted for Change	Source	Note null/negative outcomes	Outcome Measure Used	Reliability	ES
Outcome #1:	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown				
Outcome #2	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown				
Outcome #3:	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown				
Outcome #4:	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown				
Outcome #5:	☐ Primary ☐ Secondary ☐ Unknown	☐ Child ☐ Teacher ☐ Parent/sign. Adult ☐ Ecology ☐ Other ☐ Unknown	☐ Behavior ☐ Attitude ☐ Knowledge ☐ Other ☐ Unknown	☐ Self Report ☐ Parent Report ☐ Teacher Report ☐ Observation ☐ Test ☐ Other ☐ Unknown				

Type of Data Effect Size is Based On	Confidence Rating in ES Computation
(check all that apply) ☐ Means and SDs ☐ *t* - value or *F* – value ☐ Chi-square (*df* = 1) ☐ Frequencies or proportions (dichotomous) ☐ Frequencies or proportions (polytomous) ☐ Other (specify): ☐ Unknown	(select one of the following) ☐ Highly estimated (e.g., only have *N* p value) ☐ Moderate estimation (e.g., have complex but complete statistics) ☐ Some estimation (e.g., unconventional statistics that require conversion) ☐ Slight estimation (e.g., use significance testing statistics rather than descriptives) ☐ No estimation (e.g., all descriptive data is present)

D. Educational/Clinical Significance

Outcome Variables:	Pretest	Posttest	Follow Up
D1. Categorical Diagnosis Data	Diagnostic information regarding inclusion into the study presented: ☐ Yes ☐ No ☐ Unknown	Positive change in diagnostic criteria from pre to posttest: ☐ Yes ☐ No ☐ Unknown	Positive change in diagnostic criteria from posttest to follow up: ☐ Yes ☐ No ☐ Unknown
D2. Outcome Assessed via continuous Variables		Positive change in percentage of participants showing clinical improvement from pre to posttest: ☐ Yes ☐ No ☐ Unknown	Positive change in percentage of participants showing clinical improvement from posttest to follow up: ☐ Yes ☐ No ☐ Unknown
D3. Subjective Evaluation: The importance of behavior change is evaluated by individuals in direct contact with the participant.	Importance of behavior change is evaluated: ☐ Yes ☐ No ☐ Unknown	Importance of behavior change from pre to posttest is evaluated positively by individuals in direct contact with the participant: ☐ Yes ☐ No ☐ Unknown	Importance of behavior change from posttest to follow up is evaluated positively by individuals in direct contact with the participant: ☐ Yes ☐ No ☐ Unknown
D4. Social Comparison: Behavior of participant at pre, post, and follow up is compared to normative data (e.g., a typical peer).	Participant's behavior is compared to normative data ☐ Yes ☐ No ☐ Unknown	Participant's behavior has improved from pre to posttest when compared to normative data: ☐ Yes ☐ No ☐ Unknown	Participant's behavior has improved from posttest to follow up when compared to normative data: ☐ Yes ☐ No ☐ Unknown

Rating for Educational/Clinical Significance (select 0, 1, 2, or 3)**:** ☐ **3** ☐ **2** ☐ **1** ☐ **0**

E. Identifiable Components (answer E1 through E7)

E1. Evidence for primary outcomes (rate from previous code): ☐ 3 ☐ 2 ☐ 1 ☐ 0
E2. Design allows for analysis of identifiable components (select one) ☐ yes ☐ no

E3. Total number of components:

N

E4. Number of components linked to primary outcomes:

N

Additional criteria to code descriptively:

E5. Clear documentation of essential components (select one) ☐ yes ☐ no

E6. Procedures for adapting the intervention are described in detail (select one) ☐ yes ☐ no

E7. Contextual features of the intervention are documented (select one) ☐ yes ☐ no

Rating for Identifiable Components (select 0, 1, 2, or 3): ☐ **3** ☐ **2** ☐ **1** ☐ **0**

F. Implementation Fidelity

F1. Evidence of Acceptable Adherence (answer F1.1 through F1.3)

F1.1 ☐ Ongoing supervision/consultation
F1.2 ☐ Coding intervention sessions/lessons or procedures
F1.3 ■ Audio/video tape implementation (select F1.3.1 or F1.3.2):

F1.3.1 ■ Entire intervention
F1.3.2 ☐ Part of intervention

F2. Manualization (select all that apply)

F2.1 ■ Written material involving a detailed account of the exact procedures and the sequence in which they are to be used

F2.2 ■ Formal training session that includes a detailed account of the exact procedures and the sequence in which they are to be used

