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Evaluation of the Enhancing Parenting Skills 2014 Programme

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Reflective Commentary

I worked in the field of Child Psychology for a few years before commencing this PhD. Following the successful completion of a Masters in Research, Judy asked me if I wanted to do a PhD. I turned her down; I had been in full-time education since I was four years old and felt I needed a break before starting another three-year commitment. So I worked as a Research Project Support Officer at the Centre for four years. I was mainly involved with the Incredible Years® (IY) Small Group Dina project but had the opportunity to contribute to a number of other IY publications, both in the statistical analyses of data and writing the papers. This gave me the confidence and the urge to want to do my own piece of research and so I approached Judy and told her I was ready to do a PhD. She was delighted and in January 2014 my PhD journey began.

I was excited to be evaluating the Enhancing Parenting Skills (EPaS) 2014 programme, an intervention that was developed by Judy in the 1990s. I quickly got stuck in with planning the evaluation. The first six months of the project are a bit of a blur. We were keen to conduct a randomised controlled trial (RCT) and contacted local health visiting service managers to gauge the interest. They were very enthusiastic about the opportunity. We put together a plan for the evaluation and ran this past the local services. Was it feasible? Would we be able to recruit enough health visitors and families? Several meetings later and the answers were yes. We even had a plan to include clinical supervision from three newly recruited Clinical Psychologists. I promptly put together ethics applications, one for the School of Psychology and one for the NHS, and wrote a research protocol for the RCT. Ethical approval for the project was granted in July 2014.

Recruitment of health visitors in the first centre was good; 12 health visitors quickly signed up for the study and began searching for eligible families on their caseloads. However, several pointed out that the age range of the children we were targeting (30 to 60 months) made it difficult to find them because recent changes in the health visiting role meant that after the 27-month check-up health visitors were not involved with families unless a long standing issue was present (e.g. child protection issue). This had not been mentioned in the previous meetings with service managers. It meant that the process of recruitment would take much longer than anticipated, which was a problem given the tight schedule for the start of EPaS training in September. Out

of the 12 health visitors recruited, nine were able to identify two families on their caseloads who were eligible for the study.

In the second centre, the recruitment of health visitors was even better with over 20 showing an interest in the study and 17 signing up. However, only 11 came to the first day of EPaS training, many citing lack of time or new work commitments as reasons for non-attendance. Of the 11, nine identified eligible families for the trial. Recruitment in the final two centres was poor with six in the third centre and five in fourth centre. Again, similar reasons were given i.e. lack of time, other commitments, etc. The previously agreed clinical supervision was also not available to the health visitors due to the Clinical Psychologists not being able to attend the EPaS training. Due to the poor recruitment, we approached other centres to join the study, including North Staffordshire and Birmingham, but they were unable to commit due to organisational changes in health and social care services throughout 2015. The interest and need was there according to the services but it seemed that the timing for the project was not right.

Despite the challenges, we managed to recruit 58 families to the trial and found some promising results in the form of reduction in child behaviour problems. The process of planning and running a RCT has been exciting and I have learned a great deal about conducting research and the vast amount of work needed in setting up a trial. It has not deterred me from wanting to conduct more research. On the contrary, it has inspired me to want to take the lessons I have learnt and apply them to new research studies. I look forward to the future and hope that the skills and knowledge I have learned will serve me well.

Summary

Rates of child behaviour problems are increasing both in the UK and globally. Numerous risk factors for the development of child behaviour problems have been identified but a key risk factor is dysfunctional parenting practices. Parenting programmes are the most effective treatment for child behaviour problems, however barriers to treatment prevent some families, particularly disadvantaged families, from accessing programmes delivered in a group format. Individually delivered programmes eliminate some of the barriers associated with group-based programmes and may be more accessible and therefore appropriate for disadvantaged families (Chapter 1).

The Enhancing Parenting Skills (EPaS) 2014 programme is an individually delivered behavioural parenting intervention for parents of young children with behaviour problems. This thesis reports on the first rigorous evaluation of the EPaS 2014 programme. Chapter two gives an overview of the origins and background of the EPaS 2014 programme followed by the first study, a systematic review of the evidence for individually delivered parenting intervention for parents of young children displaying behaviour problems (Chapter 3). Chapter four is the published protocol for the main evaluation study providing details of the methodology. Chapter five describes the baseline characteristics of a sample of families recruited for the main study. Children had high levels of co-occurring hyperactivity symptoms and parents were generally low educated, unemployed, living in poverty and had high levels of depressive symptoms. The next two chapters report the findings of the evaluation study. The EPaS 2014 programme was effective in reducing levels of child behaviour problems, especially for families who completed the intervention (Chapter 6) and feedback from health visitors was positive with all reporting they would continue to use the methods taught (Chapter 7). The final chapter of the thesis provides a summary of the research findings and discusses their implications, limitations, and future directions (Chapter 8).

Chapter 1

General Introduction

Child Behaviour Problems

Globally, behaviour problems are the most common mental health disorder seen in childhood (Merikangas, Nakamura, & Kessler, 2009; Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). Over the last decade, the prevalence of child behaviour problems has been on the rise with both parents and teachers reporting increasing levels (British Medical Association, 2013; Hutchings, Williams, Martin, & Pritchard, 2011). In the UK, they are the most common reason for referral to child and adolescent mental health services (National Collaborating Centre for Mental Health [NCCMH], 2013) and place a large economic burden on society (Romeo, Knapp, & Scott, 2006; Scott, Knapp, Henderson, & Maughan, 2001). Behaviour problems are more prevalent in boys than girls (Martel, 2013; Miner & Clarke-Stewart, 2008) and predict poorer outcomes into adulthood (Colman et al., 2009). Numerous associated risk factors have been identified (Farrington & Welsh, 2007), including genetics (Moffitt, 2005), cognitive deficits (Murray, Irving, Farrington, Colman, & Bloxsom, 2010), dysfunctional parenting practices (Hoeve et al., 2009), socioeconomic disadvantage (Kiernan & Mensah, 2009), and parental depression (Goodman et al., 2011).

Relevant Psychological Theories

Learning theory and applied behaviour analysis.

According to Skinner's (1938) Operant Learning Theory, behaviour is controlled by a learned association between the behaviour and its consequence (reward and punishment) and changes in consequences can result in changes in behaviour. Rewarding particular behaviour can lead to an increase in their frequency whilst removing rewards or providing consequences can reduce their frequency. Behaviours can be strengthened by the use of a reinforcer. When a behaviour is followed by a reinforcer, the behaviour is strengthened as is more likely to occur again in the future. Children are born with an innate need to engage with the world around them and for most children the most powerful reinforcers are social reinforcers (Patterson, 1975) e.g. a smile, hand clapping, words of approval, etc. They are subtle and can be overlooked by people, particularly parents that have children who display high levels of challenging behaviour.

Data from laboratory based animal experiments helped identify the principles and schedules of reinforcement that controlled behaviour and Skinner quickly recognised their potential applications to human behaviour (Skinner, 1948, 1971). This

led to the creation of Applied Behaviour Analysis, the application of learning theory to specific real world situations (Cooper, Heron, & Heward, 2007). The emphasis was on establishing the circumstances prevailing when the behaviour occurred (the antecedents) and identifying the behaviour itself and the function or reinforcer of behaviour. It is based on an understanding that behaviours serve a purpose in that they successfully produce a desired consequence. Behaviour serves one of four functions (however complex situations can be multi-functional): (1) attention; (2) escape from task demand (avoidance); (3) access to tangibles; and (4) self-stimulatory (Cooper et al., 2007). Attention, access to tangibles, and self-stimulatory behaviours are examples of where behaviours are governed by positive reinforcement, whereas escape from task demand is one example of negative reinforcement (where the behaviour is controlled by the removal of an aversive stimulus, for example when a parent responds to a tantrum in order to stop the tantrum). When children display challenging behaviour, their behaviour is functional. For example, a child could be having a tantrum because they want attention from their parents (positive reinforcement), because they are attempting to escape from a particular demand (negative reinforcement), or perhaps they have learned that the tantrum gets them the sweets that they want (positive reinforcement).

Effective interventions to reduce problem behaviour depend on teaching an alternative more appropriate way of obtaining reinforcement (Goldiamond, 1974, 1975) and in order to change behaviour, another more appropriate response, has to be modelled and reinforced.

In order to identify the function of a particular behaviour and the prevailing circumstance, an antecedent-behaviour-consequence analysis (also known as ABC analysis) is often used. It consists of three components: (1) careful analysis of the **antecedent** circumstances or factors associated with the occurrence of the behaviour, time of day, who was present, what the person was doing or being asked to do and by whom; (2) a clear description of the problematic **behaviour**; and (3) the **consequence**, analysing what the effect that the behaviour had on the environment.

Social learning theory.

Social Learning Theory was proposed by Albert Bandura (Bandura, 1977) and considers the effects of how observing other people being rewarded can prompt and shape our own behaviour. Bandura used the term ‘modelling’ to explain how people can learn specific behaviours and incorporate them into their own behaviour. According to Social Learning Theory (Bandura, 1977), children can be prompted to behave by merely

observing someone else's behaviour, making those people around them models. If a child imitates a particular behaviour, and if the consequences are rewarding it is likely that the child will continue to behave in that way again in the future (Bandura, 1977). There are four basic processes of social learning: (1) attention (on the model showing the behaviour – could be someone similar in age or sex or someone in a position of power such as a parent); (2) retention (remembering the behaviour of the model); (3) motivation (having a good reason for copying the behaviour); and (4) reproduction (copying the behaviour – if the observer has the confidence that they can imitate the behaviour, known as self-efficacy).

The model (person being observed) is an important aspect in social learning. An individual is more likely to be influenced by a person with status i.e. parents are powerful role models for their children. The model's similarity to the observer is also influential whereby the likelihood of imitation is increased if the model is deemed to be similar to the observer in some way e.g. gender and/or age (Bandura, 1977).

Supporting research for the theory comes from Bandura and colleagues (Bandura, Ross, & Ross, 1963) who investigated the extent to which modelled aggressive behaviour was replicated in children. Results confirmed that exposure of aggressive models increased the probability that children would behave in an aggressive manner. Participants who viewed the aggressive human and cartoon models on film exhibited nearly twice as much aggression than did participants in the control group who were not exposed to the aggressive film content. A subsequent study showed that when the children viewed the model being rewarded for aggressive behaviour, they were more likely to imitate them (Bandura, 1965). Evidence for the role of self-efficacy comes from a study by Perry, Perry, and Rasmussen (1986) who found that children described as highly aggressive by their peers expressed greater confidence in their ability to carry out aggressive solutions to interpersonal conflicts than less aggressive children. They also found that highly aggressive children expressed greater confidence that aggression would produce tangible reward and would be successful in preventing future conflicts.

The recognition that problem behaviours were in fact logical (i.e. they had a function) for the given environment encouraged clinicians to look at the environment in which problems occurred (Goldiamond, 1974, 1975). For people working with children, this led to a focus on parents (Wahler et al., 1965). Parents have the most influence on young children and form an important part of their natural environment as they control

most of the reinforcers. They are models for their children's behaviour (Hutchings, 2013) and thus poor parental modelling can lead to problem behaviours being prompted, reinforced and subsequently strengthened. This formed the basis of a theory for parent-child interactions known as Coercion Theory (Patterson, 1982).

Coercion theory.

The work of Patterson and colleagues (Patterson, 1975; Patterson, 1982; Patterson & Yoerger, 2002) was instrumental in the development of a core model for social learning family interventions. The central assumption behind this approach is that behaviour problems are required and maintained primarily through social learning processes in the family. He described this as the 'coercive family process' by which parents who engage in negative coercive interactions with children act as inappropriate models and reinforce similar behaviours in their children (Patterson, 1982). For example, when a parent gives a child a command, that child may react with noncompliance. The parent may do one of two things: the parent could withdraw the command to stop the temper tantrum, therefore reinforcing that future behaviour in the child; or the parent may react coercively by shouting at the child which can lead to the child complying and therefore reinforcing that future behaviour for the parent. This also models aggressive behaviour to the child making it more likely that the child will act aggressively towards the parent. Parents and the children become trapped in a coercive interaction cycle.

Specific problematic parenting behaviours identified by Patterson included direct reinforcement of problem behaviour, inconsistent responding and harsh punishment. A number of studies support Coercion Theory. For example, in a series of observational studies in family homes, Patterson (1982) found that parents of children with behaviour problems tended to be more harsh, punitive, and inconsistent in their responses to their children compared to parents of children with no behaviour problems. Gardner (1987, 1994) found that mothers of children with behaviour problems were seven times more likely to be inconsistent in following through with demands during episodes of conflict than mothers in the control group.

Strategies for Intervention

When taking into account the above theories, it is obvious that parents have a powerful influence on their children's behaviour. A logical step in the modification of child behaviour involves changing parents' behaviour. This involves teaching parents

positive reinforcement strategies to increase the frequency of pro-social behaviour and at the same time teaching them to identify and remove reinforcement from child's problem behaviours.

Parenting programmes based on learning/social learning theory (Skinner, 1938; Bandura, 1977) address the specific parenting practices associated with child behaviour problems, including the identification of the functions of problem behaviour, the identification of pro-social alternative behaviours and reinforcement for new behaviour. This is achieved through praise for pro-social behaviour, using clear instructions and rules, consistent consequences for unwanted behaviour, and promoting positive relationships through play that establish the parent as a reinforcer (Hutchings, 2013).

Forehand and McMahon (1981) added to knowledge about key parenting skills associated with effective parenting and good child outcomes. Their book "*Helping the non-compliant child*" described an intensive parent coaching approach utilising video footage of the parent and child interacting in a variety of situations which was then shared and discussed with the parent. They identified five key skills for effective parenting;

i) **relationship building** and investment in the child through play and joint activities as a means of the parent establishing themselves as a reinforcer;

ii) **rewarding appropriate behaviour**; In many cases the reinforcer for young children's behaviour is parental attention and this intervention component included teaching strategies for effective praise. This included immediate praise, since the laboratory studies had shown that immediate reinforcement was most effective in increasing behaviour. For older children rewards could also include tangible things like additional time on the computer or having a friend to play.

iii) **giving clear instructions** that told children what to do rather than focusing on problem behaviour. It was clear that many parents of challenging children gave very poor and nonspecific instructions and often ones that were developmentally inappropriate. Prompting desireable behaviour is a key principle for teaching new behaviour, giving instructions that tell children exactly what to do rather than what not to do can be an effective prompt.

iv) **ignoring** minor problems that is maintained by attention. Attention is well-established as a reinforcer for much of the problem behaviour of young children and ignoring involves the process of extinction which, provided the child has been given an alternative means of achieving reinforcement, will be an effective strategy.

v) **non-aversive consequences** to manage problem behaviours that are not controlled by attention. Some problem behaviours such as stealing food from the fridge, grabbing toys from a sibling or coming in late are not maintained by attention and require the application of a consequence such as the brief removal of a privilege or time out.

A key issue in interventions with parents is incorporation of the notion that the child has to be given a means of achieving the reinforcement from other behaviours otherwise a different problem behaviour may emerge (Goldiamond, 1974, 1975). In the case of conduct problems this often involves teaching the child more complex behaviours, learning to listen and follow instructions or wait a turn, since many challenging behaviours, such as hitting, spitting or kicking, are easy to learn and function to achieve immediate reinforcement. Learning theory incorporates a range of strategies to teach new behaviour including prompting, modeling, shaping behaviour towards new goals and ensuring that the child is paying attention (Hutchings, 2013).

Interventions can be delivered in different formats including group, individual, and self-directed. Video clips are typically used to demonstrate the behaviours being taught in group-based programmes, and in some programmes (such as Video Interaction Guidance (Kennedy, Landor, & Todd, 2011) or Forehand & McMahon's (1981) programme) parents view video recordings of their own interactions. However, core principles are used in all programmes with parents being encouraged to practice using the new skills through role-play or in home-based practice with their children. A key component that emerged from effective interventions was recognition that the same reinforcement principles that were governing parent-child interactions had to be incorporated into intervention delivery to enable the interventionist to help the parent to achieve change. Interventionists have to establish themselves as reinforcers for parents in order to prompt new behaviours that may not be immediately reinforced in the natural environment. This is established by working collaboratively with and listening to and praising the parent (Eames et al., 2009; Hutchings, Gardner, & Lane, 2004). Parents then have to be prompted to practice new skills and since initially this may not result in immediate changes in child behaviour this can be reinforced through praise. This enables the interventionist to encourage parents to rehearse and then practice with their child the behavioural principles that will result in the establishment of alternative pro-social behaviours and reductions in challenging child behaviour. This need to provide a short-term prosthetic environment is important because if behaviours had a long history of reinforcement, particularly intermittent reinforcement (Mallot, Mallot, &

Trojan, 2000) problem behaviours are initially likely to escalate when reinforcement ceased.

The Enhancing Parenting Skills (EPaS) Programme

This programme is strongly informed by both core learning theory principles and the seminal work of Forehand and McMahon (1981) with the principles from applied behaviour analysis informing the three stages of the EPaS programme (see chapter 2 and appendix A for a fuller description of the programme). Phase 1, assessment, involves collecting the information to inform an analysis of the function(s) of problematic child behaviours. This is done through parent interviews using the typical day interview, observation of parent child interactions, and through parent kept records and normally takes three home visits. It also includes obtaining information on both parent and child skills and resources for change (Goldiamond 1974, 1975). The second phase, case analysis, involves undertaking a functional analysis of the information obtained to establish the current likely functions of problem behaviour. This is then shared with the parent during a home visit and a contract agreed that incorporates the developmentally appropriate replacement goals for the child and the parent resources that suggest that these goals are achievable. The final, intervention, phase involves setting achievable weekly targets as steps towards the intervention goals and is generally completed in 6 – 8 weeks. Parents are taught key parenting skills to achieve their intervention goal. If the work towards goal achievement is not successful the programme reverts to reconsidering the case analysis and agreeing a new contract.

Aims/Objectives of Thesis

The main objective of the thesis was to examine the effectiveness of an individually delivered, behavioural parenting intervention, known as the Enhancing Parenting Skills (EPaS) 2014 programme, for parents of young children with behaviour problems. The specific aims of the thesis were to:

1. Review the origins and supporting evidence for the EPaS 2014 programme
2. Systematically review the existing literature on the effectiveness of individually delivered, behavioural parenting programmes
3. Describe a sample of families with children displaying behaviour problems recruited by health visitors from their caseloads

4. Evaluate the effectiveness of the EPaS 2014 programme delivered by health visitors to parents of young children with behaviour problems
5. Report on health visitor feedback regarding the usefulness of training in a structured, one-to-one parenting programme.

Structure of Thesis

This thesis consists of seven chapters, including one published paper, three submitted, and one in preparation for submission to scientific journals. The seven chapters are:

Chapter 2. This chapter describes the intervention of interest, the Enhancing Parenting Skills (EPaS) 2014 programme, including its background, origins and supporting evidence to date.

Chapter 3. This chapter provides a systematic review of parenting programmes based on an individual form of delivery for parents of young children with identified behaviour problems (submitted for publication).

Chapter 4. This chapter describes the methodology of a pilot randomised controlled trial (RCT) evaluation of the EPaS 2014 programme, including recruitment of health visitors and families, study procedures, data collection measures, and planned statistical analyses (published paper).

Chapter 5. This chapter provides a description of the sample of families recruited for the pilot RCT based on information collected at baseline (in preparation for submission).

Chapter 6. This chapter reports the main outcomes of the pilot RCT which compared families randomised to receive the EPaS 2014 intervention immediately or six-months after the baseline visit (submitted for publication).

Chapter 7. This chapter reports the outcomes and feedback from the health visitors involved (submitted for publication).

Chapter 8. This chapter provides a discussion of the findings of the thesis as a whole, their implications, strengths and limitations of the research, and future directions for research and implementation of the programme.

Chapter 2

The Enhancing Parenting Skills Programme

Dysfunctional parenting practices are a key risk factor in the development of child behaviour problems (Farrington & Welsh, 2007; Hoeve et al., 2009), and the premise on which behavioural parenting programmes are based is that the most effective way to change child behaviour is by helping parents to change their behaviour i.e. parents are agents of change (Farrington & Welsh, 2007; Webster-Stratton & Herbert, 1994). There is substantial evidence demonstrating this (e.g. Gardner, Hutchings, Bywater, & Whitaker, 2010), and the link between parenting and child behaviour remains strong even in the presence of family/ social risk factors associated with increased prevalence of conduct disorders such as family transitions, single and young parenthood, marital discord, parental psychopathology, and poverty (e.g. Capaldi, DeGarmo, Patterson, & Forgatch, 2002; Forgatch & DeGarmo, 1997; Patterson, Reid, & Dishion, 1992). As Patterson, Forgatch, Yoerger, and Stoolmiller (1998) have demonstrated it is the extent to which these other disadvantaging circumstances compromise parenting that predicts child behaviour problems rather than their having a direct impact on child behaviour, although the more risk factors present the greater the likelihood of compromised parenting (Gridley, Hutchings, & Baker-Henningham, 2013). The aim of this chapter is to describe the origins of the Enhancing Parenting Skills (EPaS) programme, an individually administered parent support package for families of young children with behaviour problems, and then to introduce the programme and the current evidence base.

Origins of EPaS

The EPaS programme is based on a wealth of research. The research underpinning its components can be divided into three themes: Content, process, and access (see Hutchings, Gardner, & Lane, 2004).

Content.

Social learning theory.

Behavioural interventions with families, underpinned by learning theory principles, have been developed and evaluated for over 50 years (Farrington & Welsh, 2007; Patterson, 1975; Wahler, Winkel, Peterson, & Morrison, 1965). These principles were described in Patterson's (1982) work on coercive family process that describes the reciprocal coercive relationship between parental and child behaviour that underpins the development of many child behavioural difficulties. In this process the parent and child are both intermittently reinforced for coercive behaviours that escalate over time and

parents and children become trapped in a coercive interaction cycle (Farrington & Loeber, 1999; Patterson & Yoerger, 2002). Parents are also modelling aggressive behaviour towards the child making it more likely that the child will act aggressively towards the parent. Social learning theory (Bandura, 1977) describes the process whereby children imitate others in their environment that, if reinforced, becomes an established behaviour. When the model is demonstrating coercive or aggressive behaviour this can result in child behaviour problems being sustained within the family (Bandura, 1977, 1986).

Applied behaviour analysis, also known as functional behaviour assessment is the application of learning theory to specific real world situations (see Cooper et al., 2007). It is based on an understanding that behaviours have functions or serve a purpose in that they successfully produce a desirable consequence. In the case of challenging behaviour this can be at a cost and the solution requires helping the individual to establish alternative behaviours to access reinforcement (Cooper et al., 2007; Goldiamond, 1974, 1975). A comprehensive family assessment can inform a functional behavioural assessment or case analysis to develop relevant intervention strategies. It is one of the key elements identified by Dunlap et al. (2006) for inclusion in interventions for child behaviour problems. The case analysis identifies the function of the problem behaviour and the environmental conditions under which it occurs (Fettig & Ostrosky, 2011). Behaviour can be positively reinforced, for example achieving attention or other social or tangible rewards, or negatively reinforced by the removal of an aversive stimulus such as a tantrum or nagging behaviours, or can result in learned avoidance of a situation that might otherwise be aversive e.g., parent avoids tantrum by giving in to the child's demands (Hanley, Iwata, & McCord, 2003). Many problems only arise because of child or parent skill deficits so programmes also need to identify target child replacement behaviours and help parents to develop the skills to teach more functional behaviours often involving social and language skills. Identifying the function of behaviour, what is maintaining it and what are the pro-social target behaviours, informs the development of intervention strategies tailored to the individual child/ family (Wood, Blair, & Ferro, 2009). These strategies are used more specifically in individually delivered programmes, however group-based programmes use similar strategies by addressing a set of parenting skills based on commonly observed deficits (Hutchings, Lane, & Kelly, 2004). Functional behavioural assessments and interventions are effective in treating child behaviour problems (e.g. Cormier, 2009;

Fettig & Barton, 2014; Fettig & Ostrosky, 2011; Marchant, Young, & West, 2004; Wood et al., 2009).

Methods and strategies.

Learning theory principles are used in work with families of children with behaviour problems to equip parents with skills to foster positive behaviours and eliminate negative interactions. Patterson (1975) describes how to apply these principles to the problems of family life. Rewards and praise are used to increase children's positive behaviour and build the replacement behaviours that will provide reinforcement (Patterson, 1975). Parents are also taught strategies for reducing problem behaviour such as planned ignoring, limit setting, time-out and consequences (Patterson, 1975). Other effective components include modelling, training parents in observation skills, rehearsal of new parenting skills, discussion, and reframing negative cognitive perceptions about their child and their parenting skills (e.g. Barth & Liggett-Creel, 2014; Chorpita, Daleiden, & Weisz, 2005; Furlong et al., 2012; Garland, Hawley, Brookman-Frazee, & Huburt, 2008; Kaminski, Valle, Filene, & Boyle, 2008). Kaminski et al. (2008) found that positive interactions with children, time-out, modelling, problem solving and practicing the skills with their own child were significant predictors of positive child behaviour outcomes.

Process.

Lambert (1992) explored the components of effective interventions across a number of different disciplines including psychiatry, education, and medicine. He identified three common factors for effective interventions regardless of their differing theoretical bases. With reference to work with families, these are: the family; the parent-practitioner relationship; and parents' expectations of positive outcomes.

The family.

Every family is unique. An important step when working with families is to undertake a comprehensive assessment process (Dadds & Hawes, 2006; McMahon & Forehand, 2005; Webster-Stratton & Herbert, 1994). Learning about their strengths, beliefs, skills, experiences, circumstances, desired changes, and potential for change is of great importance when working with families. Parents are the experts when it comes to their children and the day-to-day activities and routines of the family. Given that a child's environment has strong influences on their behaviour (Parke, 2012), identifying what happens in this environment on a daily basis can be extremely useful, especially when developing tailored strategies for managing children's behaviour problems.

Families of children with behaviour problems are more likely to have risk factors that can have a profound effect on their lives (Farrington & Welsh, 2007). For example, many parents of children with behaviour problems have mental health difficulties, particularly depression (see reviews by Goodman et al., 2011; Lovejoy, Graczyk, O'Hare, & Neuman, 2000). They are also more likely to live in poverty (Keirnan & Mensah, 2009) and have relationship difficulties with their spouse/partner (Amato & Cheadle, 2008). It is therefore important to collect information about a range of different variables to get a good understanding of the family to ensure that goals and strategies are achievable within the family context.

The parent-practitioner relationship.

The second common component is a parent-practitioner relationship in which the parent sees the therapist as empathetic, supportive and warm. This requires a collaborative relationship with the parent/ family (Fettig & Ostrosky, 2011; Webster-Stratton & Herbert, 1994). Parents have their own goals and expectations of the intervention and a collaborative process involves therapists accepting these at face value (Hutchings, Gardner, & Lane, 2004). Another important aspect of the relationship is tailoring the tasks and suggestions to meet the goals of a particular parent/ family. This is particularly important with disadvantaged families who may have multiple factors needing to be addressed (Lundahl, Risser, & Lovejoy, 2006). Some families have financial difficulties, substance misuse problems and/or marital/relationship problems with which they also need help (Hutchings, Lane, & Kelly, 2004). Providing tailored support has been highlighted as an effective component within behaviourally-based parent programmes (Kaminski et al., 2008).

Parents' expectations of positive outcome.

Parents' hopes and expectations of change when taking part in the intervention are important (Lambert, 1992) as they often have a history of failed attempts to address the problems. Conveying an attitude of hope and possibility is important however practitioners should also acknowledge the difficulties and efforts required to achieve it and to re-focus parents' attention on present and future possibilities (Hutchings, Gardner, & Lane, 2004).

Access.

Tackling barriers to attendance has been identified as an important component of effective programmes (Furlong et al., 2012; Hutchings, Gardner, & Lane, 2004). Parenting programmes need to be accessible to families or they will not engage.

Disadvantaged families have fewer resources making it difficult for them to attend programmes and consequently they are less likely to access services (Hutchings, Lane, & Kelly, 2004). Factors such as lack of transportation and childcare have been identified as barriers to access and are associated with low attendance rates (e.g. Hutchings, 1996; Hutchings, Gardner, & Lane, 2004; Ingoldsby, 2010; Sanders, Prior, & Ralph, 2009; Snell-Johns, Mendez, & Smith, 2004). A number of studies have shown that, when barriers to access are addressed, even the most disadvantaged families attend and benefit from parenting programmes. For example, Hutchings et al. (2007) evaluated a group-based parenting programme with parents of high-risk children aged three to four years. Seventy-nine per cent of the families in the intervention condition were considered disadvantaged. Transportation, childcare, and a lunch time meal were provided and 83% of families attended more than seven of the 12 group sessions with an average attendance of 9.2 sessions (Hutchings et al., 2007). An alternative solution to lack of transport and childcare would be to conduct the sessions in the families' homes (Snell-Johns et al., 2004). This also enables the tailoring of interventions to address families' individual needs, which has been found to be effective for disadvantaged families (Lundahl et al., 2006; Reyno & McGrath, 2006).

The Enhancing Parenting Skills (EPaS) Programme

The EPaS programme was developed by Professor Judy Hutchings in the 1990s and is based on the intervention principles reviewed above. The programme consists of three phases: assessment, case analysis, and intervention design. There is an emphasis on working collaboratively with parents in developing strategies to help address their child's behavioural problems. The assessment phase uses a range of tools used to collect information about the family, their current circumstances, the child's behaviour problems, the child's skills and strengths, and their goals. The case analysis phase enables the practitioner to use the information collected during assessment to develop an understanding of the problem, its history and current function, and to identify the assets available in the situation that will support change. Short- and longer-term goals are also discussed and agreed between the practitioner and parents in the form of a contract. Finally, the intervention phase introduces core parenting strategies that parents could use to achieve their agreed short- and longer-term goals. Parents are asked to keep records and undertake assignments to monitor the effectiveness of the strategies being used.

Evidence Base

The intensive treatment trial.

The intensive treatment trial was conducted in the late 1990s (Hutchings, Appleton, Smith, Lane, & Nash, 2002; Hutchings, Lane, & Kelly, 2004). It was a randomised controlled trial run in a Child and Adolescent Mental Health service (CAMHS) with parents of children referred with severe behaviour problems. The project evaluated two treatments for severe child behaviour problems, namely an intensive treatment and standard clinic based CAMHS management advice. Both contained similar advice for parents however they differed in the way they were delivered to parents. The standard CAMHS treatment was delivered by child psychiatrists, child psychologists, specialist social workers, and child therapists and was primarily based on behavioural principles and focused on direct advice to parents. Two clinical psychologists delivered the intensive treatment in home and clinic sessions. An initial home visit assessed the home environment using interview and observation techniques. The programme included three five-hour clinic-based sessions where parents were videotaped with their child in a range of different situations and then observed selected video clips of themselves and their children, received feedback and practised new management strategies. The unit in the clinic consisted of a living room and a kitchen, and contained one-way mirrors and cameras to observe parents and children. Bug in the ear equipment was used to prompt and give feedback to parents and to praise and encourage parents in the use of new management strategies. Home visits were conducted after the clinic sessions to support and monitor generalisation of strategy use to the home.

Sample and measures.

A screening questionnaire, known as the Eyberg Child Behaviour Inventory (ECBI; Eyberg, Boggs, & Reynolds, 1980) was used to identify eligible families. Eligibility criteria for the study included being newly referred to CAMHS, child aged between two and ten years, and scoring one standard deviation above the cut-off on one of the subscales of the ECBI (Intensity 148 or above; Problem 17 or above) with the other subscale needing to be above the clinical cut-off (Intensity 127 or above; Problem 11 or above). Forty-seven families were eligible to participate with 42 (90%) consenting to take part. Families were randomly allocated to receive either the intensive treatment programme or standard CAMHS management advice. Twenty-two families were

allocated to the intensive treatment condition and 19 to the standard condition. Data were collected at baseline, six-months and four-years post-randomisation to assess maintenance effects. Measures included the Child Behaviour Checklist (CBCL; Achenbach & Edelbrock, 1986), the Parenting Scale (PS; Arnold, O'Leary, Wolff, & Acker, 1993), the Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996), and the General Health Questionnaire (GHQ; Goldberg, 1972). Two additional measures were reported in the four-year follow-up, Parenting Stress Index (PSI; Abidin, 1990) and the Kendall Self-Control Rating Scale (Kendall & Wilcox, 1979).

Findings.

Families in the intensive treatment condition received on average three and a half times more contact time than those in the standard condition (25 hours vs. 7 hours). The mean scores for families in both conditions were above the clinical cut-off for all the measures at baseline, indicating the presence of parental mental health problems and dysfunctional parenting practices as well as child behaviour problems. At six-month follow-up, children in both conditions showed a significant improvement in child behaviour with those in the intensive treatment condition reducing their score below the clinical cut-off on the CBCL. Parents in the intensive treatment condition showed a significant improvement in dysfunctional parenting practices based on the PS at the six-month follow-up. Parents in the standard treatment condition also showed an improvement but post-hoc tests showed it was a non-significant change. Scores on the CBCL and PS were correlated at six-month follow-up, which supports the argument that parenting is a mechanism of change for child behaviour. For parental mental health, parents in both conditions showed significant improvements on BDI and GHQ, however those in the intensive treatment condition reduced their scores below the clinical cut-off for both the BDI and GHQ whilst parents in the standard treatment condition remained within the clinical range.

Four-year follow-up.

At the four-year follow-up (Hutchings, Lane, & Kelly, 2004), 18 families in the intensive treatment condition and 13 from the standard treatment condition provided data. Families in the intensive treatment condition continued to show significant improvements in scores on all measures from baseline to four-year follow-up, however families in the standard treatment condition no longer showed any significant differences over baseline at the four-year follow-up. There were greater improvements for younger children (below six years) in the intensive treatment condition on the CBCL

compared to older children (six years and above). Many of the measures for the standard treatment condition showed worsening scores at the four-year follow-up with scores returning to or staying within the clinical range. At the four-year follow-up, the intensive treatment provided greater clinical effects than the standard treatment and cost less (Muntz, Hutchings, Edwards, Hounsome, & O'Ceilleachair, 2004).

Overall, the study suggested that the intensive treatment was more effective than standard CAMHS treatment for parents of children with severe behaviour problems in the short-term (six months) although not significantly so. However long-term findings suggest that the intensive treatment was significantly more effective than standard CAMHS treatment in terms of the maintenance of improvements from six months to four years. The authors conclude that this was due to the incorporation of rehearsal of key parenting principles and focus on observational skills training (Hutchings, Lane, & Kelly, 2004).

The health visitor trial.

Despite the success of the intensive treatment programme, it was only available to a small number of children and many high-risk children are not referred to CAMHS (NCCMH, 2013), so a new programme was developed, based on its core principles. This was known as the Enhancing Parenting Skills (EPaS) programme (Lane & Hutchings, 2002). The EPaS programme trained health visitors as facilitators to work with families of young children with behaviour problems. Health visitors are public health nurses who have universal access to all families with children under the age of five years (Cowley, Caan, Dowling, & Weir, 2007) and are ideally placed to work with parents and children. Twenty-four health visitors were recruited to undertake the EPaS course. Health visitors attended weekly training for a total of 12 weeks and generally undertook a weekly home visit to the family alongside the course, enabling them to work through the different stages of the programme with a family as they were being taught. The EPaS course covered three main components:

i. Assessment tools and intervention strategies – health visitors were taught how to do a thorough assessment of the family situation, including the use of data collection tools, record keeping, and observation skills. As the course progressed, health visitors were taught how to develop a case analysis and different intervention strategies to teach parents.
ii. Parenting skills – health visitors learned a framework of core parenting skills as a basis for teaching the skills to parents. Five main parenting skills were

covered: attending, rewarding, instruction-giving, ignoring and management of non-compliance based, as in the intensive treatment programme, on the work of Forehand and McMahon (1981).

iii. Behavioural theory – health visitors were taught basic behavioural terminology in order to understand and explain the behaviours being observed. The behavioural principles covered were: reinforcement, escape, avoidance, using consequences and penalty contingencies, shaping and prompting new behaviour, extinction of behaviour, differential reinforcement of behaviour, and generalisation.

The course was delivered using a combination of short lectures, video examples, role play practice and group discussions.

Sample and measures.

The project was run in two phases with one group of 12 health visitors receiving training in autumn 1998 (phase A) and the second group in autumn 2000 (phase B). All health visitors identified a target family with a child with a significant behaviour problem to work with during the course, but additionally health visitors in group A were asked to identify a second family with similar levels of child behaviour problems to serve as a control group. The control group received the standard health visiting service. In total, 36 families were recruited; 24 in phase A (12 intervention and 12 control) and 12 in phase B (intervention only). Data were collected from health visitors and families. The measures used for health visitors assessed their knowledge and use of behavioural techniques, their knowledge of behavioural terminology, and their feedback on the course including their confidence in using behavioural techniques following attendance. A range of measures were also administered to families, which included the ECBI, Conners' Index of Hyperactivity (Conners, 1985), the Personal Data and Health Questionnaire (Hutchings, 1996), the PSI, and the GHQ. Family data was collected at baseline and after the 12-week intervention period had ended, whilst data for health visitors was collected at the first and last training sessions. In phase A, measures for intervention and control families were administered by the health visitors in the family home. In phase B, an independent researcher administered the measures to families during a home visit at baseline and follow-up.

Findings.

At baseline, 94% of the children scored above the clinical cut-off on one of the ECBI subscales indicating high levels of child behaviour problems. The mean scores for

families were also above the clinical cut-off for two mental health measures, the PSI and GHQ, which although screening measures do indicate the likely presence of parental mental health problems. This is in line with other research that has shown the co-occurrence of child behaviour problems and parental mental health problems (Goodman et al., 2011; Gross, Shaw, Moilanen, Dishion, & Wilson, 2008; Lovejoy et al., 2000). At follow-up, there was an improvement for all families in both child behaviour and parental mental health. However, both intervention groups showed significant improvements in ECBI, Conners and PSI, whilst changes in the control group did not reach significance. Only intervention group B showed significant improvements in the GHQ with intervention group A approaching significance but not reaching it.

Before attending the course, health visitors were reporting low levels of confidence in their knowledge to work behaviourally with families and in implementing behavioural programmes. They were also reporting varying levels of use of behavioural strategies. After completing the course, health visitors showed significant increases in their knowledge of behavioural terminology and their use of behavioural strategies. They also reported increased confidence that they had sufficient knowledge to work behaviourally with families and in implementing behavioural intervention programmes. General feedback for the course was positive with all health visitors saying that they would recommend the course to a colleague and that it should be made available to other health visitors.

This study showed promising results, with EPaS families showing significant improvements in child behaviour and parental mental health compared to control families. However, there were some limitations. The sample was small, with only 24 health visitors and 36 families (only 12 of which were in the control group). The study did not use randomisation to allocate participants to conditions. The course was intensive; health visitors came for weekly sessions for 12 weeks. In designing the current study this was no longer considered feasible as a result of increasing health visitor caseloads (Wilson et al., 2008).

The Waterloo-funded project.

Children with developmental challenges can exhibit a number of common behavioural difficulties, including problems with sleeping, eating, routines, and toileting (National Institute for Health and Care Excellence [NICE], 2015). In 2011, a successful bid for funding from the Waterloo Foundation enabled the adaptation of the EPaS

programme to support staff working with children with developmental difficulties (Hutchings & Williams, 2013). EPaS was re-designed as a two-day course and delivered across Wales. Day one focused on assessment methods and day two, approximately eight weeks later, focused on constructing a case analysis and developing an intervention plan. The material from the earlier programme was developed into a detailed manual including case examples due to the fact that all material needed to be covered in two days. Videotaped recordings of parents and children were also created to enable the teaching of observation skills.

Sample and measures.

The new version of EPaS was delivered in five locations across Wales: Bangor, Flint, Newtown, Cardiff, and Swansea. Training was advertised through Children in Wales to staff working with families of children with developmental challenges. Similar measures to the previous evaluations were used including questionnaires about the staff use of behavioural techniques in their work, their views on the use of behavioural techniques, and confidence in using their knowledge and ability in using them. Participants were asked to recruit a family to work with during the course. They were given a set of standardised measures to collect from the families that included assessments of child behaviour, parenting skills, and parental mental health. These were the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997), the PS, and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS; Tennant et al., 2007).

Sixty-two participants attended the first day of training, however only 46 attended the second training day. Recruitment to the course had been done through Children in Wales and despite the clear explanation of the purpose of the training it transpired that many did not work directly with parents of children with developmental difficulties. The professions of attendees included teaching assistants, portage workers, outreach workers, nursery nurses, health visitors, and family support workers. By day two of training, participants were at various stages in work with families, with only some having obtained baseline assessment information. Day two was spent reviewing this information and using it to create case analyses and intervention strategies for the families. Participants were asked to submit anonymised data (child initials and date of birth for matching purposes) from the families for the three standardised questionnaires at baseline and after delivering the intervention.

Findings.

Feedback from participants about the course was very positive with 92% of day one participants reporting that the training was very/ completely relevant to their work. A mean response of very/ completely satisfied was reported by 85% of participants across all questions. Participants attending day two also reported equally high rates of satisfaction. Use of behavioural techniques increased after attending the course as did participants' reported confidence in using the skills, however these were based on the small number of participants who completed delivery of the programme to a family (n = 15). These participants also reported high levels of satisfaction with the course overall with 100% reporting they would continue to use the techniques in their work and 93% recommending the course to others. However, participant feedback suggested that two days was insufficient to cover all the material and others suggested a need for local supervision.

Data from 25 families were collected at baseline. Primary caregivers reported high levels of child behaviour problems, low parental mental well-being, and problematic parenting practices. The most frequent problems reported by parents were aggression, tantrums and noncompliance. Ten participants returned follow-up questionnaires. Significant improvements were found for child behaviour problems, parental mental well-being, and parenting practices. Parents also rated their satisfaction with various aspects of the intervention. The majority of parents (mean 83%) found all aspects of the intervention helpful and 81% would recommend to other parents.

Overall, the course was well-received, with high rates of satisfaction with all aspects of the course, however some participants suggested that the training was too short. Only a small number of participants completed the programme with a family and returned data (n = 10) suggesting that the course is more suited to particular professions than others. Participants had very varied backgrounds and experience and did not all work on a one-to-one basis with families, despite the course being advertised for staff working directly with families. The significant improvements reported by the 10 families suggested the importance of further development of the EPaS programme for working with families of young children with behavioural difficulties and that the training be targeted on health visitors.

Future Research

Previous evidence for the EPaS programme has been limited by the lack of control comparison groups and/or lack of random allocation to conditions. More rigorous research, specifically a randomised controlled trial, was needed to examine the effectiveness of the EPaS programme further. Also, based on the evidence above, it was concluded that health visitors had the best relevant skill set and would be most appropriate to deliver the programme. They already work behaviourally with families as part of usual care and have excellent background knowledge of child development (Cowley et al., 2007) needed to deliver the EPaS programme effectively. Both studies made reference to the length of the training programme, with one suggesting it was too intensive (Lane & Hutchings, 2002) and the other too short (Hutchings & Williams, 2013). Future programme development and research was needed to adapt the length of the training programme to fit in with health visitors' workloads and to present the material thoroughly.

Conclusion

This chapter introduced the principles underpinning the development of the EPaS programme, an individually administered parent support package for families of children with behaviour problems. The origins of the programme, developing from an earlier intensive treatment programme, were discussed and key programme components including the importance of a comprehensive family assessment, working collaboratively with families, the use of a function-based assessment to create a case analysis, and the incorporation of core parenting strategies. The chapter describes the results of the previous EPaS studies and their limitations leading to the conclusion that the programme needed to target health visitors and further develop the resources.

Chapter 3

Individually delivered parenting programmes for parents of young children with behaviour problems: A systematic review

Childhood Behaviour Problems

The rates of diagnosed childhood mental disorders have increased substantially over the last decade both in the UK and internationally (British Medical Association [BMA], 2013; Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). A recent meta-analysis estimated that the pooled worldwide prevalence for childhood mental disorders was 13.4% (Polanczyk et al., 2015). The most common mental health disorders in children are behavioural disorders such as Conduct Disorder and Oppositional Defiant Disorder. These are characterised by aggressive, defiant, noncompliant and oppositional acts (Reyno & McGrath, 2006). Prevalence rates for childhood behaviour problems range from 5 to 14% with a median estimate of 6% (Merikangas, Nakamura, & Kessler, 2009; Polanczyk et al., 2015). Higher prevalence rates have been found in young children aged one to three years with an estimated 6-24% meeting diagnostic criteria for one or more mental disorder (Brauner & Stephens, 2006; Briggs-Gowan, Carter, Skuban, & Horwitz, 2001; Skovgaard et al., 2007). The most common problems in young children are emotional and behavioural adjustment, sleeping and eating disturbances, and regulatory problems (Skovgaard et al., 2007).

Research on the developmental trajectory of severe childhood behaviour has consistently found that problems develop early with some suggesting that children as young as 12 months old start showing signs of behaviour problems (Alink et al., 2006). These problems increase and peak when children are aged 24 to 36 months, and then start to decline from around the age of four years onwards (Alink et al., 2006; Tremblay et al., 2004). Tantrums preceed the development of speech in children but it is possible to identify the high risk children by observing which have the most frequent, severe tantrums that occur in a number of different settings (Fanti & Heinrich, 2010). Several possible explanations for the natural decline in behaviour problems have been explored including the development of cognitive abilities (Alink et al., 2006; Fanti & Henrich, 2010) as well as the development of language (Estrem, 2005). However, not all children show this decline and continue to display problems later in childhood (Fanti & Henrich, 2010; Miner & Clarke-Stewart, 2008) and, for some, into adolescence and adulthood (Colman et al., 2009).

Significant childhood behaviour problems are a strong predictor of later psychopathology with approximately 25% of children identified with high rates of behaviour problems still showing signs 24 years later (Reef, Diamantopoulou, van Meurs, Verhulst, & van der Ende, 2009). Early onset behaviour problems predict poor

outcomes up to 40 years later (Colman et al., 2009), including poorer mental health, poorer social and economic outcomes, and greater likelihood of becoming teenage parents and of reporting relationship problems with partners (Colman et al., 2009; Raudino, Woodward, Fergusson, & Horwood, 2012). Child behaviour problems are associated with increased economic and social burden on families (Briggs-Gowan et al., 2001; Houtrow & Okumura, 2011). Parents report significant restrictions in daily activities, such as visiting friends or family, doing the shopping, and going to new places (Briggs-Gowan et al., 2001). Children with behaviour problems are also at increased risk of developing problematic parenting styles such as over-reactive parenting and use of physical punishment like their own parents (Raudino et al., 2012).

Several risk factors for the development of behaviour problems in childhood have been identified including child, parent, and family risk factors. Child risk factors include male gender, cognitive deficits, language difficulties, difficult temperament, pregnancy and perinatal difficulties (e.g. Colman et al., 2009; Fanti & Henrich, 2010; Houtrow & Okumura, 2011). Parent risk factors include maternal depression, harsh/inconsistent parenting, and young maternal age (e.g. Miner & Clarke-Stewart, 2008; Tremblay et al., 2004). Family risk factors include living in poverty and poor housing (e.g. Houtrow & Okumura, 2011; Miner & Clarke-Stewart, 2008). Most of these risk factors are hard to change however poor parenting is modifiable and is also a key risk factor for developing behaviour problems in childhood (Farrington & Welsh, 2007; Odgers et al., 2008). There are a number of different parenting behaviours that are associated with poor child outcomes. Arnold, O'Leary, Wolff, and Acker (1993) categorised poor quality or dysfunctional parenting into three distinct categories: over-reactivity (when parents use harsh discipline strategies), laxness (when parents fail to enforce or follow through with rules and limits), and verbosity (when parents 'nag' children with excessive instructions). The effects of dysfunctional parenting on child behaviour problems were set out in Patterson's (1982) Coercion Theory which states that dysfunctional parenting behaviours can increase child behaviour problems through giving attention to negative behaviour (positive reinforcement) and reduce child positive behaviours by not attending to them (extinction) (Farrington & Loeber, 1999; Patterson & Yoerger, 2002). Parents respond to noncompliance from the child by using coercive methods in an attempt to achieve short-term compliance. Whilst this works sometimes, children often respond by escalating the problematic behaviour until the parent withdraws. As a result of both parent and child being occasionally rewarded the

behaviour of both is strengthened leading to increased coercion. In the longer term, parents become less likely to follow through with requests in order to avoid escalation of the child's behaviour further strengthening the child's negative behaviour (Patterson, 1982).

The strong association between parenting and child behaviour problems has given rise to interventions that aim to improve parenting skills. Many such interventions have been shown to be effective in improving parenting skills as well as reducing child behaviour problems (Furlong et al., 2012; Morrison, Pikhart, Ruiz, & Goldblatt, 2014; Shelleby & Shaw, 2014; Tully & Hunt, 2015).

Behavioural Parenting Interventions

Parenting intervention is a broad term to describe programmes that address the acquisition of skills by parents and/ or changing parents' cognitions, with the intention of having a positive effect on child behaviour (Lindhiem, Higa, Trentacosta, Herschell, & Kolko, 2014). The majority of evidence-based parenting interventions are underpinned by behavioural theories such as social learning theory (Bandura, 1977). The basic concept is to replace parents' maladaptive parenting behaviour with more effective behaviour management strategies or give parents additional skills to deal with the challenges presented by their child. To accomplish this, most parenting interventions first teach parents to engage in joint activities to strengthen their relationship with their child. Showing interest in the child helps to establish the parent as a reinforcer. This also helps to increase their attending skills (Pearl, 2009). Parents of children with behaviour problems can become attuned to children's negative behaviours (Hutchings, 2013). By teaching parents how to interact positively, their children can learn that they are important to parents and parents can learn to recognise and attend to their children's positive behaviours. The next step is to teach parents to use praise and rewards to increase prosocial behaviours. Once these positive strategies have been taught, parents learn to use effective strategies to reduce negative behaviour, such as planned ignoring, limit setting, response cost, and time-out (Hutchings, 2013). A variety of methods can be used to teach these skills to parents including modelling, role-play, and discussion. These behaviours are then encouraged as homework assignments.

Not all parenting programmes include all of these components and meta-analyses have shown that components can vary in their degree of effectiveness (Barth & Liggett-Creel, 2014; Kaminski, Valle, Filene, & Boyle, 2008). For example, Kaminski

et al. (2008) found that teaching positive parent-child interaction was associated with larger effect sizes but this was not the case for teaching parents about child development. The ability to practice new skills with their own child was also associated with larger effect sizes (Kaminski et al., 2008). This relates to programmes that are delivered to individual parents as opposed to most group-based programmes that are aimed at parents only. Group-based programmes teach through role-play and setting homework assignments but individually delivered programmes can teach through practice with the parent's own children. Another key advantage to programmes delivered to individual parents is the ability to tailor the intervention to the needs of that particular family (Lundahl, Risser, & Lovejoy, 2006). Parents can be involved in the development of appropriate strategies for dealing with their child's behaviour problems (Fettig & Ostrosky, 2011). Parents are experts on their children and the day-to-day activities and routines of their family. Their in-depth knowledge of family routines, goals, values, and resources are invaluable when developing tailored intervention strategies. This is especially useful with high-risk families that may have multiple risk factors needing to be addressed, or in areas where group-based programmes are not available, or with parents who do not have enough confidence to go to a group (Hutchings, Bywater, & Daley, 2007; Lundahl et al., 2006). Individually delivered parenting programmes have been found to be effective in reducing child behaviour problems and improving parenting skills (Lundahl et al. 2006; Maughan, Christiansen, Jenson, Olympia, & Clark, 2005; Thomas & Zimmer-Gembeck, 2007). Whilst good evidence exists for both group-based and individually delivered parenting programmes, individual programmes have certain advantages over group-based programmes.

How The Intervention Might Work

Behavioural parenting interventions are based on the principles of operant learning theory (Skinner, 1938) and social learning theory (Bandura, 1977). According to operant learning theory, a learned association between behaviour and consequence (reward and punishment) can lead to changes in behaviour. For example, rewarding particular behaviours can lead to an increase in their frequency whilst removing rewards or providing consequences for particular behaviours can reduce their frequency. Parenting interventions use operant principles to teach parents positive reinforcement strategies. Praise and rewards can be used to increase desired behaviour (Hutchings, 2013). Social learning theory posits that we learn by observing others' behaviour and

imitating them (Bandura, 1977). Parenting interventions based on this theory teach parents through modelling to encourage parents to model appropriate behaviour around their child and encourage others in the child's environment to do the same. A range of methods are used to teach these skills to parents including didactic instruction followed by modelling, role-playing and feedback based on performance (Marcus, Swanson, & Vollmer, 2001). In a typical group-based session, the facilitators ask parents to act out a common problem that one of the parents is having with their child. Participants brainstorm possible alternative responses to the child's behaviour and then role-play the solutions themselves. In contrast, interventions delivered on an individual basis provide a unique opportunity for the facilitator to coach parents directly in practicing these skills with their own children, often in their own home. Coaching and rehearsal are key components of effective parenting programmes (Kaminski et al., 2008).

Behavioural parenting interventions can include components based on other theories such as attachment or cognitive behavioural theory. Cognitive components of parenting interventions target parents' maladaptive thought patterns associated with their children's or their own behaviour, based on cognitive models of depression (e.g. Beck, 1987) that emphasise the relationship between how we feel about a situation, what we think of it, and how we behave and relate to others in that situation. Parents of children with behaviour problems may have cognitive distortions that trigger negative automatic thoughts about themselves (e.g. 'I am a bad parent') or about the child leading to increases in stress, hopelessness, low self-esteem, and depression (Sanders & McFarland, 2000). They may withdraw from attempts to manage their children's negative behaviour due to their prior failure and negative attributions, which can negatively impact on their parenting and exacerbate child behaviour problems (Cummings & Davies, 1999; Hutchings, Lane, & Kelly, 2004). Thus, parenting interventions that incorporate a cognitive element aim to help parents learn how to reframe their negative thoughts by teaching them to use alternative cognitive strategies (Webster-Stratton, 2011; Williams, 1992), and these strategies have been found to be effective in improving mental health and child behaviour problems (Battagliese et al., 2015; Furlong et al., 2012).

Attachment components, on the other hand, focus on increasing the sensitivity of parents when responding to their child's needs. They are based on the work of Ainsworth (e.g. Ainsworth, Blehar, Waters, & Wall, 1978) and Bowlby (1969) who posits that children who receive sensitive and responsive caregiving during infancy

develop secure emotional attachments. Children who experience insensitive caregiving in early childhood develop insecure attachments, which are associated with a range of poor outcomes including behaviour problems (Barlow, Smailagic, Ferriter, Bennett, & Jones, 2010). Many behaviourally-based parenting programmes aim to strengthen the parent-child relationship by focussing on increasing play between children and parents (Troutman, 2015) and to do so in a way that follows the child's lead, which is considered a form of sensitive responding (Scott, 2003). Increasing the amount of time parents spend playing with their children not only strengthens their relationship but is also an opportunity for the parent to learn to encourage child emotional and social skills by using coaching techniques such as labelling and descriptive commenting (Scott, 2003). There is also a focus on improving parents' observational skills that enable parents to recognise their children's signals and adequately respond to them (Troutman, 2015; van Zeijl et al., 2006). Evaluations of behavioural parenting interventions that include a relationship-building component have found significant improvements in the parent-child relationship (O'Connor, Matias, Futh, Tantam, & Scott, 2013), child emotion regulation (Salmon, Dittman, Sanders, Burson, & Hammington, 2014), and child behaviour (Allen, Timmer, & Urquiza, 2014).

The theory behind parenting programmes is that parent behaviour influences child behaviour. Several studies examined the mechanisms through which it works (e.g., Gardner, Hutchings, Bywater, & Whitaker, 2010; Hagen, Ogden, & Bjornebekk, 2011; Hutchings, Bywater, Williams, Lane, & Whitaker, 2012; Shaw, Connell, Dishion, Wilson, & Gardner, 2009). Hagen et al. (2011) found that parental effective discipline mediated the relationship between intervention and change in child aggression and opposition. Their interpretation of this was that children of parents who attended a parenting intervention showed less aggression and opposition at follow-up because their parents showed improvements in their discipline skills at the end of the intervention. Other studies have found that positive parenting is a mediator (Gardner, Shaw, Dishion, Burton, & Suplee, 2007; Gardner et al., 2010; Shaw et al., 2009) suggesting that it is not just the reduction of negative parenting that leads to change in child behaviour but that increases in positive parenting that help the child to develop the necessary replacement behaviours also has a key role. Another mediator found in the literature is improvements in parental depression. Shaw et al. (2009) examined whether maternal depression served as a mediator in relation to changes associated with a brief parenting intervention. They found that changes in maternal depression mediated the relationship

between intervention effects and changes in both externalising and internalising child behaviour problems from ages two to four years. It is suggested that attending a parenting intervention improves a range of parenting skills, including problem solving, observation skills, and goal setting, which can then lead to improvements in depressive symptoms (De Garmo, Patterson, & Forgatch, 2004).