F2.3 ☐ Written material involving an overview of broad principles and a description of the intervention phases

F2.4 ☐ Formal or informal training session involving an overview of broad principles and a description of the intervention phases

F3. Adaptation procedures are specified (select one) ☐ yes ■ no ☐ unknown

Rating for Implementation Fidelity (select 0, 1, 2, or 3): ■ **3** ☐ **2** ☐ **1** ☐ **0**

G. Replication (answer G1, G2, G3, and G4)

G1. ☐ Same Intervention
G2. ☐ Same Target Problem
G3. ☐ Independent evaluation

Rating for Replication (select 0, 1, 2, or 3): ☐ **3** ☐ **2** ■ **1** ☐ **0**

H. Site of Implementation

H1. School (if school is the site, select one of the following options)

H1.1 ■ Public

H1.2 ☐ Private
H1.3 ☐ Charter
H1.4 ☐ University Affiliated
H1.5 ☐ Alternative
H1.6 ☐ Not specified/unknown

H2. Non School Site (if it is a non school site, select one of the following options)

H2.1 ☐ Home
H2.2 ☐ University Clinic
H2.3 ☐ Summer Program
H2.4 ☐ Outpatient Hospital
H2.5 ☐ Partial inpatient/day Intervention Program
H2.6 ☐ Inpatient Hospital
H2.7 ☐ Private Practice
H2.8 ☐ Mental Health Center
H2.9 ☐ Residential Treatment Facility
H2.10 ☐ Other (specify):_____
H2.11 ☐ Unknown/insufficient information provided

Rating for Site of Implementation (select 0, 1, 2, or 3)**:** ■ **3** ☐ **2** ☐ **1** ☐ **0**

I. Follow Up Assessment

■ Timing of follow up assessment: specify after intervention and six months

■ Number of participants included in the follow up assessment: specify Pre and post n=109. 6 month n = 59

■ Consistency of assessment method used: specify same outcome measures

Rating for Follow Up Assessment (select 0, 1, 2, or 3)**:** ☐ **3** ■ **2** ☐ **1** ☐ **0**

III. Other Descriptive or Supplemental Criteria to Consider

A. External Validity Indicators

A1. Sampling procedures described in detail ■ yes ☐ no

Specify rationale for selection: Parents of adolescence

Specify rationale for sample size: Parents volunteered

A1.1 Inclusion/exclusion criteria specified ■ yes ☐ no

A1.2 Inclusion/exclusion criteria similar to school practice ☐ yes ■ no

A1.3 Specified criteria related to concern ■ yes ☐ no

A2. Participant Characteristics Specified for Treatment and Control Group

Participants from Treatment Group	Grade/age	Gender	Ethnicity or Multi-ethnic	Ethnic Identity	Race(s)	Acculturation	Pri - mary Lan-guage	SES	Family Struc-ture	Locale	Disability	Functional Descriptors
☐ Child/Student ☒ Parent/caregiver ☐ Teacher ☐ School ☐ Other	Not Known	Male (n= 15) Female (n= 93)	Not Known	Not Known	Not Known	Not Known	Not Known	Not Known	Not Known	Not Known	Not Known	
☒ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other	age: 11-16	Male (n= 43) Female (n=66)	Not Known	Not Known	Not Known	Not Known	Not Known	Not Known	Not Known	Not Known	Not Known	
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other												
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other												

Participants from Control Group	Grade/age	Gender	Ethnicity or Multi-ethnic	Ethnic Identity	Race(s)	Acculturation	Pri - mary Lan-guage	SES	Family Struc-ture	Locale	Disability	Functional Descriptors
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other												
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other												
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other												
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other												

A3. Details are provided regarding variables that:

A3.1 Have differential relevance for intended outcomes ☐yes ☐no

Specify: _____

A3.2 Have relevance to inclusion criteria ☐yes ☐no

Specify: ___________________________

A4. Receptivity/acceptance by target participant population (treatment group)

Participants from Treatment Group	Results (What person reported to have gained from participation in program)	General Rating
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other		☐ Participants reported benefiting overall from the intervention ☐ Participants reported not benefiting overall from the intervention
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other		☐ Participants reported benefiting overall from the intervention ☐ Participants reported not benefiting overall from the intervention
☐ Child/Student ☐ Parent/caregiver ☐ Teacher ☐ School ☐ Other		☐ Participants reported benefiting overall from the intervention ☐ Participants reported not benefiting overall from the intervention

A5. Generalization of Effects:

A5.1 Generalization over time

A5.1.1 Evidence is provided regarding the sustainability of outcomes after intervention is terminated ■yes ☐no