A number of skill deficits associated with depression have been shown to describe parents of children with behaviour problems. Both show similar deficits in problem solving and observation skills (Meunier, 2007; van Vreeswijk & Wilde, 2004), and tend to use over-general rather than specific memories (McMahon & Frick, 2005; Williams et al., 2007). Forehand and colleagues (1982, 1984) found that maternal depression was a predictor of maternal perceptions of child behaviour, with mothers who perceived their children as more non-compliant reporting higher levels of depression. They conclude that mothers of clinic-referred children were less objective in their perceptions of child behaviour when levels of depression were high. Behavioural parenting programmes include components that address these skills deficits. Specifically, parents are taught accurate problem solving and observation skills and have opportunities to practice and reinforce the skills initially with support from facilitators and subsequently at home with their children (Hutchings, Lane, & Kelly, 2004). Gaining experience of successfully using new skills is important for depressed parents. Depression is characterised by an inability to deal with problems leading to an avoidance of stressful situations, which is highlighted in the learned helplessness theory of depression (Seligman, 1975). Forced exposure to success is the best way of overcoming learned helplessness (Seligman, 1975), which is essentially what parenting programmes do. Teaching parents observation and problem solving skills, as well as realistic goal setting, accompanied by rehearsal of the new skills increases the chance that these skills will be reinforced in the home environment by their success. This gives depressed parents more confidence in their parenting abilities and their ability to manage other aspects of their life, leading to reductions in depressive symptoms (Hutchings et al., 2012).

Research examining moderators of parenting intervention effectiveness has revealed a number of different factors. Recent meta-analyses have shown conflicting results with some identifying socioeconomic status as a moderator of child outcomes in parenting interventions, with lower income families benefitting less from treatment than those with higher income (Leitjen, Raaijmakers, & Orobio de Castro, 2013; Lavigne et

al., 2010), even when controlling for levels of child problem severity (Leitjen et al., 2013). Lundahl et al. (2006) found that parenting interventions were least effective for disadvantaged families, however these families did benefit more from individually delivered programmes than group-based ones. Limited financial resources, including lack of transportation and child-care, have been identified as key reasons for treatment drop-out (Boggs et al., 2004) so providing interventions in the home can reduce some of the barriers for disadvantaged families (e.g. lack of transportation, lack of child care) and can increase access to these families (Bagner, Rodriguez, Blake, & Rosa-Olivares, 2013). Group-based programmes that address these barriers also find that disadvantaged parents do equally well as other families (Gardner et al., 2010; Hartman et al., 2003). Other factors are more likely to occur more frequently in disadvantaged samples including single parents, ethnic minority status, and parental psychopathology which have all been found to be moderators of treatment outcome (Lavigne et al., 2010; Lundahl et al., 2006; Reyno & McGrath, 2006). Nevertheless, some research has shown that parenting interventions work equally well for all families regardless of factors such as socioeconomic status (Gardner et al., 2010).

Why Is It Important To Do This Review?

Despite the vast amount of research supporting the use of behavioural parenting interventions in reducing child behaviour problems (Furlong et al., 2012; Shelleby & Shaw, 2014; Tully & Hunt, 2015) these programmes are not always effective for all families. A strong predictor of the development of child behaviour problems is living in poverty (Houtrow & Okumura, 2011; Tremblay et al., 2004) and economically disadvantaged families, parents with depressive symptoms, and families with more severe behaviour problems benefit less from these programmes (Lundahl et al., 2006; Reyno & McGrath, 2006), have lower attendance rates (Lavigne et al., 2010), and are more likely to drop-out of treatment (Reyno & McGrath, 2006). Consequently, individually delivered parenting programmes may be more suited to disadvantaged families since they are more flexible and can be tailored to a family's unique situation (Lundahl et al., 2006). However, to the author's knowledge, there has been no published review that has exclusively examined individually delivered parenting programmes for parents of children displaying behaviour problems. A number of reviews have examined both group-based and individually delivered programmes (Dretzke et al., 2009; Shelleby & Shaw, 2014; Smedler, Hjern, Wiklund, Anttila, & Pettersson, 2015; Tully &

Hunt, 2015). Others have looked exclusively at group-based programmes (e.g. Barlow et al., 2010; Furlong et al., 2012) and some reviews have examined several studies that used the same programme (e.g. Parent-Child Interaction Therapy, Gallager, 2003; Triple-P, Thomas & Zimmer-Gembeck, 2007), but there has been no review examining the effectiveness of individually delivered programmes across the literature. So it is important to review the effectiveness of these programmes.

The second reason for the review relates to the importance of early intervention. Children as young as 12 months of age can start to show signs of behaviour problems (Alink et al., 2006). Child behaviour problems are a strong predictor for later psychopathology (Colman et al., 2009; Reef et al., 2009) and associated with a number of risk factors. Given the potentially poor prognosis for young children with behaviour problems, there has been a growing recognition that early intervention could be a critical step in preventing long-term negative outcomes (Allen & Duncan-Smith, 2009). Nevertheless, most reviews include a wide age range for children (e.g. 2-8 years, Tully & Hunt, 2015; up to 18 years, Dretzke et al., 2009) and evidence for the effectiveness of individually delivered behavioural parenting interventions in reducing behaviour problems in young children remains unclear.

The aim of the current review is to examine the effectiveness of individually delivered behavioural parenting interventions for parents of children aged two to four years. The PRISMA statement for reporting systematic reviews (Liberati et al., 2009) was used to inform the writing of this review (see Appendix B for PRISMA checklist).

Methods

Inclusion/Exclusion Criteria

Participants will be the main caregivers of children aged two to four years who are manifesting behaviour problems identified by either a diagnosis of Conduct Disorder or Oppositional Defiant Disorder, or scoring above the clinical cut-off on a measure of externalising behaviour problems (e.g. Eyberg Child Behavior Inventory [ECBI; Eyberg, Boggs, & Reynolds, 1980] or Child Behavior Checklist [CBCL; Achenbach & Edelbrock, 1986] Externalizing scale). Therefore, studies that target interventions to address identified child behaviour problems will be included, whereas studies of interventions that target children at risk of developing problems or universal interventions that target whole populations with the aim of preventing the development

of behaviour problems will be excluded. Studies that include children younger than two years 0 months and older than four years 11 months will only be included if the mean child age at baseline falls within the two to four year age range. This age range was chosen because treating behaviour problems early can be more successful than treating them at a later stage (e.g. Ogden & Hagen, 2008). Studies that focus specifically on Attention Deficit Hyperactivity Disorder or include children with specific developmental and/ or intellectual disabilities (e.g. Autism Spectrum Disorder, Down Syndrome, etc.) will also be excluded.

The review will focus on behavioural parenting interventions based on social learning theory and delivered in an individual format. Group-based and self-administered interventions are excluded since reviews already exist (see Furlong et al., 2012; Tarver, Daley, Lockwood, & Sayal, 2014). Interventions can be delivered in a clinic or home setting and must include at least three sessions. Sessions should focus on modifying parenting skills in order to reduce child behaviour problems. Studies reporting on multi-modal interventions that include a parenting intervention component will also be excluded as it may not be possible to draw conclusions on the parenting component.

Only studies with random allocation of participants to conditions will be included. Studies must also include a comparison control group (no treatment, wait-list, treatment as usual, or attention control). Studies comparing two intervention conditions with no control group will be excluded.

Outcomes

The primary outcome for this review was a measure of child behaviour problems. Secondary outcomes include: 1) parenting skills (positive and/or negative); 2) parental mental health, including depression and stress; and 3) parental competence, confidence or sense of control.

Search Strategy

Literature searches of the following electronic databases were undertaken: Medline, CENTRAL, ERIC, Sociological Abstracts, ASSIA, CINAHL, PsycInfo, ScienceDirect, and Web of Science. These were supplemented with studies found in reference lists and a number of reviews. All searches were conducted using the same list of keywords, which were as following: Conduct Disorder, Oppositional Defiant

Disorder, behaviour, antisocial, difficult, problem, externalising, child, psychopathology, intervention, program, parent, training, family, aggressive, disruptive, cognitive, emotional, social (see Appendix C).

Study Selection

The literature searches were conducted between the 06/10/2015 and 22/10/2015. There were no date limits to the searches and only peer-reviewed journal articles published in English were included. The initial database search yielded 11,796 articles with an additional 75 potential articles identified through supplemental means. An update to the search was conducted on the 25/10/2016 and 26/10/2016 yielding an additional 883 articles. Article titles and abstracts were screened for eligibility by the first author. From the title and abstract search, 185 articles were selected for full-text review by the first author with a second researcher independently reviewing all selected articles with agreement of 97%. Where agreement was not reached, both reviewers read the full article and discussed any disagreements. A total of 10 papers describing results from six studies met the inclusion criteria. Figure 3.1 shows the flow chart of article selection.

Data Extraction and Data Analysis

For the 10 articles describing six studies, information was abstracted on study design, sample, and setting; recruitment and inclusion criteria; intervention; comparison group; timing of measurements; targeted outcomes; and results including statistical significance and effect size. The quality of the articles was also reviewed using a modified version of the Quality Index (Downs & Black, 1998). Three items were removed from the original 27-item Quality Index inventory because they were not directly relevant to studies of parenting interventions. These included one item about adverse events, one item about allocation concealment, and one item about blinding. The remaining 24 items included nine items about the reporting of the study (e.g., were the results clearly described?), three items on the external validity (e.g., were the participants asked to participate representative of population from which they were recruited?), 11 items on internal validity (e.g., were losses of patients to follow-up taken into account?), and one item on power. Each item was scored 0 (no/ unable to determine) or 1 (yes) giving a maximum possible score of 24. See appendix D for a copy of the Quality Index (Downs & Black, 1998).

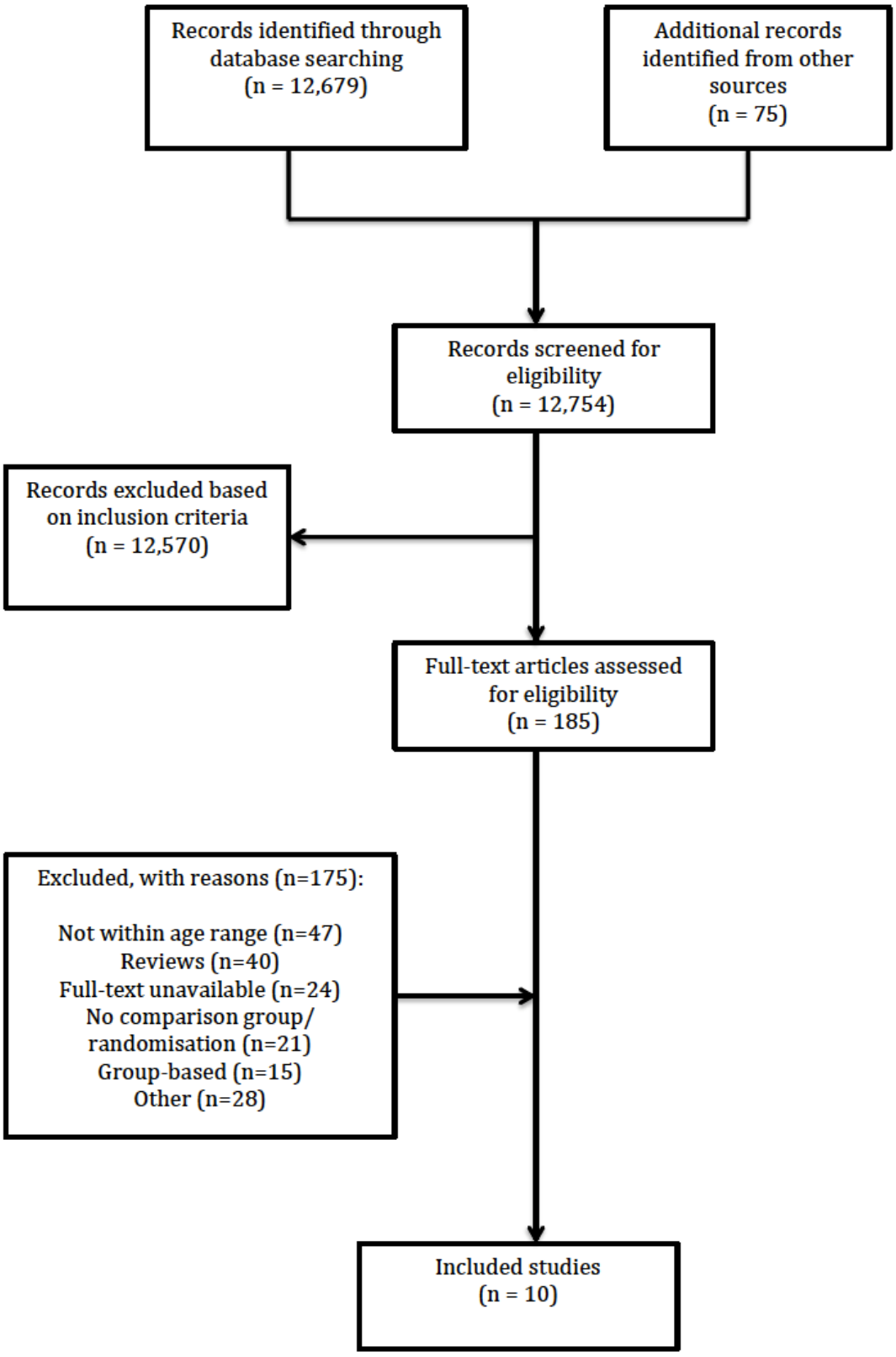

Figure 3.1. Flow chart of studies with reasons for exclusions

The fidelity of each study was also examined, based on criteria set out by Mihalic, Fagan, Irwin, Ballard, & Elliott (2002). They discuss five categories associated with implementation fidelity, four of which are relevant to this review. They are: adherence, exposure, quality of delivery, and participant responsiveness. Implementation fidelity has become an increasingly important topic across research disciplines (Flay et al., 2005) with research showing that the degree of implementation fidelity can affect study outcomes (e.g. Furlong et al., 2012; Kaminski et al., 2008).

Table 3.1 summarises the abstracted information from the six studies. Only outcomes relevant to this review are reported. Due to the small number of identified papers, a formal meta-analysis was not conducted. Effect sizes were calculated using Cohen's *d* (Cohen, 1988). Cohen's interpretation of the size of the effect is: small (*d* = 0.20), medium (*d* = 0.50), and large (*d* = 0.80). Effect sizes reported in table 3.1 are based on the mean differences between the intervention and control groups divided by the pooled standard deviation at baseline, unless otherwise stated.

Results

Characteristics of Studies

Characteristics of the included studies can be found in Table 3.1. Two studies were conducted in Australia, one in the USA, one in Canada, one in the Netherlands, and one in China. Based on the inclusion criteria described above, all studies employed randomisation to allocate participants to conditions. Four studies used a wait-list control group whilst one used a treatment as usual control and the other used an attention control group. Sample sizes varied from 54 to 237 with two studies having fewer than 100 participants. All studies recruited parents of children with a mean age between two and four years and employed a screening method to identify children with behaviour problems. Four studies used the ECBI, one used the CBCL, and one used the Home Situations Questionnaire (HSQ; Barkley & Edelbrock, 1987). Data collection time points varied across studies with all having pre- and post-intervention data, and five having at least one further follow-up data collection point (range three months to three years).

For the demographics, the percentage of boys was above 50% for all the studies (range 51 – 70%), which is consistent with research showing that the prevalence of behaviour problems is higher for boys than girls (Merikangas et al., 2009). Numbers of

single parents varied across the studies with one study reporting high levels of single parents (31% - McCabe & Yeh, 2009) and another study reporting no single parents (van Zeijl et al., 2006). Four studies reported the education level of parents, with two reporting generally low levels i.e. parents who did not complete high school (51% - McCabe & Yeh, 2009; 40% - Sanders, Markie-Dadds, Tully, & Bor, 2000), one reporting 26% with less than nine years education (Leung, Tsang, Sin, & Choi, 2015), and one reporting high levels of education (64% with bachelor's or masters degree – van Zeijl et al., 2006). The number of ethnic minority families showed varying levels (range 6 – 17%) across two of the studies (Cunningham, Bremner, & Boyle, 1995; Nixon, Sweeney, Erickson, & Touyz, 2003). In summary, one study sample can be considered affluent due to the very high levels of education and no single parents (van Zeijl et al., 2006) whilst five studies showed varying levels of disadvantage within the samples with two showing high levels (McCabe & Yeh, 2009; Sanders et al., 2000) and three showing moderate levels (Cunningham et al., 1995; Leung et al., 2015; Nixon et al., 2003).

Characteristics of Interventions

Based on the inclusion criteria above, all studies included a behavioural intervention. A variety of interventions were included and are listed below.

Parent-Child Interaction Therapy.

Three studies used Parent-Child Interaction Therapy (PCIT; Leung et al., 2015; McCabe & Yeh, 2009; Nixon et al., 2003), a manualised intervention focussing on improving the parent-child relationship and providing parents with the skills to manage disruptive child behaviour. The programme is split into two phases: the first phase teaches parents how to play with their child in a positive, non-directive way; the second phase teaches parents behaviour management strategies including giving clear instructions and appropriate consequences for noncompliance, such as time-out. Therapists actively coach parents in the use of the different skills within the context of a dyadic play interaction, including relationship building skills (e.g. praising, selective ignoring of unwanted behaviours) and discipline skills (e.g. clear instructions, appropriate consequences for noncompliance). In the McCabe and Yeh (2009) study they examined the standard PCIT programme as well as a culturally adapted version of PCIT for Mexican-American families, known as Guiando a Niños Activos (GANA), which had the same core features as PCIT but the delivery of the intervention was

tailored to be more culturally sensitive. Adaptations included referencing cultural concepts throughout the treatment, framing the programme as educational/ skill building, increasing session time for rapport building, translating and simplifying the written handouts, and increasing orientation to therapy. Because of the heavy reliance on coaching, PCIT is delivered within a clinic setting in weekly one to two hour sessions. Treatment sessions are unlimited in that they will be terminated once the therapist feels the parents have mastered the skills.

Triple-P Positive Parenting Programme.

Sanders et al. (2000) used the Positive Parenting Programme (Triple-P), a tiered system of support for parents of children with behaviour problems. The intensity of support increases through the levels, with Level 1 the least intensive (universal) and Level 5 the most intensive (enhanced). In the Sanders et al. (2000) study, three versions of the programme are compared, however only Level 4 (standard) is relevant to this review. Parents attended 10 one-hour sessions, some at home and some in a clinic. Parents were taught core child management strategies through active coaching techniques such as modelling, role-play, feedback, and homework tasks. The first three sessions were conducted in the clinic and involved reviewing assessment data, discussing the common causes of child behaviour problems, and covering the core management strategies. The rest of the sessions were completed in the parents' home and consisted of therapists observing the parents implementing the strategies with their child and giving feedback on their performance. These were followed by sessions on planned activities where parents are encouraged to apply the skills to a broad range of behaviours, to set and monitor their own goals for behaviour change, and to enhance their observation skills related to their own and their child's behaviour.

Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline.

The van Zeijl et al. (2006) study used the Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline (VIPP-SD) programme, a short-term, behaviourally focussed intervention based on attachment theory. Parent and child interactions are videotaped and feedback is given on parenting as well as information on the general development of children. In between visits, interveners select specific segments of positive video to feedback to parents based on the content of sessions, which includes recognising children's signals and expressions, importance of sharing emotions and promoting empathy, using consistent discipline strategies and clear limit

setting, and using positive reinforcement to promote positive behaviour whilst ignoring negative attention seeking behaviour. The intervention consisted of six 1.5-hour sessions, four delivered monthly and the final two delivered bi-monthly.

Unspecified programme.

The Cunningham et al. (1995) study used an unnamed parent-training programme based on behavioural techniques. Parents were taught problem solving skills, positive reinforcement, transitional strategies, encouraging compliance, ignoring negative behaviour, disengaging from coercive interaction, prompting problem solving skills in children, and time-out strategies. Methods used to teach parents included role-play, modelling, observing videotape examples, and homework tasks. Parents were encouraged to identify common child behaviour problems observed in videotape examples, formulate solutions, discuss the consequences, and suggest alternative strategies. Therapists modelled the solutions suggested and had parents role-play new strategies. The programme provided in-session opportunities to improve their problem solving skills, encourage supportive communication, and shared management responsibility. Parents attended 11-12 weekly clinic-based sessions delivered by trained leaders.

Quality and Fidelity of Included Studies

The quality of the studies was examined using a modified version of the Quality Index (Downs & Black, 1998). The total mean quality score across the six studies was 18.67 out of a possible 24 (range 17 – 22). The mean scores for each of the subscales were as follows: Reporting 7.83/9 (range 7-9); External validity 1.83/3 (range 1-3); Internal validity 8.83/11 (range 7-10). Only one of the studies reported sufficient detail of a formal power calculation (Leung et al., 2015).

The fidelity of the studies was examined based on four components set out in Mihalic et al. (2002).

Adherence.

This component refers to whether the intervention is being delivered as intended including the use of a manual, delivery of all components, appropriate staff training, and delivered to the appropriate population in the intended location. All six studies used a treatment manual to ensure reliable implementation. Five studies, excluding Leung et al. (2015), report monitoring adherence to the manual content, with two using checklists, two using videotaped observations, and one not specifying how adherence data was

collected. The average adherence levels were as follows: 77-82% (McCabe & Yeh, 2009), 99.6% (Nixon et al., 2003), and 100% (Sanders et al., 2000). Cunningham et al. (1995) and van Zeijl et al. (2006) did not report specific adherence levels and only Nixon et al. (2003) reported using independent coders to code treatment integrity from the videotapes. All studies reported providing training to therapists before commencing programme delivery, as well as providing weekly supervision during the intervention phase, apart from Leung et al. (2015) where bi-monthly supervision was provided. For intervention delivery, one study used early childhood educators and a behaviour therapist with varying levels of parent training experience (Cunningham et al., 1995), one used social work masters and psychology doctoral students (McCabe & Yeh, 2009), one used social workers with tertiary training (Leung et al., 2015), two used professional staff such as psychologists and psychiatrists (Nixon et al., 2003; Sanders et al., 2000), and one used a mixed of staff with undergraduate degrees and/or masters degrees in psychology (van Zeijl et al., 2006). All studies delivered the intervention to the appropriate population (parents of children with identified behaviour problems) and in the intended locations (four clinic, one home, one clinic and home). One study included an intervention condition examining a culturally-adapted version of a parent programme (McCabe & Yeh, 2009).

Exposure.

This component includes the number of sessions delivered, the length of sessions, and the frequency of delivery (e.g. weekly). All studies report the number of sessions delivered as well as the length of sessions. For two of the PCIT studies, there was no set number of sessions for families since the programme is delivered until the parents are assessed to have adequately learned the skills, however the mean number of sessions was reported (M_I = 15.27, Leung et al., 2015; M_I = 13.42 – 13.90, McCabe & Yeh, 2009). Four studies report delivering sessions on a weekly basis, one on a monthly basis, and one did not report the frequency of delivery (McCabe & Yeh, 2009). Two studies did not report the length of sessions (Cunningham et al., 1995; McCabe & Yeh, 2009), two studies reported delivering sessions lasting one-hour (Leung et al., 2015; Sanders et al., 2000), one study reported that sessions lasted one to two hours (Nixon et al., 2003), and one study reported delivering each session for one-and-a-half hours (van Zeijl et al., 2006).

Quality of delivery.

This component refers to the manner in which the interventions were delivered. Three studies reported videotaping/ observation of some intervention sessions to examine quality of delivery, the exceptions being Leung et al. (2015), McCabe & Yeh (2009), and Sanders et al. (2000). Only Nixon et al. (2003) reported specific data regarding the quality of delivery. They used a 10-point scale to rate therapists' empathy, enthusiasm, and competence. Average ratings ranged between 7.24 (*SD* = 0.87) and 7.71 (*SD* = 0.67).

Participant responsiveness.

This component covers the extent to which participants were engaged with the intervention, reflected in study attrition rates. Five of the studies reported the number of participants completing the intervention, the exception being Cunningham et al. (1995). Completion rates were as follows: 78% (Leung et al., 2015); 32 - 56% (McCabe & Yeh, 2009); 77% (Nixon et al., 2003); 80% (Sanders et al., 2000); 100% (van Zeijl et al., 2006). All the studies reported the number of parents who did not complete post-assessment. Five of the six studies reported drop-out for each condition in the study, whilst Cunningham et al. (1995) only reported the total number who dropped out (24%). One study reported no loss at post-assessment (van Zeijl et al., 2006) and the other studies reported 8% (Leung et al., 2015), 7% (McCabe & Yeh, 2009), 23% (Nixon et al., 2003) and 8 - 29% (Sanders et al., 2000).

Table 3.1

Characteristics of included studies, including results and quality ratings

Author (Year) Country	**Setting Child age Method**	**Whole sample demographics**	**Intervention(s) Sessions Comparison**	**Time points**	**Outcome(s)**	**Results (effect size)[1]**	**QR**
Cunningham et al. (1995) Canada	Clinic *M* = 53.2 months Screening using HSQ	51% boys 25% single parent 17% ethnic minority	I – PT 11-12 weekly (optional monthly booster) C - WL	Baseline (I *n*=46; C *n*=56) Post (3mo.; *n*=NR) FU (6mo.; I *n*=35; C *n*=42)	*Child Behaviour* HSQ *Parental Mental Health* BDI *Parental Competence* PSOC	*Child Behaviour* NS difference for HSQ at post or FU. *Parental Mental Health* NS difference for BDI at post or FU. *Parental Competence* Intervention > WL for PSOC* (0.14). NS difference at FU.	17
Leung et al. (2015) China	Clinic *M* = 54.2 months Screening using ECBI	74% boys 11% single parent 26% low education	I – PCIT Unlimited (*M* = 15.27) C - WL	Baseline (I *n*=54; C *n*=57) Mid-treatment (I *n*=43; C n/a) Post (I *n*=49; C *n*=53) FU1 (3mo; I *n*=36)	*Child Behaviour* ECBI Intensity ECBI Problem *Parental Mental Health* PSI DASS *Parenting – Positive* DPICS BD/RF/LP *Parenting – Negative* DPICS C/Q/NT Corporal punishment	*Child Behaviour* Intervention < WL at post for ECBI Intensity** (1.40) and ECBI Problem** (1.09). All improvements maintained at FU1. *Parental Mental Health* Intervention < WL at post for PSI** (0.78) and DASS** (0.63). All improvements maintained at FU1. *Parenting – Positive* Intervention > WL at post for DPICS	20

					frequency	BD/RF/LP** (4.16). Improvements maintained at FU1. *Parenting – Negative* Intervention < WL at post for DPICS C/Q/NT** (1.87) and frequency of corporal punishment** (1.04). All improvements maintained at FU1.	
McCabe & Yeh (2009) USA See also: McCabe et al. (2012)	Clinic *M* = 52.8 months Screening using ECBI	70% boys 31% single parent 51% low education	I1 – GANA Unlimited (*M* = 13.90) C - TAU Unlimited (*M* = 10.94)	Baseline (I *n*=21; C *n*=18) Post (3-4mo.; I *n*=20; C *n*=16) FU (6-24mo.; I *n*=20; C *n*=13)	*Child Behaviour* ECBI Intensity ECBI Problem CBCL Externalising ECI ODD ECI CD ECI ADHD DPICS Compliance *Parental Mental Health* PSI *Parenting – Positive* DPICS PLP Positive DPICS CLP Positive DPICS CU Positive *Parenting - Negative* DPICS PLP Negative	*Child Behaviour* GANA < TAU at post for ECBI Intensity[a] (1.16), ECBI Problem[a] (1.81), CBCL Externalising[a] (1.00), ECI ODD[a] (0.93), ECI CD[a] (0.44), and ECI ADHD[a] (0.80). GANA < TAU at FU for ECBI Intensity* (0.81), CBCL Externalising* (0.65), and ECI ADHD* (0.52). NS difference at post for DPICS compliance. *Parental Mental Health* GANA < TAU at post for PSI[a] (1.23). NS difference at FU for PSI. *Parenting – Positive* GANA > TAU at post for DPICS	18

			DPICS CLP Negative DPICS CU Negative *Parental Competence* PLOC	PLP positive[a] (1.09)[b], DPICS CLP positive[a] (1.42)[b], and DPICS CU positive[a] (1.71)[b]. *Parenting – Negative* GANA < TAU at post for DPICS PLP negative[a] (1.92)[b], DPICS CLP negative[a] (1.39)[b], and DPICS CU negative[a] (0.96)[b]. *Parental Competence* GANA > TAU at FU for PLOC** (1.24).
	I2 – PCIT Unlimited (*M* = 13.42) C – TAU Unlimited (*M* = 10.94)	Baseline (I *n*=19; C *n*=18) Post (3-4mo.; I *n*=18; C *n*=16) FU (6-24mo.; I *n*=15; C *n*=13)	*Child Behaviour* ECBI Intensity ECBI Problem CBCL Externalising ECI ODD ECI CD ECI ADHD DPICS Compliance *Parental Mental Health* PSI *Parenting – Positive*	*Child Behaviour* PCIT < TAU at post for CBCL Externalising[a] (0.65). NS difference at post for all other child behaviour measures. NS differences at FU for all child behaviour measures. *Parental Mental Health* PCIT < TAU at post for PSI[a] (0.37). NS difference at FU. *Parenting – Positive* PCIT > TAU at post for DPICS PLP

					DPICS PLP Positive DPICS CLP Positive DPICS CU Positive *Parenting - Negative* DPICS PLP Negative DPICS CLP Negative DPICS CU Negative *Parental Competence* PLOC	positive[a] (1.22)[b], DPICS CLP positive[a] (1.55)[b], and DPICS CU positive[a] (1.50)[b]. *Parenting - Negative* PCIT < TAU at post for DPICS PLP negative[a] (1.25)[b], DPICS CLP negative[a] (1.00)[b], and DPICS CU negative[a] (1.53)[b]. *Parental Competence* NS difference for PLOC at FU.	
Nixon et al. (2003) Australia See also: Nixon et al. (2004)	Clinic *M* = 46.8 months Screening using ECBI & DSM-IV	70% boys 17% single parent 6% ethnic minority	I – PCIT 12 weekly 1-2hrs C - WL	Baseline (I *n*=22; C *n*=18) Post (3mo.; I *n*=17; C *n*=17) FU1 (6mo.; I *n*=17) FU2 (12mo.; I *n*=16) FU3 (24mo.; I *n*=16)	*Child Behaviour* ECBI Intensity ODD Symptoms CBCL Externalising HSQ DPICS Compliance DPICS Deviance *Parental Mental Health* PSI *Parenting - Positive* DPICS Praise *Parenting - Negative*	*Child Behaviour* Intervention < WL at post for ECBI Intensity** (1.13), ODD Symptoms* (0.83), and HSQ** (1.15). Intervention > WL for DPICS compliance** (0.96). NS difference at post for CBCL Externalising or DPICS deviance. All improvements maintained at FU1. Improvements in ECBI Intensity, DPICS compliance, and DPICS deviance maintained at FU2. Improvements in ECBI	17

					PS DPICS Criticism *Parental Competence* PSOC PLOC	Intensity maintained at FU3. *Parental Mental Health* NS difference at post for PSI. *Parenting - Positive* Intervention > WL at post for DPICS praise** (1.78). Improvements maintained at FU1 and FU2. *Parenting – Negative* Intervention < WL at post for PS** (1.40) and DPICS criticism** (1.02). All improvements maintained at FU1 and FU2. *Parental Competence* Intervention > WL at post for PSOC* (0.77) and PLOC** (1.37). All improvements maintained at FU1.	
Sanders et al. (2000) Australia See also: Sanders et al. (2007)	Clinic & Home *M* = 40.9 months Screening using ECBI	68% boys 26% single parent 40% low education	I - Standard Triple-P 10 weekly 1-hr C - WL	Baseline (I *n*=77; C *n*=77)[c] Post (4mo.; I *n*=64; C *n*=71)[c] FU1 (12mo.; I *n*=58)[c] FU2 (36mo.; I	*Child Behaviour* ECBI Intensity PDR Observed Negative Child *Parental Mental Health* DASS	*Child Behaviour* Intervention < WL at post for ECBI Intensity** (mother 1.70; father 0.68), PDR** (mother 1.04; father 0.52), and observed negative child* (0.37). All improvements maintained at FU1 and FU2.	22

				n=50)[c]	*Parenting - Negative* Observed Negative Parent PS *Parental Competence* PSOC	*Parental Mental Health* NS difference at post for DASS. *Parenting - Negative* Intervention < WL at post for PS** (mother 1.32; father 0.52). NS difference at post for observed negative parent. Improvement maintained at FU1 and FU2. *Parental Competence* Intervention > WL at post for PSOC** (0.85). Improvement maintained at FU1 and FU2.	
van Zeijl et al. (2006) Netherlands See also: Stolk et al. (2008)	Home *M* = 26.9 months Screening using CBCL	56% boys 0% single parent 64% high education	I - VIPP-SD 6 monthly 1.5hrs C - AC	Baseline (I *n*=120; C *n*=117) Post (12mo.; I *n*=120; C *n*=117)	*Child Behaviour* CBCL Overactive CBCL Oppositional *Parenting - Positive* Observed Positive Discipline *Parenting - Negative* Observed Negative Discipline	*Child Behaviour* Intervention < WL at post for CBCL Overactive in families with more marital discord** (0.52), in families with more daily hassles* (0.37), and in families with more dissatisfaction with support* (0.48). Intervention < WL at post for CBCL Oppositional in families with more dissatisfaction with support** (0.39). *Parenting - Positive*	19

											Intervention > WL at post for observed positive discipline** (0.42). *Parenting - Negative* NS difference at post for observed negative discipline.

Notes: QR = Quality Rating; PCIT = Parent-Child Interaction Therapy; I = Intervention condition; C = Control condition; NR = Not reported; PT = Parent Training; GANA = Guiando a Ninos Activos; VIPP-SD = Video-feedback Intervention to promote Positive Parenting and Sensitive Discipline; WL = wait-list control; TAU = treatment as usual; AC = attention control; FU = Follow-up; ECBI = Eyberg Child Behaviour Inventory; HSQ = Home Situations Questionnaire; BDI = Beck Depression Inventory; PSOC = Parental Sense of Competence; CBCL = Child Behaviour Checklist; ECI ODD = Early Childhood Inventory Oppositional Defiant Disorder scale; ECI CD = Early Childhood Inventory Conduct Disorder scale; ECI ADHD = Early Childhood Inventory Attention Deficit Hyperactivity Disorder scale; DPICS = Dyadic Parent-child Interaction Coding System; PSI Parental Stress Inventory; PLOC = Parental Locus of Control; PLP = Parent-led Play; CLP = Child-led Play; CU = Clean-up; BD/RF/LP = behavioural description/reflective statement/labeled praise; C/Q/NT = commands/questions/negative talk; ODD = Oppositional Defiant Disorder; PS = Parenting Scale; PDR = Parent Daily Report; DASS = Depression Anxiety Stress Scales

[1] Effect sizes based on differences between intervention and control group

* = $p < .05$, ** = $p < .01$

[a] No *p-value* reported

[b] Effect sizes calculated separately for intervention and control group. Effect size reported for pre-post differences for intervention group only.

[c] Represents the number of mothers. *N* for fathers for each condition not reported.

Outcomes

In the following subsections, the outcomes reported in the included studies are discussed, starting with the primary outcome (child behaviour) and then the secondary outcomes (parental mental health, parenting skill, and parental competence). Table 3.2 displays the outcomes for each study split by informant type.

Table 3.2

Outcome measures of included studies

Outcomes	**Cunningham et al. (1995)**	**Leung et al. (2015)**	**McCabe & Yeh (2009)**	**Nixon et al. (2003)**	**Sanders et al. (2000)**	**van Zeijl et al. (2006)**
Behaviour problems – parent report	✓	✓	✓	✓	✓	✓
Behaviour problems – observation	✓			✓	✓	
Positive parenting – parent report			✓			
Positive parenting – observation		✓	✓	✓		✓
Negative parenting – parent report		✓		✓	✓	
Negative parenting – observation		✓	✓	✓	✓	✓
Parental mental health – parent report	✓	✓	✓	✓	✓	
Parental competence – parent report	✓		✓	✓	✓	

Primary outcome.

All studies included a parent-report measure of child behaviour problems and three studies also had an independent-report of child behaviour based on observational methods. Five studies found significant effects of the intervention on child behaviour problems. The Cunningham et al. (1995) study found no significant difference in scores on the HSQ or observed negative child behaviour between the intervention and control conditions at post-intervention.

In the Leung et al. (2015) PCIT study there was a significant decrease in ECBI Intensity (d = 1.40) and Problem (d = 1.09) subscales at post-intervention for families in the intervention condition compared to the wait-list control condition. These changes were maintained for the intervention only at three-month follow-up. They also examined change in clinical status from pre- to post-intervention and found a larger percentage of children in the intervention condition (Intensity: 87 – 94%; Problem: 84 – 90%) scored below the clinical cut-off at post-intervention on the ECBI Intensity and Problem subscales compared to children in the control (Intensity: 21 – 23%; Problem: 39 – 41%). Reliable change was calculated and analyses showed significant differences between the intervention and control conditions, with significantly more participants in the intervention condition achieving reliable change on the ECBI Intensity and Problem subscales.

McCabe and Yeh (2009) found significant decreases in ECBI Intensity (d = 1.16) and Problem (d = 1.81) at post-intervention for the GANA intervention condition but no significant difference in the standard PCIT intervention condition compared to the control. Scores on ECBI Intensity were below the clinical cut-off of 131 for all three conditions at post-intervention, however scores on the ECBI Problem scale were only below the cut-off of 15 for the standard PCIT and GANA conditions at post-intervention. They also found significant improvements on a number of other parent-reported child behaviour measures. For the GANA intervention, there was a significant improvement in Early Childhood Inventory (ECI; Gadow & Sprafkin, 1997) ODD symptoms (d = 0.93), ECI CD symptoms (d = 0.44), ECI ADHD symptoms (d = 0.80), and CBCL Externalising subscale (d = 1.00) compared to the control condition at post-intervention. At the two-year follow-up, there was a significant difference in ECBI Intensity (d = 0.81), CBCL Externalising (d = 0.65), and ECI ADHD (d = 0.52) for the intervention condition compared to control. For the standard PCIT intervention, only the CBCL Externalising subscale showed a significant improvement post-intervention (d = 0.65) compared to the control condition. At the two-year follow-up, there was no significant difference between intervention and control conditions (McCabe, Yeh, Lau, & Argote, 2012).

In the Nixon et al. (2003) PCIT study, a significant decrease for the intervention condition was found for mother-reported ECBI Intensity (d = 1.13) and an improvement in the HSQ (d = 1.15) post-intervention. They also found post-intervention improvements in ODD symptoms based on the Diagnostic Statistical Manual fourth

edition (DSM-IV; see Campbell, Ewing, Breaux, & Szumowski, 1986) structured interview (d = 0.83) and in observed child compliance (d = 0.96) for the intervention condition only. All changes in child behaviour were maintained at the six-month and one-year follow-ups, with the change in ECBI Intensity also remaining significant at the two-year follow-up (Nixon, Sweeney, Erickson, & Touyz, 2004). They also conducted a clinical significance test and found that a significantly greater proportion of intervention children moved from the clinical to the normal range on the ECBI Intensity scale compared to the control at post-intervention.

The Sanders et al. (2000) Triple-P study utilised both mother- and father-reports and found improvements in the ECBI Intensity subscale (mother d = 1.70; father d = 0.68) and the Parent Daily Report (Chamberlain & Reid, 1987) (mother d = 1.04; father d = 0.52) compared to the control condition at post-intervention. Scores for both mother- and father-reports had fallen below the clinical cut-off for the ECBI Intensity scale at post-intervention for the intervention condition only. They also found significant post-intervention improvements in observed negative child behaviour (d = 0.37). All changes in child behaviour were maintained at both one-year and three-year follow-ups (Sanders, Bor, & Morawska, 2007).

The van Zeijl et al. (2006) VIPP-SD study found no significant difference in child behaviour between the intervention and control conditions at post-intervention. However, when conducting additional analyses, they found a significant decrease on the CBCL Overactive subscale in families with more marital discord (d = 0.52) or with more daily hassles (d = 0.48) compared to the control condition. They also examined families' dissatisfaction with support and found that there was a significant decrease on the CBCL Overactive (d = 0.37) and the CBCL Oppositional (d = 0.39) for those with more dissatisfaction compared to the control condition.

Secondary outcomes.

A variety of secondary outcomes were assessed, including parental mental health, parenting skills (positive and negative) and parental competence.

Parental mental health.

Five studies (three PCIT, Triple-P, and unnamed programme) had a measure of parental mental health, including depression and stress. Mixed results were found across the five studies with two studies showing positive results.

Cunningham et al. (1995) used the Beck Depression Inventory (BDI; Beck, Steer, & Brown, 1996) to assess the severity of depressive symptoms in parents. They

found an improvement in depression scores over time for the whole sample however there was no significant difference between the intervention and control conditions at post-intervention or six-month follow-up. The mean score was well below the clinical cut-off (BDI cut-off of 20) at pre-test (M_I = 7.8; M_C = 9.0) suggesting low levels of mental health problems in this sample.

Leung et al. (2015) used the Depression Anxiety Stress Scales (DASS; Lovibond & Lovibond, 1995) to assess the levels of negative emotions such as depression, anxiety and stress, and the Parenting Stress Index (PSI; Abidin, 1990) to assess parental stress. They found significant decreases in the PSI (d = 0.78) and the DASS (d = 0.63) at post-intervention for participants in the intervention condition compared to those in the control condition. Reliable change was also examined for the PSI and the results showed significantly more participants in the intervention condition achieved reliable change at post-intervention. These changes were maintained at the three-month follow-up.

In the McCabe and Yeh (2009) study, the PSI was used to assess the levels of stress associated with parenting. For the GANA intervention, a significant decrease in total stress (d = 1.23) was found compared to the control condition at post-intervention. Significant changes were also found on the PSI subscales (Parent Distress, Dysfunctional Interaction, and Difficult Child) however effect sizes were unavailable. At two-year follow-up, there was no significant difference between PSI scores for the GANA intervention and control condition. For the standard PCIT intervention, there was a significant decrease in total stress (d = 0.37) compared to the control condition, with the Dysfunctional Interaction subscale also showing a significant change at post-intervention (effect size unavailable). At the two-year follow-up, there was no significant difference between PSI scores for the standard PCIT intervention and the control condition.

The study by Nixon et al. (2003) used the PSI Child Domain to assess parental stress associated with child difficult temperament. Post-intervention results showed no significant difference in PSI scores between the intervention and control conditions. The clinical cut-off for the PSI Child Domain is 116 and the overall mean score for the intervention condition (M_I = 114.29) was below the clinical cut-off at post-intervention, however it was still above the cut-off for the control condition (M_C = 124.71). They also conducted a clinical significance test examining how many parents were scoring in the clinical cut-off at post-intervention. The results showed that a significantly greater

proportion of parents in the intervention condition had moved from the clinical to the normal range on the PSI compared to the control condition.

Finally, the Sanders et al. (2000) study used the DASS to assess the symptoms of anxiety, depression, and stress in both mothers and fathers. They found no significant differences between the intervention and control conditions in DASS scores at post-intervention.

Parenting skills – positive.

Four studies (three PCIT and VIPP-SD) had a measure of positive parenting with all four showing significant change. In the Leung et al. (2015) study, they used the Dyadic Parent-child Interaction Coding System (DPICS; Eyberg & Robinson, 1981) to observe parent-child interaction. The positive parenting categories used were behavioural descriptions, reflective statements and labelled praise, the scores for which were combined in the analyses. They found significant increases in positive parenting (d = 4.16) at post-intervention for participants in the intervention condition. The changes were maintained at the three-month follow-up.

McCabe and Yeh (2009) used the DPICS to observe parent-child interactions in three tasks: parent-led play, child-led play, and tidy up. A number of positive skills were coded which were amalgamated into one positive category (labelled praise, behavioural descriptions, and reflection of child speech). For both GANA and standard PCIT interventions at post-intervention, there was a significant increase in positive skills for all three tasks compared to the control condition. No between-group effect sizes are available because pre-intervention scores are not reported in this paper or the follow-up paper (McCabe, Yeh, Lau, & Argote, 2012), therefore intervention group only effect sizes are reported. The DPICS observation was not collected at the six-month follow-up.

The Nixon et al. (2003) study also used the DPICS to observe parent-child interactions. They had two positive variables of interest: parent praise and child compliance. The study found a significant increase in parental praise (d = 0.78) compared to the control condition at post-intervention, but no significant difference for the child compliance category. Changes in parental praise were maintained for both the six-month (Nixon et al., 2003) and one-year follow-ups (Nixon et al., 2004).

Finally, the van Zeijl et al. (2006) study used an observation tool to code maternal discipline based on Kuczynski, Kochanska, Radke-Yarrow, and Girnius-Brown (1987) and van der Mark, van Ijzendoorn, and Bakermans-Kranenburg (2002).

During a 10-minute task, children were shown a treat that was given to their mother with written instructions not to give it to the child until the end of the task. Mothers were asked to fill in questionnaires during the task, whilst children had nothing to play with for the first five minutes but were offered toys for the following five minutes. A number of positive discipline strategies (distraction, induction, and understanding) were coded during the observation and then amalgamated into a positive discipline category. The study reported a significant increase in positive discipline strategies (d = 0.42) for the intervention compared to the control condition. Additional analyses reported in Stolk et al. (2008) found that first-time mothers in the intervention condition showed a significant increase in their use of positive discipline strategies (d = 0.37).

Parenting skills – negative.

Five studies (three PCIT, Triple-P, and VIPP-SD) had a measure of negative parenting with all five showing significant change. In the Leung et al. (2015) study, the DPICS categories used to assess negative parenting were commands, questions, and negative talk. The frequencies of each were combined to give one score. The results showed a significant decrease in negative parenting (d = 1.87) at post-intervention for participants in the intervention condition, whilst those in the control condition showed no change. The changes were maintained at the three-month follow-up. The study also used a measure of corporal punishment to assess negative parenting. There was a significant decrease in the frequency of the use of corporal punishment (d = 1.04) for participants in the intervention condition. Reductions were maintained at the three-month follow-up.

McCabe and Yeh (2009) coded a number of negative parenting behaviours using the DPICS, including questions, commands, and criticisms. For both GANA and standard PCIT interventions at post-intervention, there was a significant decrease in negative parenting behaviours for all three tasks compared to the control condition. Again, no between-group effect sizes are available and the DPICS observation was not collected at the six-month follow-up.

The Nixon et al. (2003) study had two negative variables of interest: parental criticisms and child deviant behaviour. The study found a significant decrease in parental criticisms (d = 1.02) compared to the control condition at post-intervention, but no significant difference for the child deviant behaviour category. Changes were maintained for parental criticisms at both six-month (Nixon et al., 2003) and one-year follow-ups (Nixon et al., 2004). They also conducted a clinical significance test

examining how many parents had a clinically significant post-intervention change in scores, reflected by a 30% change in score. A significantly greater number of parents in the intervention condition showed a 30% reduction in criticisms than those in the control condition. The study also used the Parenting Scale (PS; Arnold et al., 1993), a parent-reported questionnaire to assess dysfunctional parenting practices. Post-intervention results showed a significant decrease in overall scores (d = 1.40) for the intervention condition compared to the control. Again, these changes were maintained at both six-month (Nixon et al., 2003) and one-year follow-up (Nixon et al., 2004).

Only a parent-report measure of negative parenting was used in the Sanders et al. (2000) study. They used the PS for both mothers and fathers and showed a significant decrease in scores (mother d = 1.32; father d = 0.52) for the intervention compared to the control condition at post-intervention. These changes were maintained at one-year (Sanders et al., 2000) and three-year (Sanders et al., 2007) follow-up, however there was no comparison control group at the follow-ups.

Finally, the van Zeijl et al. (2006) study coded a number of negative discipline strategies (prohibition, physical obstruction, and giving in) during the observation. The study found no significant post-intervention change in negative discipline strategies.

Parental competence.

Four studies (three PCIT and unnamed programme) had a measure of parental competence or parental sense of control. All the studies showed significant increases in competence after completing parent training. The Cunningham et al. (1995) study used the Parental Sense of Competence scale (PSOC; Johnston & Mash, 1989) to assess parental confidence. The results showed a significant increase in PSOC (d = 0.14) post-intervention for the intervention compared to the control condition. However, at the six-month follow-up there was no significant difference between the intervention and control conditions in PSOC scores.

McCabe and Yeh (2009) used the Parental Locus of Control (PLOC; Campis, Lyman, & Prentice-Dunn, 1986) to assess the degrees of control a parent felt that they had over their child's behaviour. Results for this measure are not reported in the McCabe and Yeh (2009) paper, however baseline and two-year follow-up results are in the McCabe et al. (2012) paper and show a significant improvement in PLOC scores (d = 1.24) for the GANA intervention compared to the control condition. There was no significant difference for the standard PCIT intervention compared to the control.

The Nixon et al. (2003) study used both the PSOC and PLOC. At post-intervention, there was a significant improvement in both PSOC (d = 0.77) and PLOC (d = 1.37) scores for the intervention compared to the control condition. The significant improvements were maintained at six-month follow-up, however there was no longer a control comparison group.

Sanders et al. (2000) used the PSOC as a measure of parental confidence for both mothers and fathers in the study. They found significant improvements in mothers' post-intervention PSOC scores (d = 0.85) in the intervention compared to the control condition. These changes were maintained at the one-year follow-up, however there was no comparison control group.

Discussion

This review examined the effectiveness of individually delivered parenting programmes for parents of young children with identified behaviour problems. Only ten papers describing six studies and representing four interventions met the inclusion criteria. The quality ratings of studies overall were adequate, however there were lower scores for external validity compared to reporting and internal validity. External validity refers to the representativeness of the sample to the population being studied, including how participants were recruited and whether staff and locations where interventions were delivered were representative. Three studies scored 0 for the question regarding staff and locations, due to the intervention being delivered in a clinic setting, which may not have been accessible to all families who could have benefitted from the intervention. Only three studies reported the total number of participants approached and the percentage of those who agreed to take part (McCabe & Yeh, 2009; Sanders et al., 2000; van Zeijl et al., 2006). Only one study reported using a power calculation to predict the required sample sizes to detect predicted intervention effects (Leung et al., 2015).

All studies reported using techniques to ensure treatment adherence including using treatment manuals and monitoring of session content with high levels of adherence for those who reported them. The staff used to delivery the interventions had a variety of qualifications including masters students and professional staff, with all studies reporting providing training before commencing intervention delivery. Some studies lacked detail regarding exposure of the intervention to participants. For example,

McCabe and Yeh (2009) did not report the frequency or length of sessions delivered. Only three studies reported on the quality of intervention delivery with only Nixon et al. (2003) reporting actual data. The majority of studies reported data on participant responsiveness including completion rates for the intervention and the number of participants who completed post-assessments. Due to the small number of studies included in this review, it was not possible to examine whether differing levels of fidelity affected the outcomes however, previous studies reporting high levels of fidelity have shown more positive results (Furlong et al., 2012; Eames et al., 2009). Future research should examine the effect of implementation fidelity on the outcomes of individually delivered parenting programmes.

For this review, a range of outcomes were examined including child behaviour, parental mental health, parenting skills, and parental competence, with the overall findings suggesting that individually-delivered parenting programmes are effective when compared to control comparison conditions. Significant post-intervention improvements in child behaviour compared to a control condition were found in five of the six studies. The majority of treatment effects were in the medium to large range. A number of different measures of child behaviour were used which made it difficult to compare across studies, however four of the six studies utilised the ECBI and consistently found large effect sizes. Improvements in child behaviour were generally maintained at follow-up. The study that did not find any effects for child behaviour (Cunningham et al., 1995) did not report the completion rates for the intervention so it is possible that some families attended only a small number of sessions leading to a lower intervention dose, which could explain the lack of significant finding for child behaviour problems, the main outcome measure.

Similar results were found for parenting skills showing consistent significant improvements in positive parenting skills (four studies) and significant decreases in negative parenting skills (five studies) at post-intervention. Effect sizes ranged from medium to large and improvements were generally maintained at follow-up although in some cases without a control comparison. The findings for parental competence were also positive with significant post-intervention improvements in all four studies in which it was measured. Effect sizes ranged from small to large and two studies showed maintenance of improvements at follow-up (Nixon et al., 2004; Sanders et al., 2007).

Results varied for parental mental health, with only two of five studies showing significant post-intervention improvements (Leung et al., 2015; McCabe & Yeh, 2009),

both of which used the PCIT intervention. Furthermore, maintenance at follow-up was only shown in the Leung et al. (2015) study, although without a control comparison. Nixon et al. (2003) did not show significant post-intervention differences, however they did find that significantly more parents in the intervention had moved from the clinical to the normal range on the PSI compared to the control condition. Based on the varied findings, it is not possible to come to a conclusion regarding the effectiveness of these programmes in improving parental mental health, unlike a number of group-based parenting programmes that have shown good evidence (e.g. Furlong et al., 2012).

Despite evidence suggesting the maintenance of improvements across a number of outcomes, these results should be interpreted with caution. One study did not collect follow-up data (van Zeijl et al., 2006), and three used a wait-list control design where only participants in the intervention condition were followed-up (Leung et al., 2015; Nixon et al., 2004; Sanders et al., 2007). Only two studies provided an opportunity to thoroughly explore long-term maintenance effects since Cunningham et al. (1995) did not show any post-intervention changes. McCabe et al. (2012) showed continuing improvements in child behaviour and parental competence for the GANA intervention compared to treatment-as-usual control at follow-up. There were no significant differences between the standard PCIT intervention and control at follow-up (McCabe et al., 2012). Findings on the maintenance of effects are therefore mixed. It is important that future research includes control or comparison groups at all stages to explore the long-term benefits of individually delivered parenting programmes.

All of the studies had a parent-report measure of child behaviour but only three studies utilised an observation measure (Cunningham et al., 1995; Nixon et al., 2003; Sanders et al., 2000). Results for the observation measures were either non-significant or had much smaller effect sizes than parent-reported measures, meaning that there is limited evidence from independent-reports showing the effectiveness of individually delivered parenting programmes in reducing child behaviour problems. Due to the potential bias of parent-report measures, it is vital that research examining the effectiveness of parenting programmes included independent measures of child behaviour such as observation. On the other hand, the evidence for parenting skills is more promising. Five of the six studies had an observation measure of parenting skills, with the three PCIT studies showing large effect sizes (Leung et al., 2015; McCabe & Yeh, 2009; Nixon et al., 2003). These promising results suggest that individually delivered parenting programmes may be an effective means of improving the parenting

skills of parents with young, behaviourally-disordered children. Only one study (Sanders et al., 2000) utilised both mother- and father-reports of child behaviour, parenting and mental health. This study showed stronger effects for mother- than for father-reports, however this could be due to the differences in sample size with less fathers included in the research or that mothers attended more of the intervention sessions. Fathers' involvement was variable with only 58% of all fathers attending parenting sessions (across the three different conditions), compared to 80% of mothers. It is a strength of the study and recent reviews have highlighted the importance of reporting the level of father involvement in parenting programmes (e.g. Fletcher, Freeman, & Matthey, 2011) in order to assess clearly the effectiveness of the intervention on fathers and the benefits overall of two parents attending.

In terms of sample demographics, the studies varied in the level of disadvantage seen in families. Two studies recruited families with high levels of disadvantage (McCabe & Yeh, 2009; Sanders et al., 2000), three included families with moderate levels (Cunningham et al., 1995; Leung et al., 2015; Nixon et al., 2003), and one included families with very low levels (van Zeijl et al., 2006). Previous research has found contradictory results with some suggesting that disadvantaged families benefit less from group-based parent training (Lundahl et al., 2006) whilst others have found no differential effect, i.e. that group-based parent training works equally well for all families if barriers are addressed (Gardner et al., 2010; Hartman et al., 2003). Due to the small number of studies included in this review, it was not possible to examine whether the level of disadvantage had any effect on the outcomes.

Very few studies met the inclusion criteria for this review. Many studies were excluded because their samples were not within the specified age range of between two and four years. This is surprising considering the evidence that parenting programmes tend to be less effective for older children (Ogden & Hagen, 2008). Also problematic patterns of behaviour in young children tend to peak at the age of three years (Alink et al., 2006; Tremblay et al., 2004), making this an ideal time to intervene before such problems become too entrenched. However, due to the small number of studies in this review, it is difficult to come to more than a tentative conclusion that individually delivered parenting programmes are effective for this age range, and more research needs to be conducted to explore this. Many studies were excluded because they did not have a comparison or control group or did not use randomisation to allocate participants to conditions. Research examining the use of behavioural techniques such as functional

assessment with parents of children displaying behaviour problems have been steadily growing over the past few years (Fettig & Barton, 2014; Fettig & Ostrosky, 2011). However, even though these studies have shown positive results (Fettig & Barton, 2014) they tend to use single-case designs and therefore do not include a control or comparison condition. This highlights the need for the use of more rigorous designs such as randomised controlled trials, the gold standard in evaluating interventions (Flay et al., 2005).

Limitations

The main limitation of this review was the inability to conduct a meta-analysis due to the small number of included studies. This meant that the collective effect of individually delivered parenting programmes could not be quantified. The sample sizes of the included studies were also small, with two studies having less than 100 participants. So not only were there a small number of studies, but the sample sizes within those studies were relatively small, meaning that caution should be taken in interpreting the findings. Another limitation was that the search was restricted to articles published in English. It is possible that more studies would have been eligible if the search had been expanded to include articles published in other languages. In addition, the eligibility criteria meant that some articles on individually delivered parenting programmes were not included. For example, the Family Check-Up programme (e.g. Dishion et al., 2008; Shaw et al., 2006) is an individually delivered intervention for parents of young children aged between one and three years who are concerned about their child's behaviour. However, because it includes children who have not been identified with behaviour problems it was not eligible for inclusion in this review. Other potentially eligible studies were excluded because they included children from differing populations of children (e.g. ADHD, Bor, Sanders, & Markie-Dadds, 2002; Brestan, Eyberg, Boggs, & Algina, 1997; language delay, Chao, Bryan, Burstein, & Ergul, 2006). Therefore, the narrow focus of the review may have impacted on the conclusions.

Conclusions

This review examined the effectiveness of individually delivered behaviourally-based parenting programmes for parents of young children with behaviour problems. The findings were promising for improvements in child behaviour, parenting skills

(both positive and negative), and parental competence. There was limited evidence for improvements in parental mental health, highlighting the need for more research in this area. In terms of implications for practice, individually delivered parenting programmes provide an alternative for those families where a group-based programme may not be appropriate due to transport, child care and location issues or for people who find group attendance too difficult (e.g. disadvantaged families, Lundahl et al., 2006). However, due to the small number of studies in this review further research needs to be conducted to examine the full potential of individually delivered parenting programmes.

Chapter 4

A pilot effectiveness study of the Enhancing Parenting Skills 2014 programme for parents of children with behaviour problems: Study protocol for a pragmatic randomised controlled trial

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Behaviour problems in young children are increasing. In the UK, one in five children are affected by emotional and behavioural problems (British Medical Association [BMA], 2013). Studies have identified a number of risk factors associated with these problems, including poor parenting, poverty, and living in a single parent household (BMA, 2013). Children from disadvantaged backgrounds are more likely to start school lacking essential capabilities such as emotional regulation and social skills and with lower cognitive abilities (BMA, 2013). Longitudinal studies have found that behaviour problems in early childhood are a precursor for adverse outcomes in adolescence and adulthood, including criminality, unemployment, substance misuse, mental health problems and teenage pregnancy (Caspi, Moffitt, Newman, & Silva, 1996). Disadvantaged families are those most in need of intervention however they can be 'hard to reach' because of their lack of engagement with services and/ or difficulties in accessing services.

Early intervention, in the pre-school and early school years, is an important way of tackling child behaviour problems before they become entrenched and whilst parents still have significant influence over children. Poor parenting is one, possibly the most significant, risk factor for child behaviour problems (Patterson, Forgatch, Yoerger, & Stoolmiller, 1998). There is clear evidence that group-based parenting programmes are effective in both the treatment and prevention of child behaviour problems (Furlong et al., 2012) and in helping parents to support children with a variety of developmental challenges including ADHD (Jones, Daley, Hutchings, Bywater, & Eames, 2008; Webster-Stratton, Reid, & Beauchaine, 2011). However there are many families of young children for whom group-based programmes are either inappropriate or inaccessible. Disadvantaged parents are more likely to have low self-esteem and can sometimes find group environments daunting and fear being blamed for the child's problems and criticised for poor parenting. Alternative modes of programme delivery including one-to-one, home-based interventions may be more suitable for disadvantaged families and a meta-analysis showed that for these families individually delivered programmes were superior to group-based programmes in terms of both parent and child outcomes (Lundahl, Risser, & Lovejoy, 2006).

The Role of a Health Visitor

In the UK, health visitors are public health nurses working with young children and families. They are the only health professionals that have universal access to, and

responsibility for, all children from birth to four years old. They play a key role in promoting child health and development through the Child Health Promotion Programme (CHPP), the core health service for promoting, protecting, and improving the health and well-being of children and families (Department of Health, 2009). Their main priorities are to prevent social exclusion in children and families, to tackle key public health issues such as obesity and smoking, to promote infant, child, and family mental health, and to support the capacity for better parenting (Lowe, 2007). There are two components to their work with families, universal and targeted. The universal service for all families is delivered through the CHPP and includes support throughout pregnancy and the first year of life, and monitoring the development and health of children to age four. The targeted component of their work supports vulnerable families through intensive home visiting, that includes parenting interventions for parents of young children who are displaying behavioural difficulties. However, there is currently no standard model of intervention for child behaviour problems, so the services that parents are receiving can vary widely depending on their level of needs (Lowe, 2007).

Evidence for Home-Based/ Home-Visiting Parenting Programmes

A home visiting programme is a service delivered to vulnerable families within their own homes. It can include emotional support, providing access to other services, and direct instruction on positive parenting skills. Home visiting programmes vary widely in content, the range of services offered, the age of the target child, and frequency/ intensity of home visits. Several reviews have been published and the majority conclude that home visiting programmes benefit families on a variety of outcomes, including improvements in parental behaviour (Elkan et al., 2000; Howard & Brooks-Gunn, 2009; Kendrick et al., 2000; Nievar, van Egeren, & Pollard, 2010), child abuse and neglect (Elkan et al., 2000; Howard & Brooks-Gunn, 2009), and child behaviour/ temperament (Elkan et al., 2000).

Other reviews have looked at the components of home visiting programmes to establish which are most important for successful outcomes (Azzi-Lessing, 2011; Heaman, Chalmers, Woodgate, & Brown, 2006). Components of successful programmes include a strengths-based approach, a structured curriculum, and experienced home visitors. Previous research has shown that when a home visiting programme is delivered by experienced nurses as opposed to paraprofessionals benefits to families are sustained in the long-term (Olds et al., 2004).

Previous research has shown that health visitors are ideally placed to support 'hard to reach' families (Elkan et al., 2000). They have many of the necessary skills to work with these families and can detect problems such as poor parenting at an early stage (Cowley et al., 2013). There is some evidence that health visitors can effectively deliver home visiting programmes (Cowley et al., 2013; Elkan et al., 2000) and also parenting programmes for parents of children with behaviour problems (Cowley et al., 2013; Hutchings et al., 2007; Stewart-Brown et al., 2004), however most of the evidence comes from group-based parenting programmes which may exclude many 'hard to reach' families due to access difficulties, lack of crèche/ child care, and stigmatisation (Hutchings, Bywater, & Daley, 2007; Hutchings & Williams, 2014).

Development of the Enhancing Parenting Skills Programme

The Enhancing Parenting Skills (EPaS) programme is based on work in the 1990s to develop a treatment programme for families of children with severe behavioural problems. The premise of the programme is that each child and family situation is unique and individualised support is the cornerstone of effective work with families experiencing such difficulties with their child. The EPaS programme supports parents as change agents. Parents of young children are often with them for much of the time and the child's every day environment has the biggest effect in terms of both contributing to problems and in helping children to learn adaptive behaviours. The main goal is to engage families in shared problem-solving aimed at empowering them to meet achievable goals. To do this professionals need skills in engaging and retaining families and the knowledge upon which to identify effective intervention strategies. This is why health visitors are ideal for this role.

The EPaS programme includes a standardised assessment procedure and structured case analysis formulation process to facilitate the identification of problem behaviours, their functions, and the necessary replacement behaviours. It incorporates elements of Goldiamond's constructional approach that views behaviours as functional, or serving a purpose, in that they successfully produce a desirable or rewarding consequence (Goldiamond, 1974, 1975). It also emphasises the importance of identifying the family's assets and skills that can support the desired changes and goals for intervention. The interventions themselves are not standardised, although they are based on behavioural principles and work undertaken with families is extremely varied. The behavioural principles cover well established child management skills such as

strategies to enhance relationships through attending to the child, increasing desired behaviour through positive reinforcement, providing clear instructions, use of planned ignoring and limit setting. These components are the core of many effective parenting programmes (Herbert, 1987; Forehand & McMahon, 1984; Patterson, 1982). A recent meta-analysis has shown that programmes that include attending to a child and positive reinforcement of desired behaviour are associated with larger effect sizes for both parent and child outcomes (Kaminski, Valle, Filene, & Boyle, 2008). When parents are taught these skills through the use of role-play, this is also associated with large effect sizes. Importantly, due to the individualised delivery of the EPaS programme, parents are able to practice skills with their own children, which are also related to better outcomes (Kaminski et al., 2008). Other research has looked at the social validity of parent training and shown that parents rate components such as attending, rewarding, ignoring, and instruction giving as acceptable and useful (Calvert & McMahon, 1987; Jones, Eyberg, Adams, & Boggs, 1998).

Evidence for the Enhancing Parenting Skills programme

The first evaluation of the EPaS programme included parents of children with severe behavioural problems who were referred to a Child and Adolescent Mental Health service (CAMHS). This intensive treatment programme produced excellent long-term (four-year) results relative to the standard CAMHS treatment group, in terms of statistically significant improvements in child behaviour, reduced maternal depression and increased use of positive parenting skills (Hutchings, Appleton, Smith, Lane, & Nash, 2002; Hutchings, Lane, & Kelly, 2004). Results also demonstrated significantly lower service use four years post-intervention for the intensive treatment group (Muntz, Hutchings, Edwards, Hounsome, & O'Ceilleachair, 2004).

Although the intensive treatment programme was effective, it was only accessible to those parents who had a child referred to CAMHS and, in the late 1990s, at the time of the development of CAMHS primary care services the core content of the programme was re-developed for health visitors and renamed EPaS (Lane & Hutchings, 2002). In a small trial with 24 health visitors and 36 families each health visitor identified one family to work with and attended weekly half-day workshops for 12 weeks. Twelve health visitors also identified a control family presenting with similar problems. Results showed significant improvements in child behaviour and parental mental health for the intervention group only with non-significant changes for the

control families. Health visitors demonstrated increased knowledge of behavioural principles and increased use of behavioural intervention skills, including observation strategies, keeping detailed records, case analysis and encouraging families to participate in record keeping. Health visitors also reported satisfaction with the course (Lane & Hutchings, 2002).

These results for the EPaS programme were promising, however the training programme was intensive and time-consuming for health visitors and, therefore, not particularly practical for real-world implementation. In 2012, the training was revised into a two-day course with additional material developed to support the programme in a trial funded by the Waterloo Foundation (WF). The aim of this trial was to train staff across Wales in evidence-based principles for one-to-one work with common behavioural difficulties in children with developmental difficulties (e.g., sleeping, eating, and toileting difficulties as well as tantrums). Results from the WF trial were again promising, with significant reductions in child behaviour problems, negative parenting styles, and significant improvements in parental well-being (Hutchings & Williams, 2013). However, attendee feedback suggested that two days was not sufficient time to cover the course content thoroughly and furthermore, because the course was delivered to a wide range of intervention staff, many attendees did not have the necessary child development knowledge or access to families.

The result of the WF trial was to further revise the programme to address the limitations of previous trials. This involved a decision to, once again, target the programme on health visitors, to extend the training from two to three days, and to further expand the manual to include more detail regarding the three phases of the programme: assessment, case analysis and intervention. Health visitors are ideally suited to deliver the programme since they have the necessary child developmental knowledge and skills to do behavioural work with families (Cowley et al., 2013).

Rationale

The EPaS 2014 programme differs from other home visiting programmes in a number of ways. Firstly, the programme specifically targets child behaviour problems. Many traditional home visiting programmes offer a variety of services to families and do not generally target one specific aspect of family life. Secondly, the EPaS programme targets older children (two to four years) than traditional home visiting programmes that generally target children from birth to approximately two years.

Thirdly, the programme is based on a theoretical approach to working with parents that is underpinned by social learning theory (Bandura, 1977) whereas traditional home visiting programmes focus more as methods of service delivery as opposed to a theoretical approach (Howard & Brooks-Gunn, 2009).

Aims and Objectives

The overall aim of this trial is to conduct a multicentre, pragmatic RCT of the effectiveness of the EPaS 2014 programme delivered to parents of young, three and four year old children with significant behavioural problems by health visitors by comparing it to a treatment as usual, wait-list, control group.

The key objectives are to determine whether the EPaS 2014 programme produces statistically significant improvements in parent reported child behaviour problems when compared to a wait-list control group; to determine whether the EPaS 2014 programme produces any changes in secondary outcomes (observed child and parent behaviour, self reported parental behaviour and parental depression); to determine whether child behaviour outcomes are mediated by change in parenting behaviour and/or change in parental depression; and to determine whether outcomes are moderated by risk factors such as single parents, teenage parent, poverty, and low parental education level. The study hypotheses are:

i. that the EPaS 2014 training will enable health visitors to work effectively in supporting parents of children with behaviour problems to reduce child behaviour problems
ii. that the EPaS 2014 training will enable health visitors to bring about positive changes for parents of children with behaviour problems, including improvements in parental depression and parenting skills.

The SPIRIT statement was used to inform the writing of this protocol (Chan et al., 2013; see SPIRIT checklist in Appendix E).

Methods/design

Trial Design

A pilot pragmatic, multicentre randomised controlled trial will be carried out to evaluate the effectiveness of the EPaS 2014 programme. Eligible participants will be randomly allocated to receive EPaS 2014 or to a waiting-list control group on a 1:1 ratio.

Setting

This study will be conducted in real-world settings. Participants will be recruited from four centres in England and Wales: North West Wales (Anglesey and Gwynedd); Central North Wales (Conwy and Denbighshire); North East Wales (Flintshire and Wrexham); and Shropshire (Shrewsbury and Telford).

Participants

Sixty health visitors across the four centres will be recruited. Each health visitor will identify two parents of children aged 30 – 48 months from their own caseloads whose parents are reporting their child as having significant behavioural problems identified by the child scoring at or above the clinical cut-off on the parent-reported Eyberg Child Behaviour Inventory (ECBI; Eyberg, Boggs, & Reynolds, 1980). Each health visitor will be required to identify two families (n = 120). Informed consent will be obtained from every participant, including health visitors (Appendix F) and parents (Appendix G).

Eligibility Criteria

Inclusion criteria.

To be eligible for the study, health visitors must have completed a Specialist Community Public Health Nursing qualification. Health visitors are deemed suitable for delivering the EPaS 2014 intervention because they have good knowledge of child development and provide regular behavioural advice to families.

Inclusion criteria for families are: (1) Parent or main caregiver of a child aged between 30 and 48 months; (2) Child scores above the clinical cut-off for behaviour problems on the ECBI (intensity scale ≥ 131 and/or problem scale ≥ 15).

Exclusion criteria.

No exclusion criteria for health visitors.

Child exclusion criteria are: (1) any clinical diagnosis including autism and ADHD; (2) extreme learning difficulties. The exclusion criteria for parents are that they do not have a good working knowledge of Welsh and/or English.

Recruitment

Health visiting service managers will be approached and asked if they are interested in their staff participating in the trial. If they are, the managers are asked to identify health visitors within their service who would be interested in participating in the study. A member of the research team will then meet with interested health visitors to discuss the study and provide information regarding the commitment. Health visitors are given an Information Sheet (see Appendix H) to read and have the opportunity to ask any questions. If they agree to participate, the researcher will obtain written informed consent from each health visitor. Once they have consented, they are given a pack of recruitment materials. These include the ECBI questionnaire, instructions on how to administer and score the ECBI (Appendix I), Note of Interest forms for eligible, interested parents to complete (Appendix J), freepost envelopes to send the completed ECBI's and Note of Interest forms to the research team, and a copy of the Information Sheet for parents (Appendix K).

Health visitors are asked to approach families on their caseloads that have a child aged between 30 and 48 months and have expressed concerns about their child's behaviour. They ask the parents to complete the ECBI questionnaire. If they do not score above the clinical cut-off for child behaviour problems, the health visitor will thank them for their time and proceed to find an eligible family. If they score above the clinical cut-off for one of the two subscales (Intensity or Problem) the health visitor will introduce the project and ask the parent if they would be interested in taking part. If they respond positively, they are asked to complete a Note of Interest form that gives permission to the research team to contact the family to discuss the project further. The health visitor also leaves an Information Sheet for the parent to read before the visit by a researcher and then forwards the Note of Interest and completed ECBI to the research team.

On receipt of the Note of Interest, a member of the research team contacts the family to arrange a home visit to discuss the project further. The researcher ensures that the parent has read the Information Sheet and answers any questions the parent may have. If the parent is happy to continue, the researcher obtains written informed consent from the parent to participate in the study. Only when the consent has been obtained will the researcher proceed to give the baseline measures to the parent.

Intervention

The EPaS 2014 programme is based on the core components of the intensive treatment programme (Hutchings et al., 2002; Hutchings et al., 2004). The programme covers assessment tools and skills, case analysis strategies and intervention components that include core parenting skills, and how to engage parents as collaborators in strategies to help address common childhood behavioural problems such as sleeping, eating, tantrums, and non-compliance. The assessment, case analysis and intervention strategies have their foundation in both the scientific basis of learning theory in general and over fifty years of evidence-based behavioural work with parents of children with developmental and/or behavioural problems. In terms of parenting interventions EPaS draws in particular on the work of Wahler and colleagues (1965), Patterson (1982), Forehand and McMahon (1984) and Herbert (1987). The theoretical underpinning strategy used in EPaS is functional analysis (Hanley et al., 2003), a strategy used within learning theory to identifies the environmental factors that contribute to, and maintain, the child's problematic behaviour (Patterson, 1982), based on the principle that behaviour is repeated when it is reinforced (Cooper, Heron & Heward, 2007).

Health visitors will complete three days of training, each approximately one month apart. The content for each training day are as follows:

1. Assessment procedures - The programme describes a standardised assessment procedure that includes a range of assessment tools including interview schedules, questionnaires, and observation tools. Health visitors will use the assessment tools to collect information about the family, their current circumstances, the specific child problem behaviours, the child's skills and strengths, and their goals. This part of the programme takes three in-home sessions to complete. See appendix A for more information and copies of the assessment tools.
2. Case analysis – The programme teaches how to produce a case analysis using the information collected in the assessment sessions. It involves using the information to develop an understanding of the problem, its history and current function, the assets available in the situation that will support change, and some potential short and longer-term goals. The case analysis is shared with the family and an intervention contract is agreed. This part of the programme is undertaken

in one in-home session. See appendix A for more information about the case analysis process.

3. Intervention strategies – The programme introduces intervention strategies that parents could use to achieve their short and longer-term goals. Parents are asked to undertake assignments and keep records about their efforts to achieve weekly goals that clarify whether the intervention strategies are effective. Intervention strategies focus on teaching replacement behaviours. Example intervention strategies include praising behaviour that the parent wants to see more of, ignoring unwanted behaviours, setting limits for the child, rewards and consequences. This part of the programme can take between six to eight in-home sessions to complete, depending on the type and number of problem behaviours being targeted. See appendix A for more information.

An experienced clinician who developed the EPaS programme will conduct the training. After completing the first day of training, health visitors will begin visiting an intervention family weekly for up to 12 one-hour in-home sessions. The total number of in-home visits may vary between families depending on the complexity of the problem behaviours being targeted. Health visitors are asked to keep a record of the number of visits completed with the intervention family (see Appendix L). All intervention resources are provided including a detailed training manual, the assessment tools for the information gathering sessions, and packs of carbonated paper for drawing up record sheets and writing weekly targets for families. Envelopes and stamps are also given to the health visitors so they can send things to parents such as appointment letters, and so that parents can send completed records to their health visitor for feedback such as record sheets, completed assessments, etc. Control families receive treatment as usual during this first phase and are offered the treatment six months later. Control families can contact their health visitor if any behavioural issues become problematic for them. This can consist of targeting problem behaviours such as sleeping, eating, and toileting using standard behavioural techniques. Control families will complete all outcome measures at the same time as the intervention group, approximately six months post-baseline.

Intervention Fidelity

Health visitors will be provided with a detailed training manual that they will be required to follow in their home visits. All of the assessment tools they have used during the first three in-home sessions will be reviewed during the second training day and used to formulate a case analysis and intervention goals. Intervention targets and strategies will be reviewed during the third training day.

Due to the design of the study whereby health visitors each have one intervention family and one control family, a contamination procedure will be put in place. To monitor potential contamination, health visitors will be required to keep a record of the frequency of in-home visits including whether they have seen the control family as part of usual care. If high levels of contamination are found, this information will be added to the analysis as a controlling variable. Also, researchers are blind to participant allocation however it is possible that participants may reveal their allocation to the researchers at the follow-up data collection visit. Researchers will be asked to record if unmasking has occurred and, again, if high levels of unmasking are found, a variable will be added to the analysis to control for this.

Study Outcomes

Screen.

A parent-reported measure will be administered to determine the eligibility of children for inclusion in the study. The measure is the ECBI, a 36-item standardised inventory completed by the parent for the assessment of frequency and intensity of behavioural problems in children aged 2-16 years (Eyberg et al., 1980). Only children who score above the clinical cut-off on either the Intensity subscale (≥ 131) or the Problem subscale (≥ 15) will be eligible to participate. The questionnaire demonstrates good stability and homogeneity, with reliability coefficient of .86 for test-retest and .98 for internal consistency (Robinson, Eyberg, & Ross, 1980). The ECBI has shown good convergent validity with scores being significantly correlated with scores on the Child Behaviour Checklist (Achenbach & Edelbrock, 1986). Health visitors will be responsible for collecting and scoring this data for screening purposes only. Follow-up ECBI data will be collected by researchers blind to condition allocation.

Primary outcome.

The primary outcome is to establish whether there is a significant change in child behaviour from baseline to follow-up in the parent-reported ECBI.

Secondary outcomes.

The following secondary outcomes will be collected at both time points by the research team.

- Child hyperactive behaviour measured on the Abbreviated Conners Parent-Teacher Rating Scale (Conners, 1994; see Appendix M). This is a 10-item scale that comprises of the most highly loaded symptoms from the factor scales of the Conners Parent and Conners Teacher Rating Scales. Responses are rated on a four-point scale ranging from 1 (not at all) to 4 (very much). A clinical cut-off score for hyperactivity is recommended as 15 (Conners, 1994).
- Observation of parent-child interaction, based on the categories from the Dyadic Parent-Child Interaction Coding System (DPICS; Robinson & Eyberg, 1981). Six parent and four child categories are employed, summarised in terms of parent positive behaviour, parent negative behaviour, parent social-emotional coaching, child positive behaviour, and child deviance. Observational coding is continuous and records the total frequency of each behaviour per specified interval. For this study, the primary caregiver is observed interacting with their child in their own home for 30 minutes. The DPICS has shown good reliability as evidenced by a number of studies (Jones et al., 2008; Hutchings et al., 2007). Inter-rater reliability levels will be assessed during this study (20% of all observations at both time points). Copies of the coding sheet and manual can be seen in Appendices N and O respectively.
- Negative parenting practices measured on the Arnold-O'Leary Parenting Scale (Arnold, O'Leary, Wolff, & Acker, 1993; see Appendix P). This is a 30-item inventory that includes three subscales: laxness, over-reactivity, and verbosity. Responses are recorded on a seven-point scale anchored between two alternative responses to a particular situation. The questionnaire has shown adequate internal consistency (α = .63 - .84) and good test-retest reliability (r = .79 - .84) (Arnold et al., 1993).
- Parental depression measured on the Beck Depression Inventory II (BDI; Beck, Steer, & Brown, 1996). This is a 21-item standardised inventory designed to assess the severity of characteristic symptoms and attitudes associated with depression. Each item contains four possible responses ranging from 0 (e.g., I do not feel sad) to 3 (e.g., I am so sad or unhappy that I can't stand it). The clinical

cut-off scores for this measure are as follows: normal range (0-10), mild (11-16), borderline (17-20), moderate (21-30), and severe (31-40), and extreme (above 40). This study used a score of borderline or above as an indication of clinical levels of depression. The BDI has shown high internal consistency ($\alpha = .92$), good test-retest reliability ($r = .93$), and good convergent validity ($r = .93$) (Beck et al., 1996).

An additional secondary outcome, parental satisfaction with the intervention (Appendix Q), will be collected by the health visitors during their last in-home sessions with the parents. This is to ensure that the research team remains blind to participant condition allocation.

Demographic information.

Demographic data will be collected at baseline only from all the participating health visitors and families. The questionnaires will cover the following demographic information.

- Health visitors - age, gender, number of years working as a health visitor, local area of employment, number of years working in local area, any relevant post-qualification training (Appendix R).
- Families – age of parent and child, gender of parent and child, parent's relationship to child, parent's age at birth of first child, parent's current relationship status, partner's relation to child, housing situation, employment status, income, parent's level of education, and whether they have attended a parenting course previously (Appendix S).

Mediators.

Factors that have previously been shown to mediate change in similar programmes (Gardner, Hutchings, Bywater, & Whitaker, 2010; Hutchings, Bywater, Williams, Lane, & Whitaker, 2012) will be investigated. These include change in parental behaviour, as measured by the Arnold-O'Leary Parenting Scale and the parenting behaviour categories of the DPICS observation tool, and change in maternal depression, as measured by the BDI.

Moderators.

The possible moderating role of high-risk factors (using the demographic questionnaire) such as poverty, unemployment, single parenthood, young parenthood and lack of parental education as well as the presence of maternal depression (using the BDI), and other indicators of poor outcome will be investigated.

Data Collection

Parent measures will be collected during home visits by the research team, including observation of the parent-child interaction during a free play situation. Each parent will receive a gift (a children's book) on completion of measures at each time point. The health visitor measure (health visitor demographic questionnaire) will be collected at the first day of EPaS 2014 training.

Research staff will be trained in coding the DPICS observational tool until 80% inter-rater reliability is achieved on all categories. At least 20% of observations at each time point will be coded simultaneously by two coders to establish inter-rater reliability. Frequent practice and trouble-shooting meetings will be held to maintain high reliability levels.

Sample Size

Previous research has shown the EPaS programme to be effective for families of children with behaviour problems (Hutchings & Williams, 2013; Lane & Hutchings, 2002), however these studies were limited by small sample sizes and lack of a randomised control comparison. For the current study, to detect an effect size of 0.55 standard deviation on the ECBI at 80% power and 5% significance level, a total of 55 families in each condition would be required. With a 10% drop out rate the estimated sample size increases to 60 families in each condition. Whilst acknowledging that an effect size of 0.55 standard deviation is optimistic, due to limited funds and time a larger sample would be difficult to recruit.

Randomisation

On completion of baseline data collection, parents will be randomised to either an intervention or a waiting-list control condition on a 1:1 ratio. The process will be done within health visitors so that each health visitor has one intervention family and one waiting-list control family. The randomisation process will be undertaken by the primary supervisor using an online randomisation programme with random permuted blocks (www.randomization.com). Once randomisation is complete, parents will receive a letter detailing their condition allocation (see Appendices T and U).

Blinding

Due to the nature of the study, it is not possible to have a completely blinded design. Parents will know to which condition they have been allocated. Health visitors will also be aware of which participant is in the intervention and which in the waiting-list control condition. However, the research team undertaking the data collection will be blind to participant condition allocation throughout the study. Baseline measures will be collected prior to randomisation and parents and health visitors will be asked not to reveal the condition allocations to the research team at follow-up. A contamination procedure will be put in place if participants reveal their allocation to the researchers.

Statistical Analyses

Baseline characteristics of the sample (health visitor, parent, and child) will be analysed and checked for differences (if any) between the two conditions, intervention and wait-list control, any differences will be recorded.

The main analyses will be performed using the entire intention-to-treat population. The primary outcome measure, the change in the scores on the parent-reported ECBI from baseline to follow-up, will be calculated for each individual and compared between conditions using multiple linear regressions, controlling for any differences in sample characteristics at baseline and the baseline scores on the ECBI. Study site will also be controlled for in the analyses to assess any effects of clustering.

Secondary outcome measures that assess changes from baseline to follow-up in child behaviour, parental practices, and parental depression will also be analysed using multiple linear regressions, controlling for any differences in sample characteristics at baseline, baseline scores of the relevant outcome measure, and study site. In addition to the intention-to-treat analyses, per-protocol analyses will be conducted on data from participants who have remained in the study and have completed measures at all time points.

Mediational analysis.

Exploratory mediational analyses will examine the extent to which changes in child behaviour problems (as measured by the ECBI) are determined by the effects of the intervention on parent behaviour (as measured by the parenting behaviour categories of the DPICS observation tool and/ or the Arnold-O'Leary Parenting Scale) and parental depression (as measured by the BDI). Analysis will be conducted using

regression approaches with bootstrapping, as recommended by Dearing and Hamilton (2005) using SPSS macros written by Preacher and Hayes (2008).

Moderator analysis.

Indicators of poor outcome, as assessed by a demographic questionnaire, will be included in the regression models to determine whether any risk factors moderate the effect of the intervention on primary and secondary outcomes. Risk factors include lone parent, poverty, teenage parent, unemployment and low education level.

The presence of parental depression will be assessed using the BDI. This score will be collected at baseline and an interaction term (BDI*intervention group) will be included in the regression model to determine whether the intervention is less beneficial for children whose main caregiver demonstrates symptoms of depression.

Missing data.

Missing data will be managed using multiple imputation (MI). This has been found to be the most accurate method of dealing with missing data, regardless of whether it is missing at random or not (Shrive, Stuart, Quan, & Ghali, 2006). Imputation strategies for MI will be reported and justified, and imputed data for MI analysed as part of a sensitivity analysis.

Ethical Approval

The study has received approval from the North Wales Research Ethics Committee (REC; application number 14/WA/0187) and the School of Psychology, Bangor University REC (application number 2014-12886).

Discussion

This trial will provide important information on the effectiveness of an enhanced version of the EPaS programme, a one-to-one intervention to address behaviour problems in young children. The effects of the intervention on child behaviour, parenting behaviour, and parental depression will be assessed. This is a timely project when considering the rising levels of behaviour problems and the Government's focus on the importance of early intervention (Allen, 2011; BMA, 2013).

One of the challenges of conducting this research will be the recruitment of 'hard to reach' families. These families can be difficult to work with due to their lack of engagement with services and/or difficulties accessing services. This is why health

visitors will be identifying families for the trial as well as delivering the intervention. Other research with parenting programmes has shown that health visitors are effective in identifying parents in need of support for their child's behaviour problems, with 81% of families identified agreeing to a visit from a researcher and 93% of those families giving informed consent (Hutchings et al., 2007). Health visitors will identify families from their own caseloads so they should already have a good relationship with the families. The parents may also feel more willing to take part knowing that they will be working with their own health visitor. Health visitors will be fully aware of the details of the study and will be briefed on the best means of presenting the study in a positive way to parents.

This is the first rigorous evaluation of the EPaS 2014 programme and will potentially be a valuable addition to the child behaviour problem literature. It is hypothesised that EPaS 2014 will improve a range of outcomes, including child behaviour, parent behaviour, and parental depression, for families with a young child identified with behavioural problems. If significant results are found, the intervention may be available for use by health visitors on a more regular basis.

Chapter 5

Childhood conduct problems: Examination of a sample of families recruited from health visiting caseloads

The precursors to many significant behaviour problems in older children can be found in early childhood (Farrington & Welsh, 2007; Tremblay et al., 2004). For over 40 years, researchers have examined the mechanisms by which behaviour problems develop and have identified a number of associated risk factors (Farrington & Welsh, 2007; Patterson, 1975). The aim of this chapter is to describe the characteristics of a sample of families recruited by health visitors from their caseloads for an intervention to address child behaviour problems.

Early Onset Behavioural Problems

Globally, behaviour problems are the most common childhood mental health disorder (Merikangas, Nakamura, & Kessler, 2009; Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). Over the last decade in the UK the prevalence of child behaviour problems has been rising with both parents and teachers reporting increasing levels (British Medical Association, 2013; Hutchings, Williams, Martin, & Pritchard, 2011). They are the most common reason for referral to UK child and adolescent mental health services (National Collaborating Centre for Mental Health [NCCMH], 2013) and place a large economic burden on both individual families and society (Romeo, Knapp, & Scott, 2006; Scott, Knapp, Henderson, & Maughan, 2001).

Between the ages of three and eight years, children's behavioural problems are easy to identify (NCCMH, 2013) and, without intervention, these problems predict poor outcomes into adulthood (Colman et al., 2009). The precursors to significant externalising behaviour problems in older children are found in early childhood (Farrington & Welsh, 2007; Tremblay et al., 2004). Furthermore, early onset problems strongly predict later psychopathology including poorer mental health, lower educational attainment, unemployment, and involvement with the criminal system (Colman et al., 2009; Reef et al., 2009).

Associated Risk Factors

The risk factors associated with the development of early onset behaviour problems are well established (Farrington and Welsh, 2007) and many are associated with components of socioeconomic disadvantage (Kiernan & Mensah, 2009). These include poverty (e.g. Kiernan & Mensah, 2009; Najman et al., 2010), parental unemployment (e.g. McMunn, Kelly, Cable, & Bartley, 2012; Waldfogel, 2007), low parental educational attainment (Davis et al., 2010), young parenthood (Derzon, 2010),

single parenthood (Ackerman, D'Eramo, Umylny, Schultz, & Izard, 2001; McLanahan, 1997, 1999; Kolthof et al., 2014), parental depression (Goodman et al., 2011; Farrington, 2000; McLanahan, Tach, & Schneider, 2013; Mitchell et al., 2015) and large family size (three or more siblings) (Farrington, 2000; Kolthof et al., 2014).

Economically disadvantaging factors tend to co-occur and numerous studies have examined the effects of cumulative factors on the emergence of child behaviour problems (Kolthof et al., 2014). Rutter and colleagues (see Rutter, 1979) investigated a sample of families living on the Isle of Wight. The presence of two factors was associated with a two-fold increase in child psychiatric disorder, and four factors with a ten-fold increase in risk (Rutter, 1979). The Rochester Longitudinal Study (see Sameroff, 2000) found similar results based on ten factors: history of maternal mental disorder; high maternal anxiety; rigid parental beliefs, attitudes, and values about child development; observations of few positive parent-child interactions; unskilled occupational status; low maternal education; disadvantaged minority status; single parenthood; stressful life events; and large family size. The relative risk for the poorest child outcomes was greater in the high-risk group (eight or more factors) than the low-risk group (up to three factors), including behaviour problems in preschool and academic difficulties (Sameroff, 2000). Recent studies corroborate these findings (e.g. Barker, Copeland, Maughan, Jaffee, & Uher, 2012; Gridley, Hutchings, & Baker-Henningham, 2013; Murray et al., 2010; Sabates & Dex, 2015), all suggesting that the accumulation of several factors increases the risk of the development of child behaviour problems.

During the 1980s and 90s the Oregon Social Learning Centre, founded by Jerry Patterson and colleagues, was at the forefront of research in this field. Their view was that to treat childhood behaviour problems, you must change the child's social environment (Patterson, 1982; Patterson, Reid, & Eddy, 2002). The most consistently identified and key factor associated with the development of behaviour problems in childhood is poor parenting (Farrington & Welsh, 2007; Hoeve et al., 2009; Patterson, 1975; Patterson, 1982). Many studies have found strong links between poor parenting and behaviour problems in early and middle childhood, and adolescence (for reviews see Andershed & Andershed, 2015; Hoeve et al., 2009; Murray et al., 2010). Arnold, O'Leary, Wolff, and Acker (1993) described three constructs associated with dysfunctional parenting, namely laxness (when parents fail to enforce or follow through with rules and limits), over-reactivity (when parents use harsh discipline strategies), and

verbosity (when parents 'nag' children with excessive instructions). All three have been associated with increases in child behaviour problems (Del Vecchio & O'Leary, 2008; Hakman & Sullivan, 2009; Miner & Clarke-Stewart, 2008).

Patterson's (1982) Coercion Theory describes how parents of children with behaviour problems are more likely to use a coercive parenting style including using vague commands and inconsistent use of rules, as well as being unresponsive to children's sociable behaviour, and emotionally reactive. Despite the numerous factors associated with child behaviour problems, Patterson, Forgatch, Yoerger, and Stoolmiller (1998) have demonstrated that it is the extent to which other disadvantaging factors affect parenting that predicts child behaviour problems. This has also been explored in a number of longitudinal studies incorporating mediation tests and in the majority of cases, the effect of family/ social factors on child behaviour is fully mediated through parenting practices (Capaldi, DeGarmo, Patterson, & Forgatch, 2002; Patterson, Reid, & Dishion, 1992). It is clear that it is the extent to which other factors compromise parenting that predicts child behaviour problems.

Several family/ social factors have been investigated including family transitions such as divorce or single parenthood (Bank, Forgatch, Patterson, & Fetrow, 1993; Forgatch & DeGarmo, 1997), socioeconomic disadvantage (DeGarmo, Forgatch, & Martinez, 1999; Larzelere & Patterson, 1990) and parental mental health difficulties such as stress (Patterson, 1986) and depression (Forgatch & DeGarmo, 1997; Patterson & Dishion, 1985). These studies suggest that family/ social factors have an indirect effect on child behaviour outcomes operating primarily in the context of dysfunctional parenting practices. Family/ social factors are correlated with poor child outcomes but not directly causal (Patterson et al., 1998). These findings highlight the importance of parenting practices as a key mechanism for changing child behaviour and, consequently, interventions designed to target parenting behaviour have become the recommended treatment for reducing child behaviour problems (National Collaborating Centre for Mental Health [NCCMH], 2013).

Effectiveness of Parenting Programmes

Early intervention, before children become more independent from their parents, has a greater likelihood of success (Allen, 2011; Farrington & Welsh, 2007) and over 50 years of research has demonstrated that parenting programmes based on social learning theory are the most effective interventions to address early onset child behaviour

problems (Farrington & Welsh, 2007; Furlong et al., 2012; Patterson, 1975; Wahler, Winkel, Peterson, & Morrison, 1965). These programmes address the specific parenting practices associated with child behaviour problems, for example by replacing attention for problematic child behaviour with praise for appropriate behaviour, using clear instructions and rules, consistent consequences for unwanted behaviour, and promoting positive relationships through play (Hutchings, 2013).

Decreasing negative parenting and increasing positive parenting skills leads to reductions in child behaviour problems (for reviews see Furlong et al., 2012; Shelleby & Shaw, 2014; Thomas & Zimmer-Gembeck, 2007). Several studies have found that the relationship between intervention status and changes in child behaviour are mediated by changes in parenting practices (e.g. Gardner, Hutchings, Bywater, & Whitaker, 2010; Hagen, Ogden, & Bjornebekk, 2011; Shaw, Connell, Dishion, Wilson, & Gardner, 2009). Hagen et al. (2011) found that improvements in ineffective discipline mediated the relationship between intervention status and reductions in child behaviour problems. Parents in the intervention condition showed greater reductions in ineffective discipline that contributed to reductions in child behaviour problems. Gardner et al. (2010) found similar results but with a measure of positive parenting practices suggesting that it is not only reductions in dysfunctional parenting but also increases in positive parenting that are important in changing child behaviour. In a recent review examining the role of parenting practices as a mediator (Forehand, Wells, McMahon, Griest, & Rogers, 2014), a composite measure of parenting encompassing both positive and discipline strategies received the most support across a number of studies, highlighting the importance of teaching a range of strategies to parents of children with behaviour problems to enable them to help children to establish alternative pro-social behaviour. Improvements in maternal depressive symptoms following attendance on a parenting programme have also been shown in several studies (e.g. Furlong et al., 2012; Hutchings et al., 2007; Shaw et al., 2009).

A number of studies have examined the role of family/ social factors as moderators in the effectiveness of parenting interventions. Some reviews have shown that disadvantaged families fare worse in parent training (Lundahl, Risser, & Lovejoy, 2006; Reyno & McGrath, 2006). Other factors include single parenthood, low parental education, young maternal age, maternal depressive symptoms, and severity of child behaviour (Reyno & McGrath, 2006). However, other studies show that parenting programmes are equally effective for families regardless of the presence of family/

social factors (e.g. Beauchaine, Webster-Stratton, & Reid, 2005; Gardner et al., 2010; McGilloway et al., 2012; Shelleby & Shaw, 2014). Hutchings, Gardner, and Lane (2004) have argued that nonspecific intervention factors, particularly associated with process skills (the how of intervention delivery), and ensuring access for disadvantaged families may account for these different findings.

Health Visitors

Health visitors in the UK are highly trained nurses with specialist training in public health promotion, including a specific focus on the factors associated with positive child development. Their training enables them to assess the health needs of individuals, families and the wider community to promote good health and prevent illness (National Health Service [NHS] Careers, 2016). They provide a universal service to all families with children under the age of five years and targeted services for those in need, e.g. vulnerable families (Cowley, Caan, Dowing, & Weir, 2007). Their responsibilities including safeguarding children, early intervention, and proactive promotion of health and illness prevention (Lowe, 2007). Central to their role is the use of a needs assessment to identify the needs of individual families and determine the level of intervention to be offered (Appleton & Cowley, 2008). A trusting parent-practitioner relationship is vital for working with vulnerable families and the close, one to one, contact through home visits that health visitors provide places them in a good position to develop a meaningful understanding of family needs (Whittaker, 2014).

Health visitors are a valued source of advice for parents (Wilson et al., 2008) who especially value their knowledge of parenting, child development and behaviour (Russell & Drennan, 2007). Parents generally rate health visiting services positively however over the last few years reducing levels of available services have been reported (Russell & Drennan, 2007). Health visitors report increasing caseloads, particularly more complex cases (Adams & Craig, 2007), meaning they have less time available to support families. They also report growing caseloads of children with behaviour difficulties with one survey finding 34% of health visitors with 10 or more child behaviour cases at any one time (Wilson et al., 2008). Health visitors report spending more than four hours a week working with the families of children with behaviour problems and, despite specialist training, feel ill-equipped to manage these cases and engage parents in intervention programmes (Hutchings & Nash, 1998; Thomas, Bidder, Hewitt, & Gray, 1982).

Health visitors' knowledge of child development and access to all families of young children makes them ideally placed to identify and work with high challenge families and they are skilled at identifying these children. In a trial of a group-based parenting intervention with parents of children aged three and four years, health visitors were asked to identify, from their caseloads, families that would be likely to have children scoring within the clinical range for significant behavioural problems. Of 240 families approached by the health visitors, 92% of parents scored their child within the clinical range (Hutchings, Bywater, & Daley, 2007).

The Present Study

The aim of the present study was to report on the socioeconomic circumstances and other family characteristics in a sample of families with young children that were identified by their health visitors as having significant behaviour problems. The families had enrolled in a pragmatic, multi-centre, randomised controlled trial evaluating an individually delivered parent programme (see Chapter 4; Williams & Hutchings, 2015) and the baseline data reported here was collected prior to programme commencement and illustrates the nature of problems experienced by families on health visiting caseloads that many health visitors face on a daily basis.

Methods

Participants

Health visitors were recruited to undertake training in an individually delivered, behavioural parent programme, known as the Enhancing Parenting Skills (EPaS) 2014 programme. The only inclusion criterion for health visitors was that they had a Specialist Community Public Health Nursing qualification. There were no exclusion criteria. Health visitors were asked to identify two families from their caseloads to take part in the study.

Families were identified based on specific inclusion and exclusion criteria. The inclusion criteria were: (1) main caregiver of a child aged between 30 and 48 months; (2) child scores at or above the clinical cut-off for behaviour problems on the Eyberg Child Behaviour Inventory (ECBI; Eyberg, Boggs, & Reynolds, 1980). The inclusion child age range was later changed to 30-60 months due to recruitment difficulties. This measure has two subscales and parents were eligible if children scored above the cut-off

on either subscale (Intensity scale ≥ 131 and/or Problem scale ≥ 15). Exclusion criteria included: (1) children with any clinical diagnosis including Autism and Attention Deficit Hyperactivity Disorder (AD/HD); (2) children with a pre-existing diagnosis of severe learning difficulties.

Forty-nine health visitors from four research sites across north Wales and Shropshire consented to take part, however only 37 attended the training (see Figure 5.1). Health visitors approached 84 families in total to assess eligibility for the project and, of these, 63 families met eligibility criteria and consented to take part in the research (see Figure 5.1).

Measures

Screening measure.

The ECBI was used as the screening measure for child behaviour problems with children within the clinical range being eligible for trial inclusion. This 36-item parent report inventory assesses the intensity and frequency of behavioural problems in children aged between two and 16 years. The measure has two subscales: Intensity and Problem. Responses on the Intensity scale range from 1 (*Never*) to 7 (*Always*) generating a minimum score of 36 and maximum score of 252. Responses on the Problem scale are either *Yes* or *No* with *Yes* responses totalled giving a minimum score of 0 and a maximum score of 36. Only children who scored above the clinical cut-off on one or both of these subscales were eligible to take part (Intensity ≥ 131; Problem ≥ 15). The questionnaire has good convergent validity with scores significantly correlated with scores on the Child Behaviour Checklist (Achenbach & Edelbrock, 1986). The ECBI also demonstrates good stability and homogeneity, with reliability coefficient of .86 for test-retest reliability and .98 for internal consistency (Robinson, Eyberg, & Ross, 1980).

Baseline measures.

Baseline measures included family demographics, child behaviour, parenting skills, parental mental health, and an observation of parent-child interaction, all of which have been shown to be responsive to change following intervention (e.g. Hutchings et al., 2002; Hutchings et al., 2007; Hutchings et al., 2011).

Family demographics.

The questionnaire was adapted from the Personal Data and Health Questionnaire (PDHQ; Hutchings, 1996). The family characteristics/ circumstances relevant to this chapter are main caregiver's age at birth of first child, age at which the primary carer

left education, current relationship status, number of children in home, current employment status (based on income source), and poverty level (based on figures from Office for National Statistics [ONS], 2014). A cumulative score was also calculated based on five categories drawn from those used by Hutchings (1996) and Rutter and Quinton (1977).

Conners Abbreviated Parent-Teacher Rating Scale (Abbreviated Conners; Conners, 1994).

This parent-reported, 10-item scale assesses the incidence of hyperactivity in children aged three to 17 years. Responses range from 0 (*not at all*) to 3 (*very much*) with a minimum score of 0 and a maximum score of 30. The clinical cut-off score for hyperactivity is 15. The questionnaire contains the most highly loaded symptoms from the factor scales of the Conners Parent and Conners Teacher Rating Scales (Conners, 1994). It has shown good internal consistency (α = .89; Parker, Sitarenios, & Conners, 1996) and good test-retest reliability (*r* = .89; Zentall & Barack, 1979).

Arnold-O'Leary Parenting Scale (PS; Arnold et al., 1993).

This parent-reported, 30-item inventory assesses dysfunctional discipline practices. Responses are recorded on a seven-point scale anchored between two alternative responses to a particular situation. As well as a total score, the scale has three subscales: Laxness, Over-reactivity, and Verbosity. No clinical cut-offs are available for this measure, however Arnold et al. (1993) compared scores on this measure for a clinic group (parents of children referred for behaviour problems) and a non-clinic group. Mean scores for each subscale were calculated and some studies have used these to compare levels of dysfunctional parenting (e.g. Hutchings et al., 2007; Hutchings et al., 2011). The mean scores for the non-clinical group on each subscale shown in Arnold et al. (1993) are: Laxness = 2.4; Over-reactivity = 2.4; Verbosity = 3.1; Total = 2.6). The questionnaire has shown adequate internal consistency (α = .63 to .84) and good test-retest reliability (*r* = .79 to .84) (Arnold et al., 1993).

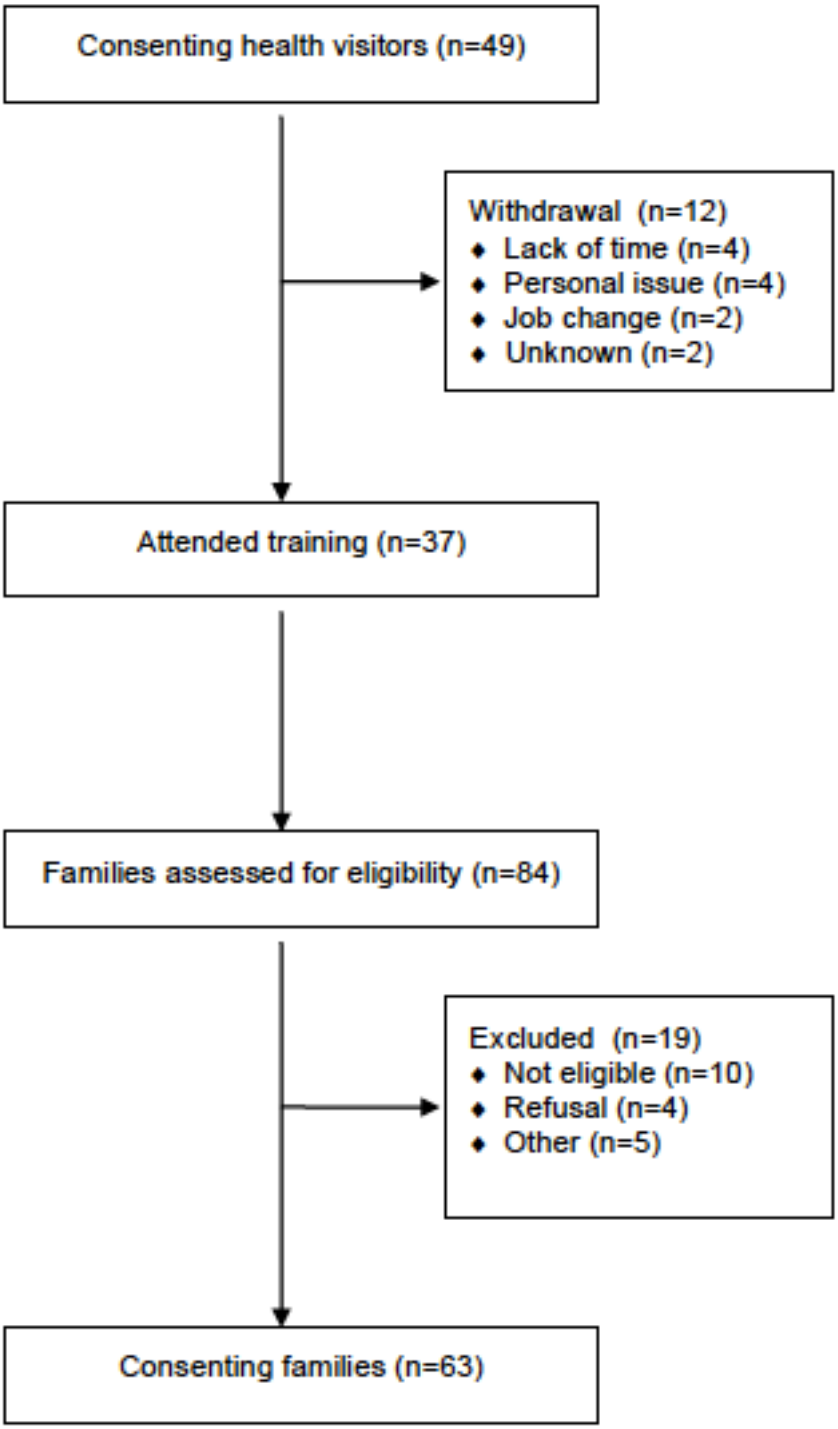

Figure 5.1. Flow chart of participants

Beck Depression Inventory-II (BDI; Beck, Steer, & Brown, 1996).

This parent-reported, 21-item inventory assesses the severity of characteristic symptoms and attitudes associated with depression. There are four possible responses to

each question ranging from 0 (for example *I don't cry anymore than I used to*) to 3 (for example *I feel like crying, but I can't*) with a minimum score of 0 and a maximum score of 63. The clinical cut-off scores are: normal range (0-10), mild (11-16), borderline (17-20), moderate (21-30), severe (31-40), and extreme depression (over 40). This study used a score of borderline or above to indicate the presence of clinical level of depression. The questionnaire has shown high internal consistency ($\alpha = .92$), good test-retest reliability ($r = .93$), and good convergent validity ($r = .93$) (Beck et al., 1996).

Observation of parent-child interaction.

This measure used categories from the Dyadic Parent-child Interaction Coding System (DPICS; Eyberg & Robinson, 1981). The categories used included: Parent positive behaviour (unlabelled praise, labelled praise, encouragement); Parent social-emotional coaching (descriptive commenting, verbal labelling, problem-solving, emotion coaching, verbal questioning); Parent negative behaviour (negative commands, critical statement); Child positive affect; Child negative behaviour (smart talk, destructive, physical negative). Observational coding is continuous and records the total frequency of each behaviour per specified interval. Observations were conducted for 30 minutes in the families' homes. The DPICS is an extensively well-researched tool and has shown good reliability (.91 for parent behaviours; .92 for child behaviours; Robinson & Eyberg, 1981).

Procedures

Recruitment.

Health visiting service managers from across north Wales and Shropshire were contacted to see if they would be interested in collaborating on a research project evaluating an individually delivered, behavioural parenting intervention, the EPaS 2014 programme. They were asked to nominate health visitors within their services who may be interested in participating. Interested health visitors were then contacted by a member of the research team to discuss the project and to obtain consent if they agreed to take part.

As part of the project, health visitors agreed to attend three days of training in the EpaS 2014 programme and to identify two families on their caseloads where a parent was reporting significant difficulties with their child's behaviour. Health visitors then administered the screening tool (ECBI questionnaire) to establish whether families were eligible to take part (child scores above the clinical cut-off on one or both of the

ECBI sub-scales). If the family did not meet the eligibility criteria, the health visitor thanked them for their time and looked for another family from their caseload. If a family had a child who met the eligibility criteria, the health visitor introduced the project to them to assess their interest. If they agreed to learn more about it, the health visitor asked them to complete a Note of Interest Form with their contact details which gave permission for the research team to contact them to discuss the project further. The health visitors forwarded the Note of Interest Form and the completed ECBI to the research team who then contacted the family to arrange a home visit. During the home visit, the researcher explained the study in more detail and if the family was happy to proceed obtained written informed consent.

Home visits.

All research visits were conducted in the families' homes at a time that was convenient for them and lasted no longer than an hour. Both the main caregiver and the target child needed to be present. Once consent was obtained, parents were asked a series of demographic questions (see measures section). They were then asked to complete three questionnaires: the Abbreviated Conners, PS, and BDI. Once they had completed all measures, they were asked to play with their child for 30 minutes so that the researcher could observe them interacting. After completing the observation, the parent and child were thanked for their time and given a gift for taking part (a children's book). The six-month follow-up visits followed the same procedure but parents were asked to complete the ECBI questionnaire with a member of the research team.

Parent-child observations.

All researchers undertaking the observations attended training in the use of the coding tool. Training continued until all researchers had achieved 80% inter-rater reliability for all coding categories. Frequent practice and trouble-shooting sessions were held to maintain high levels of inter-rater reliability.

Observations were conducted for 30 minutes. Parents were reassured that feeling uncomfortable about being observed was normal but that they should try to play with their child as they usually would. They were told that the researcher would not interact with them or their child during the observation. They were asked to turn off the television and to stay in one room throughout the observation. They were asked not to make any outgoing phone calls and to answer incoming calls briefly.

Observers took a stopwatch to each home visit to accurately time the observations. Coding was done in continuous blocks of six five-minute segments. Each

time a coded behaviour occurred, researchers wrote down a tally in the appropriate box. A second coder was present to simultaneously code the observation in order to assess inter-rater reliability levels for 20% of the observations. For the baseline measures, inter-rater reliability levels (shown as intra-class correlations) for each of the categories were as follows: observed parent positive (ICC = .961); observed parent social-emotional coaching (ICC = .954); observed parent negative (ICC = .927); observed child negative (ICC = .964).

Statistical Analyses

All demographic data were tabulated. Exploratory data analyses were conducted to assess normality of the data for each measure collected. The scores for parental mental health (BDI) and all five categories for the observation violated the assumption of normality. Scores for the BDI, observed parent positive behaviour, observed parent negative behaviour, and observed social-emotional coaching were normalised using a square root transformation, whilst observed child negative behaviour could not be normalised and was therefore excluded from any analyses. Descriptive statistics were then calculated to examine the patterns within the sample. Means and standard deviations (*SD*) are provided for all continuous variables, unless they were not normally distributed in which case the median and range are provided.