Specify: 6 month follow up

A5.1.2 Procedures for maintaining outcomes are specified ■yes ☐no

Specify: 6 month follow up

A5.2 Generalization across settings

A5.2.1 Evidence is provided regarding the extent to which outcomes are manifested in contexts that are different from the intervention context ■yes ☐no

Specify: strategies implemented outside of sessions

A5.2.2 Documentation of efforts to ensure application of intervention to other settings
☐yes ■no

Specify: _____

A5.2.3 Impact on implementers or context is sustained ☒ yes ☐ no

Specify: 6 month follow up

A5.3 Generalization across persons

Evidence is provided regarding the degree to which outcomes are manifested with participants who are different than the original group of participants for with the intervention was evaluated
☐ yes ☒ no

Specify: _____

B. Length of Intervention (select B1 or B2)

B1. ☐ Unknown/insufficient information provided

B2. ☒ Information provided (if information is provided, specify one of the following:)

B2.1 weeks 8 / N

B2.2 months _____ / N

B2.3 years _____ / N

B2.4 other _____ / N

C. Intensity/dosage of Intervention (select C1 or C2)

C1. ☐ Unknown/insufficient information provided

C2. ☒ Information provided (if information is provided, specify both of the following:)

C2.1 length of intervention session 2.5 hrs / N

C2.2 frequency of intervention session 1 per wk / N

~~**D. Dosage Response** (select D1 or D2)~~

~~D1. ☐ Unknown/insufficient information provided~~

~~D2. ☐ Information provided (if information is provided, answer D2.1)~~

~~D2.1 Describe positive outcomes associated with higher dosage: _____~~

E. Program Implementer (select all that apply)

E1. ☐ Research Staff
E2. ☐ School Specialty Staff
E3. ■ Teachers
E4. ☐ Educational Assistants
E5. ☐ Parents
E6. ☐ College Students
E7. ☐ Peers
E8. ■ Other
E9. ☐ Unknown/insufficient information provided

F. ~~Characteristics of the Intervener~~

~~F1.~~ ☐ ~~Highly similar to target participants on key variables (e.g., race, gender, SES)~~
~~F2.~~ ☐ ~~Somewhat similar to target participants on key variables~~
~~F3.~~ ☐ ~~Different from target participants on key variables~~

G. Intervention Style or Orientation (select all that apply)

G1. ☐ Behavioral
G2. ■ Cognitive-behavioral
G3. ■ Experiential
G4. ☐ Humanistic/interpersonal
G5. ☐ Psychodynamic/insight oriented
G6. ☐ other (specify):_____
G7. ☐ Unknown/insufficient information provided

H. Cost Analysis Data (select G1 or G2)

H1. ■ Unknown/insufficient information provided
H2. ☐ Information provided (if information is provided, answer H2.1)

H2.1 Estimated Cost of Implementation:_____

I. Training and Support Resources (select all that apply)

I1. ☐ Simple orientation given to change agents
I2. ■ Training workshops conducted

# of Workshops provided 3

Average length of training 6 hrs

Who conducted training (select all that apply)

I2.1 ■ Project Director
I2.2 ☐ Graduate/project assistants

I2.3☐ Other (please specify):
I2.3☐ Unknown

I3. ☐ Ongoing technical support
I4. ☐ Program materials obtained
I5. ☐ Special Facilities
I6. ☐ Other (specify):

J. Feasibility

J1. Level of difficulty in training intervention agents (select one of the following)

J1.1 ☐ High
J1.2 ☐ Moderate
J1.3 ☐ Low
J1.4 ☒ Unknown

J2. Cost to train intervention agents (specify if known): _____

J3. Rating of cost to train intervention agents (select one of the following)

J3.1 ☐ High
J3.2 ☐ Moderate
J3.3 ☐ Low
J3.4 ☒ Unknown

Summary of Evidence for Group-Based Design Studies

Indicator	Overall Evidence Rating NNR = No numerical rating or 0 - 3	Description of Evidence Strong Promising Weak No/limited evidence or Descriptive ratings
General Characteristics		
General Design Characteristics	NNR	-
Statistical Treatment	NNR	-
Type of Program	NNR	-
Stage of Program	NNR	-
Concurrent/Historical Intervention Exposure	NNR	-
Key Features		
Measurement	3	Strong
Comparison Group	3	Strong
Primary/Secondary Outcomes are Statistically Significant	-	-
Educational/clinical significance	-	-
Identifiable Components	-	-
Implementation Fidelity	3	Strong
Replication	-	-
Site of Implementation	3	Strong
Follow Up Assessment Conducted	2	Promising