Results

Child Behaviour

Table 5.1 shows the baseline scores for outcome measures associated with the children. All of the children in the trial scored above the cut-off on the ECBI for behaviour problems since this was an eligibility criterion for inclusion in the trial. However, there were high levels of co-occurring hyperactivity symptoms with mean scores on the Abbreviated Conners scale 1 *SD* above the clinical cut-off and 87% of children scoring above the clinical cut-off for hyperactive behaviour. There were no cut-offs for the observed variables. Observed child negative behaviour was low with a median of 5 however there was a moderate range across the sample.

Table 5.1

Child behaviour

Child Behavioural challenges (cut-off)	**All (*N* = 63)**	**% above cut-off**
	Mean (SD)	
Abbreviated Conners (15)	21.54 (5.391)	87.3
	Median (range)	
Observed child negative behaviour	5.00 (0 – 27)	-

Note: ECBI – Eyberg Child Behaviour Inventory

Parental Characteristics

Table 5.2 displays the characteristics associated with primary carers. In terms of parenting skills, parents were above the mean for a non-clinic sample of parents of children referred for behavioural difficulties on all three sub-scales indicating significant dysfunctional parenting practices. Scores for observed parent positive behaviour were modest however there was a wide range across the sample. This was also true of observed parent negative behaviour. Observed social-emotional coaching had a median score of 96 and a very wide range of 317 indicating high variability within the sample. There are no available norms for the observation categories.

The BDI median score for the sample was just above the borderline cut-off of 17 suggesting likely risk of depression. Over 60% of the sample reported clinical levels of depressive symptoms that were at or above the borderline clinical cut-off.

Family/ Social Circumstances

Table 5.3 displays the family/ social circumstances. Parents were very young at the birth of their first child (mean 21.66 years) compared to the UK average of 28.5 years, with 34.9% being teenage parents. The mean age of parents when they left education was 16.21 years indicating a low level of education with more than three-quarters (76.2%) having left school at the age of 16 years or younger. Almost all families were living in highly disadvantaged circumstances with over 90% living in poverty, more than four times the UK average (21%) and just over half the families were unemployed (52.4%), more than three times higher than the UK average. Parents were relatively evenly split across the family composition categories. Nearly 35% were married, almost half of the UK average of 68%; there was the same proportion of single parents, more than double the UK average; and 30.2% were cohabiting with a partner,

again double the UK average. Thirty-eight per cent were classed as large families (3 or more children), more than double the UK average (14.8%).

Table 5.2

Parental characteristics

Parenting Skills (means)[a]	**All (*N* = 63)**	
	M (SD)	
PS Laxness (2.4)	3.18 (1.26)	-
PS Over-reactivity (2.4)	2.70 (0.95)	-
PS Verbosity (3.1)	3.70 (0.94)	-
PS Total (2.6)	3.19 (0.81)	-
	Median (range)	
Observed parent positive behaviour	18.00 (2 – 114)	-
Observed social-emotional coaching	96.00 (9 – 326)	-
Observed parent negative behaviour	17.00 (1 – 86)	-
Maternal Depression	**All (*N* = 63)**	**% above cut-off**
	Median (range)	
BDI	18.00 (0 – 44)	60.3

Note: BDI – Beck Depression Inventory-II; PS – Arnold O'Leary Parenting Scale

[a]Based on mean scores from Arnold et al. (1993)

Table 5.3

Family/ social circumstances

Maternal Age	**All (*N* = 63)**	**UK values[a] (*M*)**
Age at birth first child (years), *M (SD)*	21.66 (5.39)	28.5
Teenage parent at birth of first child, *n (%)*	22 (34.9)	-
Maternal Education	**All (*N* = 63)**	
Left school at 16 years or younger, *n (%)*	48 (76.2)	-
Family Composition	**All (*N* = 63)**	**UK values[a] %**
Relationship status		
Married, *n (%)*	22 (34.9)	68.0
Cohabiting, *n (%)*	19 (30.2)	15.3
Single, *n (%)*	22 (34.9)	16.2
Large family (3 or more children), *n (%)*	24 (38.1)	14.8
Socioeconomic Disadvantage	**All (*N* = 63)**	**UK values %**
Employment status		
At least one family member employed, *n (%)*	30 (47.6)	-
No employment, *n (%)*	33 (52.4)	14.4[b]
Below poverty, *n (%)*	58 (92.1)	21.0[c]

Note: [a]Based on data from ONS (2015)

[b]Based on data from Social Trends (2011)

[c]Based on data from Social Trends (2010)

[d]Based on data from ONS (2014)

Cumulative Factor Score

Table 5.4 displays the cumulative score from the following characteristics associated with elevated risk for child behavioural problems: unemployment, single parent, teenage parent at birth of first child, left school at 16 years or younger, living in poverty, and symptoms of depression indicated by scoring borderline or above on the BDI. The mean score was 3.51, indicating a relatively high level of socially disadvantaging circumstances. The majority of the sample had four or five

characteristics associated with socio-economic disadvantage (25% and 24% respectively), with only 3.2% of families having none of these factors.

Table 5.4

Cumulative factor score associated with sample

Cumulative risk	**All (*N* = 63)**
0 factors, *n (%)*	2 (3.2)
1 factor, *n (%)*	5 (7.9)
2 factors, *n (%)*	10 (15.9)
3 factors, *n (%)*	11 (17.5)
4 factors, *n (%)*	16 (25.4)
5 factors, *n (%)*	15 (23.8)
6 factors, *n (%)*	4 (6.3)
	Mean (SD)
Total cumulative score	3.51 (1.52)

Discussion

Previous research has identified a large number of factors associated with the emergence of behaviour problems in childhood (Farrington & Welsh, 2007). These factors can be categorised into those related to the child, parent, and family/ social circumstances. This study examined data from a sample of families recruited by health visitors to participate in an evaluation of the EPaS 2014 parenting programme (Williams & Hutchings, 2015). Recruitment was on the basis of families reporting having a young child with a significant behaviour problem. The sample was described in terms of their socioeconomic circumstances and other family characteristics in order to highlight the challenges faced by health visitors working with these families.

For children, there was a very high co-occurrence of hyperactivity problems (87.3%), supporting previous research showing high levels of co-occurrence between disorders such as AD/HD and Conduct Disorder (CD) (Merikangas et al., 2009). This highlights the need to assess children with behaviour problems for symptoms of AD/HD such as hyperactivity, impulsiveness, and inattentiveness (Bendiksen et al., 2014).

The mean level of parenting skills of parents in this sample was in the dysfunctional range and higher than the Arnold et al. (1993) mean non-clinic group

score for parents of children with behaviour problems as well as the scores for all of the subscales. Results for the observed parenting categories showed large ranges in parent positive, negative, and social-emotional coaching skills. Levels of parental depression in the sample were high with the median score being just above the cut-off for borderline problems. Since 60% of the sample was showing some symptoms of depression, these results support previous research showing a link between depressive symptoms and child behaviour problems (Goodman et al., 2011), and the sample in this study is similar to other samples of parents of children displaying behaviour problems (e.g. Shaw et al., 2009). This highlights the importance of assessing parental mental health as well as child behaviour problems.

Family/ social circumstances identified in this sample were age at birth of first child, education of primary carer, employment status of family and income poverty. The age of parents at the birth of their first child was seven years below the national average, with 35% being teenage first time mothers. This is in contrast to recent figures showing a decline in first-time mothers under the age of 25 years and an increase in those aged 35 and older (ONS, 2015). This also supports research showing that young parenthood is associated with greater likelihood of the development of behaviour problems in children (Derzon, 2010; Murray et al., 2010). Parents also had a low level of education with more than three-quarters of the sample having left school at 16 years or younger. These findings support previous research showing a strong link between low parental educational attainment and the development of childhood behaviour problems (Andershed & Andershed, 2015; Davis et al., 2010). There were fewer married couples, twice the number of cohabiting families, and more than double the number of single parents than the national average. The percentage of large families was also more than double the national average. These findings support previous research showing that children with behaviour problems are more likely to live with a single parent (Ackerman et al., 2001), less likely to live in intact, married families (Schroeder, Osgood, & Oghia, 2010), and more likely to live in larger families (Derzon, 2010; Murray et al., 2010). Research by Ackerman et al. (2001) also showed that living in cohabiting families (not married) is associated with elevated levels of child behaviour problems. Living in a large family or with a single parent may mean that children get less attention and therefore resort to negative behaviours in order to get attention (Farrington, 2000). A male presence may be a factor associated with elevated child behaviour problems in cohabiting families (Ackerman et al., 2001).

There were high levels of socioeconomic disadvantage in this sample. Over 90% of the sample were living in poverty, more than four times the national average. Similarly, the levels of unemployment in this sample were more than three times higher than the national average. These findings show that families in this sample were living in very disadvantaged circumstances. Low-income families are more likely to suffer mental health problems such as stress and depression (Kiernan & Mensah, 2009) and are less likely to have stimulating materials for children in the home which can have long-term consequences not only for child behaviour (Evans, 2004) but also cognitive development (Bradley & Corwyn, 2002). Parents living in poverty are also less likely to talk to their children (Gridley et al., 2013), which can have adverse effects on children's language development. Unfortunately, the current study was unable to examine child language or cognitive development because it did not include measures of these domains.

The cumulative factor score in the present study was measured in terms of the presence or absence of each of six factors (low education, single parent, teenage parent, living in poverty, maternal depressive symptoms, and unemployment) based on the work of Hutchings (1996) and Rutter and Quinton (1977). The results indicated that health visitors identified a sample of families living with multiple challenges, with the majority experiencing four or five factors (25% and 23% respectively), and only 3% of the sample experiencing none of the characteristics. This matches previous research showing that many families of children with behaviour problems live in circumstances of high levels of cumulative challenges (Barker et al., 2012; Kolthof et al., 2014; Murray et al., 2010; Sabates & Dex, 2015; Trentacosta et al., 2008).

Implications

This study of a sample of young children, recruited by health visitors from their caseloads, had extremely high levels of behavioural and co-occurring hyperactivity difficulties that without intervention predict poor long-term outcomes. They had parents evidencing poor parenting skills and elevated levels of depression. They also had high levels of socioeconomic and other disadvantaging characteristics known to compromise parenting. These are characteristics identified in the literature as contributing to the development and maintenance of child behaviour problems. Providing such parents with training in how to strengthen positive parenting skills and reduce the use of negative

practices is an effective means of dealing with child behaviour problems and reduces the risk of poor long-term outcomes (Furlong et al., 2012; NCCMH, 2013).

Not all families of children with behaviour problems live in disadvantaging circumstances or have other co-existing factors, however the presence of these characteristics significantly increase the risk of such problems. However, as previously discussed, changing parental practices lead to changes in child behaviour, regardless of the presence of other factors (Forgatch & DeGarmo, 1997; Gardner et al., 2010; Patterson et al., 1992) and can have secondary benefits in terms of reducing both hyperactivity and parental depression (Hutchings et al., 2007). Health visitors can identify vulnerable families and, given resources and training, are ideally placed to offer interventions (Lane & Hutchings, 2002; Lowe, 2007). Being able to offer interventions to families at an early stage before problems become entrenched and harder to address should be a priority for health visiting services (Lane & Hutchings, 2002; Lowe, 2007). However, at the present time, it appears to be one which they are generally insufficiently resourced to take on to any significant degree due to work pressure (Wilson et al., 2008).

Health visitors identified families in this sample from their own caseloads. Since children in the sample were young, access to specialist support from Child and Adolescent Mental Health services would be unlikely. This means that health visitors are left to support very high-risk families, with increasing pressure from large caseloads (Wilson et al., 2008) and often lacking specific training in how to support them (Lane & Hutchings, 2002). Offering early support to high-challenged families can reduce the risk of long-term poor outcomes therefore being able to offer health visitors evidence-based tools to work with these families is of utmost importance.

Limitations

The current study has some limitations. Firstly, the sample size was very small, with only 63 parents consenting to take part in a randomised controlled trial of a parenting intervention delivered by health visitors. Secondly, the measures were collected from the primary parent, the majority of whom were female, however where partners were also present the intervention encouraged their involvement. It is challenging to collect data on the same child from two parents and this trial followed the convention of identifying and collecting data from the parent that reported doing the greater part of the parenting. Only one father participated as a primary carer making it

impossible to interpret the findings in relation to fathers. Thirdly, the examination of other family characteristics and circumstances was limited because of the small number of measures used in the study. There are other family characteristics that could have been explored including child language difficulties (Murray & Farrington, 2010; Murray et al., 2010), prenatal factors such as smoking during pregnancy (Murray et al., 2010; Sabates & Dex, 2015), parental alcohol/ drug misuse (Barker et al., 2012; Trentacosta et al., 2008), parental criminality (Barker et al., 2012; Trentacosta et al., 2008), domestic violence (Appleyard, Egeland, van Dulmen, & Sroufe, 2005; Sabates & Dex, 2015), and housing factors, such as overcrowding (Solari & Mare, 2012) and residential mobility (Jelleyman & Spencer, 2008).

Conclusions

The identified families on health visitor caseloads had children with very significant behavioural problems and were also highly challenged in other respects. At the present time rates of behavioural problems in pre-school children are increasing. To address the challenges being faced by many families requires that health visitors have the time to establish positive relationships with them and have the intervention skills to help families to take on board key positive parenting strategies. For health visitors to be able to support such families requires significant resourcing of the health visiting services at a time when their services are under increasing pressure.

Poor parenting practices are the key risk factor in the development of child behaviour problems and interventions that help parents to develop positive parenting skills demonstrate reductions in problems. This paper describes a range of characteristics in a sample of parents of children displaying high levels of behavioural problems whose parents were recruited by health visitors from their caseloads as part of an RCT. The results showed high levels of child problems and challenging social circumstances, including co-occurrence of hyperactivity, dysfunctional parenting, parental depressive symptoms, young age of parent at birth of first child, single parenthood, large family size, low income, and unemployment. Without intervention, young children with significant behaviour problems are at risk of poor long-term outcomes. Health visitors work on the front line with these families, often in very challenging circumstances. Targeting dysfunctional parenting practices is an effective way of reducing behaviour problems (Furlong et al., 2012), regardless of the presence of other risk factors (Gardner et al., 2010; Patterson et al., 1992). Resourcing and

training health visitors to address therse problems would be an effective means of reaching vulnerable families in need of interventions for child behaviour problems. This would enable them to better achieve their main priorities of preventing social exclusion of children and families; reducing inequalities; promoting infant, child, and family mental health; and supporting parenting (Lowe 2007).

Chapter 6

The effectiveness of an individually delivered parenting programme for parents of children with behaviour problems: A pragmatic, pilot randomised controlled trial

The most common global mental disorders in children are behavioural problems with a worldwide estimated prevalence of 5.7% (Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015). In the UK they are the most common reason for referral to Child and Adolescent Mental Health services (CAMHS; National Collaborating Centre for Mental Health [NCCMH], 2013) and have significant financial cost to society, costs for families, communities, and the government, as well as social and personal costs to the individuals themselves (Romeo, Knapp, & Scott, 2006; Scott, Knapp, Henderson, & Maughan, 2001). Numerous risk factors have been identified for the development of child behaviour problems (Farrington & Welsh, 2007) including individual factors such as child gender or temperament (e.g. Merikangas, Nakamura, & Kessler, 2009; Miner & Clarke-Stewart, 2008) and familial/ social factors including poverty and inadequate housing (Kiernan & Mensah, 2009). However despite there being a range of factors correlated with increased risk for children, the key risk factor for the development of behaviour problems in childhood is dysfunctional parenting practices (Farrington & Welsh, 2007; Hoeve et al., 2009). Poor parenting and child behaviour problems are strongly linked, especially in early childhood (Andershed & Andershed, 2015; Hoeve et al., 2009; Murray, Irving, Farrington, Colman, & Bloxsom, 2010) and Patterson, Forgatch, Yoerger, and Stoolmiller (1998) have demonstrated that it is the extent to which these other risk factors compromise parenting that predicts child behaviour problems.

Parenting Programmes

The most effective interventions for dealing with child behaviour problems are parenting programmes that teach parents appropriate behaviour management skills based on social learning theory principles (Furlong et al., 2012; NCCMH, 2013). Many evaluations of parenting programmes have shown significant improvements in parenting skills and parental mental health, and reductions in child behaviour problems (for reviews see Dretzke et al., 2009; Furlong et al., 2012; NCCMH, 2013; Shelleby & Shaw, 2014; Tully & Hunt, 2015). Changes in parenting have also been shown to mediate changes in child behaviour (e.g. Gardner, Hutchings, Bywater, & Whitaker, 2010). Parenting programmes for children with significant problems are usually delivered by professionally trained staff including clinical psychologists, health visitors/ public health nurses, and social workers. Typically, parents are taught positive parenting practices (e.g. praise, using rewards) to encourage positive behaviours in children, and

limit setting together with other strategies including ignoring and time-out to reduce the incidence of child behaviour problems. Parents are also taught the importance of spending time playing and/ or in special time activities with their children to encourage the development of strong parent-child relationships that also encourage child compliance. Video clips and modelling are used in many programmes to demonstrate the behavioural skills being taught and parents are given the opportunity to practice implementing these skills through role-play or in home-based practice with their children. Some, particularly the more effective programmes, use homework tasks designed to promote skill development in the home (Hutchings, Gardner, & Lane, 2004; Kaminski, Valle, Filene, & Boyle, 2008). A number of effective programme components have been identified including positive interactions with their child, active rehearsal of skills, teaching of principles not techniques, modelling, and time-out (e.g. Hutchings, Gardner, & Lane, 2004; Kaminski et al., 2008).

Group-based parenting programmes.

Group-based parent programmes are effective and cost effective interventions in reducing child behaviour problems and are recommended by the National Institute for Health and Care Excellence (see NCCMH, 2013). Examples of group-based parent programmes include The Incredible Years® (IY; Webster-Stratton, 2000), and the group-based versions of both Triple-P (Sanders, Caan, & Markie-Dadds, 2003) and Parent Management Training-Oregon (PMTO; Forgatch & Patterson, 2010) programmes. These programmes are typically delivered to groups of approximately 12 parents. In a recent Cochrane review, Furlong et al. (2012) examined the effectiveness of group-based parenting programmes in reducing child behaviour problems, promoting positive parenting skills, reducing negative parenting skills, and improving parental mental health. The programmes identified in the review included the IY Basic Parent programme (Webster-Stratton, 2000), Barkley's Parent Training (Barkley et al., 2000), a work place version of the Triple-P Parent programme (Martin & Sanders, 2003), Comet Parent Management Training programme (Kling, Forster, Sundell, & Melin, 2010), and a programme based on the principles of PMTO and the IY programmes (Braet et al., 2009). Furlong et al. (2012) found statistically significant reductions in child behaviour problems and negative parenting as well as significant improvements in parental mental health and positive parenting based on both parent and independent report. There was also evidence of cost-effectiveness (Furlong et al., 2012).

Limitations of group-based programmes.

Although group-based programmes are effective, they may not be appropriate for all families. In a meta-analysis by Lundahl, Risser, and Lovejoy (2006) disadvantaged families benefitted less from group-based parent programmes in terms of both child and parent outcomes, however other evidence has found group-based programmes to be equally effective with disadvantaged populations (e.g. Gardner et al., 2010). Hartman, Stage, and Webster-Stratton (2003) also found that the levels of disadvantage became less of a predictor for treatment outcome when parents were given the opportunity to learn new positive parenting skills in a collaborative environment. Nevertheless, there may be other factors that limit the ability of some families to access group-based programmes.

Disadvantaged families are more likely to be affected by some of the identified barriers to treatment, e.g. finance, transportation, and health (Lavigne et al., 2010; Reyno & McGrath, 2006; Whittaker & Cowley, 2012). One study found that 40% of a sample of parents did not attend a clinic appointment about their child's behaviour problems despite having reported significant levels of problems. The factor that predicted non-attendance was the level of socioeconomic disadvantage (Hutchings, 1996). So, whilst there is some evidence for group-based parenting programmes being effective with high-risk disadvantaged families, it is not known how representative the families reported in these studies are and how many disadvantaged families, whose children are at greatest risk of poor outcomes, fail to access group-based programmes. This suggests that other formats of programme delivery such as individual, home-based programmes may be more appropriate for these families.

Individually delivered/ home-based programmes.

A number of home visiting programmes, designed to improve children's long-term developmental trajectories, have been evaluated. For example, the Nurse Family Partnership programme (Olds, 2006) in which parents receive regular visits by a trained home visitor over a lengthy period. Visits begin during the prenatal period and continue until the child is two years old. Other examples include the Hawaii Healthy Start programme (e.g. Duggan et al., 2000), Early Head Start programme (e.g. Love et al., 2002), Healthy Families America (e.g. Harding, Galano, Martin, Huntington, & Schellenbach, 2007), and the Infant Health and Development programme (e.g. McCormick, McCarton, Tonascia, & Brooks-Gunn, 1993). One of the main aims of

these programmes is to promote positive parenting skills (Nievar, van Egeren, & Pollard, 2010; Sweet & Applebaum, 2004). Several systematic reviews, including meta-analyses, have shown positive outcomes for these programmes (Heaman, Chalmers, Woodgate, & Brown, 2006; Howard & Brooks-Gunn, 2009; Kendrick et al., 2000; Nievar et al., 2010), however others have shown mixed and/or limited results (e.g. Bilukha et al., 2005; McNaughton, 2004; Peacock, Konrad, Watson, Nickel, & Muhajarine, 2013). This suggests that outcomes may depend on the nature of services received by control families and also on the extent to which the sample is targeted (Hutchings, Griffith, Bywater, Williams, & Baker-Henningham, 2013).

In contrast to the US where people have to pay for health care, the UK has statutory free universal health care services for everyone. This is an important factor to consider when comparing studies from the US and UK. Barnes et al. (2008) undertook a pilot evaluation of the effectiveness of the Olds Nurse Family Partnership model in the UK, renamed as the Family Nurse Partnership (FNP). The programme was acceptable to parents, reports of smoking and alcohol consumption during pregnancy significantly decreased, and rates of breastfeeding were higher than the national average (Barnes et al., 2008). However, a more recent RCT evaluation of the same programme also in the UK found no significant difference between families participating in the FNP programme and families receiving usual care (Robling et al., 2016). Intensive home visiting programmes are expensive and time consuming to deliver (Barlow et al., 2007). They target very young children (birth to two years) and include a broad range of content, including child developmental processes, and are designed to prevent the development of problems as opposed to treating established difficulties. The FNP programme targeted all young single mothers however preventive programmes delivered before key risk factors are evident may be targeting many families that do not need the support (see Hutchings et al., 2013) particularly in the context of a country where there is adequate universal health care.

Individually delivered targeted parenting programmes are potentially more effective for disadvantaged families (Lundahl et al., 2006; Reyno & McGrath, 2006). Parent-Child Interaction Therapy (PCIT; Brinkmeyer & Eyberg, 2003) is a well-established, evidence-based, individualised parenting programme delivered to parents of children with identified behaviour problems. It is delivered by trained clinicians in two phases: child directed interaction and parent directed interaction. Delivery methods used include didactic sessions to teach specific skills and direct coaching of parents

interacting with their children. Coaching and rehearsal have been identified as important components in parenting programmes that reduce child behaviour problems (Kaminski et al., 2008). In a meta-analysis of PCIT, Thomas and Zimmer-Gembeck (2007) found that it was effective in reducing child behaviour problems and improving parenting skills across a range of different study designs and programme adaptations. However PCIT is generally delivered in a clinic setting and therefore is not always accessible to all families, particularly those living in poverty (Lavigne et al., 2010; Whittaker & Cowley, 2012). Bagner, Rodriguez, Blake, and Rosa-Olivares (2013) conducted a small study examining the effectiveness of a home delivered version of PCIT. Families reported high levels of satisfaction with the programme, significant decreases in child behaviour problems and improvements in parent-child interactions. However, this study included only seven families and did not include a comparison control condition.

The Family Check-Up (FCU; Dishion & Stormshak, 2007) is a three-session, home-based programme based on motivational interviewing techniques delivered to high-risk families and tailored to family needs (Dishion et al., 2008; Shaw, Dishion, Supplee, Gardner, & Arnds, 2006). The first session is an assessment meeting involving a number of videotaped tasks and completion of questionnaires about the child, parent, and family. The second session is a 'get to know you' meeting using interviews to explore parent's concerns and issues related to the child's well-being. The third session is a feedback meeting summarising the results of the assessment using motivational interviewing techniques. At the end of the third session, parents are offered up to six follow-up meetings focussing on parenting skills, family management and contextual issues. In a randomised controlled trial with parents of two-year olds, FCU was associated with significant reductions in child behaviour problems based on both parent-report (Dishion et al., 2008) and independent, observational data (Sitnick et al., 2014). Additionally, FCU has been associated with increased positive parenting (Gardner, Shaw, Dishion, Burton, & Supplee, 2007), improved maternal depression (Shaw, Connell, Dishion, Wilson, & Gardner, 2009), and the effects have been maintained for up to seven years (Dishion et al., 2014). Not all children included in the FCU studies had identified child behaviour problems; families were referred to the programme based on a screening procedure that included socioeconomic, family, and/ or child risk factors. The criteria for inclusion were two or more risk factors meaning that some families may have been included based on socioeconomic risk and family problems but did not have child risk factors.

The Enhancing Parenting Skills Programme

The premise underpinning the Enhancing Parenting Skills (EPaS) programme is that each child and family situation is unique and that individualised support is the cornerstone of effective work with families experiencing significant difficulties with their children. As demonstrated above, parenting behaviours have the greatest effect in terms of either contributing to the development of problems or in helping children to learn adaptive behaviours. As with many other social learning theory based programmes to address child behaviour problems, parents are seen as agents of change in the EPaS programme because they spend the most time with their children, especially younger children. Parents also have the biggest influence on their children's behaviour even when they do not spend a lot of time with them (Hoghughi & Long, 2004). The EPaS programme consists of three phases: a standardised assessment; a structured case analysis formulation process to facilitate the identification of the specific problem behaviours, their functions, and the necessary replacement behaviours; and an intervention phase designed to support parents in implementing evidence-based behaviour change strategies.

Evidence for the EPaS programme.

The EPaS programme was initially developed as an intensive coaching intervention involving video-feedback that was developed for, and evaluated with, families of children with severe behavioural problems referred to CAMHS (Hutchings, Appleton, Smith, Lane, & Nash, 2002). This programme demonstrated significant reductions in child behaviour problems relative to standard CAMHS care that involved clinic based behaviour management advice but without skill coaching. There were also significant reductions in negative parenting practices and improvements in parental mental health for the intensive coaching participants (Hutchings et al., 2002), that were maintained at a four-year follow-up (Hutchings, Lane, & Kelly, 2004) by which time the smaller improvements reported in the standard CAMHS care participants had disappeared. The main limitation of the intensive treatment programme was that it targeted CAMHS referred school aged children with severe behavioural problems and was highly resource intensive and therefore not accessible to many families. To meet the needs of more families, the programme was adapted for home delivery with pre-school children and named the Enhancing Parenting Skills (EPaS) programme (see Lane & Hutchings, 2002). Health visitors were trained to deliver EPaS because they have universal access to families with children aged from birth to five years (Cowley et al.,

2013) and because they had the skills to identify children on their caseloads in need of intervention (Hutchings et al., 2007; Wilson et al., 2008). A small-scale study was conducted comparing 24 families undertaking the EPaS programme to a non-randomised group of 12 control families (Lane & Hutchings, 2002). Health visitors attended weekly training sessions and simultaneously delivered weekly sessions to families over a period of 12 weeks. Significant improvements in child behaviour and parental mental health were reported for families in the intervention condition compared to those in the control condition and health visitors reported increased confidence in, and frequency of, use of behavioural techniques following EPaS training (Lane & Hutchings, 2002).

The training schedule in the Lane and Hutchings (2002) study was intensive with health visitors attending 12 weekly sessions. In order to disseminate the programme, the training for the EPaS programme was revised into a two-day training package and trialled across Wales with staff with a range of skills and experience who worked with parents of children with disabilities. Five locations across Wales held two-day EPaS training sessions with 42 attending the two days of training (Hutchings & Williams, 2013). Staff rated the usefulness of the training highly and reported good satisfaction levels. Ten participants collected baseline and follow-up data from the family with whom they were working, reporting significant reductions in child behaviour and dysfunctional parenting and improvements in parental mental well-being (Hutchings & Williams, 2013). Feedback from participants included that two days was too short to cover the skills needed to deliver the programme and it was also clear that some participants did not have an adequate background in child development.

For the present trial the training was revised into a three-day course covering the three programme phases: assessment, case analysis, and intervention strategies and health visitors were recruited as the appropriate professional group to deliver the programme. The manual was expanded to include more examples and more details about the three phases. This revised version of the programme was named EPaS 2014.

Aims and Objectives

Previous evaluations of the EPaS programme were limited by small samples and either no control group or a non-randomised comparison sample. The aim of the current study was to address the limitations of previous studies and to refocus the programme on health visitors who are skilled child health professionals. A pilot randomised

controlled trial (RCT) was conducted to examine the effectiveness of the EPaS 2014 programme in reducing child behaviour problems (for detailed protocol see Williams & Hutchings, 2015) with health visitors recruited to deliver the programme to families. The main objective was to determine whether health visitors could use the programme effectively and whether families undertaking the EPaS 2014 programme reported reductions in child behaviour problems. Secondary objectives were to see whether there were changes in parental behaviour/ skills and parental mental health. The study hypotheses were:

i. that EPaS 2014 training will enable health visitors to work effectively in supporting parents of children with behavioural difficulties to reduce child behaviour problems
ii. that EPaS 2014 training will enable health visitors to facilitate positive changes for parents of children with behaviour problems, including improvements in parental depression and parenting skills.

The CONSORT statement (Moher et al., 2010) and its extension for pragmatic trials (Zwarenstein et al., 2008) were used to inform the writing of this chapter (see Appendix V).

Methods

Participants

Forty-nine health visitors from four research sites across north Wales and Shropshire were initially recruited to take part in the trial. Of these 37 (75.5%) attended the EPaS training. As part of the trial, health visitors were asked to identify two families of children aged between 30 and 60 months who were reporting having a child with significant behavioural difficulties to take part in the project. Health visitors used the Eyberg Child Behaviour Inventory (ECBI; Eyberg, Boggs, & Reynolds, 1980) as a screening questionnaire to identify children from their caseloads who were scoring above the clinical cut-off for behaviour problems (Intensity scale ≥ 131; Problem scale ≥15). Eighty-four families were assessed for eligibility with 63 (75.0%) consenting to take part in the research. Of these five (7.9%) were not randomised as their health visitor only managed to recruit one family to the trial. A total of 58 families were randomised to either the intervention or a treatment as usual (TAU), wait-list control condition (see CONSORT Figure 6.1).

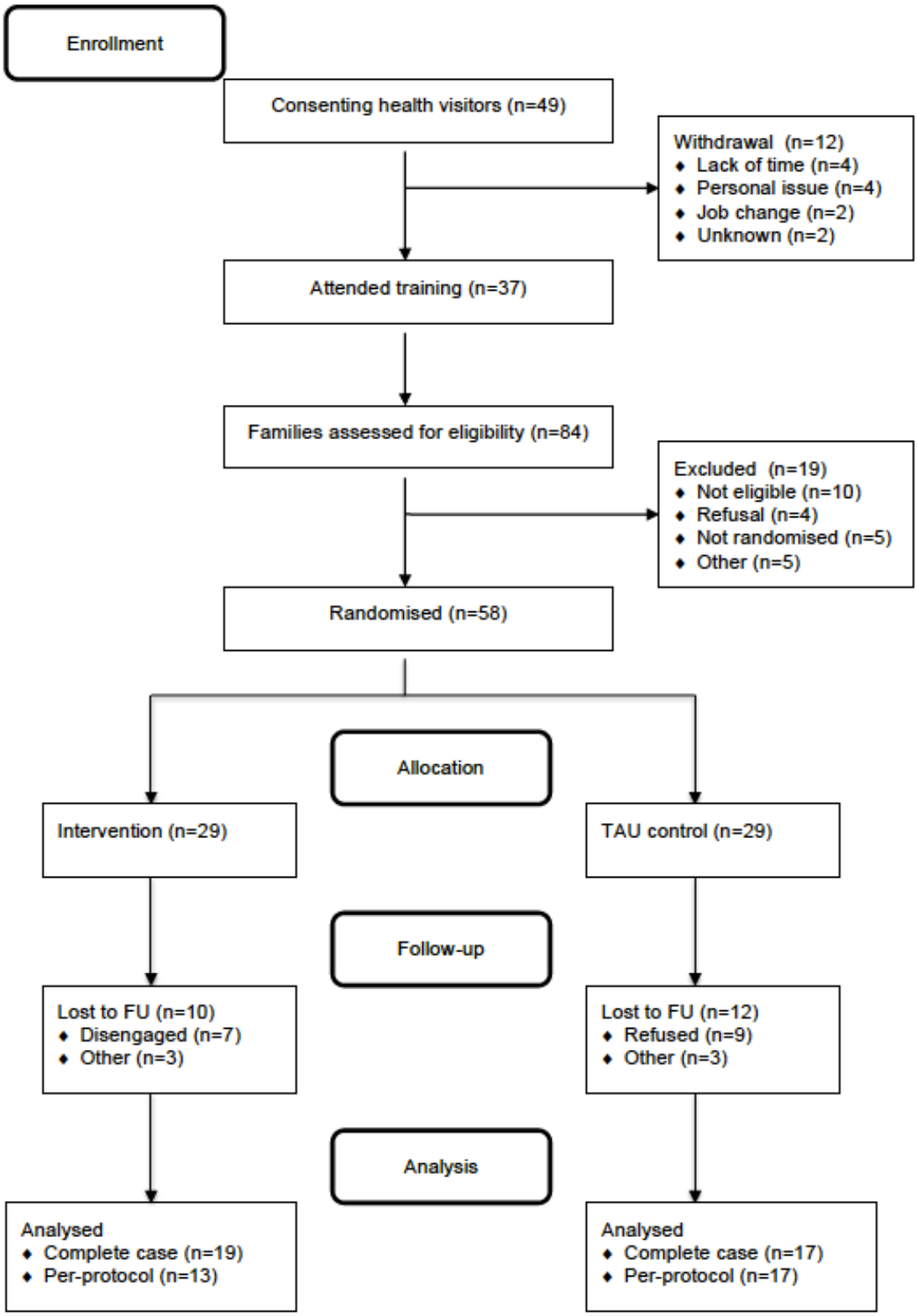

Figure 6.1. CONSORT flow diagram of participants

Randomisation

After collection of baseline measures, families were randomly allocated on a 1:1 ratio to either the intervention or the TAU, wait-list control condition. Randomisation was within health visitor to ensure that each health visitor had one intervention and one wait-list control family. The primary supervisor undertook the randomisation using an online programme with random permuted blocks (www.randomization.com). This ensured that data collectors were blind to participant allocation.

Measures

The measures in this study have been extensively used in parenting research and have been shown to be sensitive to change in evaluations of parenting programmes (e.g. Furlong et al., 2012; Hutchings, Bywater, Daley, Gardner, et al., 2007; NCCMH, 2013; Thomas & Zimmer-Gembeck, 2007; Tully & Hunt, 2015).

Health visitor demographics.

A questionnaire was developed asking the following demographic questions: age, gender, number of years working as health visitor, area where they worked, number of years working in that area, and any relevant post-qualification training.

Family demographics.

A revised version of the Personal Data and Health Questionnaire (Hutchings, 1996) was used to collect baseline family demographics. The questionnaire covers key disadvantaging circumstances associated with child behaviour problems e.g. marital status, income, employment status, housing, etc.

Screening measure.

The ECBI (Eyberg et al., 1980) was used as the screening measure for this study. The ECBI is a 36-item, parent-reported inventory designed to assess the frequency and intensity of behavioural problems in children aged two to 16 years. The questionnaire consists of two subscales and only children scoring above the cut-off on the Intensity (≥ 131) and/ or Problem (≥ 15) subscales were eligible to take part in the research. Responses for the Intensity subscale are rated on a seven-point scale ranging from 1 (*Never*) to 7 (*Always*). A sample item is *'Has temper tantrums'* and the score is calculated by summing up all the answers. The Problem subscale consists of *'Yes'* or *'No"* responses and is scored by summing up the number of times parents respond *'Yes'* to the question *'Is this a problem for you?'* for the same set of items. The ECBI has demonstrated good test-retest reliability (r = .86; Robinson, Eyberg, & Ross, 1980) and

good internal consistency (α = .98; Robinson et al., 1980). The questionnaire also shows good convergent validity, with scores being significantly correlated with scores on the Child Behaviour Checklist (Achenbach & Edelbrock, 1986). Health visitors administered the questionnaire to families on their caseloads who were reporting difficulties with their children's behaviour.

Primary outcome.

The primary outcome measure for the study was the ECBI (Eyberg et al., 1980). This measure was administered by health visitors as a screen and was administered at follow-up by a member of the research team who were blind to condition allocation.

Secondary outcomes.

The Conners Abbreviated Parent-Teacher Rating Scale (Abbreviated Conners; Conners, 1994) was used to measure symptoms of child hyperactive behaviour. This is a 10-item, parent-reported, scale that comprises of the most highly loaded symptoms from the Conners Parent and Conners Teacher Rating Scales. Responses range from 0 (*Not at all*) to 3 (*Very much*) with the total score calculated by summing the responses. A sample item is *'Restless or overactive'*. A clinical cut-off score for hyperactivity is 15 (Conners, 1994). The questionnaire has shown good internal consistency (α = .89; Parker, Sitarenios, & Conners, 1996) and good test-retest reliability (r = .89; Zentall & Barack, 1979).

The Arnold-O'Leary Parenting Scale (PS; Arnold, O'Leary, Wolff, & Acker, 1993) is a 30-item, parent-reported inventory used to assess dysfunctional parenting practices. Responses are recorded on a seven-point scale anchored between two alternative responses to a particular situation, e.g. *'When my child misbehaves …'* the response on the left is *'I do something right away'* and on the right *'I do something about it later'*. As well as a total score, there are three subscales: Laxness, Over-reactivity, and Verbosity. The questionnaire has shown adequate internal consistency (α = .63 to .84; Arnold et al., 1993) and good test-retest reliability (r = .79 to .84; Arnold et al., 1993).

The Beck Depression Inventory II (BDI; Beck, Steer, & Brown, 1996) is a 21-item, parent-reported measure of depressive symptomatology. There are four possible responses to each question, ranging from 0 (e.g. *'I don't cry anymore than I used to'*) to 3 (e.g. *'I feel like crying, but I can't'*). There is a number of clinical cut-offs including: normal (0-10), mild (11-16), borderline (17-20), moderate (21-30), severe (31-40), and extreme (over 40). This study used a score of borderline and above as an indication of

clinical levels of depression. The measure has shown good internal consistency (α = .92; Beck et al., 1996), good test-retest reliability (r = .93; Beck et al., 1996), and good convergent validity (r = .93; Beck et al., 1996).

An observation of parent-child interaction was also conducted using categories from the Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg & Robinson, 1981). The categories used included: Parent positive behaviour (unlabelled praise, labelled praise, and encouragement); Parent social-emotional coaching; Parent negative behaviour (critical statement, negative command); Child positive affect (verbal); Child negative behaviour (smart talk, destructive behaviour, physical negative). The observational coding was continuous with the total frequency of each behaviour recorded over a 30-minute period of child-led play. The DPICS is an extensively well-researched tool and has shown good reliability (r = .91 parent behaviour; r = .92 child behaviour; Robinson & Eyberg, 1981).

Procedures

Recruitment.

Health visiting service managers were approached to see if they would be interested in their staff participating in the trial. If they were, they were asked to identify health visitors who would be interested in taking part. A member of the research team then arranged to meet with the health visitors to describe the trial in detail including the commitment needed from the health visitors in terms of identifying families on their caseloads, attending three days of training, and delivering the programme to two families. If the health visitors were happy to take part, informed consent was obtained and they were provided with a pack of recruitment materials (ECBI questionnaires, administration instructions, notes of interest, parent information sheets, and pre-paid envelopes).

Health visitors were asked to identify two families on their caseloads that had a child aged between 30 and 60 months and were reporting difficulties with the child's behaviour. They were required to use the ECBI as a screening tool. Health visitors asked parents to complete the questionnaire and then scored it to establish whether the parent reported the child as above the cut-off for clinical concern. If the child scored below the cut-off, parents were thanked for their time. If the child scored above the cut-off on at least one of the two subscales (Intensity and Problem), the health visitor introduced the trial and asked whether the parent(s) would be interested in taking part. If

they were interested, the primary caregiver was asked to complete a note of interest, which was forwarded to the research team. They were also given an information sheet to read. A member of the research team then contacted the parent to arrange a home visit to describe the study further and obtain written informed consent. Once consent was obtained, parents were asked to complete the baseline set of measures.

Data collection.

A home visit was conducted with each family to complete the baseline set of measures and again six months later to complete the follow-up set of measures. The mean time between the screening visit by the health visitor and the baseline visit by the data collectors was one month (M = 1.21, SD = 0.77, range = 0.03-3.73). The mean time between the baseline and follow-up visits was six months (M = 6.36, SD = 1.10, range = 4-9). Data collectors arranged a convenient time to visit and asked parents to ensure that the child would be present for the observation. All measures were completed during one visit lasting approximately one hour. Parents were asked not to reveal their study allocation to data collectors during the follow-up visit in order to ensure that the data collector stayed blind, however contamination occurred in six (16.7%) of the follow-up visits.

Parent-child observations.

Observations were conducted in either English or Welsh depending on the preference of the families. Four families (7%) completed the parent-child observations in Welsh. All parent-child observations were live coded by one of two trained coders who were blind to participant allocation. The primary coder (first author) had previously been trained in the use of several coding systems including the DPICS (Eyberg & Robinson, 1981). The second coder was trained by the primary coder in the use of the modified DPICS for this study until reliability levels of 80% agreement for each category were achieved. Each parent-child dyad was observed for 30 minutes at both time points. Inter-rater reliability was undertaken for over 20% of the observations at both time points (baseline = 24.1%; follow-up = 29.3%). For the current study, overall intra-class correlations for each of the categories were as follows: Unlabelled praise ICC = .969; Labelled praise ICC = .741; Encouragement ICC = .877; Social-emotional coaching ICC = .961; Critical statement ICC = .901; Negative command ICC = .929; Child positive affect ICC = .888; Smart talk ICC = .945; Destructive behaviour ICC = .936; Physical negative ICC = .662. The intra-class correlation coefficients for the combined categories were as follows: Positive parent behaviour ICC = .950; Negative

parent behaviour ICC = .933; Child negative behaviour ICC = .956. This reports a very high level of agreement between coders.

Ethical approval.

Ethical approval was granted by Bangor University School of Psychology Ethics Committee in May 2014, application number: 2014-12886, and the North West Wales Research Ethics Committee in July 2014, application number: 14/WA/0187.

Intervention

The EPaS 2014 programme is based on the core components of the intensive treatment programme that targeted parents of CAMHS referred children with significant behavioural problems (Hutchings et al., 2002; Hutchings, Lane, & Kelly, 2004). The programme covers the three components - assessment tools and skills, case analysis strategies and intervention design. The programme introduces core parenting skills and covers the skills needed to engage parents as collaborators in strategies to help address common childhood behavioural problems such as sleeping, eating, tantrums, and non-compliance. Training involves didactic material, group and small group discussion, observation of videotaped material, and role play rehearsal.

Health visitors completed three days of training, each day approximately one month apart. The content for each training day was as follows:

Day 1. Assessment procedures - The programme introduces a standardised assessment procedure that includes a range of assessment tools including interview schedules, questionnaires, and observation tools. Health visitors use the assessment tools to collect information about the family, their current circumstances, the specific child problem behaviours, the child's skills and strengths, and their goals. This part of the programme takes three in-home sessions to complete.

Day 2. Case analysis - The programme teaches how to produce a case analysis using the information collected in the assessment sessions. It involves using the information to develop an understanding of the problem, its history and current function, the assets available in the situation that will support change, and some potential short- and longer-term goals. The case analysis is shared with the family and an intervention contract is agreed. This part of the programme is undertaken in one in-home

session.

Day 3. Intervention strategies - The programme introduces intervention strategies that parents can use to achieve their short- and longer-term goals. Parents are asked to undertake assignments and keep records about their efforts to achieve weekly goals that clarify whether the intervention strategies are effective. Behaviour problems are viewed as skill deficits and intervention strategies focus on teaching replacement behaviours. Example intervention strategies include praising behaviour that the parent wants to see more of, ignoring unwanted behaviours, setting limits for the child, rewards and consequences. This part of the programme can take between six to eight in-home sessions to complete, depending on the type and number of problem behaviours being targeted.

An experienced clinician who developed the EPaS programme conducted the training. All intervention resources were provided including a detailed training manual, the assessment tools for the information-gathering sessions, and packs of carbonated paper for drawing up record sheets and writing weekly targets for families. Envelopes and stamps were also provided so that health visitors could send appointment letters and record sheets to parents, and for them to give to parents so that they could send back completed records to their health visitor for feedback.

Data Analyses

All data analyses were completed using SPSS version 22 (IBM SPSS Statistics) unless stated otherwise. Exploratory data analyses were conducted to assess normality and a thorough exploration of baseline differences. Scores for parental depression, observed parent positive behaviour, observed parent negative behaviour, and observed parent social-emotional coaching were positively skewed, and normalised using a square root transformation or log transformation (observed positive parenting only). Observed child positive affect and observed child negative behaviour both showed floor effects meaning that they could not be normalised and were therefore excluded from the analyses.

Deviations from protocol.

Firstly, the protocol states that the age range of eligible children was 30-48 months, however due to low levels of recruitment it was decided to expand the age

range to 60 months to try to increase recruitment rates. Secondly, multiple linear regression analyses were planned but Analysis of Covariance (ANCOVA) was used since it is more appropriate for comparing groups. Thirdly, the protocol stated that study site would be controlled in the analyses, however due to the small sample, and given that the training was done by the same trainer, it would not be feasible to examine clustering effects. Fourthly, it was an intention to conduct mediation and moderation analyses but due to the small sample size this was not possible. Lastly, multiple imputation (MI) was planned to account for missing data but due to the large amount of complete cases missing (37.9% - 39.7%) in such a small dataset it was deemed not appropriate (see missing data section below).

Missing data.

All variables were checked for missing data. At baseline, low levels of missing data were reported with 0% complete cases missing and individual item values ranging from 0% (observation data) to 3.1% (ECBI Problem scale). There were no missing items for the demographic data. All missing items were pro-rated by taking a mean of the questionnaire for that particular participant or according to the rules stipulated in the measure manual (e.g. ECBI manual stipulates that more than five missing values on a given questionnaire makes it invalid. Four or less are inputted as 1 for Intensity and No for Problem). After pro-rating the data, there were no missing items at baseline. At follow-up, there were high levels of complete cases missing (37.9% - 39.7%) and low levels of individual items missing, with values ranging from 0% (Abbreviated Conners) and 1.0% (ECBI Problem scale). Individual missing items were pro-rated as described above.

Due to the high levels of complete cases missing at follow-up, it was decided to conduct multiple imputation (MI) for the missing data. First, exploratory analyses of those lost to follow-up and those available at follow-up were conducted to determine whether data was missing at random. The number of participants lost to follow-up was 22, 10 from the intervention condition and 12 from the control condition. There were no significant differences between those lost to follow-up and those available at follow-up based on demographic data and baseline outcome data ($p > .05$). Previous research has found that the number of multiple imputation models needed for analyses is equal to the percentage of complete case missing data (White, Royston, & Wood, 2011), therefore 40 models of MI were conducted with the current data. However the MI models generated very high standard error scores suggesting that it may not be stable with such

large amounts of missing data in a small dataset. It was decided that since this was a pilot study only the complete case data would be reported.

Main analyses.

The main analyses consisted of ANCOVA models. The dependent variables were the outcomes at the six-month follow-up and condition as the independent variable. In all analyses baseline scores were entered as covariates. A complete case analysis (for all who remained in the study) was conducted as well as a per protocol analysis (for all those who completed all three phases of the intervention). Sensitivity analyses were also conducted to examine the effects of the number of visits and experience of health visitor on the outcomes. ANCOVA models were computed using SPSS 22.0 and Cohen's *d* effect sizes are reported (small effect = 0.3, medium effect = 0.5, large effect = 0.8; Cohen, 1988).

Secondary analyses.

We also examined the proportion of participants scoring above and below the clinical cut-off scores for the ECBI, Abbreviated Conners, and the BDI-II. The scores for each participant at baseline and follow-up were categorised as either above or below the cut-off for each questionnaire. A new variable was then computed specifying whether the score at follow-up was the same as baseline (i.e. no change), had changed from below to above the cut-off, or had changed from above to below the cut-off. This was done for only the complete case data. Chi-square analyses were then conducted to examine whether there were any significant differences between participants in the intervention and TAU control conditions in terms of movement amongst the categories. Because the contingency table was 2x3, Fisher's exact test was used to calculate the *p*-value using the R Statistics package.

Results

Participant Demographics

Demographic characteristics for the participating families and health visitors are presented in table 6.1. All health visitors taking part were female and had a wide range of experience (between a few months and 28 years of experience). Mean age of the children was 40.52 months (*SD* = 8.78) with over 70% being male. All but one of the primary carers was female and they were reporting relatively high levels of

disadvantage. There were no significant differences between the intervention and TAU control families in terms of demographic characteristics ($p > .05$).

Table 6.1

Participant baseline characteristics

Health visitor characteristics	**All (*N*=29)**	/	/
Age, years: *M (SD)*	41.76 (8.86)	/	/
Experience as HV, years: *Median (range)*	3.00 (0-28)	/	/
Working in geographical area, years: *Median (range)*	4.00 (0-17)	/	/
Gender, female: *n (%)*	29 (100.0)	/	/
Relevant training, yes: *n (%)*	21 (72.4)	/	/
Family characteristics	**All (*N*=58)**	**Intervention (*n*=29)**	**Control (*n*=29)**
Child gender, male: *n (%)*	42 (72.4)	20 (69.0)	22 (75.9)
Child age, months: *M (SD)*	40.52 (8.78)	39.52 (9.09)	41.52 (8.51)
Parent gender, female: *n (%)*	57 (98.3)	29 (100.0)	28 (96.6)
Parent age, years: *M (SD)*	30.55 (8.90)	29.07 (8.02)	32.03 (9.61)
Parent age birth first child, years, *M (SD)*	21.80 (5.59)	21.45 (5.12)	22.19 (6.13)
Low education: *n (%)*	45 (77.6)	23 (79.3)	22 (75.9)
Living in poverty: *n (%)*	53 (91.4)	27 (93.1)	26 (90.0)
Single parent: *n (%)*	19 (32.8)	12 (41.4)	7 (24.1)
Unemployment: *n (%)*	29 (50.0)	16 (55.2)	13 (44.8)
Large family: *n (%)*	22 (37.9)	13 (44.8)	9 (31.0)

Note: HV – health visitor

The baseline scores for all measures are presented in table 6.2. The proportion of families scoring above the cut-off for some of the questionnaires is also displayed in table 6.2. Over 85% of children scored above the cut-off on the ECBI Intensity, ECBI Problem, and Abbreviated Conners scales. More than half the primary caregivers reported clinical levels of depression (Intervention 58.6%; Control 62.1%).

Table 6.2

Baseline descriptive statistics (N=58; intervention n=29, control n=29)

Baseline scores (CO)	**Intervention**	**Above CO**	**Control**	**Above CO**
	M (SD)	***n* (%)**	***M (SD)***	***n* (%)**
ECBI Intensity (131)	167.62 (30.07)	27 (93.1)	163.07 (27.56)	27 (93.1)
ECBI Problem (15)	20.31 (6.01)	26 (89.7)	20.31 (5.29)	26 (89.7)
Abbreviated Conners (15)	20.90 (5.60)	24 (82.8)	21.47 (4.97)	26 (89.7)
PS Laxness	3.23 (1.32)	/	3.21 (1.23)	/
PS Over-reactivity	2.47 (1.04)	/	2.84 (0.79)	/
PS Verbosity	3.75 (1.09)	/	3.67 (0.79)	/
PS Total	3.14 (0.89)	/	3.24 (0.71)	/
Baseline scores (CO)	***Median***	**Above CO**	***Median***	**Above CO**
	(range)	***n (%)***	***(range)***	***n (%)***
BDI-II (17)	18.00 (3-44)	17 (58.6)	18.00 (0-43)	18 (62.1)
Observed Positive Parenting	17.00 (5-74)	/	19.00 (2-114)	/
Observed SE Coaching	92.00 (19-326)	/	96.00 (27-253)	/
Observed Negative Parenting	16.00 (1-47)	/	16.00 (2-86)	/

Note: CO – cut-off; ECBI – Eyberg Child Behaviour Inventory; PS – Parenting Scale; BDI-II – Beck Depression Inventory II; SE – social-emotional.

Study Attrition

Twenty-two families (38%) were lost to the six-month follow-up, 10 intervention and 12 TAU families. For the 10 intervention families, seven prematurely disengaged from the intervention, two could not be contacted at follow-up, and one had moved. For the 12 TAU families, nine withdrew because of reported improvements in their child's behaviour, two had moved, and one withdrew because of a long-term illness. Independent t-tests and chi-square analyses were conducted to examine whether there were any differences between those lost to follow-up and those seen at follow-up. There were no significant differences in terms of demographic characteristics or baseline data ($p > .05$).

Implementation Fidelity

The mean number of home visits for the intervention families was 6.91 (*SD* = 2.75, range = 2-12). Because the control group was TAU some of the families (*n* = 7; 24%) also received visits from their health visitor (*M* = 1.26, *SD* = 2.90, range = 0-13).

All seven TAU families received some kind of behavioural support with five receiving generic behavioural support, one was referred to the Triple P- positive parenting programme, and one received an intensive support package delivered by a family support worker alongside the health visitor. Information about the number of visits was missing from six of the health visitors (20.7%).

The dosage level of the intervention received by families varied. Of the 29 families in the intervention condition, 93% engaged with the programme with 15 (51.7%) receiving the full dose of the intervention (completing all three phases of the EPaS programme). Three (10.3%) completed the assessment and case analysis phases, and nine (31.0%) completed the assessment phase only. No data were available for two families. Unblinding of participant condition allocation occurred at six (16.7%) of the follow-up visits. A sensitivity analyses was conducted for the observed variables to examine whether unblinding had any effect on the results. There was no significant effect ($p > .05$).

Participant Satisfaction

Families in the intervention condition were asked to complete a satisfaction questionnaire about the intervention at the final session with their health visitor. Fifteen families (52%) completed this. Satisfaction levels were high with 96% rating different aspects of the intervention as helpful (range 80-100%). All families rated the overall process and their health visitor as helpful. Ninety-three per-cent would recommend to other parents (see Table 6.3).

Table 6.3

Parent satisfaction (n=15)

Questions	**Responses (%)**
Discussing child's history (%)	Helpful (93.3)
	Neither helpful or unhelpful (6.7)
Describing child's day in detail (%)	Helpful (100)
Keeping records of problem situations (%)	Helpful (93.3)
	N/A (6.7)
Discussing possible reasons for child's behaviour (%)	Helpful (100)
Working out strategy for teaching new behaviour (%)	Helpful (100)
Tasks to complete between sessions (%)	Helpful (100)
Reading assignments (%)	Helpful (80.0)
	Neither helpful or unhelpful (13.3)
	N/A (6.7)
Health visitor (%)	Helpful (100)
Overall process (%)	Helpful (100)
Sufficient information about process (%)	Yes (93.3)
	No (6.7)
Recommend to other parents (%)	Likely (93.3)
	Unlikely (6.7)

Effect of EPaS Intervention on Outcomes

Complete case analyses.

For the primary outcome, there was a significant difference between intervention and wait-list TAU control conditions (see Table 6.4) with families in the intervention condition reporting a significant reduction in ECBI Intensity scores (F (1, 33) = 5.22, p = .029, d = 0.88). There was no significant difference for ECBI Problem scores, however there was a very large effect size (d = 1.05) favouring families in the intervention condition. There was also no significant difference on any of the secondary outcomes (see Table 6.4) however effect sizes in favour of the intervention condition ranged from small (PS Verbosity, PS Total) to medium (Abbreviated Conners, PS Over-reactivity, BDI-II, observed positive parenting). Sensitivity analyses showed no effect for number of visits received or level of experience of the health visitor.

Per-protocol analyses.

There was a significant difference between intervention and control conditions on both subscales of the primary outcome (see Table 6.5). Families in the intervention condition reported a significant reduction in ECBI Intensity scores (F (1, 27) = 6.83, p = .014, d = 1.30) and ECBI Problem scores (F (1, 27) = 5.21, p = .031, d = 1.53) with very large effect sizes. There was no significant difference for any of the secondary outcomes (see Table 6.5), however both the Abbreviated Conners and observed positive parenting showed large effect sizes (d > 0.8) favouring the intervention condition. Effect sizes for the other measures ranged from small (PS Over-reactivity, observed social-emotional coaching, observed negative parenting) to medium (BDI-II). Again, sensitivity analyses showed no effect for experience of health visitor and the number of visits received.

Cut-off Score Analyses

For four of the measures, families could be categories as either scoring above or below a cut-off or showing no change from baseline. These were examined to assess whether there were any differences between participants in the intervention or TAU control conditions in terms of cut-off classification at follow-up. There were no significant differences between intervention and TAU control families for any of the applicable measures (see Table 6.6).

Table 6.4

Complete case results (analysis adjusted for baseline scores)

Outcomes	**Intervention**		**Control**		***F***	***p***	***d***
	Baseline (*n*=29)	**Follow-up (*n*=19)**	**Baseline (*n*=29)**	**Follow-up (*n*=17)**			
	M (SD)	***M (SD)***	***M (SD)***	***M (SD)***			
ECBI Intensity	167.62 (30.07)	144.53 (40.53)	163.07 (27.56)	169.82 (38.08)	5.22	.029*	0.88
ECBI Problem	20.31 (6.01)	14.22 (9.81)	20.31 (5.29)	20.12 (7.96)	3.76	.061	1.05
Abbreviated Conners	20.90 (5.60)	17.79 (6.70)	21.47 (4.97)	21.00 (5.43)	2.07	.160	0.61
PS Laxness	3.23 (1.32)	2.86 (1.39)	3.21 (1.23)	3.11 (1.30)	1.31	.261	0.20
PS Over-reactivity	2.47 (1.04)	2.27 (0.85)	2.84 (0.79)	2.75 (1.01)	0.71	.407	0.52
PS Verbosity	3.75 (1.09)	3.54 (0.93)	3.67 (0.79)	4.00 (1.10)	1.95	.172	0.49
PS Total	3.14 (0.89)	2.84 (0.86)	3.24 (0.71)	3.22 (0.94)	2.76	.106	0.48
Outcomes	***Median (range)***	***Median (range)***	***Median (range)***	***Median (range)***	***F***	***p***	***d***
BDI-II[a]	18.00 (3-44)	11.00 (0-53)	18.00 (0-43)	14.00 (4-49)	0.90	.349	0.52
Observed Positive Parenting[a]	17.00 (5-74)	19.00 (1-46)	19.00 (2-114)	12.50 (1-58)	2.22	.146	0.58
Observed SE Coaching[a]	92.00 (19-326)	87.00 (12-179)	96.00 (27-253)	78.00 (15-197)	0.28	.599	0.18
Observed Negative Parenting[a]	16.00 (1-47)	12.00 (1-31)	16.00 (2-86)	10.50 (1-44)	0.16	.695	0.24

* $p < .05$; [a] Transformed scores used in analyses

Note: ECBI – Eyberg Child Behaviour Inventory; PS – Parenting Scale; BDI-II – Beck Depression Inventory II; SE – social-emotional

Table 6.5

Per-protocol results (analysis adjusted for baseline scores)

Outcome	**Intervention**		**Control**		***F***	***p***	***d***
	Baseline (*n*=15)	**Follow-up (*n*=13)**	**Baseline (*n*=29)**	**Follow-up (*n*=17)**			
	M (SD)	***M (SD)***	***M (SD)***	***M (SD)***			
ECBI Intensity	160.80 (25.69)	135.23 (39.48)	163.07 (27.56)	169.82 (38.08)	6.83	.014*	1.30
ECBI Problem	17.93 (5.98)	11.58 (8.67)	20.31 (5.29)	20.12 (7.96)	5.21	.031*	1.53
Abbreviated Conners	20.20 (6.03)	16.46 (7.14)	21.47 (4.97)	21.00 (5.43)	3.46	.074	0.85
PS Laxness	3.44 (1.58)	3.09 (1.43)	3.21 (1.23)	3.11 (1.30)	0.69	.413	0.01
PS Over-reactivity	2.48 (1.18)	2.34 (0.75)	2.84 (0.76)	2.75 (1.01)	0.08	.783	0.44
PS Verbosity	4.04 (1.17)	3.76 (0.81)	3.67 (0.79)	4.00 (1.10)	0.54	.470	0.26
PS Total	3.30 (1.03)	2.98 (0.84)	3.24 (0.71)	3.22 (0.94)	1.66	.209	0.29
Outcome	***Median (range)***	***Median (range)***	***Median (range)***	***Median (range)***	***F***	***p***	***d***
BDI-II[a]	17.00 (3-23)	10.00 (0-25)	18.00 (0-43)	14.00 (4-49)	0.59	.448	0.72
Observed Positive Parenting[a]	17.00 (7-39)	25.00 (3-46)	19.00 (2-114)	12.50 (1-58)	4.19	.051	0.89
Observed SE Coaching[a]	109.00 (19-213)	106.00 (12-179)	96.00 (27-253)	78.00 (15-197)	1.41	.245	0.30
Observed Negative Parenting[a]	10.00 (1-47)	12.00 (1-31)	16.00 (2-86)	10.50 (1-44)	0.19	.671	0.31

* $p < .05$; [a] Transformed scores used in analyses

Note: ECBI – Eyberg Child Behaviour Inventory; PS – Parenting Scale; BDI-II – Beck Depression Inventory II; SE – social-emotional

Table 6.6

Analysis of cut-off scores (N = 36; intervention n=19, control n=17)

Measure	**Condition**	**No change *n* (%)**	**Below to above *n* (%)**	**Above to below *n* (%)**	***X*²**	***p*-value**
ECBI Intensity	Intervention	12 (63.2)	1 (5.3)	6 (31.6)	3.23	.162
	Control	15 (88.2)	0	2 (11.8)		
ECBI Problem	Intervention	13 (72.2)	0	5 (27.8)	0.08	.696
	Control	13 (76.5)	0	4 (23.5)		
Abbreviated Conners	Intervention	13 (68.4)	1 (5.3)	5 (26.3)	2.33	.261
	Control	15 (88.2)	0	2 (11.8)		
BDI-II	Intervention	14 (73.7)	1 (5.3)	4 (21.1)	0.04	.875
	Control	12 (70.6)	1 (5.9)	4 (23.5)		

Note: ECBI – Eyberg Child Behaviour Inventory; BDI-II – Beck Depression Inventory II; X^2 – Chi-square value

Discussion

Child behaviour problems are a global challenge (Polanczyk et al., 2015) and dysfunctional parenting has been identified as a key factor in its development (Hoeve et al., 2009). Parenting programmes are an effective way of reducing child behaviour problems (Furlong et al., 2012; NCCMH, 2013). This study examined the potential effectiveness of the EPaS 2014 programme, an individually delivered parenting programme for parents of young children with behaviour problems. Fifty-eight families were recruited by 29 health visitors and randomly allocated to either the intervention or a TAU wait-list control condition. Families recruited to the study were generally disadvantaged with very high levels of poverty, unemployment, and a range of other parent and child characteristics. Outcomes included child behaviour, parenting skills, parental mental health, and observed parent-child interaction. Families in the intervention condition reported high levels of satisfaction with the EPaS programme. The analyses showed significant reductions in child behaviour problems for families in the intervention condition based on the ECBI Intensity scores (complete case and per-protocol) and ECBI Problem scores (per-protocol only) with very large effect sizes. These results are promising but not definitive due to the small sample. There was no significant difference between the conditions on any of the secondary outcomes

however effect sizes ranged from small to large and favoured the intervention condition. There was also no significant difference between the conditions in the number of families scoring below relevant cut-off scores at the six-month follow-up.

Previous research evaluating individually delivered parenting programmes has also found similarly large effect size reductions in child behavioural problems. For example, Axelrad, Garland, and Love (2009) found Cohen's *d* effect sizes of 1.6 for ECBI Intensity and 1.5 for ECBI Problem scores in an evaluation of a brief parenting programme. Others have found similar results (e.g. Brestan, Eyberg, Boggs, & Algina, 1997; Hutchings et al., 2002; Lane & Hutchings, 2002; McCabe & Yeh, 2009; Nixon, Sweeney, Erickson, & Touyz, 2003). Large effect sizes have also been found for group-based parent programmes (see Furlong et al., 2012). In a meta-analysis, Lundahl et al. (2006) calculated an effect size of 0.69 for child behaviour outcomes in individually delivered parent programmes. The fact that the effect sizes for the current study were larger is very promising.

Implementation fidelity consisted of the number of visits families received and the delivery of the three phases of the EPaS 2014 programme. The variability in the number of visits families in the intervention condition received was high. The mean number of visits was 6.91 with a range of two to 12 sessions. Only 15 (51.7%) of the health visitors managed to deliver all three phases with a family. This was possibly due to a high number of unsuccessful visits by the health visitor. Brand and Jungmann (2014) found that increased numbers of unsuccessful visits (nobody home during agreed appointment time or parents not answering the phone) and low parental engagement in a home visiting programme was associated with increased attrition rates. Implementation fidelity has been found to affect study outcomes (e.g. Alvarez, Rodrigo, & Byrne, 2016; Furlong et al., 2012; Kaminski et al., 2008). When participants receive the full dosage of an intervention they are more likely to have positive outcomes (Alvarez et al., 2016). This is supported by the results of the current study showing larger effect sizes for those who completed the intervention (per-protocol analyses) for most outcomes compared to the complete case analyses. Due to the design of the study, families in the control condition also received some visits as part of TAU. Twenty-four per-cent received visits from their health visitor during the intervention phase, and this information was not available for some families. This may have affected the results, highlighting the difficulties of conducting research in a 'real world' context (Michelson, Davenport, Dretzke, Barlow, & Day, 2013).

Recruitment for the trial was more difficult than expected. Recruitment difficulties in RCTs are not unusual (Robinson, Adair, Coffey, Harris, & Burnside, 2016) and are well documented (McDonald et al., 2006) with an estimated 60% of RCTs failing to reach recruitment targets (Watson & Torgerson, 2006). The planned sample size for the current trial was 60 health visitors and 120 families (Williams & Hutchings, 2015). Eighty-two per-cent of the target of 60 health visitors were recruited to the trial, however 12 (24.5%) withdrew before commencing the EPaS training due to lack of time, personal issues, job change, etc. This may have been affected by the recent reorganisation of tier 1 services in the health service including the role of the health visitor (Lowe, 2007; Cowley et al., 2015). A further 18.9% did attend the training but were unable to identify two families for the trial, leaving 29 health visitors and 58 families (48.3% of the intended sample). The difficulties in identifying families for the trial were unexpected. A similar trial conducted by Hutchings, Bywater, Daley, Gardner, et al. (2007) identified over 200 families meeting the eligibility criteria however in that trial health visitors were identifying families but were not delivering the intervention. That trial targeted a similar population from similar areas as the current trial, used the same eligibility criteria, and used health visitors to identify the families. Seventy-four per-cent of families identified met the eligibility criteria and 93.3% consented to take part (Hutchings, Bywater, & Daley, 2007). This is in contrast to the current trial whereby only 84 families were identified and 75% consented to take part. The decreasing numbers of identified families may partly be due to the creation of Government schemes such as the Welsh Government Flying Start programme, specifically targeting young children aged between two and three years with additional support including parent groups, language and play sessions, and enhanced health visiting support, that have enabled parents to have better access to parenting support (Welsh Government, 2016).

Attrition rates were high with 38% of families lost at the six-month follow-up. This level seems high but when it is considered in the context of disadvantaged families the attrition rate is similar to other studies of individually delivered parenting programmes (e.g. 39% in Fernandez & Eyberg, 2009; 49% in Werba, Eyberg, Boggs, & Algina, 2006). In the current study, there were no significant differences between families lost to follow-up and families who remained in the study, whereas other studies have identified a number of associated predictors. These include demographic characteristics such as low socioeconomic status, unemployment, low education, single

parent status, younger maternal age, and ethnic minority status (e.g. Fernandez & Eyberg, 2009; Nock & Ferriter, 2005; Reyno & McGrath, 2006; Robinson et al., 2016; Werba et al., 2006) and process variables such as low participant engagement, low satisfaction with service, referral process, and programme content (e.g. Alvarez et al., 2016; Axford, Lehtonen, Kaoukji, Tobin, & Berry, 2012; Brand & Jungmann, 2014; Ingoldsby, 2010; Whittaker & Cowley, 2012). In the present study, the sample had high rates of demographic risk factors and high rates of programme satisfaction.

A review by Snell-Johns, Mendez, and Smith (2004) examined solutions for overcoming barriers for access and high levels of attrition in family therapy studies including parenting programmes. Some of the solutions discussed for reducing barriers for access were offering transport, childcare facilities, and home-based support, whilst solutions for decreasing attrition included addressing families' individual needs, decreasing time spent on waiting list, monitoring therapists' behaviours/expectations, and offering incentives (Snell-Johns et al., 2004). The current study provided many of these solutions, it was an individualised programme and delivered in parents' homes meaning there was no transport or childcare issues, however both recruitment and attrition rates were still poor. Fox and Holtz (2009) found similarly high attrition rates after adapting a parenting programme for disadvantaged families. It is also possible that the health visitors' behaviour/ expectations contributed to the findings. Previous research with group-based parenting programmes showed that group leaders' behaviour affects parenting programme outcomes (Eames et al., 2009). Offering monetary incentives to parents was another solution suggested by Snell-Johns et al. (2004). The current study did not use monetary incentives; instead families received a children's book as a thank you for completing the assessments. It is possible that a monetary incentive would have increased research retention at follow-up, especially considering the high proportion of families living in poverty. However the evidence for the use of monetary incentives is weak at best (e.g. Dumas, Begle, French, & Pearl, 2010; Gross, Julion, & Fogg, 2001; Heinrichs, 2006).

Strengths & Limitations

The main strengths of this trial were the use of a RCT design in a 'real world' setting and the use of data collectors who were blind to participant allocation. The study also utilised independent assessments of child and parent behaviour as well as parental reports of depression, child behaviour, and parenting skills.

This study has a number of limitations. Firstly, the sample size was very small with only 58 families consenting to take part. Secondly, the attrition rate at follow-up was high with 38% of families lost to follow-up. This also meant that the level of missing data was high. Thirdly, data on any services used by the families in the TAU control condition during the intervention phase were not collected. It is possible that access to other services may have contributed to the lack of significant differences for the secondary outcomes. Fourthly, there may have been a knowledge contamination effect due to the fact that health visitors were trained in EPaS but still had access to the control families as part of TAU. They were asked not to deliver the programme to the TAU control families until after the six-month follow-up however it is difficult to know whether this happened or not. To limit this, a cluster RCT would need to be conducted whereby training would only be provided in areas undertaking the intervention. Lastly, the initial plan for the project included local clinical supervision for the participating health visitors. This was to be provided within the primary care service by local CAMHS based primary care clinical psychologists. However, due to scheduling difficulties this did not happen. Clinical supervision during intervention delivery is of vital importance for effective implementation (Flay et al., 2005; Hutchings, Bywater, & Daley, 2007; Mihalic, Fagan, Irwin, Ballard, & Elliott, 2002).

Conclusions

This chapter described a study evaluating an individually delivered parenting programme for parents of young children with identified behaviour problems, known as the EPaS 2014 programme. A pilot, pragmatic RCT was conducted in four centres across north Wales and Shropshire. Families who completed the EpaS 2014 programme reported high levels of satisfaction with the programme and significant reductions in child behaviour problems based on complete case and per-protocol analyses. The results are promising with some statistically significant outcomes, particularly child behaviour but also clinical effect sizes, some very large, across all measures. The findings highlight the need for more research with disadvantaged families due to a number of issues such as high attrition rates and poor recruitment. The results justify a larger trial to definitively establish the effectiveness of the EPaS 2014 programme, preferably a cluster RCT to account for contamination issues, which includes clinical supervision during intervention delivery for effective implementation.

Chapter 7

Health visitor feedback on a structured, behavioural training for working with families of children with behaviour problems

The incidence of childhood behavioural problems is increasing in the UK (British Medical Association [BMA], 2013) and there is a wealth of research demonstrating that children's early environments affect the development of these problems. Furthermore once established these problems predict long-term difficulties extending across the lifespan (Shonkoff et al., 2012). Children living in adverse environments are more likely to develop behaviour problems (Murray, Irving, Farrington, Colman, & Bloxsom, 2010) and have low school achievement (Keirnan & Mensah, 2011; Mensah & Keirnan, 2010). Several risk factors have been identified including socio-economic disadvantage, however poor parenting is the key risk factor in the development of these problems (Farrington & Welsh, 2007; Patterson, Forgatch, Yoerger, & Stoolmiller, 1998). Early intervention through parenting support has repeatedly been demonstrated to be an effective way of addressing this problem (Dretzke et al., 2009).

Health Visitors

Health visitors are public health practitioners in the UK. To train as a health visitor, individuals must first qualify and register as a nurse or midwife. Then they must gain additional training as a specialist community public health nurse, which includes training in public health, child development, etc. that enables them to assess the health needs of individuals, families and the wider community and to use the information to promote good health and prevent illness (National Health Service [NHS] Careers, 2016). Health visitors provide a universal service to all families with children under the age of five years and targeted services for those in need, e.g. vulnerable families (Cowley, Caan, Dowing, & Weir, 2007). A recent review of the health visiting role highlighted their many different responsibilities including safeguarding children, early intervention, and proactive promotion of health and illness prevention (Lowe, 2007). The main priorities of health visitors, as set out in the Lowe (2007) review, are: preventing social exclusion of children and families; reducing inequalities; tackling key public health issues such as obesity and smoking; promoting infant, child, and family mental health; and supporting parenting. Health visitors work in multi-agency teams that include nursery nurses, early years workers and General Practitioner practices and refer families to other services when needed, e.g. social workers, child and adolescent mental health services, etc. (Cowley et al., 2007), although often these services are primarily focused on older children.

Health Visitors and Parenting Programmes

Health visitors have always been a source of advice for parents (Wilson et al., 2008) and are ideally placed to deliver interventions for parents of children with behaviour problems (Kilgour & Fleming, 2000; Long, McCarney, Smyth, Magorrian, & Dillon, 2001). Parents report positive views on the health visiting service and especially value their knowledgeable advice on parenting, child behaviour and development (Russell & Drennan, 2007). It is of concern, therefore, that many parents are reporting a reducing level of service over the last few years with less visits conducted by health visitors, less time available to support families, and high rates of staff turnover (Russell & Drennan, 2007). It appears that this is due to increasing caseloads and more complex cases (Adams & Craig, 2007). Health visitors are reporting large and growing caseloads of children with behaviour difficulties. One survey found that 34% of health visitors had 10 or more child psychological, emotional and behaviour cases in their current caseloads, the most common problems being externalising behaviour problems (Wilson et al., 2008). They also report spending a lot of time dealing with these cases, with 20% spending more than four hours a week working with the families of children with behaviour problems (Wilson et al., 2008). This is something about which they often report feeling ill-equipped to deal with and consequently lack confidence to engage parents in intervention programmes (Hutchings & Nash, 1998; Thomas, Bidder, Hewitt, & Gray, 1982).

Hutchings and Nash (1998) developed a questionnaire to assess health visitors' knowledge, use of, and confidence in using, behavioural strategies with parents of children with behaviour problems. A group of 39 health visitors from one county in north Wales completed the questionnaire. The strategies included in the questionnaire were based on those found to be essential in working with parents of children with behaviour problems (Forehand & McMahon, 1981; Milne, 1986; Webster-Stratton & Herbert, 1994). Findings showed that health visitors had relatively little knowledge of specific underpinning behavioural terminology and although they reported using behavioural techniques they were less likely to use specific strategies such as observing children's behaviour and asking parents to keep records before giving advice. They reported low levels of confidence in using these strategies and 97% of the sample reported that they would like more training in the use of behavioural techniques.

Health visitor training.

In the 1980s, several studies examined the effectiveness and acceptability of training health visitors to use behaviour management techniques to support parents (e.g. Bowler & Watson, 1984; Hewitt & Crawford, 1988; Hewitt, Hobday, & Crawford, 1989; Scaife & Frith, 1988; Stevenson, Bailey, & Simpson, 1988). Findings from these studies were mixed with some showing benefits to parents (Scaife & Frith, 1988) whilst others showing no significant effects (Hewitt & Crawford, 1988; Stevenson et al., 1988) despite health visitors rating behavioural training as useful and appropriate for their work with families (Bowler & Watson, 1984; Hewitt et al., 1989).

Elkan et al. (2000) conducted a systematic review of the effectiveness of health visiting on a range of different outcomes. For parenting and child behaviour, home visits were associated with greater improvements in parents' ability to manage child behaviour, however many studies did not involve using the strategies known to be effective for parenting interventions (Kaminski, Valle, Filene, & Boyle, 2008) such as directly training parents in the use of behaviour management techniques, relying instead on providing support. There was also a lack of UK-based studies with the majority based in the US (Elkan et al., 2000).

Home visiting programmes.

Home visiting is a method of delivering preventive and early intervention approaches to families of young children. Health visitors and other health care professionals deliver these programmes. They can include a number of different goals including the improvement of parental knowledge and practices (Sweet & Applebaum, 2004), prevention of child maltreatment (Howard & Brooks-Gunn, 2009) and prenatal care (Olds & Kitzman, 1993). A number of reviews and meta-analyses have examined the effectiveness of home visiting programmes and found mixed results (Heaman, Chalmers, Woodgate, & Brown, 2006; Nievar, van Egeren, & Pollard, 2010; Peacock, Konrad, Watson, Nickel, & Muhajarine, 2013; Sweet & Applebaum, 2004). The main reason was the fact that home visiting programmes vary so much in terms of content and design. In 2013, Filene and colleagues conducted a meta-analysis to examine the different components of home visiting programmes to see whether any were related to specific outcomes. Overall, home visiting programmes targeting parent behaviour and skills had positive outcomes. The main components associated with the positive outcomes were teaching discipline and behaviour management techniques, teaching

developmental norms and appropriate expectations, and teaching responsive/ sensitive parenting practices (Filene, Kaminski, Valle, & Cachat, 2013). These results are similar to a meta-analysis examining effective parent training components (Kaminski et al., 2008) and are all components in social learning theory based interventions.

Social learning theory interventions.

The most effective evidence based interventions to address child problem behaviour are those that incorporate behaviour management strategies based on social learning theory (Bandura, 1977; Deighton et al., 2016; Furlong et al., 2012; National Collaborating Centre for Mental Health [NCCMH], 2013). A number of health visitor-led interventions for parents of children with behaviour problems have been reported in the literature, however evaluations have tended to have small samples and are usually conducted within one service setting. For example, Long et al. (2001) evaluated the effectiveness of a parenting programme facilitated by health visitors within a Health Trust in Northern Ireland. They found significant improvements in parental anxiety and depression as well as improvements in positive personality traits such as being calm and not shouting at their children. The main limitation of the study was the lack of control comparison group. Milford, Kieve, Lea, and Greenwood (2006) evaluated the Solihull Approach, a psychotherapeutic model for health visitors to work with families in addressing common behavioural difficulties such as eating, toileting, and tantrums. There were no significant differences between the intervention and control groups immediately post-intervention, however a significant decrease in parental distress and dysfunctional interaction with their child was found for the intervention group compared to a control group at the three-month follow-up (Milford et al., 2006). Other studies have found similar positive results (e.g. Johnston & Titman, 2004; Kilgour & Fleming, 2000; Merrifield, 2005; Parker & Kirk, 2006).

The Enhancing Parenting Skills Programme

In 2002, Lane and Hutchings examined the effectiveness of training for health visitors in the use of a behaviour management programme for parents of children with challenging behaviour, known as the Enhancing Parenting Skills (EPaS) programme. EPaS is based on functional analysis and social learning theory principles and covers three main components: assessment tools and skills; case analysis strategies; and intervention components that include core parenting skills. Following attendance on the training, health visitors increased their knowledge of behavioural terminology and use

of specific behavioural techniques. The EPaS training was rated positively in terms of content and usefulness for their work with families. However, it was an intensive course with health visitors attending weekly half-day sessions for 12 weeks. Attendance on the EPaS training was high however it became clear that it would not be feasible today due to the increasing demands on health visitors (Cowley et al., 2015).

In 2012, the EPaS programme was revised for wide-scale dissemination. The training was restructured so that it could be delivered in two full days and the manual was greatly expanded. The new format was trialled with early intervention staff, with a variety of backgrounds, from across Wales and was found to be feasible. A small number of staff managed to deliver the programme to a family and collect some pre- and post-intervention measures, which showed promising results (Hutchings & Williams, 2013). Feedback from attendees was that two days was not enough to cover the whole programme and some staff undertaking the training lacked essential knowledge in child development. The training was extended to three days, one day for each programme component (assessment, case analysis, and intervention strategies) and the material and resources expanded to include videotaped recordings of parent-child interaction. In addition the programme targeted health visitors who were known to have the necessary knowledge about child development to be able to deliver the programme effectively.

Aim of Current Study

The aim of the current study is to evaluate the new revised version of the EPaS training (known as the EPaS 2014 programme) with health visitors in north Wales and Shropshire. This study reports on participant feedback regarding the usefulness of the training, and the various components of the course, in their work with families.

Methods

Participants

Health visitors were recruited to undertake training in an individually delivered, home-based behavioural parenting intervention. The only inclusion criteria was that they had a Specialist Community Public Health Nursing qualification. There were no exclusion criteria. Health visitors were asked to identify two families from their caseloads to take part in the study. Families were eligible if they had a child aged

between 30 and 60 months who scored above the clinical cut-off on either of the subscales on the Eyberg Child Behaviour Inventory (ECBI; Eyberg, Boggs, & Reynolds, 1980).

A total of 49 health visitors initially consented to take part in the research from four research sites across north Wales and Shropshire, however only 37 attended the first day of training and 29 worked with one randomly allocated family as an intervention family to whom they delivered the intervention in the first instance (see Figure 7.1).

Measures

Demographics.

This questionnaire collected the following health visitor demographic questions: age, gender, number of years working as a health visitor, area where they worked, number of years working in that area, and any relevant post-qualification training. This questionnaire was completed at baseline only.

Health visitor baseline questionnaire.

This questionnaire was based on one developed for an earlier study (Hutchings & Nash, 1998; Lane & Hutchings, 2002). It consists of two sections: 1) current frequency of use of specific behavioural intervention techniques and strategies in their work with children and families; 2) their confidence in their knowledge and ability to apply this approach (see Appendix W). The ten behavioural techniques included in the questionnaire are those that have been identified as important components of effective work with parents of children with behaviour problems (Forehand & McMahon, 1981; Kaminski et al., 2008; Webster-Stratton & Herbert, 1994). This measure is incorporated into the EPaS 2014 training programme.

Health visitor follow-up questionnaire.

This questionnaire is based on one used in previous small-scale evaluations of the EPaS programme (Hutchings & Williams, 2013; Lane & Hutchings, 2002). It consists of three sections: 1) views on how helpful the course teaching was on various components; 2) confidence in their knowledge and ability to apply this approach; 3) general feedback on the course. There was also a section providing the option to give any further feedback (see Appendix X). This measure is incorporated into the EPaS 2014 training programme.

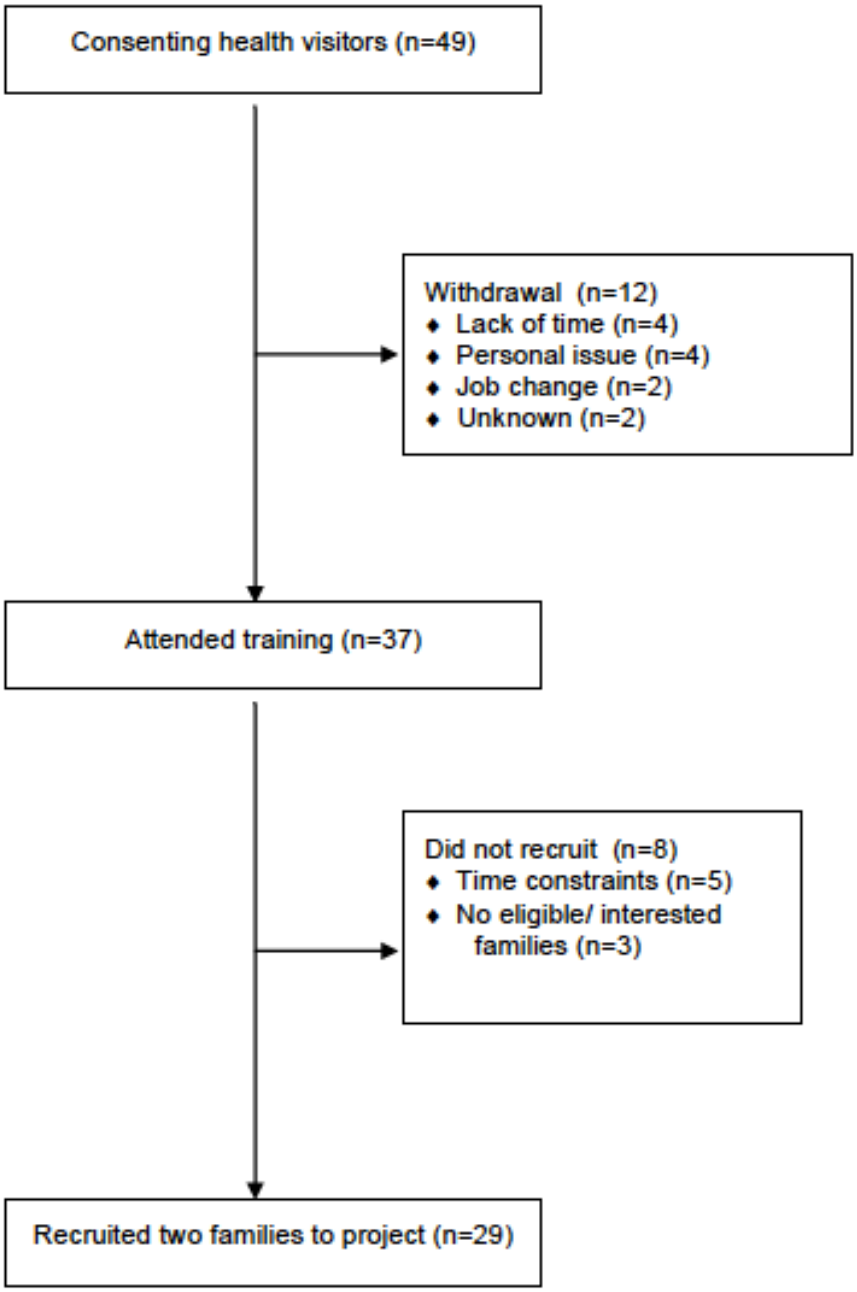

Figure 7.1. Flow diagram of participants (health visitors)

Intervention

The EPaS 2014 programme is based on the core components of an intensive treatment programme delivered to parents of children referred to Child and Adolescent Mental Health services (CAMHS) with severe conduct problems (Hutchings, Appleton, Smith, Lane, & Nash, 2002; Hutchings, Lane, & Kelly, 2004). The three phases of the programme cover assessment tools and skills, case analysis strategies and intervention components that include core parenting skills, and how to engage parents as

collaborators in strategies to help address common childhood behavioural problems including sleeping, eating and toileting problems, tantrums, and non-compliance.

Health visitors completed three days of training, each approximately one month apart. The content for each training day was as follows:

Day 1. Assessment procedures – This day introduces a standardised assessment procedure that includes a range of assessment tools including interview schedules, questionnaires, and observation tools. The training also covers the collaborative process skills needed to engage parents as partners. Health visitors use the assessment tools to collect information about the family, their current circumstances, the specific child problem behaviours, the child's skills and strengths, and their goals. This part of the programme takes three in-home sessions to complete.

Day 2. Case analysis - The programme teaches how to produce a case analysis using the information collected in the assessment sessions. It involves using the information to develop an understanding of the problem, its history and current function, the assets available in the situation that will support change, and potential short- and longer-term goals. The case analysis is shared with the family and an intervention contract is agreed. This part of the programme is undertaken in one in-home session.

Day 3. Intervention strategies - The programme introduces intervention strategies that parents can use to achieve their short- and longer-term goals. Parents agree assignments and keep records about their efforts to achieve weekly goals that clarify whether the intervention strategies are effective or require modification. Child behaviour problems are simple, easy to learn, behaviours whereas replacement behaviours involve compliance, self-management, language and social skills which are hard to learn. Intervention strategies focus on teaching these replacement behaviours. Example intervention strategies include identifying and praising behaviours that parents want to see more of, ignoring unwanted behaviours, setting limits for the child, rewards and consequences. This part of the programme generally takes between six to eight in-home sessions to complete, depending on the type and number of problem

behaviours being targeted.

An experienced clinician who developed the EPaS programme conducted the training. All intervention resources were provided including a detailed training manual, the assessment tools for the information-gathering sessions, and packs of carbonated paper for drawing up record sheets and writing weekly targets for families. Envelopes and stamps were also provided so that participants could send information to parents such as appointment letters and sample record sheets, and parents could send completed records to their health visitor for feedback.

Procedures

Recruitment.

Health visiting service managers were contacted across north Wales and Shropshire to see if they would be interested in collaborating on a research project evaluating the EPaS programme. They were asked to nominate health visitors within their services who may be interested in participating. Interested health visitors were then invited to attend a meeting to discuss the project further with a member of the research team and receive information regarding the commitment. They were told that taking part entailed attending three days of training in the EPaS programme and identifying two eligible families from their caseloads that were willing to participate. An information sheet was given to each health visitor, which they were encouraged to read before deciding to take part. Written informed consent was obtained from each health visitor that agreed to participate.

Statistical Analyses

All questionnaire data (demographic, baseline and follow-up) were tabulated. For the demographic data, independent t-tests (for continuous data) and Chi-square (for nominal data) were conducted to examine whether there was any difference between the health visitors that participated in the trial (recruited two families to the trial, $n = 29$) and those that only attended the training (did not manage to recruit two families to trial, $n = 8$). A similar analysis was conducted for the Health Visitor Baseline Questionnaire which also included health visitor use of techniques from a previous evaluation of EPaS by Lane and Hutchings (2002). The only available direct comparison at follow-up was for the questions regarding health visitor confidence. Chi-square analyses were

conducted to examine whether the rating of confidence had changed between baseline and follow-up (*n* = 18).

Results

Demographic Data

Table 7.1 displays the demographic data for health visitors in the trial. Participating health visitors had a mean age of 42 years and all were female. The number of years working as a health visitor was very varied with a median of four years but the range was from a few months to 30 years. This was also true of the number of years that they had worked in the local area. Two-thirds (67.6%) had received previous relevant training, including training for Incredible Years® (*n* = 15), Solihull (*n* = 7), Nurturing families (*n* = 3), and Triple-P (*n* = 2). There were no significant differences in terms of demographics between those that identified two families for the trial and those who did not identify two families.

Table 7.1

Demographic characteristics of health visitors

Characteristics	**All (*N* = 37)**	**Identified families (*N* = 29)**	**Did not identify (*N* = 8)**	***p***
Age (years), *M (SD)*	42.19 (9.26)	41.76 (8.86)	43.75 (11.15)	.597[a]
Gender (female), *n (%)*	37 (100)	29 (100)	8 (100)	1.000[b]
Years as HV, *Median (range)*	4.00 (0-30)	3.00 (0-28)	8.50 (0-30)	.574[c]
Years in area, *Median (range)*	5.00 (0-30)	4.00 (0-17)	8.00 (0-30)	.574[c]
Previous training, *n (%)*	25 (67.6)	21 (72.4)	4 (50.0)	.231[b]

Note: HV – Health visitor

[a] Based on independent t-test

[b] Based on Chi-square test

[c] Based on non-parametric Mann-Whitney U test

Current Use of Behavioural Techniques

All health visitors who enrolled to participate in the EPaS 2014 training were asked about their current use of behavioural techniques in the Health Visitor Baseline

Questionnaire. Results are presented in table 7.2 and report numbers and percentages for those health visitors that used the techniques always or often. Table 7.2 also provides a comparison with data from Lane & Hutchings (2002). Health visitors reported varying rates of all of the techniques in their work with families. The techniques used most often were recording what happens during observations (51.3%), providing specific feedback to parents (56.7%), teaching parents to reinforce alternative behaviours (75.7%), and discussing specific factors in the home environment (83.8%) as part of their work. The techniques used least frequently were providing written summaries of homework tasks (10.8%), and providing written agreements for specific goals (13.5%). Compared to the Lane and Hutchings (2002) data, health visitors in the current trial reported similar levels of use for the other techniques based on the mean usage across all techniques.

There was one significant difference between health visitors that identified two families and those that did not. A significantly larger percentage of health visitors that did not identify two families reported using (always or often) the technique of designing record sheets and asking parents to keep records as part of their work ($p = .040$).

Confidence In Using Techniques

Health visitors were asked prior to and after attending the course how confident they felt that behavioural approaches are helpful to families; that they had sufficient knowledge to work behaviourally with families; and in implementing behavioural programmes (see Table 7.3). At the start of the training, over half (59.5%) felt confident that behavioural approaches were helpful to families with one feeling unconfident. For the other two questions, answers were very mixed with 40.5% feeling confident that they had sufficient knowledge to work behaviourally with families and in implementing behavioural programmes. More of the health visitors felt neutral than unconfident but 24.3% and 27% reported feeling unconfident in their knowledge and implementation skills, respectively.

For comparison purposes, 18 health visitors had both baseline and follow-up data (see Table 7.4) and all delivered the EPaS 2014 programme with a family. There was a significant change in confidence for one of the questions: all felt confident that behavioural approaches are useful to families after attending the course ($p < .001$). For the two other questions, there was a mean increase in knowledge and confidence after attending the training but these changes did not reach significance.

Table 7.2

Baseline questionnaire results

Use of behavioural techniques[1, 2]	**Lane & Hutchings (2002) (*N* = 11) *n (%)***	**All (*N* = 37) *n (%)***	**Identified families (*N* = 29) *n (%)***	**Did not identify families (*N* = 8) *n (%)***	***p***
Record what is happening during observation	3 (27)	19 (51.3)	16 (55.2)	3 (37.5)	.376
Design record sheets and ask to keep records	6 (55)	12 (32.4)	7 (24.1)	5 (62.5)	.040*
Provide written summary homework tasks	5 (45)	4 (10.8)	3 (10.3)	1 (12.5)	.862
Provide written agreements for specific goals	2 (18)	5 (13.5)	5 (17.2)	0 (0.0)	.207
Provide star charts and record sheets	5 (45)	15 (40.5)	11 (37.9)	4 (50.0)	.538
Use observation/records to determine what works best as best reinforcement and punishment	4 (36)	11 (29.7)	9 (31.0)	2 (25.0)	.741
Provide specific feedback based on observations/records	7 (64)	21 (56.7)	15 (51.7)	6 (75.0)	.239
Teach to reinforce alternative behaviour	6 (55)	28 (75.7)	22 (75.9)	6 (75.0)	.960
Discuss specific factors in home environment	7 (64)	31 (83.8)	24 (82.7)	7 (87.5)	.747
Mean use of techniques	5.0 (45)	16.2 (44)	12.4 (43)	3.7 (46)	/

[1] Represent those who answered ‘always’ and ‘often’

[2] Only nine techniques are displayed since one was missing from the Lane & Hutchings (2002) questionnaire

* $p < .05$

Table 7.3

Baseline levels of confidence

Confidence	**All (*N* = 37)**
Behavioural approach useful to families	***n (%)***
Confident	22 (59.5)
Neutral	14 (37.8)
Unconfident	1 (2.0)
Sufficient knowledge to work behaviourally	***n (%)***
Confident	15 (40.5)
Neutral	13 (35.1)
Unconfident	9 (24.3)
Implementing behavioural progs	***n (%)***
Confident	15 (40.5)
Neutral	12 (32.4)
Unconfident	10 (27.0)

Table 7.4

Change in confidence

Confidence	**Baseline (*N* = 18)**	**Follow-up (*N* = 18)**	***p***
Behavioural approach useful to families	***n (%)***	***n (%)***	
Confident	11 (61.1)	18 (100)	< .001*
Neutral	7 (38.9)	0	
Unconfident	0	0	
Sufficient knowledge to work behaviourally	***n (%)***	***n (%)***	
Confident	6 (33.3)	12 (66.7)	.082
Neutral	8 (44.4)	5 (27.8)	
Unconfident	4 (22.2)	1 (5.5)	
Implementing behavioural progs	***n (%)***	***n (%)***	
Confident	7 (38.9)	12 (66.7)	.259
Neutral	8 (44.4)	6 (33.3)	
Unconfident	3 (16.7)	0	

Note: * significant at $p < .001$

Health Visitor Feedback on EPaS 2014 Course

After completing the EPaS 2014 training course, health visitors were asked for feedback regarding several aspects of the course, including the teaching of behavioural techniques and general feedback. Eighteen returned the Follow-up Questionnaire, all of whom had identified and worked with families during the trial (see Table 7.5). The feedback was very positive with a mean of 90.5% rating the teaching of all behavioural techniques as ‘very helpful’ or ‘a little helpful’.

The general course feedback was also positive with all respondents reporting that they would continue to use the methods taught during the course. The majority (88.9%) were satisfied with the written material. These responses were amplified by their comments about the course:

"This has been an excellent course to give me and the parents a framework to tackle behavioural problems."

"Really enjoyed the course and the structure. The tools provided in the literature are flexible and can be tailored to each individual child and family. Powerful stuff, thank you."

Seventy-two per cent were satisfied with the overall course and two-thirds would recommend the course to a colleague. Some of the health visitors' comments put these percentages into perspective. Some thought the course was a little intense for families:

"Difficult to engage high need families consistently to follow EPaS."

"I enjoyed the course very much, however I did find some of the 'homework' and handouts a little complex for my intervention family. I did have to spend a lot of time helping them complete tasks/ questionnaires/ discuss handouts which I felt were aimed at a relatively high educational level. My family did struggle with a lot of the terminology and found some of the questionnaires difficult to complete independently."

Others said that additional support/ experience is needed to implement the intervention effectively:

"I would have liked more 1:1 sessions to discuss goal setting from the observations/ assessments and throughout the intervention phase as this was the most difficult period of the intervention to manage."

"At first I thought the course would have been good for a newly qualified health visitor however I felt you needed some experience in behaviour management to work out what methods to use with a family."

Table 7.5

Feedback on course (N = 18)

Teaching of behavioural techniques on course	**Helpful**[1]
	n (%)
Record what is happening during observation	18 (100)
Design record sheets and ask to keep records	18 (100)
Provide written summary homework tasks	15 (83.3)
Set homework tasks in reading	14 (77.8)
Provide written agreements for specific goals	17 (94.4)
Provide star charts and record sheets	14 (77.8)
Use observation/records to determine what works best as best reinforcement and punishment	17 (94.4)
Provide specific feedback based on observations/records	16 (88.9)
Teach to reinforce alternative behaviour	17 (94.4)
Discuss specific factors in home environment	17 (94.4)
Course feedback	***n (%)***
Overall course	
Satisfied	13 (72.2)
Neutral	4 (22.2)
Dissatisfied	1 (5.6)
Written material provided	
Satisfied	16 (88.9)
Neutral	2 (11.1)
Continue to use methods	
Likely	18 (100)
Recommend to colleague	
Likely	12 (66.7)
Neutral	4 (22.2)
Unlikely	2 (11.1)

[1] Represent those who answered ‘very helpful’ and ‘a little helpful’

Discussion

This study reported feedback from health visitors from across north Wales and Shropshire who undertook training in the EPaS 2014 programme. As part of the training, they were asked to identify two families to work with, one immediately during the training phase and the other six-months later. Recruitment of families was based on parent reported difficulties with a child's behaviour and the child scoring above the clinical cut-off on at least one of the ECBI subscales. Thirty-seven health visitors attended the training, however only 29 identified two families to work with. They reported on their current use of behavioural techniques, confidence in using these techniques, and feedback on various aspects of the course.

There were varied levels of use of behavioural techniques in health visitors' current practice. The nine techniques included in the questionnaire have been identified as important when working with parents of behaviour-disordered children (Forehand & McMahon, 1981; Webster-Stratton & Herbert, 1994) however only four of the techniques were used by more than half the health visitors. This is similar to previous studies using this questionnaire (e.g. Hutchings & Nash, 1998; Lane & Hutchings, 2002). These tended to be the least complex techniques (e.g. providing feedback to parents; discussing factors in home environment). This is surprising considering the large amount of research showing the effectiveness of all of the techniques listed with parents of children with behaviour problems (Furlong et al., 2012; NCCMH, 2013). Only one reported feeling unconfident that behavioural approaches are helpful to families however 24-27% did report feeling unconfident in their knowledge and implementation skills at baseline. Only 41% reported feeling confident in their knowledge and implementation skills, which may contribute to the low level of use of several key behavioural techniques.

Feedback on the EPaS course was positive with a mean of 91% satisfaction with the teaching of the behavioural techniques. All health visitors reported that they would continue to use the methods in their work with families and two-thirds would recommend the course to colleagues. Of the remaining one-third only two reported that they would not recommend the course to a colleague. The majority were also satisfied with the overall course and the written material provide. Only one reported being dissatisfied with the course. These results are similar to previous evaluations of the

EPaS course (Hutchings & Williams, 2013; Lane & Hutchings, 2002) as well as other behavioural trainings (e.g. Bowler & Watson, 1984; Hewitt et al., 1989).

Comments were generally positive. Some suggested that additional support/ experience would have been helpful in implementing the intervention effectively. The initial plan for the project included supervision time for the health visitors undertaking the EPaS 2014 training by local CAMHS based primary care clinical psychologists who were invited to attend the course so that they could provide supervision within the health service. However, due to scheduling difficulties this did not happen. Previous research has shown that clinical supervision during the delivery phase of behavioural interventions is of vital importance for effective implementation (Hutchings et al., 2007; Mihalic, Fagan, Irwin, Ballard, & Elliot, 2002).

Health visitors are able to identify and engage parents of children with behaviour problems (Hutchings, Bywater, Daley, Gardner et al., 2007), however, not all health visitors managed to recruit two families for this project. The main reason given for this was time constraints with some reporting that there was not enough time to recruit families due to work commitments. This is supported by research showing that health visitor caseloads have increased in recent years (Adams & Craig, 2007). Others could not find families who met the inclusion criteria or, when the family did meet inclusion criteria, they were not interested in taking part in the research. Families of children with behaviour problems are more likely to be living in poverty, and have parents who are single, have low educational attainment, mental health problems, etc. (see reviews by Andershed & Andershed, 2015; Farrington & Welsh, 2007; Murray et al., 2010) and was true of the recruited sample (see Chapter 5). These families tend to be hard to reach and difficult to engage in interventions such as parenting programmes, and take time to develop a trusting relationship with professionals (Lundahl, Risser, & Lovejoy, 2006; Reyno & McGrath, 2006). This may be why the health visitors, with so many demands on their time, struggled to identify eligible families to take part in the research.

Implications

This study reported the feedback of health visitors regarding a behavioural training course for working with parents of children with behaviour problems. The majority were satisfied with the course and materials received and found the different components of the course helpful in their work with parents. This is a potentially useful

course for health visitors in the use of core behavioural techniques, which have been shown to be essential in working with parents to reduce child behaviour problems (Forehand & McMahon, 1981; Webster-Stratton & Herbert, 1994). Health visitors are dealing with increasing numbers of children with behaviour problems on their caseloads with many reporting spending more hours on these cases compared to other cases (Wilson et al., 2008). Providing them with a structured way of working with parents of children with behaviour problems using evidence-based principles that are tailored to the family's needs could decrease the time spent on these cases. The addition of clinical supervision during intervention delivery would ensure effective implementation (Hutchings, Bywater, & Daley, 2007; Mihalic et al., 2002) and is recommended by the Royal College of Nursing (2014).

Limitations

There are a number of limitations associated with this study. Firstly, feedback from health visitors about the EPaS 2014 programme could have be influenced by participant response bias whereby participants feel pressured to give answers that are acceptable to the researchers. The use of a qualitative interview by an independent researcher would have provided much richer data and reduced the risk of bias, however due to restrictions in time and resources this was not possible. Secondly, the measures used were not validated. They are incorporated into the EPaS 2014 programme however no validation data is available meaning that responses by health visitors may not reflect their views. Some questions may have been misread or misinterpreted. Thirdly, this was the first time the health visitors had delivered the EPaS 2014 programme and due to the lack of clinical supervision available for them, the programme may not have been delivered as intended and may have impacted on the results. Including measures of implementation fidelity, the availability of clinical supervision, and the opportunity to practice delivering the programme before participating in the trial would ensure the programme was delivered as intended by the developer. Fourthly, the sample for the study was very small. The intention for the trial was to recruit 60 health visitors who would each identify two families with behaviour problem children. Forty-nine health visitors consented to take part, however only 37 attended the training, 29 of whom identified two families. A variety of reasons were given for not attending the training including lack of time, job change, and personal issues. Fifthly, there was a lack of follow-up for the use of behavioural skills questionnaire. It would have been interesting

to see if the rate of use of techniques would have changed following attendance on the EPaS training.

Conclusions

Health visitors are ideally placed to deliver interventions to parents of children with behaviour problems (Lowe, 2007). They are dealing with increasing caseloads of children with behaviour problems (Wilson et al., 2008) and, as this study has shown, some report feeling ill-equipped to deal with them. This study reported feedback from health visitors on a behavioural training course designed to be delivered to parents of young children with behavioural problems. Overall, health visitors were not using many of the known effective behavioural techniques at baseline suggesting a potential gap in training. General feedback after the course was positive with the majority reporting the components of the course to be helpful in their work with families and high levels of satisfaction with the course itself and the materials provided. Overall, improvements were reported in levels of confidence with a significant increase in confidence that behavioural approaches are helpful to families. All health visitors reported that they would continue to use the methods taught during the course. Therefore, the EPaS 2014 programme is a potentially effective means of increasing health visitors' knowledge and use of core behavioural skills that have been shown to be important in targeting child behaviour problems (Forehand & McMahon, 1981; Webster-Stratton & Herbert, 1994).

Chapter 8

General Discussion

Thesis Outline and Objectives

The main objective of the thesis was to evaluate an individually delivered parenting intervention, the Enhancing Parenting Skills (EPaS) 2014 programme. A pilot randomised controlled trial (RCT) was conducted across North Wales and Shropshire with health visitors delivering the programme to parents of children aged 30-60 months with significant behaviour problems. The first study was a systematic review of individually delivered parenting programmes for parents of young children with behaviour problems. The second study reported the main outcomes of the trial in terms of child behaviour, parental behaviour, and parental mental health. The third study reported on the feedback of the health visitors that participated in the project. The following section provides a summary of the findings from each of these three studies.

Thesis Findings

Study one – Individually delivered parenting programmes for parents of young children with behaviour problems: a systematic review.

Behavioural parenting interventions are effective in reducing child behaviour problems (Furlong et al., 2012; Shelleby & Shaw, 2014; Tully & Hunt, 2015), however they are not all effective for all families, with some more effective than others with high-challenged families. Economically disadvantaged families, parents with depressive symptoms, and families with more severe behaviour problems benefit less from some programmes (Lundahl, Risser, & Lovejoy, 2006; Reyno & McGrath, 2006), although that is not the case for all programmes. Individually delivered parenting programmes have been suggested to be more suited to disadvantaged families because they are easier for families to access and can be tailored to the family's unique situation (Lundahl et al., 2006). The first study (Chapter 3) was a systematic review examining the effectiveness of individually delivered behavioural parenting interventions for parents of children aged two to four years with behaviour problems. Inclusion criteria were: behavioural parenting programme; parents of children aged two to four years at baseline; children with relevant diagnosis (e.g. Conduct Disorder) or scoring above cut-off on a standardised questionnaire (e.g. Eyberg Child Behaviour Inventory [ECBI]; Eyberg, Boggs, & Reynolds, 1980); inclusion of comparison control group; participants randomly allocated to conditions. The outcomes of interest included measures of child behaviour, parental behaviour (positive and negative), parental mental health, and parental competence. Study quality and fidelity were also examined. Nine electronic

databases were searched yielding a total of 12,679 relevant articles along with 75 additional articles from reference lists and other reviews. Of these, 185 articles were selected for full-text review and 10 papers describing six studies reporting outcomes for four different interventions met the inclusion criteria.

The quality of the studies was adequate, however there were lower scores on external validity. Reporting of methods of implementation fidelity was good. In terms of outcomes, all of the studies included a child behaviour outcome, five included parental mental health, three included negative parenting behaviour, four included positive parenting behaviour, and four included parental competence as an outcome. Overall the findings suggest that individually delivered behavioural parenting programmes are effective for child behaviour, parental behaviour (positive and negative), and parental competence when compared to control comparison conditions. The results for parental mental health were mixed. However, the results should be interpreted with caution considering the small sample of eligible studies. This highlights the need for more research with individually delivered parenting programmes, which may provide an alternative for disadvantaged families.

Study two –Childhood conduct problems: examination of a sample of families recruited from health visiting caseloads.

Many characteristics associated with the development of behaviour problems in children have been identified (Farrington & Welsh, 2007). Problematic parenting has been identified as a key risk factor (Hoeve et al., 2009) and is modifiable (i.e. can be changed), which opens up the possibility of intervention. The second study (Chapter 5) described a sample of families recruited by health visitors from their caseloads in terms of baseline characteristics. The families had been recruited to a trial evaluating an individually delivered parenting programme for parents of young children with significant behaviour problems. Characteristics were split into three categories: those related to the child, parent, and family/ social circumstance.

Children in the sample had high levels of co-occurring hyperactivity symptoms with 87% of the sample scoring above the clinical cut-off on the Abbreviated Conners (Conners, 1994). Some parental characteristics seen in the sample were young age at birth of first child compared to UK averages, high levels of problematic parenting practices, and high levels of depression. Family/ social circumstances included higher numbers of single parents compared to UK averages, very high numbers living in poverty (over 90%), and high levels of unemployment (52%) compared to UK averages.

Cumulative characteristics were also examined and found to be relatively high with the majority of families reporting four or five factors. Overall, this was a very high-risk sample of families displaying a range of characteristics known to compromise parenting, which is associated with the development of child behaviour problems. The children in the sample were young and therefore families were unlikely to be able to access specialist help from Child and Adolescent Mental Health services (CAMHS). This means that health visitors are left to support families in very challenging circumstances. Elevated risk in children can potentially lead to longer-term poor outcomes therefore offering early support to families can be an effective way of breaking the cycle of risk.

Study three – the effectiveness of an individually delivered parenting programme for parents of children with behaviour problems: a pragmatic, pilot randomised controlled trial.

The third study (Chapter 6) reported the main outcomes from the evaluation of the EPaS 2014 programme. A pragmatic, pilot RCT was conducted in three centres across North Wales and one centre in Shropshire (see Chapter 4 for study protocol). Twenty-nine health visitors participated in the study. Each identified two families reporting clinical level difficulties with a child's behaviour to work with (N = 58). Families were randomised within health visitor meaning that each had an intervention and a wait-list control family. Outcomes included child behaviour, parenting skills, parental mental health, and an observation of parent-child interaction. Results for the main analyses showed a significant reduction in child behaviour problems based on the ECBI Intensity scale for families in the intervention condition. Analyses were also conducted for families in the intervention condition who completed all three phases of the EPaS programme. Results showed a significant reduction in child behaviour problems on both the Intensity and Problem scales of the ECBI for families in the intervention condition. Effect sizes were very large (d = 1.30 Intensity; d = 1.53 Problem). Effect sizes across the secondary outcomes ranged from small to large, with two secondary outcomes (Abbreviated Conners and observed positive parenting) showing large effect sizes favouring the intervention condition. However, due to the small sample size these did not reach significance. The trial experienced a number of difficulties including poor recruitment rates and low retention for the follow-up data collection visits. Despite these, the results are promising and warrant further investigation in a larger RCT study.

Study four – health visitor feedback on a structured, behavioural training for working with families of children with behaviour problems.

The fourth study (Chapter 7) reported health visitor feedback following attendance on the structured, behavioural training course, known as the EPaS 2014 programme that was the basis of the intervention reported in chapter six. Twenty-nine health visitors completed the training and identified a family to work with during the course. Health visitors' current use of behavioural techniques varied with some techniques used frequently (e.g. discussing factors in the home environment – 84%) and other techniques used less frequently (e.g. provide written summary of homework tasks – 11%). This was similar to frequencies reported in a previous study (Lane & Hutchings, 2002). Health visitors were asked to rate the usefulness of several aspects of the training. Overall the feedback was positive with a mean of 91% rating teaching of behavioural techniques as helpful. General course feedback was also positive, however some health visitors reported that clinical supervision would have been useful during delivery of the intervention. Health visitor ratings of confidence that behavioural techniques are useful to families significantly increased after attendance on the training.

Relevance of Research Findings and Implications

Chapter three established promising evidence for individually delivered parenting programmes for parents of young children with behaviour problems. The review only identified six studies meeting the inclusion criteria. Studies were excluded due to a number of reasons including lack of control condition and/or randomisation. The gold standard for programme evaluations are RCTs (Flay et al., 2005) whereby participants are randomly allocated to either an intervention condition or a comparison/ control condition. The UK Government recommends the use of evidence-based programmes to support parents and children (Allen, 2011; Allen & Duncan-Smith, 2009). Individually delivered parenting programmes are potentially an effective way of teaching parents how to manage child behaviour problems, however more research needs to be conducted due to the limited number of rigorous evaluations conducted with these programmes with parents of young children.

Many factors are associated with the development of childhood behaviour problems (Farrington & Welsh, 2007) and the families recruited to the trial support this (see Chapter 5). Families who were reporting having a young child with behaviour problems displayed a number of characteristics known to compromise parenting across

all three categories: child, parent, and family/ social circumstance. Previous evaluations of parenting programmes have also found this pattern (e.g. Hutchings, Bywater, Daley, Gardner et al., 2007; McGilloway et al., 2011; Nixon, Sweeney, Erockson, & Touyz, 2003; Sanders, Markie-Dadds, Tully, & Bor, 2000). Identifying families with these characteristics for poor child outcomes may be an effective way of targeting families of children at risk of longer-term poor outcomes, particularly since some of these factors may be evidenced before significant child behavioural problems emerge. Parenting is a key risk factor in the development of child behaviour problems (Hoeve et al., 2009) and changing parental practices can reduce child behaviour problems (Furlong et al., 2012), regardless of the presence of other risk factors (Forgatch & DeGarmo, 1997; Gardner, Hutchings, Bywater, & Whitaker, 2010). Chapter five also highlighted the fact that health visitors work with very high challenged families on their caseloads and are ideally placed to provide intervention (Lowe, 2007), however it needs to be evidence-based programmes for which they have appropriate training and support. Identifying protective factors could also be an effective way of ensuring that services are being targeted most effectively since recognition of effective parenting would suggest low risk for poor child outcomes even when other risk factors are present (Andershed & Andershed, 2015). Providing tailored interventions that target a family's individual needs are an effective way of reducing child behaviour problems (Lundahl et al., 2006; Reyno & McGrath, 2006).

Chapter six reports the results of a pragmatic, pilot RCT of an individually administered parenting intervention (EPaS 2014) delivered by health visitors. Families in the intervention condition reported reductions in child behaviour problems compared to families in the control condition. The effect was stronger for families who had completed the three phases of EPaS 2014 programme, and this was also reflected in the large effect sizes for these families. Other studies evaluating individually delivered parenting programmes have found similar results (e.g. Axelrad, Garland, & Love, 2009; Lane & Hutchings, 2002; McCabe & Yeh, 2009; Nixon et al., 2003). The outcomes are promising considering the small sample of families recruited to the trial and completing the programme. Recruitment and retention in the trial was poor suggesting that more emphasis should be placed on processes that aid recruitment and retention when working with a disadvantaged population (e.g. Axford, Lehtonen, Kaoukji, Tobin, & Berry, 2012; Hutchings, Gardner, & Lane, 2004; Ingoldsby, 2010) and in resourcing health visitors with time, training, and support (Lowe, 2007). This is a potentially

effective programme targeting parents of young children with identified behaviour problems, however a larger, definitive trial now needs to be conducted to confirm its effectiveness.

The final study (Chapter 7) supports the fact that health visitors can deliver behavioural interventions to families on their caseloads. Chapter seven demonstrates the acceptability of the programme to health visitors. Feedback from the health visitors was positive with all reporting that they would continue to use the methods taught during the programme. Some of the main duties of a health visitor are to promote child and family mental health and support parenting (Lowe, 2007). Core behavioural techniques are essential when working with families to encourage positive parenting and reduce child behaviour problems (Webster-Stratton & Herbert, 1994), and the EPaS 2014 programme is a potentially useful intervention for health visitors to use as part of their work. This is timely considering that health visitors are reporting increasing numbers of children on their caseloads with behaviour problems (Wilson et al., 2008). Some health visitors reported the need for clinical supervision during programme delivery. The addition of clinical supervision, as recommended by the Royal College of Nursing (2014), could ensure effective implementation by more health visitors, a factor that has been shown to affect programme outcomes (e.g. Furlong et al., 2012; Hutchings, Bywater, & Daley, 2007; Kaminski, Valle, Filene, & Boyle, 2008).

Present Research: Policy Implications

The recognition that living in disadvantaging circumstances presents an increased risk of compromised parenting has contributed to political interest in targeting high-risk communities and parents of young children (Allen, 2011; Allen & Duncan-Smith, 2009). A number of initiatives have been funded with the intention of providing children with the best start in life, including the Sure Start programme (Belsky, Barnes, & Melhuish, 2007; Hutchings et al., 2007), which provides universal access to services, such as parenting support, for parents and children living in socioeconomic disadvantaged areas. The use of evidence-based parenting programmes is important (Allen, 2011) but there is limited evidence for individually delivered parenting programmes with parents of young children displaying behaviour problems (see Chapter 3). The findings in chapter six of this thesis showed promising outcomes for an individually delivered parenting programme, developed from evidence-based techniques. It suggests that this programme could be a useful addition to health visitors'

work with high-risk families, including not only those who live in Sure Start areas where service provision may be greater, however more definitive research needs to be conducted to establish the progamme's effectiveness.

One of the responsibilities of a health visitor is to provide early parenting support to families (Lowe, 2007). Health visitors are working with very high-risk families (see Chapter 5), however they report feeling ill-equipped to work with them (see Chapter 7). High-risk families can be difficult to engage in interventions so providing health visitors with an effective means of working with these families could be beneficial and cost effective. Common components of effective programmes (content, process, and access) include working collaboratively with families and undertaking a detailed assessment (see Chapter 2). The EPaS 2014 programme is based on these common components and the results of the present study found that health visitors could effectively implement the programme with families of young children with significant behaviour problems. Rates of engagement with the programme were high and reflect the importance of the parent-practitioner relationship. Health visiting service managers could offer training in programmes such as EPaS 2014 to health visitors as a means of engaging hard to reach families.

Critical Evaluation

This project was an enormous undertaking for a PhD thesis considering the limited time and resources available, and consequently there were a number of challenges that have a bearing on both the scale and scope of the study and the interpretation of the results. These challenges included health visitor inexperience, study design, implementaion fidelity, differences from previous evaluations, and biased participant feedback.

The experience of the health visitors both in terms of their experience of health visiting and their experience of delivering a structured behavioural programme should be considered when interpreting the results. Health visitors recruited to the trial were generally relatively inexperienced with a median of 4 years working as a health visitor (see Chapter 7). This was very different from the Lane and Hutchings (2002) evaluation of the EPaS programme in which health visitors reported means of between 9 and 11 years experience for the two groups of health visitors. The relationship between health visitors and their clients is of utmost importance, especially when working with vulnerable families (Whitaker, 2014), in order to develop an understanding of the

family circumstances and when introducing intervention programmes. Vulnerable families are much harder to engage in intervention programmes (Lavigne et al., 2010; Reyno & McGrath, 2006). Because the health visitors were generally relatively inexperienced, it is possible that they may not have had time to develop the skills needed to form strong, trusting relationships with parents on their caseloads which may have impacted on parents' engagement with the intervention. Initial engagement with the EPaS 2014 programme was high (93%) however there was wide variabilty in dosage levels across the intervention phase with only 52% receiving the full dose (see Chapter 6). Feedback from the health visitors themselves put this in context with one reporting the difficulty in engaging vulnerable families and another suggesting that the programme would be more suitable for more experienced health visitors, especially ones with prior expereince of using behavioural management strategies (see Chapter 7). More experienced health visitors may be better equipped to deliver the intervention. The analyses in chapter six explored whether health visitor experience had any effect on the results in a sensitivity analyses and found no effects, however it was a very small sample and there were more inexperienced health visitors than experienced ones. There was some variability within the results at follow-up, reflected in the larger standard deviations across the measures, which may indicate differences in intervention delivery. Future studies could explore the role of health visitor experience in the delivery of the EPaS 2014 programme.

The design of the RCT was not ideal with each heath visitors identifying two families with whom to work, one of whom was randomised into the intervention condition and the other to the treatment as usual, wait-list control condition. This means that parents in the control condition still had access to their health visitor if needed. This design was implemented due to the restrictions in time and resources associated with a PhD project and in order to try to maximise the recruitment of families. It also meant that the training only had to be delviered to the one set of health visitors who could then implement the programme with both internvetion and control families. To monitor the number of visits received by families, health visitors were asked to keep records. These records show that seven families from the control condition did receive support from their health visitor during the intervention phase. It is also important to note that six health visitors failed to return information on the number of visits to control families therefore more families in the control condition may have received visits during the intervention phase (see Chapter 6). It is not possible to know whether the health visitors

used some of the skills taught on the EPaS 2014 course with their control families. Follow-up data for the families in the control condition generally did not change much from their baseline scores however some measures, the Beck Depression Inventory and observed negative parenting in particular, showed reductions at follow-up which may be explained by the visits from their health visitor during the intervention phase. This is particularly powerful when considering that seven of the 17 families (42%) available at follow-up had received visits from their health visitor (see Chapter 6). In order to reduce the chances of contamination, future research should use a design whereby health visitors were the unit of randomisation as opposed to individual families. This would mean that half of the health visitors would receive training in the EPaS 2014 programme initially and others would wait before receiving training, ensuring no contamination.

The implementation of a programme can have significant effects on outcomes (Alvarez, Rodrigo, & Byrne, 2016; Furlong et al., 2012; Kaminski, Valle, Filene, & Boyle, 2008), therefore monitoring implementation to ensure that an intervention is being delivered as intended is important. This can be done using a number of different methods, including checklists for content, session filming to assess delivery skills, and supervision sessions to discuss any issues with content/programme delivery. Mihalic, Fagan, Irwin, Ballard, and Elliott (2002) describe four categories related to implementation fidelity and each will be discussed in turn in relation to the current project.

1. Adherence (use of manual, monitoring of content delivery, appropraite staff training, delivered to appropriate population): all health visitors in the current study received an EPaS 2014 programme manual detailing intervention content and delivery, however there was no measure to monitor adherence to the manual. All health visitors received three days of training. These were delivered one month apart which enabled some supervision as part of the training process, however clinical supervision sessions were not available. The programme was delivered to the appropriate population (parents of young children displaying behaviour problems) and in the intended location (parents' homes).
2. Exposure (number of sessions delivered, session length and frequency): health visitors were asked to keep records of the number and frequency of sessions delivered with their families, however some did not return this information (21%). Sessions were approximately one hour in length.

3. Quality of delivery (monitoring of delivery): there was no measure of intervention delivery quality.
4. Participant responsiveness (engagement): initial engagement levels were high (93%) however intervention dosage varied with only 52% completing all three phases of the EPaS 2014 programme. Study attrition rates were also high with 38% lost to follow-up.

Based on the information above, it is not possible to say whether health visitors delivered the intervention as intended. The lack of supervision is particularly problemmatic since this is such an important aspect of any intervention delivery (Flay et al., 2005). Clinical supervision had been intended and agreed for the project; local clinical psychologists were going to provide supervision within their locality, however, with the exception of one site, due to scheduling difficulties, this did not happen. It is a significant limitation and has implications for the interpretation of the results. Firstly, there is more variability in the follow-up data, compared to the baseline data, suggesting a large range of change in scores. There were differences in the dosage of intervention received by families in the intervention condition however this does not explain the variability since the pattern of larger standard deviations at follow-up is still present for the per-protocol analyses, which only included the families that received the full dose of the intervention. This suggests that something else is affecting the scores which could be differences in intervention delivery. Secondly, compared to previous evaluations of the EPaS programme, despite good effect size differences favouring the intervention, there was a lack of significant improvements for the secondary measures. This, again, could be attributed to differences in intervention delivery. Eames and colleagues (2009) found that the amount of praise and active listening that group leaders gave parents during group parenting sessions was significantly related to the amount of praise and reflection that parents gave their children during a free play observation. Since there was no structured monitoring of intervention delivery quality, it is possible that health visitors' prior learning and behaviour/expectations may have affected the results. Future research should ensure the incorporation of implementation fidelity measures to monitor the quality of delivery as well as the inclusion of supervision sessions.

Another issue related to the problems with implementation fidelity was the fact that this was the first time that any of the health visitors had delivered the EPaS 2014 programme. Many RCTs of intervention trials pilot the intervention and provide practice for intervention delivery to ensure that facilitators are familiar with the content

and have the skills needed for implementation before delivering it as part of an RCT (Hutchings, Bywater, & Daley, 2007). This was not possible for the current trial due to time restrictions associated with a PhD project. This creates further uncertainty over the delivery skills of the health visitors and whether the intervention was delivered as intended. Combined with the lack of fidelity monitoring, supervision, and the use of inexperienced health visitors, this is a significant limitation to the study and makes the interpretation of results problemmatic. Future studies attempting to replicate the findings would be unaware of how much of the intervention families received or whether they received the intended intervention at all. Consequently, the chances of replicating the results are limited. Having said that the EPaS 2014 programme is a process and the intervention does not have a fixed length but depends on the time taken to reach the client's goals. Feedback suggested that for some parents the assessment process was sufficient for them to identify changes that they needed to make, much as occurs in the Family Check-Up intervention (Dishion et al., 2008; Shaw et al., 2006).

The trial is based on previous research with the EPaS programme (Lane & Hutchings, 2002) and a later adapted version (Hutchings & Williams, 2013). However, the version of the programme used in the current trial (EPaS 2014) is different from the previous studies primarily in terms of the training provided. In the Lane and Hutchings (2002) study, training for the programme was conducted in 12 weekly sessions. During the course, health visitors were given assignments to complete with a family that enabled them to work through the stages of the programme as they were being taught. In the Hutchings and Williams (2013) study, the training was delivered in two days approximately eight weeks apart. Attendees were expected to identify a family to work with after completion of the first day of training (assessment procedures) and to bring the information about their family to the second day of training (case analysis and intervention strategies). The three day training for the current project was one session for each programme component (assessment, case analysis, intervention strategies) delivered each month for three months. This new training schedule was used because the schedule in Lane and Hutchings (2002) was too intensive and in the Hutchings and Williams (2013) study it was insufficient and also not targeted on professionlas with good child development experience, however it was not known whether this new training schedule would be sufficient to effectively train attendees. Another difference was the attendees themselves. Health visitors were used in the Lane and Hutchings (2002) study but staff from varied backgrounds were recruited for the Hutchings and

Williams (2013) study. Taking these differences into account, it would have been better to conduct a small feasibility trial before the pilot RCT to explore whether the training schedule was adequate and whether the staff had appropriate knowledge and skills to deliver the intervention effectively. A feasibility trial may also have highlighted other challenges discussed above (e.g. the need to address implementation fidelity, consider health visitor experience and provide additional supervision) and these could have been dealt with before commencing a pilot RCT study.

A feasibility study would also have been useful for collecting family and health visitor feedback about the EPaS 2014 programme using qualitative interviews. In the current study, parent satisfaction was collected using a self-report questionnaire. Parents completed these at the final EPaS 2014 session with their health visitor. Satisfaction levels were high (see Chapter 6), however the ratings may be subject to participant response bias. Parents may have felt pressured to give positive answers to please their health visitor, which could mean that their reponses may not accurately reflect their views. This is also applicable to the health visitor feedback about the programme. Qualitative interviews with an independent researcher would have been more useful since they would provide a richer source of data and would have reduced the risk of bias. Due to restrictions in time and resources, conducting qualitative interviews was not possible for this current project. Interviews would have also been useful for exploring the reasons for study drop-out and the differences in treatment dosage so that strategies for optimising engagement and retention could be incorporated. This information could have been used to inform future evaluations of the programme.

In summary, this was a very ambitious project considering the time and resource restrictions. A number of problems were evident that were not dealt with during the trial. These included health visitor inexperience, potentially biased feedback, issues with implementation fidelity, and problems with the study design. There were also significant differences between the previous evaluations and the current one. If an initial feasibility pilot study had been conducted it would have enabled an examination of process factors such as recruitment, retention, implementation fidelity, and satisfaction that may have highlighted some of the problems seen in the current trial and given an opportunity to incorporate strategies of dealing with the issues in a larger pilot RCT. Nevertheless, the trial did find significant differences between families in the intervention and control conditions in terms of reductions in child behaviour problems, despite limited time and resources. Large effect sizes were reported for a number of

secondary measures suggesting that the EPaS 2014 programme is a potentially effective intervention for parents of young children with behaviour problems, however further research needs to be conducted to deal with the problems mentioned above.

Present Research: Strengths

This thesis reports on the first RCT of the EPaS 2014 programme. Previous evaluations have been limited by lack of randomisation (Lane & Hutchings, 2002) and/ or no control condition (Hutchings & Williams, 2013). The trial demonstrated promising results with significant reductions in child problem behaviour with large effect sizes for observed positive parenting and the Abbreviated Conners, a medium effect size for change in depression and low effect sizes for other secondary outcomes although none of the secondary outcomes achieved statistical significance. A larger, definitive trial now needs to be conducted to further examine the effectiveness of the programme and its feasibility as a tool for health visitors.

This trial used a range of measures including parent-reports of child behaviour, parenting skills, and parental mental health, as well as an independent observation of parental behaviour. Child behaviour was also independently observed but due to the low frequency of occurrences the variable could not be normalised. Researchers who were blind to participant condition allocation collected all data. Over 20% of observations were double-coded by a blind, second coder. Inter-rater reliability for the observations was high with intra-class correlations above 0.9 for the combined categories.

Present Research: Limitations

One limitation is the design of the study. Due to funding and time restrictions, the design chosen for the study involved each health visitor recruiting two families who were then randomised to either the intervention or wait-list control conditions. Health visitors continued to have control families on their caseloads and were potentially using EPaS 2014 principles with them. This could have led to contamination issues as discussed in chapter six. The ideal design would be a cluster RCT whereby research sites would be randomised to either intervention or control so that every health visitor within a site would be in the same condition, minimising the contamination issue. However, cluster RCTs are expensive and time consuming and this was not feasible for this project.

Secondly, the findings in this thesis are based on a small sample of families with children aged two to four years displaying behaviour problems. Fifty-eight families were recruited, however this was less than half the intended sample of 120. Similarly, 49 health visitors were initially recruited but only 29 managed to identify two eligible families on their caseloads. A number of reasons were reported including time constraints and difficulties in identifying eligible families. Ninety-three per-cent of families engaged with the programme but treatment dose levels varied with 52% receiving the full dose of the intervention. Retention in the project was also poor with 38% of families lost to follow-up data collection.

Thirdly, due to funding and time restrictions, it was not possible to collect long-term follow-up data. This could have enabled examination of potential maintenance effects for the families in the intervention condition.

Fourthly, it was initially intended and agreed that health visitors would receive local clinical supervision from primary care clinical psychologists within their health service as part of the intervention. However, this did not happen due to organisational changes within the service. Health visitors did receive some supervision from the EPaS trainer during the second and third days of training, involving the discussion of data collected about families by the health visitors, but many commented that more would have been helpful, especially during the intervention phase of the EPaS 2014 programme, as stated in chapter seven.

Future Directions

The present research suggests that the EPaS 2014 programme is a potentially effective intervention to be delivered by health visitors to reduce behaviour problems in young children scoring above the cause for concern cut-off on the ECBI. A further, larger RCT needs to be conducted to fully explore the effectiveness of the EPaS 2014 programme for these families, including a larger sample of health visitors and families. A cluster RCT would eliminate the problems of contamination, however a large budget would be needed to conduct such a trial as well as meticulous planning since such trials are expensive and time consuming to conduct.

One of the reasons given by health visitors for withdrawing from the study was a lack of time to attend the EPaS 2014 training and to implement the programme. Future research could examine different methods of programme delivery that could lead to improved recruitment and retention rates. For example, online training programmes are

widely used in the health service (Wong, Greenhalgh, & Pawson, 2010). They could provide a means of delivering some of the content and overcome some barriers associated with traditional, face-to-face training including lack of time and geographical isolation because Internet-based programmes can be flexible in terms of when and where an individual can access them (Carroll, Booth, Papaiannou, Sutton, & Wong, 2010). However, they would still need time allocated to undertake training and programme implementation as part of their everyday role.

Regardless of method of delivery, clinical supervision has been identified as important for effective programme delivery (Furlong et al., 2012; Royal College of Nursing, 2014; Wong et al., 2010). Future research would need to ensure the provision of clinical supervision for health visitors implementing the EPaS 2014 programme. Using a model similar to parenting programmes such as the Incredible Years®, whereby a mentor provides supervision for individuals delivering the programmes within a given area (see Hutchings, Bywater, & Daley, 2007), could potentially lead to the embedding of the EPaS 2014 programme within a service. It is currently planned to provide EPaS 2014 trainer training to CAMHS-based primary care clinical psychologists and/ or senior/ experienced health visitors who could then train and supervise health visitors in their locality.

Final Conclusions

Parenting programmes are effective interventions for reducing behaviour problems in young children and improving parenting skills (e.g. Furlong et al., 2012; NCCMH, 2013). However, some families, particularly those who are disadvantaged, are more likely to be affected by barriers to treatment such as finance, transport, and health (Lavigne et al., 2010; Reyno & McGrath, 2006) and/ or lack the self-confidence to attend a group-based programme. This means that many families fail to access effective group- or clinic-based programmes. Delivering programmes on an individual basis in families' homes can eliminate many of the associated barriers and may therefore be more appropriate for these families (Lundahl et al., 2006; Reyno & McGrath, 2006).

This was the first RCT of the EPaS 2014 programme, an individually administered behavioural intervention delivered by health visitors to parents of young children with behaviour problems. This thesis explored the current evidence for individually delivered parent programmes for parents of young children in the form of a systematic review and found only a small number of eligible studies, which suggests

this is an under researched area. The thesis then described the methodology for a pragmatic pilot RCT of the EPaS 2014 programme followed by a description of the recruited sample in terms of the child, parental, and family/ social risk factors associated with the development of childhood behaviour problems. The sample showed several of the associated risk factors including more male children (child gender), high levels of hyperactivity (comorbidity), dysfunctional parenting practices, and high levels of poverty. Findings for the evaluation of the EPaS 2014 programme were promising with significant reductions in levels of reported child behaviour problems, especially for families who completed the intervention, promising effect size changes on a range of secondary outcomes, and health visitors rated the programme highly. The findings support previous small-scale evaluations of the EPaS programme, but are limited by a small sample.

Further research is required in order to corroborate the findings of this evaluation. A larger, definitive RCT is needed to confirm the effectiveness of the EPaS 2014 programme in improving child behaviour and parenting practices. Close attention should be paid to the limitations discussed above, including recruitment, retention and the provision of clinical supervision. Further evaluations could also examine different modes of EPaS training delivery to health visitors.

This thesis has been a significant undertaking and with hindsight I would have paid closer attention to recruitment. Many of the health visitors struggled to find eligible families on their caseloads, citing lack of time and a lack of children scoring above the clinical cut-off for behaviour problems. Using other health and social care staff such as nursery nurses and school nurses during the recruitment process may have led to an increased sample size. However, time constraints for health visitors to deliver the intervention was also a significant problem, so greater management commitment would be needed to ensure health visitors had adequate time to implement the programme effectively. There have been many positives from the project and I have learned a great deal through the process. In particular I recognise the need to support families of children with behaviour problems. Living with a young child displaying behaviour problems is a challenge in itself but it can also lead to other problems such as parental mental health difficulties and family conflict. For the child it predicts difficulties in school, including poor academic attainment, peer problems, and long-term problems such as criminality and drug misuse. I also learned the importance of evaluating

interventions to ensure that families are getting the best options for managing their child's behaviour problems and what constitutes a rigorous trial design.

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Appendices

Appendix A
EPaS overview

Enhancing Parenting Skills (EPaS) Programme rationale and overview

Every child and family situation is unique and thorough assessment leading to individualised support is the cornerstone of the EPaS programme. This is based on functional analysis of parent child interactions with families that are experiencing challenges with their children. EPaS provides a structured and systematic, evidence based, approach to addressing child behavioural problems with detailed step-by-step processes for assessment, case analysis and intervention.

The EPaS programme is an individual one-to-one, home delivered, parenting programme based on learning theory that employs functional or behavioural analysis to identify what is maintaining problem behaviours (Hanley, Iwata & McCord, 2003; Mallot, Mallot & Trojan, 2000). It was developed for delivery by people that work with the parents of young children who present with behavioural challenges who, without support, are at significant risks of poor long term outcomes (Farrington & Welsh, 2007). It addresses the need for early intervention and focuses on parents as the change agents because they have the most impact on, and contact with, their children and the evidence suggests that the problematic behaviour demonstrated by these children is likely to be being maintained by parental behaviour.

EPaS has three phases, i) assessment of the history of, and current functional relationships for, the problematic child behaviours, ii) the development of a case analysis to identify target replacement behaviours and potential reinforcers, and iii) an intervention phase.

The assessment, case analysis and intervention strategies have their foundation in both the scientific basis of learning theory in general and over fifty years of evidence-based behavioural work with parents of children with developmental and/or behavioural problems. In terms of parenting interventions EPaS draws in particular on the work of Wahler and colleagues (1965), Patterson (1982), Forehand and McMahon (1984) and Herbert (1987). The theoretical underpinning strategy used in EPaS is functional analysis (Hanley et al., 2003), a strategy used within learning theory to identify the environmental factors that contribute to, and maintain, the child's problematic behaviour (Patterson, 1982), based on the principle that behaviour is repeated when it is reinforced (Cooper, Heron & Heward, 2007).

The assessment phase of the EPaS programme, that generally takes three home visits, identifies the problematic behaviours, their triggers and their reinforcers. This information is then used to establish socially appropriate alternative behaviours by

extinguishing problem behaviours through the removal of reinforcement and at the same time prompting and reinforcing alternative more adaptive behaviours. This individual analysis of the functions of specific behaviours is important because the same topographical child behaviours, for example a tantrum, can serve a number of different functions both for the same child or in different children. Typical behaviours such as tantrums or aggressive behaviour can be negatively reinforced by the removal of a command or aversive situation or positively reinforced by attention or some form of tangible reinforcer such as an ice cream. The assessment phase identifies the specific reinforcers associated with the problem behaviours.

Assessment

Assessment starts with a description of the problem history. The functional analysis evidence comes from a detailed assessment of current circumstances designed to elicit the function of problem behaviours. This is achieved through use of three tools

i) A typical day interview with parents that asks for a detailed description of typical activities throughout the day to establish pressure points and triggers for problem behaviour during the day,

ii) parent kept records based on the antecedent (what was happening at the time, who present, what was being expected of the child), behaviour (how the child behaves), consequence (what happens in response to the child's behaviour). This ABC paradigm identifies the likely triggers for a problem behaviour and what appears to be maintaining it (copy enclosed)

iii) an observation of a parent-child interaction based on a play activity to identify common patterns of parent responses to the child's behaviour with particular interest in the frequency of parental praise and positive attention for appropriate child behaviour (sample enclosed).

The assessment phase also includes parental responses to questions about "what my child can do" and "things my child enjoys" (both enclosed). The assessment phase identifies both reinforcers associated with the problem behaviours and other potential reinforcers.

Behavioural analysis of parent-child interactions has identified some of the specific parenting behaviours associated with problematic child behaviours, with parental inconsistency in responding, that intermittently reinforces problematic

behaviour, as a key parental deficit. Intermittently reinforced behaviours are more resistant to extinction than those that are continuously reinforced (Cooper et al., 2007).

A key component of assessment is the use of the Goldiamond Constructional approach questionnaire, a behaviour analytic approach that sees problem behaviours as logical but costly and focuses on the identification of new, less costly, child behaviours. This requires the identification of child, parent and family assets and skills that support the establishment of new behaviours. The constructional approach to therapy (Goldiamond, 1974, 1975) is collaborative process for helping people to establish new behaviours that informs the EPaS programme. This was developed by Goldiamond and its goal is to develop new replacement behaviours rather than to eliminate unwanted problematic behaviours. Goldiamond saw behaviours or symptoms, that caused distress, as functional or serving a purpose in that they successfully produced a desirable or rewarding consequence, but often at a distressing cost. He describes the therapeutic task as helping people to construct new adaptive ways of producing the same consequences or rewards. In this approach, people are encouraged to identify what they want to achieve, rather than what problems they want to eliminate, and to build on their own strengths and skills to take them in the direction in which they would like to go. An adapted version of a structured questionnaire developed by Goldiamond (attached) is used during the initial interview with clients to establish the outcomes that the parents want and to identify their strengths and social history. The Constructional Questionnaire which was developed for work with adults has been adapted for use with families in the EPaS programme.

Formulation

The standardised assessment procedure leads to a structured formulation process, the case analysis. This draws on all of the assessment information in formulating a tentative analysis of the history and functions of the problem behaviours and identification of target replacement behaviours, potential reinforcers, and parental skills and assets that can be used to achieve the new target child behaviours. It is based on the work of Herbert (1981) and Bromley (1977). It suggests ten steps in what he calls a case study. These are:

1. State clearly the problems and issues.
2. Collect background information regarding the context of this behaviour or the situation.

3. Develop hypotheses and potential solutions, bearing in mind the client's skills, circumstances, personality, etc., looking for the simple and obvious answers first.
4. Search for further evidence and develop and evaluate new hypotheses.
5. Make sure that all evidence is considered and that inconvenient evidence is not discarded and eliminate hypotheses that have insufficient or inconsistent evidence.
6. Be sure that the sources of evidence are reliable. This is why it is helpful to have both parent report and observational evidence.
7. Ensure that there is internal logic and coherence for the hypothesis formulated to explain the problems and proposals to solve the problems.
8. Select the most likely interpretation as a starting point.
9. Ensure that the explanations lead to clear and specific objectives.
10. Prepare the case report as a scientific account which can be shared with the client, drawing on psychological principles to explain the analysis.

The goal is the reconstruction and interpretation of particular aspects of the child's functioning based on the most reliable evidence available. The evidence should lead to a theory or hypothesis that has a rational argument for why the explanation of the behaviour is correct. Components of this explanation include an understanding of the child's general functioning, their intellectual or social capacities, the limitations placed on them by any particular developmental challenges, their temperament, etc. To this is added information obtained about the child's developmental history and what is known about their milestones or health problems to date. Information about parents' strengths, strategies, parenting beliefs, discipline approaches, consistency, challenges in terms of other relationship difficulties, social support, or its lack, is also important. Current life circumstances are important in terms of other issues that might affect a parent's capacity to implement changes, such as housing problems, neighbourhood challenges or financial difficulties. Using an adapted Goldiamond (1975) structure, developing the case analysis is a four-step process that incorporates all of the Herbert components (see attached framework).

The case analysis is presented to the parent, giving them a chance to add or correct any information and to agree the target replacement behaviours to be addressed through the intervention phase (see attached intervention worksheet). These are written into a contract that specifies the terminal goals for the intervention. An examples of the

contract form can be seen below. The final stage involves the weekly assignments leading to the achievement of the contract goals.

Intervention

Throughout the intervention phase, typically 6 – 8 weekly visits, weekly targets are set that gradually shape the child's behaviour towards the target goals. These are written weekly targets and are reviewed at the start of each session. They provide evidence of whether the target behaviours and intended reinforcers are achieving the planned objective or whether the case analysis and goals need revisiting. Weekly targets are agreed along with evidence of why they are feasible and relevant. Parents are asked to keep records during the week to monitor the target behavior(s) (sample weekly assignments attached).

Intervention delivery

The EPaS intervention uses the principles of reinforcement in its delivery process. It focuses attention on how to engage families effectively. The process involves helping the family to have realistic and achievable expectations based on the functional analysis and empowering them, through the setting of achievable weekly targets to use effective strategies to achieve them. The common factors that influence intervention outcome are identified by Lambert (1992) and include focusing on the parent/ carer-practitioner relationship: the parent's perception of empathy, acceptance and warmth of the practitioner, and the parents' expectation of positive outcome. Conveying an attitude of hope and possibility without minimising the difficulties that accompany it, and encouraging parents to focus on present and future possibilities instead of past problems. When therapists are seen as supportive and reinforcing of parents' efforts they work collaboratively with families (Hutchings, Gardner & Lane, 2004).

Training

Health visitors or EPaS therapists attend three days of training, with each day focused on one of the three intervention components, assessment, case analysis and intervention.

Programme length

Because EPaS is an individualised programme there is no specified number of sessions however the assessment phase takes three home visits and the presentation of the case analysis takes one visit. The main intervention phase generally achieves the contract goals within 6 – 8 weeks so overall the intervention is not likely to last for more than 12 weeks although in individual cases it may do.

For further information about the EPaS programme contact Professor Judy Hutchings, j.hutchings@bangor.ac.uk

Example ABC form

Antecedents	**Behaviour**	**Consequences**
This can be what is happening, people, places, time of day, type of demand	This can be appropriate or inappropriate (it may be an appropriate request but made in an inappropriate way)	The consequence predicts the likelihood that the behaviour will or will not happen again
Mum, Child, other people	Tantrum for sweets	Child gets sweets, Mum gets peace and quiet

Example observation

Observation of James (age 3) and Suzy (mother)

Observer : Mary P, Health Visitor Date:

	Parent				Child		
	Instruction	Praise / Smile	Negative Comment		Compiles with instruction	Other positive behaviour	Negative behaviour
20	✓✓						
40	✓		✓				✓
1.00	✓✓✓				✓		
1.20		✓✓				✓	✓
1.40	✓✓		✓				✓✓✓
2.00	✓	✓				✓✓	
2.20	✓				✓	✓	
2.40		✓✓	✓			✓✓	✓✓
3.00	✓✓	✓			✓		
3.20		✓				✓✓	
3.40	✓		✓				✓
4.00							
4.20			✓				✓✓
4.40	✓						✓
5.00	✓✓✓				✓		✓
5.20		✓					
5.40		✓				✓✓	
6.00	✓						✓

Things your child enjoys

Name of Child _____ Age _____

Please fill this in when you actually see the child doing something they enjoy, not from memory.

Food	**Sweets/snacks**	**Drinks**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Toys	**Activities**	**TV programmes**
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

People	**Things that calm him/her when upset**
_____	_____
_____	_____
_____	_____
_____	_____

Anything special at bedtime or other times, e.g. stories, cuddles

_____

_____

Any other observations

_____

Observing your Child's Skills and Assets
(This will help you to be sure that your expectations about your child are realistic and achievable and build on his or her strengths)

Name of Child: _____ Age: _____

Social Skills

Examples: getting on with others, helping other people, showing interest in others, negotiating for things, asking for help, waiting for something.

Physical Skills

Examples: riding a bike, walking, climbing, swimming.

Fine Motor Skills

Examples: holding a crayon, doing a puzzle, posting box.

Language

Examples: making sounds, naming objects, making requests for things, explaining things, listening to or telling a story.

Toileting

Examples: dry at night, going independently to the toilet in the day, asking when they need help, showing when they are wet or dirty.

Eating

Examples: sitting at the table, using a knife and fork independently, feeding themselves with help, finger feeding.

Playing Skills

Examples: imitating others, playing alone for a few minutes, make believe play.

The Parent-Child Constructional Questionnaire (PCCQ)

(adapted by the author from Goldiamond, 1974, 1975)

Question 1: OUTCOMES
Question 2: AREAS CHANGED / UNCHANGED
Question 3: CHANGE HISTORY
Question 4: ASSETS
Question 5: CONSEQUENCES
Question 6: ADDITIONAL INFORMATION
Question 7: QUESTIONS YOU WANT TO ASK US

Question 1: OUTCOMES

a. Assuming we were successful, what would the outcome be for your child?
b. What would others observe if the successful outcome was obtained?
c. How does this differ from the present state of affairs?
d. Can you give an example?
e. Assuming we were successful, what would the outcome be for you?
f. What would others observe if the successful outcome was obtained?
g. How does this differ from the present state of affairs?
h. Can you give an example?
i. In what way would this change things for you and your partner or other significant people in your child's life?

Question 2: AREAS CHANGED / UNCHANGED

a. What is going well for your child now and what areas of your child's life would not be affected by our work.
b. What areas of your own life are going well and would not change?
c. Are there any areasof your life other than those that we would directly work on, that would change?

Question 3: CHANGE HISTORY

a. Why do you want to work on these problems now? Has there been any recent trigger?

b. When did it first occur to you that there was a problem? What was going on?

c. What was happening in your life at that time?

d. What did you do? How did it work out?

Question 4: ASSETS

a. What skills or strengths do you have that are related to what you would like to achieve?

b. What other skills do you have?

c. In the past what related problems with your child have you tackled successfully?

d. What other problems have you personally tackled successfully?

Question 5: CONSEQUENCES

a. In relation to your child's problem/s has it brought you or your child any additional support?

b. As a result of your child's problem has your child been excused from anything?

c. How is your child's present problem difficult for your child or yourself or what does it stop you from doing?

d. What does your child really like to do, what makes him or her happy?

e. Who else is interested in the changes you are after?

f. Which people have been helpful in the past? What help did they give you? How did you obtain this from them?

Question 6: COMPLETION

a. Is there anything we left out or did not get enough about?

b. Was there something we overlooked, or made too much of?

c. Are there any impressions you would like to correct?

d. Are there any questions you would like to ask? Any comments?

Case analysis framework

Step 1: Background This is a brief summary of the information gathered including the history of the child. Note any information that the parent has given you so that they have the opportunity to see that you have fully understood the situation and the problem and also their skills and resources, general problem-solving strategies and previous successes. It forms a picture of the child and their general circumstances.
Step 2: The problem This is a clear description of the problem and all of the circumstances associated with it, time of day, who present, etc.
Step 3: The function This is the tentative understanding of why the problem might be occurring. There may be a number of possible explanations and the various information sources should provide a sufficiently clear description of the problem to enable a tentative understanding of why it is occurring.
Step 4: Targets This is the identification of a developmentally appropriate target behaviour or behaviours which will replace the problem behaviour/s and the assets and resources which will help to achieve this.

Sample intervention worksheet

Intervention worksheet

Name of child: J

Task	Reason for task	Existing skills/assets that will enable this task to be completed
Spend 5 minutes special time each day with J in child led play and record what happens on the ABC charts	To strengthen relationship and help with instruction following goals	Parents are keen to help J. They can create time in early evening and have already kept records
Get J's attention before giving an instruction. Give clear, specific, positive instructions. Notice and praise any instructions that J follows	Working on goal of getting J to go to bed by increasing instruction following generally	J does follow some instructions and parents can give clear instructions
Develop a possible bedtime routine that ensures that J is calm at bedtime for further discussion next week	Getting J to bed at 7 pm is the goal	Parents can work well together
Give J a bedtime drink before taking him to the bedroom	J needs to learn that the bedroom is where he sleeps	Parents want to solve this problem and recognise the need to train J in learning to sleep in his bedroom
Read Chapter 1, of the little parent handbook and the bedtime problem handout	Chapter 1 describes principles for child led play and the bedtime problem handout suggests some ideas for solutions	Parents are happy to undertake reading assignments to provide them with ideas

Intervention agreement between:

Name: _____ (parent)

Name: _____ (case worker)

The goals relate to: _____ (name of child)

We will work together to achieve the following goal/goals:
(list a maximum of three goal areas)

1.

2.

3.

To achieve these goals:

I, the case worker, agree to visit weekly and to work together to agree weekly targets towards the agreed goals. I will arrange our weekly appointments in advanced and try to let you know if for any reason I will be unable to make the appointment.

_____ Signature _____ Date

I, the parent, agree to work together to agreed weekly targets and keep agreed progress records. I will endeavour to notify you if I cannot keep an appointment.

_____ Signature _____ Date

Sample weekly assignment

Record of mornings for B and S

Rules: To earn their money for a snack to buy after school the children must get up, washed and dressed before having breakfast in the kitchen. After breakfast, if there is time, they can watch TV. If they do that without any problems they get their 40p for the snack. Be prepared for a tantrum if B loses her 40p but do not get into a row with her. Just say "you knew the rules" and walk away. When she is calm you can remind her of her previous successes and suggest that she can try again tomorrow.

Do not debate whether the 40p has been earned or lost just tell them.

Do not nag the children just remind them once of the rules when they get up in the morning.

If the children are getting up nicely remember to praise them.

Put a star in the box for each day they earn the money.

Week beginning .....

Day	**B**	**S**
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		

Sample weekly assignment

Daily Log

The record sheet below shows extracts from B's daily intervention log. B is a single parent who lives at his work place. He has been angry with his two children and here is working on handling situations differently. His example of the recorder playing is interesting, he is doing well to stay calm and not shout but his needs are not being met and needs to consider rules about time and place for recorder playing. Similarly he needs to learn to set limits around his entitlement to lunch time during which he needs to do domestic things. A blank Daily Log sheet can be found at the end of this chapter.

1 **TIME**	2 **ACTIVITY**	3 **WHERE**	4 **WHO WAS THERE**	5 **WHAT YOU WANTED**	6 **WHAT YOU GOT**	7 **REFLECTIONS**
8.15	Breakfast	Kitchen	Daughter	Time to collect thoughts	Recorder playing	Do not wish to stop her
1.15	Lunch	In garden	Alone	Relaxation	Disturbed by work mates	Needed the time to get myself sorted out
6.15	Watching soccer	Sitting room	Alone	Relaxation	Slightly drunk	
10.15	Fell asleep putting children to bed					

Sample weekly assignment

W's Record Sheet For Dry Bed and Pants Alarm

Mum – at bedtime remind W that he will get a star for a dry night. In the morning you must check the bed before W goes to school and if it is dry, put a star on the chart. After a wet bed W must use the alarm again every night until he has had three dry nights in a row. You must give W the star yourself. W can stick his own stars on.

Decide where to put the chart, stick it up with blu-tac somewhere that the rest of the children will not be able to pull it down.

Every time W has earned 5 stars he gets to choose something from his reward menu.

Start a new chart every week.

Fill in this side every day		**Fill in this side if the alarm is needed**		
Date	**Star for a dry night (Mum)**	**W tick that alarm is on**	**Mum tick that you checked it**	**W tick if alarm rings**
22	*			
23	*			
24	*			
25				
26	*	✓	✓	
27	*	✓	✓	
28	*	✓	✓	

Sample weekly assignment

J, A and N - Record of use of time-out

Please record every time that you use it, which child it is, date and time, the reason and how it works out. Put your initials at the side to show if it is Mum or Dad who gave the time-out.

Remember if a child refuses a time-out you must have a plan of what they lose because of this. For J it is losing his skateboard for one hour. Time-out only works if you give lots of praise for good behaviour. If the time-out is for refusing to follow an instruction, the child must comply with the instruction at the end of time-out. Check the rules for time-out from Chapter 5 in the Little Parent Handbook.

Date, time, name of child	Reason for time-out	How it worked out and who gave it

Appendix B
PRISMA checklist

PRISMA 2009 Checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	24
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	n/a
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	25-33
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	33
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	n/a
Eligibility criteria	6	Specify study characteristics (e.g., PICOS, length of follow-up) and report characteristics (e.g., years considered, language, publication status) used as criteria for eligibility, giving rationale.	33-34
Information sources	7	Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.	34-35
Search	8	Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.	219
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	35

Data collection process	10	Describe method of data extraction from reports (e.g., piloted forms, independently, in duplicate) and any processes for obtaining and confirming data from investigators.	36-37
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	36-37
Risk of bias in individual studies	12	Describe methods used for assessing risk of bias of individual studies (including specification of whether this was done at the study or outcome level), and how this information is to be used in any data synthesis.	37
Summary measures	13	State the principal summary measures (e.g., risk ratio, difference in means).	34
Synthesis of results	14	Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I^2) for each meta-analysis.	n/a

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	n/a
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	n/a
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	35-36
Study characteristics	18	For each study, present characteristics for which data were extracted (e.g., study size, PICOS, follow-up period) and provide the citations.	37-57
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	40-41
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	50-57
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	n/a
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	n/a

Additional analysis	23	Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).	n/a
DISCUSSION			
Summary of evidence	24	Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).	57-62
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	61
Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	57-62
FUNDING			
Funding	27	Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.	n/a

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

For more information, visit: **www.prisma-statement.org**.

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Appendix C

Search strategies for systematic review

MEDLINE search strategy

MEDLINE, 1950 to present. Searched via EBSCOhost 06/10/2015 (update 25/10/2016, filter October 2015 to October 2016)

1 Conduct Disorder/
2 conduct disorder*.ab.
3 (oppositional n3 (defiant* or disorder*)).ab.
4 (conduct n3 (difficult* or disorder* or problem*)).ab.
5 (behavio?ral n3 (problem* or difficult* or disorder*)).ab.
6 aggressive behavio?r*.ab.
7 (emotional n1 behavio?ral problem*).ab.
8 (child* n3 behavio?r* disorder*).ab.
9 social behavio?r disorder*.ab.
10 or/1-9
11 ((parent* or famil*) n1 (program* or intervention* or train* or educat*)).ab.
12 behavio?r therapy/ or cognitive therapy/
13 (behavio?r* n3 train*).ab.
14 (behavio?r* n3 intervention*).ab.
15 cbt.ab.
16 (behavio?r* n3 therap*).ab.
17 (cognitive n3 (therap* or train* or intervention* or program*)).ab.
18 or/12-17
19 antisocial behavio?r.ab.
20 antisocial problem*.ab.
21 antisocial difficult*.ab.
22 externali?ing disorder*.ab.
23 child psychopathol*.ab.
24 externali?ing problem*.ab.
25 disruptive behavio?r.ab.
26 or/19-25
27 10 or 26
28 11 and 27
29 11 and 18 and 27

CENTRAL search strategy

CENTRAL searched via Cochrane Library 07/10/2015 (update 25/10/2016, filter October 2015 to October 2016)

1 Conduct Disorder/
2 conduct disorder*.ti, ab, kw.
3 (oppositional near/3 (defiant* or disorder*)).ti, ab, kw.
4 (conduct near/3 (difficult* or disorder* or problem*)).ti, ab, kw.

5 (behavio?ral near/3 (problem* or difficult* or disorder*)).ti, ab, kw.
6 aggressive behavio?r*.ti, ab, kw.
7 (emotional near/1 behavio?ral problem*).ti, ab, kw.
8 (child* near/3 behavio?r* disorder*).ti, ab, kw.
9 social behavio?r disorder*.ti, ab, kw.
10 or/1-9
11 ((parent* or famil*) near/1 (program* or intervention* or train* or educat*)).ti, ab, kw.
12 behavio?r therapy/ or cognitive therapy/
13 (behavio?r* near/3 train*).ti, ab, kw.
14 (behavio?r* near/3 intervention*).ti, ab, kw.
15 cbt.ti, ab, kw.
16 (behavio?r* near/3 therap*).ti, ab, kw.
17 (cognitive near/3 (therap* or train* or intervention* or program*)).ti, ab, kw.
18 or/12-17
19 antisocial behavio?r.ti, ab, kw.
20 antisocial problem*.ti, ab, kw.
21 antisocial difficult*.ti, ab, kw.
22 externali?ing disorder*.ti, ab, kw.
23 child psychopathol*.ti, ab, kw.
24 externali?ing problem*.ti, ab, kw.
25 disruptive behavio?r.ti, ab, kw.
26 or/19-25
27 10 or 26
28 11 and 27
29 11 and 18 and 27

Education Resources Information Centre search strategy

ERIC, 1966 to present. Searched via ProQuest 08/10/2015 (update 26/10/2016, filter October 2015 to October 2016)

1 Conduct Disorder/
2 conduct disorder*.ab.
3 (oppositional near/3 (defiant* or disorder*)).ab.
4 (conduct near/3 (difficult* or disorder* or problem*)).ab.
5 (behavio?ral near/3 (problem* or difficult* or disorder*)).ab.
6 aggressive behavio?r*.ab.
7 (emotional near/1 behavio?ral problem*).ab.
8 (child* near/3 behavio?r* disorder*).ab.
9 social behavio?r disorder*.ab.
10 or/1-9
11 ((parent* or famil*) near/1 (program* or intervention* or train* or educat*)).ab.

12 behavio?r therapy/ or cognitive therapy/
13 (behavio?r* near/3 train*).ab.
14 (behavio?r* near/3 intervention*).ab.
15 cbt.ab.
16 (behavio?r* near/3 therap*).ab.
17 (cognitive near/3 (therap* or train* or intervention* or program*)).ab.
18 or/12-17
19 antisocial behavio?r.ab.
20 antisocial problem*.ab.
21 antisocial difficult*.ab.
22 externali?ing disorder*.ab.
23 child psychopathol*.ab.
24 externali?ing problem*.ab.
25 disruptive behavio?r.ab.
26 or/19-25
27 10 or 26
28 11 and 27
29 11 and 18 and 27

Sociological Abstracts search strategy

Sociological Abstracts, 1963 to present. Searched via ProQuest 14/10/2015 (update 26/10/2016, filter October 2015 to October 2016)

1 Conduct Disorder/
2 conduct disorder*.ab.
3 (oppositional near/3 (defiant* or disorder*)).ab.
4 (conduct near/3 (difficult* or disorder* or problem*)).ab.
5 (behavio?ral near/3 (problem* or difficult* or disorder*)).ab.
6 aggressive behavio?r*.ab.
7 (emotional near/1 behavio?ral problem*).ab.
8 (child* near/3 behavio?r* disorder*).ab.
9 social behavio?r disorder*.ab.
10 or/1-9
11 ((parent* or famil*) near/1 (program* or intervention* or train* or educat*)).ab.
12 behavio?r therapy/ or cognitive therapy/
13 (behavio?r* near/3 train*).ab.
14 (behavio?r* near/3 intervention*).ab.
15 cbt.ab.
16 (behavio?r* near/3 therap*).ab.
17 (cognitive near/3 (therap* or train* or intervention* or program*)).ab.
18 or/12-17

19 antisocial behavio?r.ab.
20 antisocial problem*.ab.
21 antisocial difficult*.ab.
22 externali?ing disorder*.ab.
23 child psychopathol*.ab.
24 externali?ing problem*.ab.
25 disruptive behavio?r.ab.
26 or/19-25
27 10 or 26
28 11 and 27
29 11 and 18 and 27

Applied Social Sciences Index and Abstracts search strategy

ASSIA, 1987 to present. Searched via ProQuest 16/10/2015 (update 26/10/2016, filter October 2015 to October 2016)

1 Conduct Disorder/
2 conduct disorder*.ab.
3 (oppositional near/3 (defiant* or disorder*)).ab.
4 (conduct near/3 (difficult* or disorder* or problem*)).ab.
5 (behavio?ral near/3 (problem* or difficult* or disorder*)).ab.
6 aggressive behavio?r*.ab.
7 (emotional near/1 behavio?ral problem*).ab.
8 (child* near/3 behavio?r* disorder*).ab.
9 social behavio?r disorder*.ab.
10 or/1-9
11 ((parent* or famil*) near/1 (program* or intervention* or train* or educat*)).ab.
12 behavio?r therapy/ or cognitive therapy/
13 (behavio?r* near/3 train*).ab.
14 (behavio?r* near/3 intervention*).ab.
15 cbt.ab.
16 (behavio?r* near/3 therap*).ab.
17 (cognitive near/3 (therap* or train* or intervention* or program*)).ab.
18 or/12-17
19 antisocial behavio?r.ab.
20 antisocial problem*.ab.
21 antisocial difficult*.ab.
22 externali?ing disorder*.ab.
23 child psychopathol*.ab.
24 externali?ing problem*.ab.
25 disruptive behavio?r.ab.
26 or/19-25

27 10 or 26
28 11 and 27
29 11 and 18 and 27

Cumulative Index to Nursing and Allied Health Literature search strategy

CINAHL, 1982 to present. Searched via EBSCOhost 19/10/2015 (update 26/10/2016, filter October 2015 to October 2016)

1 Conduct Disorder/
2 conduct disorder*.ab.
3 (oppositional n3 (defiant* or disorder*)).ab.
4 (conduct n3 (difficult* or disorder* or problem*)).ab.
5 (behavio?ral n3 (problem* or difficult* or disorder*)).ab.
6 aggressive behavio?r*.ab.
7 (emotional n1 behavio?ral problem*).ab.
8 (child* n3 behavio?r* disorder*).ab.
9 social behavio?r disorder*.ab.
10 or/1-9
11 ((parent* or famil*) n1 (program* or intervention* or train* or educat*)).ab.
12 behavio?r therapy/ or cognitive therapy/
13 (behavio?r* n3 train*).ab.
14 (behavio?r* n3 intervention*).ab.
15 cbt.ab.
16 (behavio?r* n3 therap*).ab.
17 (cognitive n3 (therap* or train* or intervention* or program*)).ab.
18 or/12-17
19 antisocial behavio?r.ab.
20 antisocial problem*.ab.
21 antisocial difficult*.ab.
22 externali?ing disorder*.ab.
23 child psychopathol*.ab.
24 externali?ing problem*.ab.
25 disruptive behavio?r.ab.
26 or/19-25
27 10 or 26
28 11 and 27
29 11 and 18 and 27

PsycINFO search strategy

PsycINFO, 1872 to present. Searched via ProQuest 20/10/2015 (update 26/10/2016, filter October 2015 to October 2016)

1 Conduct Disorder/

2 conduct disorder*.ab.
3 (oppositional near/3 (defiant* or disorder*)).ab.
4 (conduct near/3 (difficult* or disorder* or problem*)).ab.
5 (behavio?ral near/3 (problem* or difficult* or disorder*)).ab.
6 aggressive behavio?r*.ab.
7 (emotional near/1 behavio?ral problem*).ab.
8 (child* near/3 behavio?r* disorder*).ab.
9 social behavio?r disorder*.ab.
10 or/1-9
11 ((parent* or famil*) near/1 (program* or intervention* or train* or educat*)).ab.
12 behavio?r therapy/ or cognitive therapy/
13 (behavio?r* near/3 train*).ab.
14 (behavio?r* near/3 intervention*).ab.
15 cbt.ab.
16 (behavio?r* near/3 therap*).ab.
17 (cognitive near/3 (therap* or train* or intervention* or program*)).ab.
18 or/12-17
19 antisocial behavio?r.ab.
20 antisocial problem*.ab.
21 antisocial difficult*.ab.
22 externali?ing disorder*.ab.
23 child psychopathol*.ab.
24 externali?ing problem*.ab.
25 disruptive behavio?r.ab.
26 or/19-25
27 10 or 26
28 11 and 27
29 11 and 18 and 27

ScienceDirect search strategy

ScienceDirect, 1823 to present. Searched via ScienceDirect 21/10/2015 (update 26/10/2016, filter October 2015 to October 2016)
TEXT(parent* w/1 program* OR parent* w/1 intervention* OR parent* w/1 train* OR parent* w/1 educat* OR famil* w/1 program* OR famil* w/1 intervention* OR famil* w/1 train* OR famil* w/1 educat* OR behavio?r therap* OR cognitive therap* OR behavio?r* w/3 train* OR behavio?r* w/3 intervention* OR cbt OR behavio?r* w/3 therap* OR cognitive w/3 therap* OR cognitive w/3 train* OR cognitive w/3 intervention* OR cognitive w/3 program*) AND TEXT(conduct disorder OR conduct disorder* OR oppositional w/3 defiant* OR oppositional w/3 disorder* OR conduct w/3 difficult*

OR conduct w/3 problem* OR conduct w/3 disorder* OR behavio?r* w/3 problem* OR behavio?r* w/3 difficult* OR behavio?r* w/3 disorder* OR aggressive behavio?r* OR emotional w/1 behavio?r* problem* OR child* w/3 behavio?r* disorder* OR social behavio?r* disorder* OR antisocial behavio?r* OR antisocial problem* OR antisocial difficult* OR externali?ing disorder* OR externali?ing problem* OR child psychopathol* OR disruptive behavio?r*)

Web of Science search strategy

Web of Science Core Collection and SciELO Citation Index, 1970 to present. Searched via Web of Knowledge 22/10/2015 (update 26/10/2016, filter October 2015 to October 2016)

1 Conduct Disorder/
2 conduct disorder*.ts.
3 (oppositional near/3 (defiant* or disorder*)).ts.
4 (conduct near/3 (difficult* or disorder* or problem*)).ts.
5 (behavio?ral near/3 (problem* or difficult* or disorder*)).ts.
6 aggressive behavio?r*.ts.
7 (emotional near/1 behavio?ral problem*).ts.
8 (child* near/3 behavio?r* disorder*).ts.
9 social behavio?r disorder*.ts.
10 or/1-9
11 ((parent* or famil*) near/1 (program* or intervention* or train* or educat*)).ts.
12 behavio?r therapy/ or cognitive therapy/
13 (behavio?r* near/3 train*).ts.
14 (behavio?r* near/3 intervention*).ts.
15 cbt.ts.
16 (behavio?r* near/3 therap*).ts.
17 (cognitive near/3 (therap* or train* or intervention* or program*)).ts.
18 or/12-17
19 antisocial behavio?r.ts.
20 antisocial problem*.ts.
21 antisocial difficult*.ts.
22 externali?ing disorder*.ts.
23 child psychopathol*.ts.
24 externali?ing problem*.ts.
25 disruptive behavio?r.ts.
26 or/19-25
27 10 or 26
28 11 and 27
29 11 and 18 and 27

Appendix D

Downs and Black (1998) Quality Index

Appendix

Checklist for measuring study quality

Reporting

1. *Is the hypothesis/aim/objective of the study clearly described?*

yes	1
no	0

2. *Are the main outcomes to be measured clearly described in the Introduction or Methods section?*
   If the main outcomes are first mentioned in the Results section, the question should be answered no.

yes	1
no	0

3. *Are the characteristics of the patients included in the study clearly described ?*
   In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given.

yes	1
no	0

4. *Are the interventions of interest clearly described?*
   Treatments and placebo (where relevant) that are to be compared should be clearly described.

yes	1
no	0

5. *Are the distributions of principal confounders in each group of subjects to be compared clearly described?*
   A list of principal confounders is provided.

yes	2
partially	1
no	0

6. *Are the main findings of the study clearly described?*
   Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).

yes	1
no	0

7. *Does the study provide estimates of the random variability in the data for the main outcomes?*
   In non normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported. If the distribution of the data is not described, it must be assumed that the estimates used were appropriate and the question should be answered yes.

yes	1
no	0

8. *Have all important adverse events that may be a consequence of the intervention been reported?*
   This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. (A list of possible adverse events is provided).

yes	1
no	0

9. *Have the characteristics of patients lost to follow-up been described?*
   This should be answered yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered no where a study does not report the number of patients lost to follow-up.

yes	1
no	0

10. *Have actual probability values been reported(e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?*

yes	1
no	0

External validity

All the following criteria attempt to address the representativeness of the findings of the study and whether they may be generalised to the population from which the study subjects were derived.

11. *Were the subjects asked to participate in the study representative of the entire population from which they were recruited?*
    The study must identify the source population for patients and describe how the patients were selected. Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible where a list of all members of the relevant

population exists. Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as unable to determine.

yes	1
no	0
unable to determine	0

12. *Were those subjects who were prepared to participate representative of the entire population from which they were recruited?*
The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.

yes	1
no	0
unable to determine	0

13. *Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?*
For the question to be answered yes the study should demonstrate that the intervention was representative of that in use in the source population. The question should be answered no if, for example, the intervention was undertaken in a specialist centre unrepresentative of the hospitals most of the source population would attend.

yes	1
no	0
unable to determine	0

Internal validity - bias

14. *Was an attempt made to blind study subjects to the intervention they have received ?*
For studies where the patients would have no way of knowing which intervention they received, this should be answered yes.

yes	1
no	0
unable to determine	0

15. *Was an attempt made to blind those measuring the main outcomes of the intervention?*

yes	1
no	0
unable to determine	0

16. *If any of the results of the study were based on "data dredging", was this made clear?*
Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.

yes	1
no	0
unable to determine	0

17. *In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls ?*
Where follow-up was the same for all study patients the answer should yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.

yes	1
no	0
unable to determine	0

18. *Were the statistical tests used to assess the main outcomes appropriate?*
The statistical techniques used must be appropriate to the data. For example non-parametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where there is no evidence of bias, the question should be answered yes. If the distribution of the data (normal or not) is not described it must be assumed that the estimates used were appropriate and the question should be answered yes.

yes	1
no	0
unable to determine	0

19. *Was compliance with the intervention/s reliable?*
Where there was non compliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes.

yes	1
no	0
unable to determine	0

20. *Were the main outcome measures used accurate (valid and reliable)?*

For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.

yes	1
no	0
unable to determine	0

Internal validity - confounding (selection bias)

21. *Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?*
For example, patients for all comparison groups should be selected from the same hospital. The question should be answered unable to determine for cohort and case-control studies where there is no information concerning the source of patients included in the study.

yes	1
no	0
unable to determine	0

22. *Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time?*
For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.

yes	1
no	0
unable to determine	0

23. *Were study subjects randomised to intervention groups?*
Studies which state that subjects wererandomised should be answered yes except where method of randomisation would not ensure random allocation. For example alternate allocation would score no because it is predictable.

yes	1
no	0
unable to determine	0

24. *Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?*
All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.

yes	1
no	0
unable to determine	0

25. *Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?*
This question should be answered no for trials if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of known confounders differed between the treatment groups but was not taken into account in the analyses. In non-randomised studies if the effect of the main confounders was not investigated or confounding was demonstrated but no adjustment was made in the final analyses the question should be answered as no.

yes	1
no	0
unable to determine	0

26. *Were losses of patients to follow-up taken into account?*
If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was too small to affect the main findings, the question should be answered yes.

yes	1
no	0
unable to determine	0

Power

27. *Did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%?*
Sample sizes have been calculated to detect a difference of x% and y%.

	Size of *smallest* intervention group	
A	$<n_1$	0
B	n_1–n_2	1
C	n_3–n_4	2
D	n_5–n_6	3
E	n_7–n_8	4
F	n_8+	5

Appendix E
SPIRIT checklist

SPIRIT
STANDARD PROTOCOL ITEMS: RECOMMENDATIONS FOR INTERVENTIONAL TRIALS

SPIRIT 2013 Checklist: Recommended items to address in a clinical trial protocol and related documents*

Section/item	Item No	Description	Addressed on page number
Administrative information			
Title	1	Descriptive title identifying the study design, population, interventions, and, if applicable, trial acronym	63
Trial registration	2a	Trial identifier and registry name. If not yet registered, name of intended registry	n/a
	2b	All items from the World Health Organization Trial Registration Data Set	n/a
Protocol version	3	Date and version identifier	n/a
Funding	4	Sources and types of financial, material, and other support	n/a
Roles and responsibilities	5a	Names, affiliations, and roles of protocol contributors	n/a
	5b	Name and contact information for the trial sponsor	n/a
	5c	Role of study sponsor and funders, if any, in study design; collection, management, analysis, and interpretation of data; writing of the report; and the decision to submit the report for publication, including whether they will have ultimate authority over any of these activities	n/a

	5d	Composition, roles, and responsibilities of the coordinating centre, steering committee, endpoint adjudication committee, data management team, and other individuals or groups overseeing the trial, if applicable (see Item 21a for data monitoring committee)	n/a
Introduction			
Background and rationale	6a	Description of research question and justification for undertaking the trial, including summary of relevant studies (published and unpublished) examining benefits and harms for each intervention	64-69
	6b	Explanation for choice of comparators	
Objectives	7	Specific objectives or hypotheses	69
Trial design	8	Description of trial design including type of trial (eg, parallel group, crossover, factorial, single group), allocation ratio, and framework (eg, superiority, equivalence, noninferiority, exploratory)	69
Methods: Participants, interventions, and outcomes			
Study setting	9	Description of study settings (eg, community clinic, academic hospital) and list of countries where data will be collected. Reference to where list of study sites can be obtained	70
Eligibility criteria	10	Inclusion and exclusion criteria for participants. If applicable, eligibility criteria for study centres and individuals who will perform the interventions (eg, surgeons, psychotherapists)	70
Interventions	11a	Interventions for each group with sufficient detail to allow replication, including how and when they will be administered	71-73
	11b	Criteria for discontinuing or modifying allocated interventions for a given trial participant (eg, drug dose change in response to harms, participant request, or improving/worsening disease)	n/a

	11c	Strategies to improve adherence to intervention protocols, and any procedures for monitoring adherence (eg, drug tablet return, laboratory tests)	73
	11d	Relevant concomitant care and interventions that are permitted or prohibited during the trial	73
Outcomes	12	Primary, secondary, and other outcomes, including the specific measurement variable (eg, systolic blood pressure), analysis metric (eg, change from baseline, final value, time to event), method of aggregation (eg, median, proportion), and time point for each outcome. Explanation of the clinical relevance of chosen efficacy and harm outcomes is strongly recommended	74-76
Participant timeline	13	Time schedule of enrolment, interventions (including any run-ins and washouts), assessments, and visits for participants. A schematic diagram is highly recommended (see Figure)	
Sample size	14	Estimated number of participants needed to achieve study objectives and how it was determined, including clinical and statistical assumptions supporting any sample size calculations	76-77
Recruitment	15	Strategies for achieving adequate participant enrolment to reach target sample size	70-71
Methods: Assignment of interventions (for controlled trials)			
Allocation:			
Sequence generation	16a	Method of generating the allocation sequence (eg, computer-generated random numbers), and list of any factors for stratification. To reduce predictability of a random sequence, details of any planned restriction (eg, blocking) should be provided in a separate document that is unavailable to those who enrol participants or assign interventions	77
Allocation concealment mechanism	16b	Mechanism of implementing the allocation sequence (eg, central telephone; sequentially numbered, opaque, sealed envelopes), describing any steps to conceal the sequence until interventions are assigned	77
Implementation	16c	Who will generate the allocation sequence, who will enrol participants, and who will assign participants to interventions	77

Blinding (masking)	17a	Who will be blinded after assignment to interventions (eg, trial participants, care providers, outcome assessors, data analysts), and how	77
	17b	If blinded, circumstances under which unblinding is permissible, and procedure for revealing a participant's allocated intervention during the trial	77
Methods: Data collection, management, and analysis			
Data collection methods	18a	Plans for assessment and collection of outcome, baseline, and other trial data, including any related processes to promote data quality (eg, duplicate measurements, training of assessors) and a description of study instruments (eg, questionnaires, laboratory tests) along with their reliability and validity, if known. Reference to where data collection forms can be found, if not in the protocol	76
	18b	Plans to promote participant retention and complete follow-up, including list of any outcome data to be collected for participants who discontinue or deviate from intervention protocols	76
Data management	19	Plans for data entry, coding, security, and storage, including any related processes to promote data quality (eg, double data entry; range checks for data values). Reference to where details of data management procedures can be found, if not in the protocol	
Statistical methods	20a	Statistical methods for analysing primary and secondary outcomes. Reference to where other details of the statistical analysis plan can be found, if not in the protocol	77-78
	20b	Methods for any additional analyses (eg, subgroup and adjusted analyses)	78
	20c	Definition of analysis population relating to protocol non-adherence (eg, as randomised analysis), and any statistical methods to handle missing data (eg, multiple imputation)	78
Methods: Monitoring			

Data monitoring	21a	Composition of data monitoring committee (DMC); summary of its role and reporting structure; statement of whether it is independent from the sponsor and competing interests; and reference to where further details about its charter can be found, if not in the protocol. Alternatively, an explanation of why a DMC is not needed	n/a
	21b	Description of any interim analyses and stopping guidelines, including who will have access to these interim results and make the final decision to terminate the trial	n/a
Harms	22	Plans for collecting, assessing, reporting, and managing solicited and spontaneously reported adverse events and other unintended effects of trial interventions or trial conduct	n/a
Auditing	23	Frequency and procedures for auditing trial conduct, if any, and whether the process will be independent from investigators and the sponsor	n/a
Ethics and dissemination			
Research ethics approval	24	Plans for seeking research ethics committee/institutional review board (REC/IRB) approval	79
Protocol amendments	25	Plans for communicating important protocol modifications (eg, changes to eligibility criteria, outcomes, analyses) to relevant parties (eg, investigators, REC/IRBs, trial participants, trial registries, journals, regulators)	n/a
Consent or assent	26a	Who will obtain informed consent or assent from potential trial participants or authorised surrogates, and how (see Item 32)	70-71
	26b	Additional consent provisions for collection and use of participant data and biological specimens in ancillary studies, if applicable	n/a
Confidentiality	27	How personal information about potential and enrolled participants will be collected, shared, and maintained in order to protect confidentiality before, during, and after the trial	
Declaration of interests	28	Financial and other competing interests for principal investigators for the overall trial and each study site	

Access to data	29	Statement of who will have access to the final trial dataset, and disclosure of contractual agreements that limit such access for investigators	
Ancillary and post-trial care	30	Provisions, if any, for ancillary and post-trial care, and for compensation to those who suffer harm from trial participation	
Dissemination policy	31a	Plans for investigators and sponsor to communicate trial results to participants, healthcare professionals, the public, and other relevant groups (eg, via publication, reporting in results databases, or other data sharing arrangements), including any publication restrictions	
	31b	Authorship eligibility guidelines and any intended use of professional writers	n/a
	31c	Plans, if any, for granting public access to the full protocol, participant-level dataset, and statistical code	n/a
Appendices			
Informed consent materials	32	Model consent form and other related documentation given to participants and authorised surrogates	238-243
Biological specimens	33	Plans for collection, laboratory evaluation, and storage of biological specimens for genetic or molecular analysis in the current trial and for future use in ancillary studies, if applicable	n/a

*It is strongly recommended that this checklist be read in conjunction with the SPIRIT 2013 Explanation & Elaboration for important clarification on the items. Amendments to the protocol should be tracked and dated. The SPIRIT checklist is copyrighted by the SPIRIT Group under the Creative Commons "Attribution-NonCommercial-NoDerivs 3.0 Unported" license.

Appendix F

Health Visitor Consent Form

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL
BANGOR
UNIVERSITY

Centre Number:

Study Number:

Participant Identification Number for this trial:

HEALTH VISITOR CONSENT FORM

Title of Project: Evaluation of the Enhancing Parenting Skills (EPaS) 2014 programme

Name of Researcher:

Please initial box

1. I confirm that I have read the information sheet dated..... (version.....) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐

3. I understand that participation will entail completing three days of training and identifying two parents for the project to work with on a weekly basis for up to 12 weeks. ☐

4. I agree to take part in the above study. ☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL BANGOR UNIVERSITY

Rhif Canolfan:

Rhif Astudiaeth:

Rhif Adnabod Cyfranogwr ar gyfer y treial:

FFURFLEN CANIATAD YMWELWYR IECHYD

Teitl y prosiect: Dadansoddiad o'r rhaglen Enhancing Parenting Skills (EPaS) 2014

Enw yr Ymchwilydd:

Llythrennwch y bocs plis

1. Rwyf yn cadarnhau fy mod wedi darllen y daflen wybodaeth, dyddiad ……. (fersiwn ……..) ar gyfer yr astudiaeth uchod. Rwyf wedi cael cyfle i ystyried y wybodaeth, i ofyn cwestiynnau ag wedi cael atebion boddhaol i'r rhain. ☐

2. Rwyf yn deall fod fy nghyfranogiad yn wirfoddol ag rwyf yn rhydd i dynnu yn ôl ar unrhyw adeg heb roi rheswm, ag heb gael unrhyw effaith ar fy ngofal meddygol nag fy hawliau cyfreithiol. ☐

3. Rwyf yn deall y bydd cyfrannu yn golygu cwbwlhau tri diwrnod o hyfforddiant ag adnabod dau riant ar gyfer y prosiect i weithio gyda am oddeutu 12 wythnos. ☐

4. Rwyf i yn cytuno i gymryd han yn yr astudiaeth uchod. ☐

Enw Cyfranogwr	Dyddiad	Llofnod
Enw y Person sydd yn cymryd caniatad	Dyddiad	Llofnod

Appendix G

Parent Consent Form

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL
BANGOR
UNIVERSITY

Centre Number:

Study Number:

Participant Identification Number for this trial:

PARENT CONSENT FORM

Title of Project: Evaluation of the Enhancing Parenting Skills (EPaS) 2014 programme

Name of Researcher:

Please initial box

5. I confirm that I have read the information sheet dated..... (version.....) for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

6. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐

7. I understand that the researcher will undertake a 30-minute observation of myself and my child and that I may be asked to keep ongoing records about my child. ☐

8. I agree to my General Practitioner being informed of my participation in the study. ☐

9. I agree to take part in the above study. ☐

_____	_____	_____
Name of Participant	Date	Signature
_____	_____	_____
Name of Person taking consent	Date	Signature

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL BANGOR UNIVERSITY

Rhif Canolfan:

Rhif Astudiaeth:

Rhif Adnabod Cyfranogwr ar gyfer y treial:

FFURFLEN CANIATAD RHIENI

Teitl y prosiect: Dadansoddiad o'r rhaglen Enhancing Parenting Skills (EPaS) 2014

Enw yr Ymchwilydd:

Llythrennwch y bocs plis

5. Rwyf yn cadarnhau fy mod wedi darllen y daflen wybodaeth, dyddiad ……. (fersiwn ……..) ar gyfer yr astudiaeth uchod. Rwyf wedi cael cyfle i ystyried y wybodaeth, i ofyn cwestiynnau ag wedi cael atebion boddhaol i'r rhain. ☐

6. Rwyf yn deall fod fy nghyfranogiad yn wirfoddol ag rwyf yn rhydd i dynnu yn ôl ar unrhyw adeg heb roi rheswm, ag heb gael unrhyw effaith ar fy ngofal meddygol nag fy hawliau cyfreithiol. ☐

7. Rwyf yn deall y bydd yr ymchwilydd yn ymgymryd arsylwad 30-munud o minnau a fy mhlentyn ag efallai y bydd gofyn arnaf i gadw cofnodion am fy mhlentyn. ☐

8. Rwy'n cytuno i fy Meddyg Teulu gael gwybod fy mod yn cymryd rhan yn yr astudiaeth. ☐

9. Rwyf i yn cytuno i gymryd han yn yr astudiaeth uchod. ☐

_____	_____	_____
Enw Cyfranogwr	Dyddiad	Llofnod
_____	_____	_____
Enw y Person sydd yn cymryd caniatad	Dyddiad	Llofnod

Appendix H

Health Visitor Information Sheet

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL BANGOR UNIVERSITY

HEALTH VISITOR INFORMATION SHEET

Evaluation of the Enhancing Parenting Skills 2014 programme

You have been nominated to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve.

A member of the research team will go through the information with you and answer any questions you may have.

Please take time to read the following information carefully and discuss it with your service manager if you wish.

Part 1 tells you the purpose of this study and what will happen to you if you take part

Part 2 gives you more detailed information about the conduct of the study.

If anything is unclear, or if you would like more information, you are welcome to ask us any questions.

Part 1 – to give you information about the project

What is the purpose of this study?
The purpose of this study is to evaluate the effectiveness of the Enhancing Parenting Skills (EPaS) 2014 programme. This is a specialised course for health visitors to provide them with additional skills to help families deal with child behaviour problems. Health visitors will work with a family on a one-to-one basis for up to 12 weeks to develop appropriate strategies of dealing with child behavioural difficulties. It builds on an earlier version of the EPaS programme that has recently been updated following a pilot trial in 2013.

Why have I been nominated?
Your service manager has nominated you for this project because they thought you may be interested in doing the EPaS 2014 course.

Do I have to take part?
No. It is entirely up to you whether or not you decide to take part in this research project. We will explain the study and go through this information sheet with you. If you do decide to take part, we will then ask you to sign a consent form.

You will be given a copy of the information sheet and the signed consent form to keep for your records.

You are free to withdraw from the research at any time and you do not need to give a reason. This will not affect your employment in any way.

What will happen to me if I take part?
If you take part in this study you will be required to complete training in the EPaS 2014 programme. This is a three-day course conducted over a period of three months (one training

day per month). You will be asked to identify two parents from your own caseload using the parent-reported Eyberg Child Behaviour Inventory as a screening tool for child behaviour problems. Only families with a child scoring above the clinical cut-off will be eligible to take part in the study. You will need to briefly discuss the project with any eligible families and obtain permission from the parent for their details to be forwarded to the research team. The two parents will be randomly allocated to receive the intervention immediately or in six months time. You will then be asked to deliver the EPaS 2014 intervention to one parent for up to 12 one-hour weekly sessions. Later you will be asked to use the skills taught on the course with the second family after six months.

The programme is delivered in weekly one-hour sessions. During the one-to-one sessions, you will be required to collect information about the parent and child using questionnaires and you may be asked to observe them interacting together. The parent will be asked to keep records about their child's behaviour and you can use these records to develop strategies to deal with the child's difficult behaviour. You may be asked to inform the parents' GP of their participation, if they consent for you to do so. A template letter will be provided for this purpose.

What are the possible disadvantages and risks of taking part?
There are no obvious risks in taking part in this study.

What are the possible benefits of taking part?
If you agree to take part, you will receive training in the EPaS 2014 programme which could potentially be an effective intervention for parents of children with behaviour problems.

What happens when the research study stops?
We will collect all the information together and we will decide whether the EPaS 2014 programme is an effective intervention for parents of children with behaviour problems.

What if there is a problem?
Any complaint about the way you have been dealt with during the study or any possible harm you might suffer will be addressed. The detailed information on this is given in Part 2.

Contact for further information
If you would like any further information about this study you could contact:

Name: Margiad Elen Williams
PhD student
Email: margiad.williams@bangor.ac.uk
Tel: 01248 383627

If the information in Part 1 has interested you and you are considering taking part, please continue to read the additional information in Part 2 before making a decision.

Part 2 – information you need to know if you still want to take part

What will happen if I don't want to carry on with the research?
If you withdraw from the study, we will destroy all identifiable data forms if you wish. We will still use the data collected up to the withdrawal unless you ask us to remove the data from the project.

What if there is a problem?
If you have a concern about any aspect of this study, you should speak to your Service Manager or ask to speak to the researchers who will do their best to answer your questions (tel: 01248 383627).

If you are unhappy with the conduct of this research and wish to complain formally, you should contact:

Name: Mr Hefin Francis,
School Manager, School of Psychology, Bangor University
Tel: 01248 388339
Email: h.francis@bangor.ac.uk

Will our details be kept confidential?
Yes. All the information about you collected by the researcher will remain strictly confidential and will be kept at the Centre for Evidence Based Early Intervention, Bangor University in a locked cabinet.

Our procedures for handling, processing, storage and destruction of data are compliant with the Data Protection Act 1998.

When the results of this study are reported, information from all taking part will be reported as a group and not as individuals.

What will happen to the results of this study?
The results of this study will be published. When the results of this study are reported, information from all taking part will be reported as a group and not as individuals. At the end of the project, we will send a letter to all who participated outlining the results of the study.

Who is organising and funding the research?
The research is being organised by Bangor University as part of a student's PhD. The research is funded by a Bangor University Alumna member.

Who has reviewed the study?
The research has been approved by the Ethics Committee at the School of Psychology, Bangor University. Also, the study has been reviewed and given a favourable ethical opinion by the Wales Research Ethics Committee (West).

I have a few more questions. Who can I call?
Any queries about this research should be addressed to

Name: Margiad Elen Williams
PhD student, Bangor University
Tel: 01248 383627
Email: margiad.williams@bangor.ac.uk

or to

Name: Professor Judy Hutchings
Professor of Clinical Psychology, Bangor University
Tel: 01248 383625
Email: j.hutchings@bangor.ac.uk

If you decide to take part in this study, you will be given this information sheet and signed consent form to keep.

Thank you for taking the time to read this information sheet.

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL BANGOR UNIVERSITY

TAFLEN WYBODAETH YMWELWYR IECHYD

Dadansoddiad o'r rhaglen Enhacning Parenting Skills (EPaS) 2014

Rydych wedi cael eich noddi i gymryd rhan mewn astudiaeth ymchwil. Cyn gwneud penderfyniad, mae'n bwysig deall pam bod yr ymchwil yn cael ei gynnal a beth fydd yn ei olygu.

Bydd aelod o'r tîm ymchwil yn mynd drwy'r wybodaeth gyda chi ag yn ateb unrhyw gwestiynnau fydd gennych.

Cymerwch amser i ddarllen y wybodaeth canlynol yn ofalus a'i drafod gyda'ch rheolwr gwasanaeth os dymunwch.

Mae *Rhan 1* yn dweud wrthoch am bwrpas yr astudiaeth yma a beth fydd yn digwydd i chi os gymerwch chi ran.

Mae *Rhan 2* yn rhoi mwy o fanylion am y dull o gynnal yr astudiaeth.

Os oes unrhyw beth ddim yn glir, neu os ydych angen mwy o wybodaeth, mae croeso i chi ofyn unrhyw gwestiynnau.

Rhan 1 – i roi gwybodaeth am y prosiect

Beth yw pwrpas yr astudiaeth?
Pwrpas yr astudiaeth yw i ddandansoddi effeithiolrwydd y rhaglen Enhancing Parenting Skills (EPaS) 2014. Mae hwn yn gwrs arbennigol i ymwelwyr iechyd i'w darparu nhw gyda sgiliau ychwanegol i helpu teuluoedd ddelio gyda problemau ymddygiad plant. Bydd ymwelwyr iechyd yn gweithio un-i-un gyda rhiant am oddeutu 12 wythnos i ddatblygu strategaethau priodol i ddelio gydag ymddygiad trafferthus plentyn. Mae'n adeiladu ar ferswin cynharach o'r rhaglen EPaS sydd wedi cael ei ddiweddaru yn dilyn treial peilot yn 2013.

Pam ydw i wedi cael fy noddi?
Mae eich rheolwr gwasanaeth wedi eich noddi ar gyfer y prosiect yma oherwydd eu bod yn meddwl efallai fysech chi gyda diddordeb mewn cwbwlhau y cwrs EPaS 2014.

Oes rhaid i mi gymryd rhan?
Nag oes. Mae fynu i chi os ydych yn penderfynu cymryd rhan yn y prosiect ymchwil neu beidio. Byddem yn egluro'r astudiaeth a mynd drwy y daflen wybodaeth gyda chi. Os ydych yn penderfynu cymryd rhan, byddem yn gofyn i chi lofnodi y ffurflen caniatad.

Byddech yn cael copi o'r daflen wybodaeth a'r ffurflen caniatad lofnedig i gadw ar gyfer eich cofnodion.

Rydych yn rhydd i dynnu yn ôl o'r ymchwil ar unrhyw adeg ag nid oes angen i chi roi rheswm. Bydd hyn ddim yn effeithio eich swydd mewn unrhyw ffordd.

Beth fydd yn digwydd os na'i gymryd rhan?
Os fyddech yn cymryd rhan yn yr astudiaeth, bydd disgwyl i chi gwbwlhau hyfforddiant yn y rhaglen EPaS 2014. Mae hwn yn gwrs tri diwrnod sy'n cael ei redeg dros gyfnod o dri mis (un diwrnod hyfforddi pob mis). Gofynnir i chi adnabod dau riant o'ch baich achosion eich hunain

gan ddefnyddio yr Eyberg Child Behaviour Inventory fel offeryn sgrinio am broblemau ymddygiad mewn plant. Dim ond teuluoedd gyda plentyn sydd yn sgorio uwchben y torbwynt clinigol fydd yn gymwys i gymryd rhan yn yr astudiaeth. Bydd angen i chi drafod y prosiect gyda unrhyw deulu cymwys a cael caniatad i yrru eu manylion ymlaen i'r tîm ymchwil. Bydd y ddau riant yn cael eu didoli ar hap i unai derbyn yr ymyrraeth yn syth neu men chwe mis. Gofynnir i chi gynnal yr ymyrraeth EPaS 2014 gydag un o'r rhieni am oddeutu 12 sesiwn un awr wythnosol. Nes ymlaen, gofynnir i chi ddefnyddio y sgiliau a ddysgwyd ar y cwrs gyda'r ail deulu ar ôl chwe mis.

Mae'r rhaglen yn cael ei chynnal mewn sesiynau un awr wythnosol. Yn ystod y sesiynau un-i-un, bydd gofyn i chi gasglu gwybodaeth am y rhiant a'u plentyn trwy ddefnyddio holidauron ag efallai bydd angen i chi eu arsylwi yn cydymweithio gyda'i gilydd. Gofynnir i'r rhiant gadw cofnodion am ymddygiad eu plentyn a byddwch yn defnyddio y cofnodion hyn i ddatblygu strategaethau i ddelio gydag ymddygiad trafferthus y plentyn. Efallai gofynnir i chi roi gwybod i Feddyg Teulu'r rhieni am eu cyfranogaeth, os ydynt yn caniatau i chi wneud hynny. Bydd llythyr templad ar gael ar gyfer hyn.

Beth yw'r anfanteision neu risgiau posibl o gymryd rhan?
Does yna ddim risgiau amlwg i gymryd rhan yn yr astudiaeth hon.

Beth yw'r buddion posibl o gymryd rhan?
Os ydych yn cytuno i gymryd rhan, byddech yn derbyn hyfforddiant yn y rhaglen EPaS 2014 â ellir o bosibl fod yn ymyrraeth effeithiol i rieni plant gyda problemau ymddygiad.

Beth fydd yn digwydd pan fydd yr astudiaeth ymchwil yn stopio?
Byddem yn casglu yr holl wybodaeth at ei gilydd ag yn penderfynnu os yw'r rhaglen EPaS 2014 yn ymyrraeth effeithiol i rieni plant gyda problemau ymddygiad.

Beth os oes problem?
Bydd unrhyw gŵyn am y ffordd rydych chi wedi cael eich trin yn ystod yr astudiaeth neu unrhyw niwed posibl gallech chi ddioddef yn cael sylw. Mae'r gwybodaeth manwl am hyn i'w weld yn Rhan 2.

Cyswllt am fwy o wybodaeth
Os ydych eisiau gwybodaeth bellach am yr astudiaeth yma, gallech gysylltu â:

Enw: Margiad Elen Williams
Myfyrwraig PhD, Prifysgol Bangor
Ebost: margiad.williams@bangor.ac.uk
Ffôn: 01248 383627

Os yw'r wybodaeth yn Rhan 1 o ddiddordeb i chi ag rydych yn ystyried cymryd rhan, darllenwch y wybodaeth ychwanegol yn Rhan 2 cyn gwneud penderfyniad os gwelwch yn dda.

Rhan 2 – gwybodaeth yr ydych angen ei wybod os ydych eisiau cymryd rhan

Beth fydd yn digwydd os nag ydw i eisiau parhau gyda'r ymchwil?
Os ydych yn tynnu yn ôl o'r astudiaeth, byddem yn dinistrio holl ffurflenni gyda gwybodaeth adnabyddadwy os ydych yn dymuno. Byddem yn parhau i ddefnyddio y data yr ydym wedi casglu i fynu at y pwynt tynnu yn ôl os nag ydych yn gofyn i ni i'w ddileu o'r prosiect.

Beth os oes problem?
Os oes gennych bryderon am unrhyw ran o'r astudiaeth yma, gallech siarad gyda'ch rheolwr gwasanaeth neu gofyn i gael sgwrs gyda'r ymchwilwyr a wneith eu gorau i ateb eich cwestiynnau (ffôn: 01248 383627).

Os ydych yn anhapus gyda'r dull o gynnal yr astudiaeth yma ag yn dymuno rhoi cŵyn swyddogol, dylech gysylltu â:

Enw: Mr Hefin Francis
Rheolwr Ysgol, Ysgol Seicoleg, Prifysgol Bangor
Ffôn: 01248 388339
Ebost: h.francis@bangor.ac.uk

Fydd ein manylion yn cael eu cadw yn gyfrinachol?
Bydd yr holl wybodaeth amdano chi yn aros yn gwbl gyfrinachol ag yn cael eu cadw yn y Ganolfan Ymyrraeth Cynnar ar Sail Tystiolaeth, Prifysgol Bangor mewn cwpwrdd clo.

Mae ein gweithdrefnau ar gyfer trin, prosesu, storio a dinistrio data yn cydymffurfio â Deddf Diogelu Data 1998.

Pan fydd canlyniadau'r astudiaeth yn cael eu cyhoeddi, bydd gwybodaeth am bawb sydd yn cymryd rhan yn cael eu adrodd fel grŵp a ddim fel unigolion.

Beth fydd yn digwydd i ganlyniadau'r atsudiaeth yma?
Bydd canlyniadau'r astudiaeth yma yn cael eu cyhoeddi. Pan fydd canlyniadau'r astudiaeth yn cael eu cyhoeddi, bydd gwybodaeth am bawb sydd yn cymryd rhan yn cael eu adrodd fel grŵp a ddim fel unigolion. Ar ddiwedd y proseict, byddwn yn gyrru llythyr i bawb sydd wedi cymryd rhan yn amlinellu canlyniadau'r astudiaeth.

Pwy sydd yn trefnu ag ariannu'r ymchwil?
Mae'r ymchwil yn cael ei drefnu gan Brifysgol Bangor fel rhan o PhD myfyrwraig. Mae'r ymchwil yn cael ei ariannu gan gynddisgybl Prifysgol Bangor.

Pwy sydd wedi arolygu yr astudiaeth?
Mae'r ymchwil wedi cael ei gymeradwyo gan Bwyllgor Moeseg yr Ysgol Seicoleg, Prifysgol Bangor. Hefyd, mae'r astudiaeth wedi cael ei arolygu ag wedi cael dyfarniad ffafriol gan Bwyllgor Moeseg Ymchwil Cymru (Gorllewin).

Mae gen i fwy o gwestiynnau. Pwy allai ffonio?
Dylai unrhyw ymholiadau am yr ymchwil yma gael eu cyfeirio i:

Enw: Margiad Elen Williams
Myfyrwraig PhD, Prifysgol Bangor
Ffôn: 01248 383627
Ebost: margiad.williams@bangor.ac.uk

neu

Enw: Yr Athro Judy Hutchings
Athro Seicoleg Clinigol, Prifysgol Bangor
Ffôn: 01248 383625
Ebost: j.hutchings@bangor.ac.uk

Os ydych yn penderfynnu cymryd rhan yn yr astudiaeth, byddech yn derbyn copi o'r daflen wybodaeth yma a ffurflen caniatad llofnedig i'w gadw.

Diolch yn fawr am gymryd yr amser i ddarllen y daflen wybodaeth hon.

Appendix I

Administration and Scoring Instructions for Eyberg Child Behaviour Inventory

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL BANGOR UNIVERSITY

Administering the Eyberg Child Behaviour Inventory

Information for Health Visitors

Thank you for agreeing to take part in our research trial to evaluate the Enhancing Parenting Skills (EPaS) 2014 programme with parents of children displaying behaviour problems. As part of the research, you have been asked to identify two parents of children, aged 30 – 48 months, from your caseload who are reporting difficulties with their child's behaviour. In order to identify these children you will need to administer the Eyberg Child Behaviour Inventory (ECBI). This is a parent-completed questionnaire that asks about the frequency and intensity of a series of child behaviours. Only parents with a child scoring above the clinical cut-off on the ECBI will be invited to participate in the study.

What should I say to parents?

You can say to parents that you are approaching parents in the area to get some indication of the type of problems they may be experiencing with their child's behaviour and ask if they would be willing to help. If they are willing to help, ask them to fill out a questionnaire about their child's behaviour (the ECBI). You will then need to score the ECBI questionnaire to see whether the child is above the clinical cut-off for behaviour problems.

Scoring the Questionnaire

The ECBI is a 36-item parent-completed questionnaire designed to assess problem behaviours occurring in children aged 2-16 years. Each behaviour is rated on two scales: the Intensity scale measures how often the behaviour occurs, ranging in response intensity from 1 (Never) to 7 (Always); the Problem scale has Yes-No responses and measures whether the behaviour is perceived as a problem for the parent.

Intensity scale: To score this scale, you total the circled responses to give a raw score (minimum score = 36, maximum score = 252). Always check that the parent has answered every question. If a question is N/A (e.g. some questions ask about siblings) score as 1 (Never) and sum as before.

Problem scale: To score this scale, total the circled Yes responses to give a raw score (minimum score = 0, maximum score = 36). Always check that the parent has answered every question. If a question is N/A (e.g. some questions ask about siblings) count as a No response and sum as before.

Clinical cut-off: The clinical cut-off for the Intensity scale is 131 or above and 15 or more for the Problem scale. Only children who score above either the Intensity or Problem scales are eligible to participate.

What to do next?
If the child does not score above the clinical cut-off, thank the parent for their time and help and if they have identified any problems you may like to discuss these as part of your normal work.

If the child does score above the clinical cut-off, you should then explain that the questionnaire shows that the child has some challenging behaviour and appears to be one of those children that can be harder to parent. You can then briefly explain the project and ask whether the parent is interested in taking part. You should say that you are taking part in a research project with Bangor University to evaluate a training course for health visitors called the Enhancing Parenting Skills 2014 programme. This course will provide you with additional skills to support parents in dealing with child behaviour problems. If they consent to help you, you would be working with them on a one-to-one basis for up to 12 weeks to develop appropriate strategies of dealing with their child's behaviour. If they are interested, you need to explain that a researcher would visit them on at least two occasions to collect more information about them and their child. Taking part would also mean that you might start visiting them now or in four months time.

If the parent is still interested in participating, you need to ask them to for consent for you to send their details to the research team at Bangor University. Ask them to sign the attached form (Parent Note of Interest).

Please send the form and the completed ECBI questionnaire to the research team as soon as possible.

Send to: Margiad Elen Williams
Centre for Evidence Based Early Intervention,
Nantlle Building,
Normal Site,
Bangor University,
Gwynedd
LL57 2PZ

Appendix J

Parent Note of Interest

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Evaluation of the Enhancing Parenting Skills (EPaS) 2014 programme

PARENT NOTE OF INTEREST

If you have discussed the research project with your health visitor and are willing to learn more about this exciting research opportunity, please complete and sign this form and hand it to your health visitor.

Parent's details			
First Name:		Surname:	
Address:			
Postcode:			
Telephone (Landline):			
Telephone (Mobile):			
First Language:			
Best Time to Contact:			

I consent for my health visitor to forward my contact details to the research team at Bangor University. I understand that I will be contacted and provided with additional information about the study and the possibility of participating in the project at which time I will have the opportunity to decide whether or not to participate.

Signature:	Date:

Please return this form to your health visitor

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Dadanosddiad o'r rhaglen Enhancing Parenting Skills (EPaS) 2014

NODYN O DDIDDORDEB I RIENI

Os ydych wedi trafod y prosiect ymchwil gyda'ch ymwelydd iechyd ag eisiau gwybod mwy am y cyfle ymchwil cyffores hwn, cwbwlhewch a llofnodwch y ffurflen hon a'i ddychwelyd i'ch ymwelydd iechyd os gwelwch yn dda.

Manylion y rhiant			
Enw cyntaf:		Cyfenw:	
Cyfeiriad:			
Côd post:			
Ffôn (Cartref):			
Ffôn (Symudol):			
Iaith Cyntaf:			
Amser Gorau i Gysylltu:			

Rwyf yn caniatau i fy ymwelydd iechyd yrru fy manylion cyswllt ymlaen i'r tîm ymchwil ym Mhrifysgol Bangor. Rwyf yn deall y bydd rhywun yn cysylltu â mi ag yn rhoi gwybodaeth ychwanegol am yr astudiaeth a'r posibilrwydd o gymryd rhan yn y prosiect a byddaf yn cael cyfle i benderfynu os wyf am gymryd rhan neu beidio.

Llofnod:	Dyddiad:

Dychwelwch y ffurflen hon i'ch ymwelydd iechyd os gwelwch yn dda

Appendix K

Parent Information Sheet

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
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PARENT INFORMATION SHEET

Evaluation of the Enhancing Parenting Skills 2014 programme

You are being invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve.

A member of the research team will go through the information with you and answer any questions you may have.

Please take time to read the following information carefully and discuss it with your family and your health visitor if you wish.

Part 1 tells you the purpose of this study and what will happen to you if you take part

Part 2 gives you more detailed information about the conduct of the study.

If anything is unclear, or if you would like more information, you are welcome to ask us any questions.

Part 1 – to give you information about the project

What is the purpose of this study?
The purpose of this study is to evaluate the effectiveness of the Enhancing Parenting Skills (EPaS) 2014 programme. This is a specialised course for health visitors to provide them with additional skills to help families deal with child behaviour problems. Health visitors will work with a parent on a one-to-one basis for up to 12 weeks to develop appropriate strategies of dealing with a child's difficult behaviour.

Why have I been invited?
Your health visitor has agreed to attend this course, and as part of the course, they have been asked to approach a family who report difficulties with a child's behaviour. It seems from information that you have provided that your child has some problems and, with your permission, your health visitor has forwarded your details to the research team.

Do I have to take part?
No. It is entirely up to you whether or not you decide to take part in this research project. We will explain the study and go through this information sheet with you. If you do decide to take part, we will then ask you to sign a consent form.

You will be given a copy of the information sheet and the signed consent form to keep for your records. You are free to withdraw from the research at any time and you do not need to give a reason. This will not affect your access to other health services.

What will happen to me if I take part?
In order to find out whether the EPaS 2014 programme is effective in reducing child behaviour problems, we are doing a process called randomisation where parents who take part will either receive the programme now or in six months time. The process works in a similar way to tossing a coin. If you agree to take part, you are guaranteed to receive the programme but you may have to wait six months before your health visitor can start working with you.

A researcher will visit you within the next month and again six months later. At each visit, the researcher will ask you to complete a few questionnaires about you and your child. She will also ask you and your child to take part in an activity such as playing a game so that she can watch and record how your child responds during these activities. Each visit will last about an hour. In exchange for participant's time and effort we will be offering all participants a children's book on completion of the study questionnaires and observation.

During the one-to-one sessions with your health visitor, they will collect information about your child by using questionnaires and they may observe you and your child interacting together. You will also be asked to keep records about your child's behaviour. These records will be used to discuss the difficulties with you and help you to develop strategies to deal with your child's difficult behaviour. If you give consent, your health visitor can inform your GP of your participation.

What are the possible disadvantages and risks of taking part?
There are no obvious risks in taking part in this study. If you agree to take part in the study, you will be asked to complete questionnaires and a 30-minute observation in a home visit by a researcher. This is the only possible inconvenience. A researcher will only visit with your permission and at a time that is convenient for you.

What are the possible benefits of taking part?
Your health visitor will be trained in the EPaS 2014 programme and, if you agree to take part, they will work with you for up to 12 weeks to develop new skills that could potentially help you deal with your child's difficult behaviour.

What happens when the research study stops?
We will collect all the information together and we will decide whether the EPaS 2014 programme has any affect on your child's difficult behaviour.

What if there is a problem?
Any complaint about the way you or your child have been dealt with during the study or any possible harm you or your child might suffer will be addressed. The detailed information on this is given in Part 2.

Contact for further information
If you would like any further information about this study you could contact:

Name: Margiad Elen Williams
PhD student
Email: margiad.williams@bangor.ac.uk
Tel: 01248 383627

If the information in Part 1 has interested you and you are considering taking part, please continue to read the additional information in Part 2 before making a decision.

Part 2 – information you need to know if you still want to take part

What will happen if I don't want to carry on with the research?
If you withdraw from the study, we will destroy all identifiable data forms if you wish. We will still use the data collected up to the withdrawal unless you ask us to remove the data from the project.

What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researchers who will do their best to answer your questions (tel: 01248 383627).
If you are unhappy with the conduct of this research and wish to complain formally, you should contact:

Name: Mr Hefin Francis,
School Manager, School of Psychology, Bangor University
Tel: 01248 388339
Email: h.francis@bangor.ac.uk

Will our details be kept confidential?
Yes. All the information about you and your child collected by the researcher will remain strictly confidential and will be kept at the Centre for Evidence Based Early Intervention, Bangor University in a locked cabinet.

Our procedures for handling, processing, storage and destruction of data are compliant with the Data Protection Act 1998.

When the results of this study are reported, information from families taking part will be reported as a group and not as individuals. We will ensure confidentiality unless we have cause for concern regarding your child's safety.

What will happen to the results of this study?
The results of this study will be published. When the results of this study are reported, information from families taking part will be reported as a group and not as individuals. At the end of the project, we will send a letter to all the families who participated outlining the results of the study.

Who is organising and funding the research?
The research is being organised by Bangor University as part of a student's PhD. The research is funded by a Bangor University Alumna member.
Who has reviewed the study?
The research has been approved by the Ethics Committee at the School of Psychology, Bangor University. Also, the study has been reviewed and given a favourable ethical opinion by the Wales Research Ethics Committee (West).

I have a few more questions. Who can I call?
Any queries about this research should be addressed to

Name: Margiad Elen Williams
PhD student, Bangor University
Tel: 01248 383627
Email: margiad.williams@bangor.ac.uk

or to

Name: Professor Judy Hutchings
Professor of Clinical Psychology, Bangor University
Tel: 01248 383625
Email: j.hutchings@bangor.ac.uk

If you decide to take part in this study, you will be given this information sheet and signed consent form to keep.

Thank you for taking the time to read this information sheet.

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TAFLEN WYBODAETH I RIENI
Dadansoddiad o'r rhaglen Enhancing Parenting Skills (EPaS) 2014

Rydych yn cael eich gwahodd i gymryd rhan mewn astudiaeth ymchwil. Cyn gwneud penderfyniad, mae'n bwysig deall pam bod yr ymchwil yn cael ei gynnal a beth fydd yn ei olygu.

Bydd aelod o'r tîm ymchwil yn mynd drwy'r wybodaeth gyda chi ag yn ateb unrhyw gwestiynnau fydd gennych.

Cymerwch amser i ddarllen y wybodaeth canlynol yn ofalus a'i drafod gyda'ch teulu a'ch ymwelydd iechyd os dymunwch.

Mae *Rhan 1* yn dweud wrthoch am bwrpas yr astudiaeth yma a beth fydd yn digwydd i chi.

Mae *Rhan 2* yn rhoi mwy o fanylion am y dull o gynnal yr astudiaeth.

Os oes unrhyw beth ddim yn glir, neu os ydych angen mwy o wybodaeth, mae croeso i chi ofyn unrhyw gwestiynnau.

Rhan 1 – i roi gwybodaeth am y prosiect

Beth yw pwrpas yr astudiaeth?
Pwrpas yr astudiaeth yw i ddandansoddi effeithiolrwydd y rhaglen Enhancing Parenting Skills (EPaS) 2014. Mae hwn yn gwrs arbennigol i ymwelwyr iechyd i'w darparu nhw gyda sgiliau ychwanegol i helpu teuluoedd ddelio gyda problemau ymddygiad plant. Bydd ymwelwyr iechyd yn gweithio un-i-un gyda rhiant am oddeutu 12 wythnos i ddatblygu strategaethau priodol i ddelio gydag ymddygiad trafferthus plentyn.

Pam ydw i wedi cael fy ngwahodd?
Mae eich ymwelydd iechyd wedi cytuno i fynychu y cwrs ag, fel rhan o'r cwrs, gofynnwyd iddynt adnabod rhieni sydd yn cael trafferth gydag ymddygiad eu plentyn. Mae'n debyg o'r wybodaeth yr ydych wedi rhoi bod gan eich plentyn chi rai problemau a, gyda'ch caniatad, mae eich ymwelydd iechyd wedi anfon eich manylion i'r tîm ymchwil.

Oes rhaid i mi gymryd rhan?
Nag oes. Mae fynu i chi os ydych yn penderfynu cymryd rhan yn y prosiect ymchwil neu beidio. Byddem yn egluro'r astudiaeth a mynd drwy y daflen wybodaeth gyda chi. Os ydych yn penderfynu cymryd rhan, byddem yn gofyn i chi lofnodi y ffurflen caniatad.

Byddech yn cael copi o'r daflen wybodaeth a'r ffurflen caniatad lofnedig i gadw ar gyfer eich cofnodion. Rydych yn rhydd i dynnu yn ôl o'r ymchwil ar unrhyw adeg ag nid oes angen i chi roi rheswm. Bydd hyn ddim yn effeithio eich defnydd o wasanaethau iechyd eraill.

Beth fydd yn digwydd os na'i gymryd rhan?
Er mwyn gweld os yw'r rhaglen EPaS 2014 yn effeithiol yn lleihau problemau ymddygiad plant, rydym yn gwneud proses o'r enw didoli ar hap ble bydd rhieni sydd yn cymryd rhan unai yn derbyn y rhaglen nawr neu mewn chwe mis. Mae'r proses yn gweithio mewn ffordd tebyg i daflud ceiniog. Os ydych yn cytuno i gymryd rhan, rydych yn sicr o dderbyn y rhaglen ond efallai bydd rhaid i chi ddisgwyl chwe mis cyn bod eich ymwelydd iechyd yn dechrau gweithio gyda chi.

Bydd ymchwilydd yn ymweld â chi o fewn y mis nesaf ag eto mewn chwe mis. Yn ystod pob ymweliad, bydd yr ymchwilydd yn gofyn i chi gwbwlhau holidauron amdano chi a'ch plentyn. Byddai hefyd yn gofyn i chi a'ch plentyn gymryd rhan mewn gweithgaredd fel chwarae gêm er mwyn iddi arsylwi a nodi sut mae eich plentyn yn ymateb yn ystod y gweithgareddau. Bydd pob ymweliad yn parhau tua awr. Yn gyfnewid am amser ag ymdrech cyfranogwyr byddem yn cynig i bob cyfranogwr llyfr i blant ar ôl cwbwlhau yr holiaduron ymchwil a'r arsylwad.

Yn ystod y sesiynau un-i-un gyda'ch ymwelydd iechyd, byddent yn casglu gwybodaeth am eich plentyn trwy ddefnyddio holidauron ag efallai byddent yn gofyn i gael arsylwi chi a'ch plentyn yn cydymweithio gyda'ch gilydd. Gofynnir i chi gadw cofnodion am ymddygiad eich plentyn. Caiff y cofnodion hyn eu defnyddio i drafod yr anawsterau gyda chi ag i'ch helpu i ddatblygu strategaethau i ddelio gydag ymddygiad trafferthus eich plentyn. Os ydych yn rhoi caniatad, mi ellith eich ymwelydd iechyd adael i'ch Meddyg Teulu wybod eich bod yn cymryd rhan.

Beth yw'r anfanteision neu risgiau posibl o gymryd rhan?
Does yna ddim risgiau amlwg i gymryd rhan yn yr astudiaeth hon. Os ydych yn cytuno cymryd rhan yn yr astudiaeth, byddem yn gofyn i chi gwbwlhau holiaduron ag arsylwad 30-munud mewn ymweliad cartref gydag ymchwilydd. Hwn yw'r unig anghyfleuster posibl. Bydd ymchwilydd ond yn ymweld gyda'ch caniatad ag yn ystod amser sydd yn gyfleus i chi.

Beth yw'r buddion posibl o gymryd rhan?
Bydd eich ymwelydd iechyd yn cael eu hyfforddi yn y rhaglen EPaS 2104 ag, os ydych yn cytuno i gymryd rhan, byddent yn gweithio gyda chi am oddeutu 12 wythnos i ddatblygu sgiliau newydd â ellir o bosibl helpu chi ddelio gydag ymddygiad trafferthus eich plentyn.

Beth fydd yn digwydd pan fydd yr astudiaeth ymchwil yn stopio?
Byddem yn casglu yr holl wybodaeth at ei gilydd ag yn penderfynnu os yw'r rhaglen EPaS 2014 yn cael unrhyw effaith ar ymddygiad trafferthus plant.

Beth os oes problem?
Bydd unrhyw gŵyn am y ffordd rydych chi neu'ch plentyn wedi cael eich trin yn ystod yr astudiaeth neu unrhyw niwed posibl gallech chi neu eich plentyn ddioddef yn cael sylw. Mae'r gwybodaeth manwl am hyn i'w weld yn Rhan 2.

Cyswllt am fwy o wybodaeth
Os ydych eisiau gwybodaeth bellach am yr astudiaeth yma, gallech gysylltu â:

Enw: Margiad Elen Williams
Myfyrwraig PhD, Prifysgol Bangor
Ebost: margiad.williams@bangor.ac.uk
Ffôn: 01248 383627

Os yw'r wybodaeth yn Rhan 1 o ddiddordeb i chi ag rydych yn ystyried cymryd rhan, darllenwch y wybodaeth ychwanegol yn Rhan 2 cyn gwneud penderfyniad.

Rhan 2 – gwybodaeth yr ydych angen ei wybod os ydych eisiau cymryd rhan

Beth fydd yn digwydd os nag ydw i eisiau parhau gyda'r ymchwil?
Os ydych yn tynnu yn ôl o'r astudiaeth, byddem yn dinistrio holl ffurflenni gyda gwybodaeth adnabyddadwy os ydych yn dymuno. Byddem yn parhau i ddefnyddio y data yr ydym wedi casglu i fynu at y pwynt tynnu yn ôl os nag ydych yn gofyn i ni i'w ddileu o'r prosiect.

Beth os oes problem?
Os oes gennych bryderon am unrhyw ran o'r astudiaeth yma, gallech ofyn i gael sgwrs gyda'r ymchwilwyr a wneith eu gorau i ateb eich cwestiynnau (ffôn: 01248 383627).

Os ydych yn anhapus gyda'r dull o gynnal yr astudiaeth yma ag yn dymuno rhoi cŵyn swyddogol, dylech gysylltu â:

Enw: Mr Hefin Francis
Rheolwr Ysgol, Ysgol Seicoleg, Prifysgol Bangor
Ffôn: 01248 388339
Ebost: h.francis@bangor.ac.uk

Fydd ein manylion yn cael eu cadw yn gyfrinachol?
Bydd yr holl wybodaeth amdano chi a'ch plentyn yn aros yn gwbl gyfrinachol ag yn cael eu cadw yn y Ganolfan Ymyrraeth Cynnar ar Sail Tystiolaeth, Prifysgol Bangor mewn cwpwrdd clo.

Mae ein gweithdrefnau ar gyfer trin, prosesu, storio a dinistrio data yn cydymffurfio â Deddf Diogelu Data 1998.

Pan fydd canlyniadau'r astudiaeth yn cael eu cyhoeddi, bydd gwybodaeth gan teuluoedd sydd yn cymryd rhan yn cael eu adrodd fel grŵp a ddim fel unigolion. Byddwn yn sicrhau cyfrinachedd os nag oes unrhyw bryder am ddiogelwch eich plentyn.

Beth fydd yn digwydd i ganlyniadau'r atsudiaeth yma?
Bydd canlyniadau'r astudiaeth yma yn cael eu cyhoeddi. Pan fydd canlyniadau'r astudiaeth yn cael eu cyhoeddi, bydd gwybodaeth gan teuluoedd sydd yn cymryd rhan yn cael eu adrodd fel grŵp a ddim fel unigolion. Ar ddiwedd y proseict, byddwn yn gyrru llythyr i pob teulu sydd wedi cymryd rhan yn amlinellu canlyniadau'r astudiaeth.

Pwy sydd yn trefnu ag ariannu'r ymchwil?
Mae'r ymchwil yn cael ei drefnu gan Brifysgol Bangor fel rhan o PhD myfyriwr. Mae'r ymchwil yn cael ei ariannu gan gynddisgybl Prifysgol Bangor.

Pwy sydd wedi arolygu yr astudiaeth?
Mae'r ymchwil wedi cael ei gymeradwyo gan Bwyllgor Moeseg yr Ysgol Seicoleg, Prifysgol Bangor. Hefyd, mae'r astudiaeth wedi cael ei arolygu ag wedi cael dyfarniad ffafriol gan Bwyllgor Moeseg Ymchwil Cymru (Gorllewin).

Mae gen i fwy o gwestiynnau. Pwy allai ffonio?
Dylai unrhyw ymholiadau am yr ymchwil yma gael eu cyfeirio i:

Enw: Margiad Elen Williams
Myfyrwraig PhD, Prifysgol Bangor
Ffôn: 01248 383627
Ebost: margiad.williams@bangor.ac.uk

neu

Enw: Yr Athro Judy Hutchings
Athro Seicoleg Clinigol, Prifysgol Bangor
Ffôn: 01248 383625
Ebost: j.hutchings@bangor.ac.uk

Os ydych yn penderfynnu cymryd rhan yn yr astudiaeth, byddech yn derbyn copi o'r daflen wybodaeth yma a ffurflen caniatad llofnedig i'w gadw.

Diolch yn fawr am gymryd yr amser i ddarllen y daflen wybodaeth hon.

Appendix L
Record of Home Visits

Record of home visits

Date	Family (Intervention / Control)	What you did?

Appendix M

Conners Abbreviated Parent Teacher Questionnaire

Conners Abbreviated Parent Teacher Questionnaire

ABBREVIATED PARENT/TEACHER QUESTIONNAIRE

Name of child ..... Date.....

Date of birth ..... Name of parent/teacher .....

Age..... Sex.....

Instructions: Please answer all questions. Beside *each* item below, indicate the degree of the problem with a checkmark (✓).

		Degree of	*Activity*	
Observation	*Not at all*	*Just a little*	*Pretty much*	*Very much*
1. Restless or overactive				
2. Excitable, impulsive				
3. Disturbs other children				
4. Fails to finish things he or she starts – short attention span				
5. Constantly fidgeting				
6. Inattentive, easily distracted				
7. Demands must be met immediately – easily frustrated				
8. Cries often and easily				
9. Mood changes quickly and drastically				
10. Temper outburst, explosive and unpredictable behaviour				

Comments:

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Appendix N

Parent-Child Observation Coding Sheet

Family ID: _____ Time 1 2 Coder Initial: _____ RV
Prim / Sec

A	D	Positive Parent	Total
		Unlabeled Praise	
		Labeled Praise	
		Encouragement	
		Social-emotional coaching	
A	**D**	**Negative Parent**	**Total**
		Critical Statement	
		Negative Command	

A	D	Child Positive	Total
		Positive Affect (verbal)	
A	**D**	**Child Negative**	**Total**
		Destructive	
		Smart Talk	
		Physical Negative	

A =
D =
Total =
Reliability (%) =

Notes:

A	D	Positive Parent	Total
		Unlabeled Praise	
		Labeled Praise	
		Encouragement	
		Social-emotional coaching	
A	**D**	**Negative Parent**	**Total**
		Critical Statement	
		Negative Command	

A	D	Child Positive	Total
		Positive Affect (verbal)	
A	**D**	**Child Negative**	**Total**
		Destructive	
		Smart Talk	
		Physical Negative	

A =
D =
Total =
Reliability (%) =

Notes:

Appendix O

Parent-Child Observation Coding Manual

Conducting Observations

Home Visits Procedure

Instructions to Researchers

- Develop a friendly relationship / rapport with the parent(s) and child(ren) so they feel as comfortable as possible.
- When approached by the parent(s) or child(ren) during observation, do not respond.
- Reiterate that the coder will not be able to talk / answer any questions while observation is taking place.
- Orient the parent(s) to the process of observation BEFORE the observation commences. The goal of the researcher should be to answer all questions regarding the observation as fully as possible beforehand, so that the parent(s) are clear about what is going to happen during the visit.
- Explain to the child(ren) that you will not be able to talk to them until the observation has finished.
- All coders to follow the same guidelines to avoid data contamination.
- Emphasise to coder not to read into something that is not there. The goal of the research is not to obtain as high a number of entries as possible in an observation. Just to code it as it is.

Child Protection Issues

- In conducting direct observations of families, coders are unlikely to come across serious physical abuse. These families have agreed to take part in the study.
- One might come across emotional abuse, but there is a problem in defining what constitutes abuse in an emotional sense.
- Confidentiality issues – research ethics.
- Researchers are NOT clinically trained and therefore not qualified to identify such behaviours.
- If researchers, however, do feel uncomfortable following an observation visit, then the researchers should bring the issue up with the clinician in charge of the project.
- Police checks for all coders will be made before they go out to visit families.

Preparing materials for the Home Visit

The Pack Cover Sheet will have all the details there for you. Put on the observation sheets:

- Family ID
- Time point (1 = baseline; 2 = follow-up 1; 3 = follow-up 2)
- Coder initial
- Circle RV if it is a reliability visit and indicated whether you are the primary or secondary coder (only necessary if reliability visit)

Additional materials to bring to the home visit:

- A stopwatch to keep track of time

- An extra pen / pencil
- Plenty of spare coding sheets (remember you need at least three for every 30-minute observation)

Arriving and Coding the observation

- Plan to arrive on time for the Home Visit.
- The primary researcher is responsible for putting the family at ease. Spend a few minutes making small talk and making sure all family members understand the rules. Explain that you will try to be as unobtrusive and "invisible" as possible.
- Children need to be told that you will be working quietly and will not be able to talk with them until you are through with your work. Let them know you will not forget to tell them when you are finished and able to talk. You do not need to remind them again.
- Each 30 minute observation is code in 5-minute segments, one coding sheet per 10 minutes.
- If any family member absents him or herself from the observation for an extended length of time (over one minute), for example to answer the phone or go to the bathroom, stop the clock, and add the time to the 5-minute segment. Add a note to the coding sheet explaining the extra time added.

Reliability Observations

- If a second researcher is present, they will need the same paperwork as the primary coder.
- The primary and secondary coder should sit or stand together. Decide who will be the timekeeper (usually the primary coder).
- At the end of a five minute segment the timekeeper will indicate to the other coder that it is time to stop that segment.
- It is important the primary and secondary observers keep their communication to a minimum (nonverbal communication is preferable). In this way the observers can be less distracting to the family.
- At times the primary observer will need to decide to stop the clock (while the child goes to the bathroom. etc.). Other decisions may be to move to another seat or location in the room. It is important for the secondary observer to be in sync during these times.

Coding tips and considerations

- Keep your pencil moving as much as possible so the family is not aware of what you are doing. If the parent sees you moving the pencil only when s/he talks, s/he may stop talking!
- Try to look at children, including siblings, without giving them eye contact. Otherwise, they may begin performing for the observers.
- Often target children will test the rule about getting work done. If they talk to you, bang your knee, laugh in your face, or stamp on your watch, IGNORE THEM. D not look at them, smile at them, gasp, laugh, or in any way let them know you are responding to them. This is difficult, but essential.

Completing the Home Visit

Thank the family for their time. Talk to the children and thank them for letting you do your work. Give the child a sticker (and siblings if present). Give the parent the book you have brought with you (gift for participation). The home visit measures and observation paperwork must be submitted asap to the research office.

Reliability maintenance meetings

Even after the coder has reached criteria for reliability (80%), and has started to conduct home observations, it is important that we still have regular meetings so that coders maintain high levels of reliability.

Fortnightly reliability meetings for coders are held on a consistent basis, same day and time each fortnight. Creating and maintaining a high rate of inter-coder reliability is the primary purpose of the meetings. Although the meetings often have many components, reliability is always the group's main focus. Reliability meetings typically begin with the group facilitator conducting a check-in regarding ongoing work.

Specific coding questions from recent observations are addressed by the group. It is common for the group to have discussions about particular coding questions and to read various sections from the manual. Meeting time is also used by the group to support fellow coders in debriefing various home coding situations.

The group usually codes a videotape of a parent/child dyad during the meeting. Reliability is checked for each segment. Coders often take a second look at parts of the videotape and read from the manual when making group decisions about a specific code. It is important that the group agrees on the coding decision to keep everyone reliable as a group. Sometimes individuals disagree with a code, butt they are willing to agree as a group member for reliability purposes. The idea is to keep humor and 'group mind' as priorities! Meetings also provide an opportunity for coders to check reliability with one another from previous home observations and videotapes.

Calculating inter-coder reliability

Inter-coder reliability is calculated by dividing the number of codes two coders are in agreement with by the total number of codes (A / A+D). The first step is to total each type of code, that is, total the hash marks in each coding category. The coding sheets provide columns for marking the number of codes that the secondary coder is in agreement or disagreement with. These columns are on the left hand side of the category coding tables. For instance, if the primary coder tallied 12 unlabelled praise and the secondary coder tallied 10 unlabelled praise, you would place 10 in column A (agree) and 2 in column D (disagree). Continue similarly for each code. Total the number of A (agree) and D (disagree) to give you T (total). Divide A by T to determine percentages of reliability between the two coders. The standard we use for reliability is 80% or greater. Reliability for each videotape segment is calculated separately. The reliability of each 30-minute observation segment (each parent-child dyad) is calculated from the total for the 30 minutes, rather than each 5-minute segment.

Positive Parenting

Unlabelled Praise

Definition
An unlabelled praise is a non-specific verbalisation that expresses a favourable judgement on an activity, product, or attribute of the child.

Guidelines

1. **A non-specific verbalisation that contains one or more positive evaluative words or phrases is an unlabelled praise**.

   That's nice. Nice work. Wonderful. (unlabelled praise x2)
   I like that. Terrific, honey!
   Good work. Great job.

2. **Unlabelled praise is non-specific and does not include a specific action, object, or adjective. Specific praise is labelled praise**.

   Terrific! (unlabelled praise) Good. (unlabelled praise)
   Terrific drawing! (labelled praise) Good singing. (labelled praise)

   You're being considerate. (unlabelled praise)
   You're being considerate to wait so quietly. (labelled praise)

3. **A brief positive evaluative word or phrase that occurs before or after an encouragement is an unlabelled praise. You should still code the encouragement as well as the praise**.

   Great! You finished putting away the Legos. (unlabelled praise + encouragement)

   You drew a horse. Nice! (encouragement + unlabelled praise)

4. **Unlabelled praise must refer to a product, activity, or attribute of the child. Verbalisations indicating approval of an object in the room, or activity or product of others are statements. A verbalisation in which the parent includes herself/himself in the praise is still coded as praise.**

   Didn't we build a wonderful tower? (labelled praise)

   Good! (referring to a child's tower) (unlabelled praise)
   Good! (referring to parent's own tower) (not coded)

   We're being perfect today. (unlabelled praise)

5. **An adjective or adverb that is clearly meant as a compliment makes a non-specific statement an unlabelled praise, especially if "very" is used.**

The following are unlabelled praise.

You're thoughtful.
You're so clever.
Brilliant!
That's better.
That's very funny.
You're the best.
That's beautiful.
You're so careful.
You're very responsible.
It's wonderful.
You're so patient.
You're so polite.

The following are borderline compliments and are usually coded as encouragement (see separate section for rules on coding encouragement).

You're so alert today!
You're being quiet, aren't you?
You're so fast!
You're quick!
You're helping!
That's exciting!

6. **Unlabelled praise must include a clear verbal picture of positive evaluation. Implied approval through parental enthusiasm alone is not defined as unlabelled praise.**

Wonderful! (unlabelled praise)
Wow! (encouragement)
Not bad! (not coded)
Great! (unlabelled praise)
Thanks! (unlabelled praise)
Look at that! (encouragement)

7. **Non-specific statements of positive evaluation which positively evaluate the child's activity are unlabelled praise even if they are stated in question form.**

That's terrific, isn't it? (unlabelled praise)
I think that's beautiful, don't you? (unlabelled praise)
You did that just right, didn't you? (unlabelled praise)

8. **A positive verbalisation that interprets the child's positive feeling state is coded as social-emotional coaching, not an unlabelled praise (see separate sections for encouragement and social-emotional coaching).**

You seem very happy! (social-emotional coaching)
You're pretty cheerful today. (social-emotional coaching)
You sure seem enthusiastic! (social-emotional coaching)

9. **A positive metaphor or endearment that refers to the child is an unlabelled praise.**

Here comes Daddy's little princess. (unlabelled praise)
What a sweetheart! (unlabelled praise)
My sweetie pie! (unlabelled praise)

10. **When praise is given in the child's presence but not directed to the child, code as unlabelled or labelled praise (see separate section for labelled praise).**

Mother to Father: Jake was just perfect today! (unlabelled praise)

11. **If the <u>child asks for praise and the parent obliges, code as unlabelled or labelled praise (see separate section for labelled praise)</u>.**

    Child: Did I do a good job?
    Parent: You <u>did</u> do a good job! (unlabelled praise)

Decision Rules

1. **When uncertain as to whether a verbalisation is a labelled or unlabelled praise, code unlabelled praise.**

2. **When uncertain as to whether a verbalisation is an unlabelled praise or falls within another code category such as encouragement, do <u>not</u> code unlabelled praise.**

Labelled Praise

Definition
Labelled praise is any specific verbalisation that expresses a favourable judgement upon an activity, product, or attribute of the child.

Guidelines

1. **A labelled praise must be specific enough to let the child know exactly what can be done or displayed again to receive a similar praise.**

   A labelled praise may provide an evaluation of the child's specific actions.

   Your colouring is beautiful. (labelled praise)
   That is beautiful. (unlabelled praise)

   I like the way you sit so quietly. (labelled praise)
   I like the way you're acting. (unlabelled praise)

   You stacked the blocks perfectly. (labelled praise)
   You did that perfectly. (unlabelled praise)

   Verbs, such as "playing", "helping", "working", and "acting" are non-specific and are not sufficient to make a praise labelled.

   You are playing nicely. (unlabelled praise)
   You are building that tower nicely. (labelled praise)

   I like the way you're helping. (unlabelled praise)
   I like the way you're helping me to pick up the toys. (labelled praise)

   You are working carefully. (unlabelled praise)
   You are writing your numbers carefully. (labelled praise)

   A labelled praise may provide an evaluation of the child's specific product.

   Your story was very well-organised. (labelled praise)
   That was very well-organised. (unlabelled praise)

   The dog you drew is very pretty. (labelled praise)
   That is very pretty. (unlabelled praise)

   I love the tea you made for me. (labelled praise)
   I love this. (unlabelled praise)

   Praise of objects which are not a product of the child are not coded.

   That's a neat truck you're pushing. (not coded)
   That's a neat truck you drew. (labelled praise)

I like these farm animals. (not coded)
I like the farm animals that you picked to play with. (labelled praise)

This is a terrific game they have. (not coded)
You made up a terrific game. (labelled praise)

A labelled praise may provide an evaluation of a <u>specific physical or psychological attribute of the child</u>.

Your hair is beautiful. (labelled praise)
You are beautiful. (unlabelled praise)

Your ideas are very intelligent. (labelled praise)
You are very intelligent. (unlabelled praise)

It's so considerate of you to share your toys. (labelled praise)
You are very considerate. (unlabelled praise)

2. **A labelled praise must contain an evaluative component which is <u>clearly positive</u>.**

   It's great that you are trying so hard with that puzzle. (labelled praise)
   You're trying so hard with that puzzle! (encouragement)

   I like the way you drew that picture so quickly. (labelled praise)
   You drew that picture quickly. (not coded)

   That's a wonderfully exciting story you made up. (labelled praise)
   That's an exciting story you made up! (encouragement)

3. **Specific statements of positive evaluation are <u>labelled praises even if they are stated in question form</u>.**

   You drew a lovely bouquet, didn't you? (labelled praise)
   Your design turned out beautifully, didn't it? (labelled praise)
   Isn't that a super airplane you made? (labelled praise)

4. **<u>Labelled praises which reflects the child's statements or answers his questions are coded as labelled praise</u>.**

   Child: Look at the pretty house I made! (positive affect verbal)
   Parent: I see you made a pretty house (labelled praise)

   Child: I built a wonderful fort! (positive affect verbal)
   Parent: You did build a wonderful fort. (labelled praise)

   Child: Do you like my picture?
   Parent: Yes, I do like your picture. (labelled praise)

5. **A verbalisation which <u>interprets the child's feelings is coded as social-emotional coaching rather than a labelled praise</u>.**

   You seem happy about the piece you fixed. (social-emotional coaching)
   You're so proud of the new numbers you learned. (social-emotional coaching)
   I think you're pretty enthusiastic about you new haircut (social-emotional coaching)

6. **The positive evaluation component of a <u>labelled praise may be a metaphor</u>.**

   You're a <u>little darling</u> for sitting still. (labelled praise)
   You're <u>Daddy's little princess</u> for bringing me the box. (labelled praise)
   What a <u>sweetheart</u> you are for sharing the blocks. (labelled praise)

7. **When praise is <u>given in the child's presence but not directed to the child, code as unlabelled or labelled praise</u>.**

   Mother to father: Liam drew me a beautiful picture today! (labelled praise)

   Father to sibling of target child: Conner won a special award today at his school. (labelled praise)

8. **If the <u>child asks for praise and the parent obliges, code as unlabelled or labeled praise</u>.**

   Child: Did I make a neat tower? (positive affect verbal)
   Parent: You did make a neat tower! (labelled praise)

   Child: Aren't I good at cleaning off my placemat? (positive affect verbal)
   Parent: You are good at cleaning off you placemat! (labelled praise)

9. **Even when a <u>parent follows an unlabelled praise with a statement that specifically points out what is positive, the praise is still unlabelled</u>.**

   That was <u>great</u>. You wrote all of the numbers. (unlabelled praise)
   <u>Good</u>! You put everything back where it goes. (unlabelled praise)

Decision Rules

1. **When uncertain as to whether a verbalisation is a labelled or unlabelled praise code it as unlabelled praise.**

2. **When uncertain as to whether a statement is a labelled praise or falls within another category such as encouragement, do <u>not</u> code labelled praise.**

Encouragement

Definition
Encouragement is similar to praise, but the words are not quite positive enough to qualify as praise. It is a statement or phrase that expresses approval, appreciation, or positive acknowledgement of the child's efforts, attributes or product.

Guidelines

1. **Unlike praise, encouragement <u>does not include an evaluative word</u> in its verbalisation.**

   There you go! (encouragement)
   You've remembered <u>all</u> your letters! (encouragement)
   You've picked up all the toys! (encouragement)
   That's energetic of you! (encouragement)
   You took your plate to the sink! (encouragement)

2. **Similar to praise, encouragement often <u>expresses enthusiasm</u>, <u>warmth</u> or a <u>pleasant tone of voice</u>.**

   You're keeping you hands to yourself! (encouragement)
   You're setting the table! (encouragement)
   Sweetheart, you put a spoon in <u>every</u> bowl. (encouragement)
   You've finished everything on your plate! (encouragement)
   Look at that! (encouragement)
   How about that! (encouragement)

3. **Encouragement is often a <u>borderline compliment</u>.**

   You walked so quietly, I couldn't hear you feet! (encouragement)

   You're becoming a reader! (encouragement)
   You're a <u>really good</u> reader! (labelled praise)
   You're quick. (encouragement)
   You're <u>good</u>. (unlabelled praise)

   That was an interesting story! (encouragement)
   That's very straight! (encouragement)
   You're so alert today! (encouragement)

4. **A comment which expresses pleasure in the child's positive feelings will be coded as encouragement or social-emotional coaching (see separate section on social-emotional coaching).**

   That looks like fun. (encouragement)
   Such a lot of happiness! (encouragement)
   You're pretty cheerful! (social-emotional coaching)
   You are so enthusiastic! (social-emotional coaching)

Decision Rules

1. **When uncertain as to whether a verbalisation is unlabelled praise, labelled praise, or encouragement, code encouragement.**

2. **When uncertain as to whether a verbalisation is a statement or an encouragement, do not code it.**

Social-emotional Coaching

Definition
Social-emotional coaching is any parent verbalisation that help the child to identify, label, and understand their own and others' emotions. Children who recognize their emotions and understand that they are normal develop strong emotional self-regulatory skills which forms the basis of their social competence.

It also encompasses problem solving skills where a statement, question or command invites the child, in an open-ended way, to solve a problem. This include asking the child to think, plan, organise, generate ideas, solutions or consequences.

Guidelines

1. **A social-emotional coaching statement can be related to the problem definition, the problem solution or the consequences.**

   I can see that you're pretty upset with your sister. (social-emotional coaching)
   Tell me what happened. (social-emotional coaching)
   When you grabbed the ball from her, how do you think she felt? How can you find out? (social-emotional coaching x 2)
   What do you think you could say to her?

2. **Parents sometimes use social-emotional coaching for hypothetical situations. This might occur during a play session with puppets, action figures, stuffed animals or some other toy. Parents may also use social-emotional coaching with books.**

   (Parent reading book) What do you think that bear could do? (social-emotional coaching)
   What do you think is going to happen now? (social-emotional coaching)

   (Parent with action figure) Oh my gosh! He's got a real problem! (social-emotional coaching)
   Someone just keeps hitting him. (social-emotional coaching)
   How can he stop this guy from hitting him? (social-emotional coaching)

3. **Key words often signify that social-emotional coaching is occurring. They include:**

   problem solution consequences what would happen if…

   ideas let's suppose brainstorm what if what else

   What could he do? How would you feel? How would he feel?

   Naming of any emotion (e.g. hurt, jealousy, anger, sadness, happiness, pleasure, frustration, cheerful, annoyed, etc.)

4. **If a parent is spending some time helping a child identify <u>his feelings or someone else's feelings</u>, code social-emotional coaching.**

   How did that make you <u>feel</u>? (social-emotional coaching)
   How do you suppose the bear <u>feels</u>? (social-emotional coaching)
   How do you <u>feel</u> when that happens to you? (social-emotional coaching)

5. **If a parent is labeling an emotion that a child may be feeling, or that the parent themselves may be feeling, or someone else's emotions, code social-emotional coaching. Also code SEC if parent is sharing examples from their own life (this helps children feel that what they're feeling is normal).**

   I bet you are feeling frustrated with all those missing pieces. (social-emotional coaching)
   All this tickling is making you laugh, which tells me that you're feeling happy! (social-emotional coaching)
   You're pretty cheerful, aren't you? (social-emotional coaching)
   I can see that you are angry with me. (social-emotional coaching)
   The little girl in the book looks a bit sad doesn't she? (social-emotional coaching)

   Parent: Elizabeth, you seem quiet today. (social-emotional coaching)
   Elizabeth: hardly responds.
   Parent: Often, when I'm quiet, I'm worried about something. (social-emotional coaching)

6. **Code social-emotional coaching even when parent is reflecting a child's verbalisation**

   Child: Faman Sam happy
   Parent: Fireman Sam is happy today isn't he? (social-emotional coaching)

   Child: Baba sad
   Parent: Yes, your baby sister is sad because she's crying. What do you think will make her stop? (social-emotional coaching x 2)

7. **Code social-emotional coaching even if it is followed by a critical statement / negative command. It is important that all attempts parents make to label feelings and emotions are coded (see separate sections for critical statements and negative commands)**

   Your sister took your crayons without asking and that made you feel mad. I would feel mad too. But it's not OK for you to rip her colouring book. Now can you think of a different thing to do? (social-emotional coaching x 3; critical statement)

8. **Code social-emotional coaching only if the parent labels the child's feelings, rather than how he or she ought to be feeling.**

   Child: (announces that he hates his sister because she took his toy)

Parent: It sounds like you're pretty angry that Shelley took your toy. (social-emotional coaching)
Parent: You don't hate her, you love your sister. (critical statement)
Parent: You like Shelley (not coded)

9. **<u>Open-ended questions</u> inviting more than one solution.**

Could you do anything else?	What else could you do?
Do you have any other ideas?	What would you do?
Is there another way you could try?	What could he do?

10. **If a parent is helping the child learn to <u>figure things out by developing critical thinking skills, code social-emotional coaching</u>.**

Show me how you can carry the scissors safely. (social-emotional coaching)
It's a hot day today. What could you wear to stay cool? (social-emotional coaching)
What can you do to get the mud off your shoes? (social-emotional coaching)

11. **Code social-emotional coaching when the parent uses language related to academic learning. Key concepts include:**

Colours	Shapes	Number counting
Sizes	Positions (up, down, etc.)	Reading
Working hard	Concentrating	Listening

Examples include:

You have the red car and the yellow brick.
There are one, two, three dinosaurs in a row.
The train is longer than the track.
The blue block is next to the yellow square.
You really listened to what I said.
You are working so hard on that puzzle.
You are reading that very clearly.

Decision Rules

1. **When uncertain whether or not a social-emotional coaching statement has occurred, write the statement down and take it back to the primary coder for a decision. It will help you keep this category in mind and learn to recognise when and where it is not happening.**

Negative Parenting

Critical Statement

Definition
A critical statement is a verbalisation that finds fault with the activities, products, or attributes of the child. Blame statements and "guilt-tripping" statements are coded as critical statements.

Guidelines

1. **A negatively evaluative adjective or adverb that refers to an action, product, or attribute of the child makes a comment a critical statement. Can be in declarative or question form.**

   You're a bad girl aren't you?
   That's a horrible thing to do.
   What a lousy drawing.
   You're lazy.
   That's naughty.
   You're careless.
   That's not nice.
   Get your act together!

   A critical statement refers to an activity, product, or attribute of the child.

   You didn't do a very good job on that picture. (critical statement)
   I don't like the way you built that house. (critical statement)
   That's not a nice thing to do. (critical statement)
   You're being very careless today. (critical statement)

   A statement that negatively evaluates or finds fault with objects in the environment or the activities or products of others is not coded.

   That truck is too small. (not coded)
   That tower is going to fall over. (not coded)
   This doll is broken. (not coded)
   That fort won't hold all the men. (not coded)

2. **A comment that corrects the child, by pointing out what is wrong, is a critical statement, even if the parent uses a warm tone of voice.**

   That's not the way to put that together. (critical statement)
   No, honey. That's not where it goes. (critical statement x 2)
   That's the wrong way. (critical statement)
   Yes, it is. (contradicting child) (critical statement)

   Child: This is a big red circle.
   Parent: That's a big green circle. (not coded)
   Parent: No honey. That's not a red circle. It's green. (critical statement x 2)

3. **A statement of disapproval is a critical statement.**

   That's not very funny. (critical statement)

I don't like when you throw things. (critical statement)
I hate it when you talk back. (critical statement)

4. **Obvious parental sarcasm that refers to an activity, product, or attribute of the child is coded as a critical statement.**

   Well, that's just great! (critical statement)
   You've got to be kidding! (critical statement)
   Thanks a lot! (sarcastically) (critical statement)
   Excuse me. (sarcastically) (critical statement)

   Note: listen to the tone of voice here fro sarcasm. Only code critical statement if the sarcasm was clear and obvious.

5. **Parental threats or predictions that describe the potential negative consequences of the child's behaviour are coded as critical statements. This means vague threats or unspecified consequences.**

   If you don't put your blocks away another child may step on them.
   I'm going to count to 3.
   If you leave your bike outside someone may steal it.
   You'd better get started now or else.

6. **Parent smart talk is a critical statement. This is an unwillingness on the parents part to go along with a child's request. It is non cooperative, ungenerous, rejecting, dishonouring or disrespectful.**

   Child: Give the blue block to me.
   Parent: It's mine. (ungenerous) (critical statement)

   Because I said so. Because I said "no".
   Parent swearing / cursing at child. (critical statement)

7. **Code any critical statement about the target child made by the parent being observed, even if the statement is directed to someone other than the child. For example, if the parent makes a critical remark about the child to you, the other parent, or a sibling, code critical statement.**

   Parent: (to coder) You're seeing him at his worst today. (critical statement)

   Parent: (to coder) She usually behaves way worse than this. (critical statement)

Decision Rules

1. **When uncertain as to whether a verbalisation is coded as a critical statement or falls within another category, do not code critical statement.**

Negative Command

Definition
A negative command tells the child not to do something. It is a type of critical statement, but conveys more specific behavioural information.

Guidelines

1. **When a parent specifies what the child may not do, code a negative command.**

Don't put that gun in the toy box.	Stop shouting.
I don't want you to do that again.	No hitting.
You shouldn't stand on the furniture.	Cut that out.
Absolutely not.	Leave it alone.
You can't do X.	Don't forget to X.

Decision Rules

1. **When uncertain as to whether a verbalisation is coded as a negative command or falls within another category, do not code negative command.**

Positive Child Behaviour

Positive Affect Verbal

Definition
Verbal positive affect is defined as a positive evaluative verbal expression of pleasure, warmth, enthusiasm, or gratitude.

Guidelines

1. **Praise of self, parent, sibling or object is coded positive affect verbal.**

   I'm great at drawing dogs. (positive affect verbal)
   I have a good idea. (positive affect verbal)
   (to sibling) Kerry, you tell good jokes. (positive affect verbal)
   Grandma is so nice to me when I visit.

2. **Enthusiasm alone without specific positive verbalisation is not sufficient basis for coding positive affect verbal.**

   It's a dinosaur!! (not coded)
   I won. I did it. (not coded)
   I have soccer tomorrow! (not coded)
   I love going to soccer! (not coded)

Decision Rules

1. **When uncertain as to whether a verbalisation is coded as a positive affect verbal or falls within another category, do not code positive affect verbal.**

Child Deviant Behaviour

Destructive

Definition
A destructive behaviour occurs when the child destroys, damages, or attempts to damage any object, including animals. Activities that can potentially mark the walls, chip paint, nick furniture, break a window, pull curtains from the wall are defined as destructive. Head banging and other self-destructive behaviours are included in this category.

Guidelines

1. **Toy banging or throwing is included in this category, if the banging or throwing is not the function of the toy. Car crashes are not considered destructive.**

   (banging a doll's head on the table) (destructive)
   (throws block across room) (destructive)
   (bangs wooden peg with toy hammer) (not destructive)
   (throws ball across room) (not destructive)

2. **Each bang, kick, or throw counts as one destructive if it is separated from the previous destructive act by a pause of 2 seconds or longer. A series of hits, bangs, or kicks that are not separated by 2 or more seconds is coded as 1 destructive.**

3. **The destructive act must be completed unless the parent restrains the child after the child has begun a destructive act. In other words, if the child does not complete the destructive act for some reason other than restraint, do not code destructive.**

   Child: (raises arm to hit clock with fist but does not complete the hit) (not destructive)
   Child: (lifts leg to kick doll but does not complete the kick) (not destructive)

   Child: (raises arm to throw truck at mirror)
   Parent: (grabs child's arm) (destructive)

   Child: (lifts hammer to strike china doll)
   Parent: (takes hammer from child's hand) (destructive)

4. **Activities that are noisy, but not potentially damaging, are not coded destructive.**

   (putting blocks in the toy box roughly, but not throwing or damaging them) (not destructive)
   (driving car off edge of table) (not destructive)
   (pushing over own block tower) (not destructive)
   (pushing over someone else's block tower) (destructive)

5. **A <u>destructive behaviour</u> is a nonverbal child deviant behaviour and <u>cannot be coded simultaneously with the other nonverbal child deviant behaviour category</u> (child physical negative). When a child simultaneously emits both a destructive behaviour and physical attack on the parent, code child physical negative.**

   (throws block and hits parent) (child physical negative)
   (rips off parent's glasses roughly) (child physical negative)
   (hits parent with toy) (child physical negative)

6. **A <u>destructive behaviour</u> is nonverbal and <u>can be coded simultaneously with a verbal child deviant category</u> (smart talk).**

   Child: (tears picture) I won't put these papers away! (destructive + smart talk)

   Child: (throws toy) No I won't clean up the blocks! (destructive + smart talk)

Decision Rules

1. **When uncertain whether a behaviour is rough but appropriate or destructive, do not code destructive.**

2. **When uncertain as to whether a behaviour is a physical negative or destructive, code destructive.**

Smart Talk

Definition
Smart talk is 'cheeky', 'rude' or disrespectful speech. This category also contains some nonverbal communication.

Guidelines

1. **<u>Arguing, refusing, or counter-commanding</u> in response to a parental command is smart talk.**

   Parent: Drink your milk.
   Child: No! (smart talk)
   Why should I? (smart talk)
   You drink it! (smart talk)
   Drink it yourself! (smart talk)
   I'm not going to! (smart talk)
   What will you give me if I drink it? (smart talk)

2. **<u>Criticism of the parent</u> is smart talk.**

   That's a stupid idea. (smart talk)
   You can't do anything right. (smart talk)
   I hate you. (smart talk)
   You're mean. (smart talk)

3. **<u>Swearing, cursing, or using off colour language is smart talk</u>. However, it is important to <u>consider all cues in context</u> (i.e., is this acceptable language in this family?). For example, "Oh God!" is smart talk in response to a command, but in some other situations it may merely be an exclamation of surprise. Code only <u>obvious</u> smart talk.**

   This *** bike doesn't work. (smart talk)
   I can't work this *** puzzle. (smart talk)
   Oh, God! I smashed my thumb. (smart talk)

4. **<u>Mimicry or sarcasm</u> toward the parent is smart talk.**

   Oh, that's great! (smart talk)
   Are you kidding! (smart talk)
   Oh, that's really wonderful. (smart talk)
   Sure you are! (smart talk)

5. **<u>Excuses, clarifying questions, statements of preference, or postponements</u> in response to parental commands are noncompliance, but are <u>not coded as smart talk</u>.**

   Parent: Put the truck away.
   Child: What? (not smart talk)
   Parent: Put the truck away.
   Child: Where should I put it? (not smart talk)
   Parent: On the top shelf.
   Child: I'm not tall enough. (not smart talk)
   Parent: Well, put it in the cupboard.

Child: I'm not finished with it yet. (not smart talk)

6. **A <u>verbal threat</u> to a parent is smart talk.**

   I'll kick you if you don't give me that engine. (smart talk)
   If you don't help me clean up I'll leave home. (smart talk)
   I'm going to throw all this on the floor unless you buy me some candy. (smart talk)

7. **Smart talk is a verbal behaviour and <u>can occur simultaneously with a nonverbal deviant behaviour</u> (child physical negative and destructive).**

   Child: (hits parent) I don't like you! (smart talk + child physical negative)

   Child: (pulls parent's hair) You are a monkey face! (smart talk + child physical negative)

   Child: (throws comb) No. I won't comb my hair! (smart talk x 2 + destructive)

8. **Smart talk <u>directed to a dog or doll, stuffed animal, action figure, etc. is also coded</u>.**

   Shut up, you stupid dog! (smart talk)
   Listen, Robot, you are being a bad, mean Robot! (smart talk)

9. **Smart talk <u>directed to non-target parent</u> is coded.**

   (while playing cards with Dad, who is target parent) I hate what you're cooking for dinner, Mum! (smart talk)

   (while at the table with Mum, who is target parent) Dad, you're a meanie. (smart talk)

10. **Smart talk <u>directed to siblings</u> is coded.**

    I hate you! You're horrible! (smart talk x 2)
    You are the worst brother in the whole world! (smart talk)

Decision Rules

1. **When uncertain as to whether a comment is a smart talk or a neutral remark, do not code smart talk. However, if it occurs to you that a smart talk has occurred, then it probably has.**

Child Physical Negative

Definition
A child physical negative is a bodily attack or attempt to attack another person.

Guidelines

1. **The context of the aggressive behaviour is not important. The child may engage in a negative behaviour during play and physical negative is still coded.**

Kicking	Hitting	Pulling hair
Slapping	Biting	Throwing something at someone
Pinching	Spitting	Grabbing a toy from someone

Child: (pulls parent's hair) This doll is pulling your hair. (child physical negative)

Child: (runs over parent's hand with truck) (child physical negative)

2. **<u>Eat hit, bite, slap, etc. counts as one physical negative if it is separated from the previous physical negative by a pause of 2 seconds or longer. A series of hits, slaps, kicks, etc. that is not separated by 2 or more seconds is coded as 1 physical negative. If the physical contact is continuous or repetitive (not separated by 2 or more seconds), one child physical negative is coded every 5 seconds</u>.**

3. **The attack on the parent must be completed unless the parent restrains the child after the child has begun the attack.**

Child: (raises arm to strike parent)
Parent: (grabs child's wrist) (child physical negative)

Child: (attempts to bite parent)
Parent: (pushes child away (child physical negative)

4. **An attack on the parent is a nonverbal behaviour and <u>cannot be coded simultaneously with destructive behaviour</u>. Instead, code the child physical negative (it is <u>more</u> deviant).**

Child: (throws car and hits parent) (child physical negative)

Child: (grabs parent's collar and pulls it away roughly) (child physical negative)

5. **A physical attack on the parent is a nonverbal behaviour and <u>can be coded simultaneously with a verbal child deviant behaviour</u> (smart talk).**

Child: (pulls parent's hair) You're a creep! (child physical negative + smart talk)

Child: (hits parent) I hate you! (child physical negative + smart talk)

Decision Rules

1. **When uncertain as to whether a physical negative did or did not occur, do not code physical negative.**

2. **When uncertain as to whether a behaviour is a physical negative or a destructive, code destructive.**

Appendix P

Arnold-O'Leary Parenting Scale

ID ( ) ( ) ( ) ( )
Date ( ) ( )/( ) ( )/( ) ( )

ARNOLD & O'LEARY PARENTING SCALE

Parents have many different ways of dealing with these types of problems. Below are items that describe some styles of parenting.

For each item, mark the appropriate box on the scale which best describes your parenting style during the past two months with the child indicated above with an X.

SAMPLE ITEM

At meal time ....

I let my child decide how much to eat — I decide how much my child eats

---

1. When my child misbehaves ...

   I do something right away. — I do something about it later.

2. Before I do something about a problem ...

   I give my child several reminders or warnings. — I use one reminder or warning.

3. When I'm upset or under stress ...

   I am picky and on my child's back. — I am no more picky than usua

4. When I tell my child not to do something ...

   I say very little. — I say a lot

5. When my child pesters me I ...

   can ignore the pestering. — can't ignore the pestering.

6. When my child misbehaves …

I usually get into a long argument with my child. — I don't get into arguments with my child.

7. I threaten to do things that …

I am sure I can carry out. — I know I won't actually do.

8. I am the kind of parent that …

sets limits on what my child is allowed to do. — lets my child do whatever he or she wants.

9. When my child misbehaves …

I give my child a long lecture. — I keep my talks short and to the point.

10. When my child misbehaves …

I raise my voice or yell. — I speak to my child calmly.

11. If saying no doesn't work right away …

I take some other kind of action — I keep talking and try to get through to my child.

12. When I want my child to stop doing something …

I firmly tell my child to stop. — I coax or beg my child to stop.

13. When my child is out of my sight …

I often don't know what my child is doing. — I always have a good idea of what my child is doing.

14. After there's been a problem with my child …

I often hold a grudge. — things get back to normal quickly.

15. When we're not at home …

I handle my child the way I do at home. — I let my child get away with a lot more.

16. When my child does something I don't like …

I do something about it every time it happens. — I often let it go.

17. When there's a problem with my child …

Things build up and I do things things I don't mean to do. — Things don't get out of hand.

18. When my child misbehaves, I spank, slap, grab, or hit my child …

never or rarely. — most of the time.

19. When my child doesn't do what I ask …

I often let it go or end up doing myself. — I take some other action.

20. When I give a fair threat or warning …

I often don't carry it out. — I always do what I said.

21. If saying no doesn't work …

I take some other kind of action. — I offer my child something nice so he/she will behave.

22. When my child misbehaves …

I handle it without getting upset. — I get so frustrated or angry that my child can see I'm upset.

23. When my child misbehaves …

I make my child tell me why he/she did it. — I say "no" or take some other action.

24. If my child misbehaves and then acts sorry …

I handle the problem like I usually would. I let it go that time.

25. When my child misbehaves …

I rarely use bad language or curse I almost always use bad language.

26. When I say my child can't do something …

I let my child do it anyway. I stick to what I say.

27. When I have to handle a problem …

I tell my child I'm sorry about it. I don't say sorry.

28. When my child does something I don't like, I insult my child, say mean things, or call my child names …

never or rarely. most of the time.

29. If my child talks back or complains when I handle a problem …

I ignore the complaining and stick to what I said. I give my child a talk about not complaining.

30. If my child gets upset when I say "No", …

I back down and give in to my child. I stick to what I said.

Developed by Susan G. O'Leary, David S. Arnold, Lisa S. Wolff & Maureen M. Acker
Psychology Dept. University at Stony Brook, Stony Brook, NY 11794.

Appendix Q

Parent Satisfaction Questionnaire

Name of health visitor _____

Parent Satisfaction Questionnaire

Q1. Did you have an opportunity to discuss your child's history?

Yes / No

If yes, how helpful was this?

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q2. Did you get an opportunity to describe your child's day in detail?

Yes / No

If yes, how helpful was this?

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q3. Did you keep records of problem situations using record sheets designed with your health visitor?

Yes / No

If yes, how helpful was this?

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q4. Did you have discussion about possible reasons for your child's behaviour?

Yes / No

If yes, how helpful was this?

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q5. Did your health visitor help you to work out a strategy for teaching new behaviour to your child?

Yes / No

If yes, how helpful was this?

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q6. Did you have agreed tasks to complete between sessions?

Yes / No

If yes how helpful was this

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q7. Were you given any reading assignments?

Yes / No

If yes, how helpful were they?

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q8. How useful did you find the overall process?

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q9. How helpful was your health visitor?

Very helpful	Quite helpful	A little helpful	Neither helpful nor unhelpful	Not helpful

Q10. Did you feel that the information provided about the process was sufficient?

Yes / No

Q11. How likely would you be to recommend the approach to another parent?

Very likely	Likely	Neutral	Unlikely	Very unlikely

Q12. Any other comments you would like to make or feedback that you would like to give about the process overall

_____

_____

_____

Thank you for taking the time to complete this questionnaire and for your support for the project overall

Appendix R

Health Visitor Demographic Questionnaire

ID number: ……. Date: …….

Evaluation of the Enhancing Parenting Skills (EPaS) 2014 programme

Health Visitor Background Information

1. First name and surname

   _____

2. Date of birth _____

3. Are you (please circle)? Male Female

4. How many years have you worked as a health visitor?

   _____

5. What is your County/area of employment?

   _____

6. How many years have you worked in that local area?

   _____

7. Work address and contact number

   _____

   _____

   _____

   Tel: _____

8. Have you previously completed the Enhancing Parenting Skills training?

   _____

9. Do you have any other relevant post-qualification training (e.g. behaviour management, child development)?

   _____

   _____

Appendix S
Family Demographic Questionnaire

Participant ID: **……** Date: **……**

Personal Data and Health Questionnaire

1. BACKGROUND DETAILS

1a. Child's DOB …… Child's Age …… Sex: M ☐ F ☐

1b. Carer's DOB …… Carer's Age …… Sex: M ☐ F ☐

1c. What is your preferred language for speaking?
Welsh ☐ English ☐ Other ☐ Please state……

1d. Relationship to child:

Biological parent	☐	Step-parent	☐
Parent's partner (living together)	☐	Adoptive parent	☐
Foster parent	☐	Other	☐
		Please state ……	

1e. How old were you when your *first* child was born?……

2. RELATIONSHIPS

2a. Are you currently?

Single, never married	☐	Separated	☐	Divorced	☐
Widowed	☐	In a relationship, but living apart			☐
Married	☐	Living together	☐		

2b. Spouse / partner's relationship to child:

Biological parent	☐	Step-parent	☐
Foster parent	☐	Other adult relative	☐
Adoptive parent	☐	Parent's partner (living together)	☐
N/A	☐		

3. HOUSING

3a. How many times have you moved home in the last 5 years?
0 ☐ 1-2 ☐ 3-4 ☐ 5 /5+ ☐

3b. Are you a:

Social / council tenant	☐	Private Tenant	☐
Owned / with a mortgage	☐	Other	☐
Housing association tenant	☐	Please give details……	

3c. How many bedrooms do you have use of? ……

4. INCOME

4a. Is your income mostly made up of:		Mother	Father
i.	State benefits (e.g. Job seeker's allowance / income support)	☐	☐
ii.	Benefits that subsidise wages (e.g. Tax Credit)	☐	☐
iii.	Maintenance payments for baby/ children	☐	☐
iv.	Wages	☐	☐
v.	Other	☐	☐
vi.	Declined to answer ☐		

4b. Total family weekly income:

Which category would best describe your *total weekly income*?
What you get each week = employment, social security payments

EXCLUDING housing cost working tax and family credits, child maintenance, pensions or investments.)

One adult households		Two adult households	
£160 or below	☐	£245 or below	☐
£161 - £239	☐	£246 - £325	☐
£240 - £319	☐	£326 - £400	☐
£320 - £395	☐	£401 - £480	☐
£396 - £474	☐	£481 - £555	☐
£475 - £550	☐	£556 - £634	☐
£551 - £650	☐	£635 - £749	☐
£651 or above	☐	£750 or above	☐
Declined to answer	☐	Declined to answer	☐

5. PRIMARY CARER'S EDUCATION

5a. How old were you when you left school? ……

5b. Did you gain any qualifications at school? ……

5c. Did you receive further or higher education after leaving school (e.g. College, NVQs, YTS etc.)?

……

6. PARENT COURSE

6a. Have you attended any parenting courses?

No ☐ Yes ☐

If yes, please give details including date ……..

Thank you very much for completing this questionnaire

Appendix T
Condition Allocation Letter (Intervention)

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL
BANGOR
UNIVERSITY

[DATE]

INFORMATION ON GROUP ALLOCATION FOR PARENTS TAKING PART IN THE RESEARCH TO ESTABLISH THE EFFECTIVENESS OF THE ENHANCING PARENTING SKILLS (EPAS) 2014 PROGRAMME.

Dear Parent,

I would like to inform you that you and your child have been randomly chosen to join the **FIRST** group of parents who will work with their Health Visitor in the next coming weeks. Your Health Visitor will shortly be in touch to arrange a convenient time to start visiting you weekly.

With regards to the research, we would like to visit you again in about six months time to run through the questionnaires and observation again.

I would also like to take this opportunity to again thank you for your help with our research into the usefulness and supportiveness of the programme. Your willingness to help is invaluable and will, we hope, lead to this programme being more widely available for families throughout Wales.

If you have any questions please do not hesitate to contact myself on 01248 383625.

Kind regards,

Judy Hutchings
Research Supervisor

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL
BANGOR
UNIVERSITY

[DYDDIAD]

GWYBODAETH AM DDYRANIAD GRWP AR GYFER RHIENI SY'N CYMRYD RHAN YN YR ASTUDAIETH AR EFFEITHIOLRWYDD Y RHAGLEN ENHANCING PARENTING SKILLS (EPAS) 2014

Annwyl Riant,

Hoffwn gadael i chi wybod eich bod chi a'ch plentyn wedi cael eich dewis ar hap i ymuno â'r grŵp **CYNTAF** o rieni i weithio gyda'ch Ymwelydd Iechyd yn yr wythnosau nesaf. Bydd eich Ymwelydd Iechyd mewn cyswllt yn fuan i drefnu adeg cyfleus i ddechrau ymweld â chi yn wythnosol.

O ran y gwaith ymchwil, hoffwn i ymweld â chi eto mewn tua chwe mis i gwblhau yr holiaduron a'r arsylwad eto.

Hoffwn hefyd gymryd y cyfle hwn i ddiolch eto i chi am eich help tuag at ein gwaith ymchwil i mewn i ddefnyddioldeb a chefnogaeth y rhaglen. Mae eich parodrwydd i helpu yn amhrisiadwy, a bydd yn, gobeithio, arwain at y rhaglen hon fod yn fwy eang ar gael i deuluoedd ledled Cymru.

Os oes gennych unrhyw gwestiynau, mae croeso i chi gysylltu â mi ar 01248 383625.

Dymuniadau gorau,

Judy Hutchings
Goruchwylwraig Ymchwil

Appendix U

Condition Allocation Letter (Control)

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL
BANGOR
UNIVERSITY

[DATE]

INFORMATION ON GROUP ALLOCATION FOR PARENTS TAKING PART IN THE RESEARCH TO ESTABLISH THE EFFECTIVENESS OF THE ENHANCING PARENTING SKILLS (EPAS) 2014 PROGRAMME.

Dear Parent,

I would like to inform you that you and your child have been randomly chosen to join the **SECOND** group of parents who will work with their Health Visitor in six months time, starting in February 2015.

With regards to the research, we would like to visit you again in about six months time to run through the questionnaires and observation again.

I would also like to take this opportunity to again thank you for your help with our research into the usefulness and supportiveness of the programme. Your willingness to help is invaluable and will, we hope, lead to this programme being more widely available for families throughout Wales.

If you have any questions please do not hesitate to contact myself on 01248 383625.

Kind regards,

Judy Hutchings
Research Supervisor

COLEG GWYDDORAU IECHYD AC YMDDYGIAD
COLLEGE OF HEALTH & BEHAVIOURAL SCIENCES

YSGOL SEICOLEG
SCHOOL OF PSYCHOLOGY

PRIFYSGOL
BANGOR
UNIVERSITY

[DYDDIAD]

GWYBODAETH AM DDYRANIAD GRWP AR GYFER RHIENI SY'N CYMRYD RHAN YN YR ASTUDAIETH AR EFFEITHIOLRWYDD Y RHAGLEN ENHANCING PARENTING SKILLS (EPAS) 2014

Annwyl Riant,

Hoffwn gadael i chi wybod eich bod chi a'ch plentyn wedi cael eich dewis ar hap i ymuno â'r **AIL** grŵp o rieni fydd yn gwiethio gyda'i Ymwelydd Iechyd mewn chwe mis, a fu'n dechrau yn Chwefror 2015.

O ran y gwaith ymchwil, hoffwn i ymweld â chi eto mewn tua chwe mis i gwblhau yr holiaduron a'r arsylwad eto.

Hoffwn hefyd gymryd y cyfle hwn i ddiolch eto i chi am eich help tuag at ein gwaith ymchwil i mewn i ddefnyddioldeb a chefnogaeth y rhaglen. Mae eich parodrwydd i helpu yn amhrisiadwy, a bydd yn, gobeithio, arwain at y rhaglen hon fod yn fwy eang ar gael i teuluoedd ledled Cymru.

Os oes gennych unrhyw gwestiynau, mae croeso i chi gysylltu â mi ar 01248 383625.

Dymuniadau gorau

Judy Hutchings
Goruchwylwraig Ymchwil

Appendix V
CONSORT checklist

CONSORT 2010 checklist of information to include when reporting a randomised trial*

Section/Topic	Item No	Checklist item	Reported on page No
Title and abstract			
	1a	Identification as a randomised trial in the title	106
	1b	Structured summary of trial design, methods, results, and conclusions (for specific guidance see CONSORT for abstracts)	n/a
Introduction			
Background and objectives	2a	Scientific background and explanation of rationale	107-114
	2b	Specific objectives or hypotheses	113-114
Methods			
Trial design	3a	Description of trial design (such as parallel, factorial) including allocation ratio	116
	3b	Important changes to methods after trial commencement (such as eligibility criteria), with reasons	121-122
Participants	4a	Eligibility criteria for participants	114
	4b	Settings and locations where the data were collected	119
Interventions	5	The interventions for each group with sufficient details to allow replication, including how and when they were actually administered	120-121
Outcomes	6a	Completely defined pre-specified primary and secondary outcome measures, including how and when they were assessed	116-118
	6b	Any changes to trial outcomes after the trial commenced, with reasons	n/a
Sample size	7a	How sample size was determined	76-77
	7b	When applicable, explanation of any interim analyses and stopping guidelines	n/a
Randomisation:			
Sequence generation	8a	Method used to generate the random allocation sequence	116
	8b	Type of randomisation; details of any restriction (such as blocking and block size)	116
Allocation concealment mechanism	9	Mechanism used to implement the random allocation sequence (such as sequentially numbered containers), describing any steps taken to conceal the sequence until interventions were assigned	116
Implementation	10	Who generated the random allocation sequence, who enrolled participants, and who assigned participants to	116

		interventions	
Blinding	11a	If done, who was blinded after assignment to interventions (for example, participants, care providers, those assessing outcomes) and how	116
	11b	If relevant, description of the similarity of interventions	n/a
Statistical methods	12a	Statistical methods used to compare groups for primary and secondary outcomes	123
	12b	Methods for additional analyses, such as subgroup analyses and adjusted analyses	123
Results			
Participant flow (a diagram is strongly recommended)	13a	For each group, the numbers of participants who were randomly assigned, received intended treatment, and were analysed for the primary outcome	115
	13b	For each group, losses and exclusions after randomisation, together with reasons	115
Recruitment	14a	Dates defining the periods of recruitment and follow-up	
	14b	Why the trial ended or was stopped	n/a
Baseline data	15	A table showing baseline demographic and clinical characteristics for each group	124, 125
Numbers analysed	16	For each group, number of participants (denominator) included in each analysis and whether the analysis was by original assigned groups	129, 130
Outcomes and estimation	17a	For each primary and secondary outcome, results for each group, and the estimated effect size and its precision (such as 95% confidence interval)	127-128
	17b	For binary outcomes, presentation of both absolute and relative effect sizes is recommended	n/a
Ancillary analyses	18	Results of any other analyses performed, including subgroup analyses and adjusted analyses, distinguishing pre-specified from exploratory	128
Harms	19	All important harms or unintended effects in each group (for specific guidance see CONSORT for harms)	n/a
Discussion			
Limitations	20	Trial limitations, addressing sources of potential bias, imprecision, and, if relevant, multiplicity of analyses	134-135
Generalisability	21	Generalisability (external validity, applicability) of the trial findings	131-135
Interpretation	22	Interpretation consistent with results, balancing benefits and harms, and considering other relevant evidence	131-135
Other information			
Registration	23	Registration number and name of trial registry	n/a
Protocol	24	Where the full trial protocol can be accessed, if available	114
Funding	25	Sources of funding and other support (such as supply of drugs), role of funders	n/a

Appendix W

Health Visitor Baseline Questionnaire

Enhancing Parenting Skills (EPaS) 2014 Programme

Baseline Questionnaire

An earlier version of this questionnaire was developed for the Hutchings and Nash 1998* study of health visitors knowledge and skills.

It is a useful checklist for evaluating your own skills and knowledge in relation to use of behavioural intervention skills.

The questionnaire has two sections and asks about:

A. your current frequency of use of specific behavioural intervention techniques and strategies in your work with children and families.

B. your views about the use of a behavioural approach in work with children and families and your confidence in your knowledge and ability to apply this approach.

*** Hutchings, J., & Nash, S. (1998) Behaviour therapy: what do health visitors know? Community Practitioner 71. 364-367.**

Section A

In your work with children and families, how often do you:

1. Record what is happening at the time whilst observing the child and parent(s)?

Always	often	about half the time	only sometimes	never

2. Design record sheets for parents and ask them to keep records of their child's behaviour?

Always	often	about half the time	only sometimes	never

3. Agree and provide a written summary of specific homework tasks for parents?

Always	often	about half the time	only sometimes	never

4. Set homework tasks for parents in reading about behaviour problems and child management?

Always	often	about half the time	only sometimes	never

5. Provide parents with written agreements of specific goals?

Always	often	about half the time	only sometimes	never

6. Provide star charts and record sheets for parents and children to record successes?

Always	often	about half the time	only sometimes	never

7. Use your observations and records to determine precisely what works best as reinforcement or punishment for a particular child?

Always	often	about half the time	only sometimes	never

8. Provide specific feedback to parents on their child management skills based on their records and/or your observations of their behaviour?

Always	often	about half the time	only sometimes	never

9. Teach parents how to reinforce behaviours that are alternative to, or incompatible, with problem behaviour?

Always	often	about half the time	only sometimes	never

10. Discuss with parents specific factors in the home environment which appear to be reinforcing problematic behaviour?

Always	often	about half the time	only sometimes	never

Section B

1. How confident are you that the behavioural approach is helpful for the families of children with whom you work?

very confident	confident	neutral	unconfident	very unconfident

2. How confident are you that you have sufficient knowledge to work behaviourally with children with developmental difficulties?

very confident	confident	neutral	unconfident	very unconfident

3. How confident do you feel about implementing behavioural programmes with these families?

very confident	confident	neutral	unconfident	very unconfident

Appendix X

Health Visitor Follow-up Questionnaire

Enhancing Parenting Skills (EPaS) 2014 programme

Follow-up Questionnaire

The questionnaire has four sections and asks about:

A. Your current frequency of use of specific behavioural intervention techniques and strategies in your work with children and families.

B. You view on how helpful you found the course teaching on these various components.

C. Your views about the use of a behavioural approach in work with children and families and your confidence in your knowledge and ability to apply this approach.

D. General feedback on the course.

Section A

In your work with children and families, how often do you:

1. Record what is happening at the time whilst observing the child and parent(s)?

Always	Often	about half the time	only sometimes	never

2. Design record sheets for parents and ask them to keep records of their child's behaviour?

Always	Often	about half the time	only sometimes	never

3. Agree and provide a written summary of specific homework tasks for parents?

Always	Often	about half the time	only sometimes	never

4. Set homework tasks for parents in reading about behaviour problems and child management?

Always	Often	about half the time	only sometimes	never

5. Provide parents with written agreements of specific goals?

Always	Often	about half the time	only sometimes	never

6. Provide star charts and record sheets for parents and children to record successes?

Always	Often	about half the time	only sometimes	never

7. Use your observations and records to determine precisely what works best as reinforcement or punishment for a particular child?

Always	Often	about half the time	only sometimes	never

8. Provide specific feedback to parents on their child management skills based on their records and/or your observations of their behaviour?

Always	Often	about half the time	only sometimes	never

9. Teach parents how to reinforce behaviours that are alternative to, or incompatible, with problem behaviour?

Always	Often	about half the time	only sometimes	never

10. Discuss with parents specific factors in the home environment that appear to be reinforcing problematic behaviour?

Always	Often	about half the time	only sometimes	never

Section B

As a result of attending the course please rate how helpful you found the teaching on the various course components:

1. Recording what is happening at the time whilst observing the child and parent(s)?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

2. Designing record sheets for parents and asking them to keep records of their child's behaviour?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

3. Agreeing and providing a written summary of specific homework tasks for parents?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

4. Setting homework tasks for parents in reading about behaviour problems and child management?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

5. Providing parents with written agreements of specific goals?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

6. Providing star charts and/or record sheets for parents and children to record successes?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

7. Using your observations and records to determine precisely what works best as reinforcement or punishment for a particular child?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

8. Providing specific feedback to parents on their child management skills based on their records and/or your observations of their behaviour?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

9. Teaching parents how to reinforce behaviours that are alternative to, or incompatible, with problem behaviour?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

10. Discussing with parents specific factors in the home environment that appear to be reinforcing problematic behaviour?

Very helpful	A little helpful	Neither helpful nor unhelpful	Unhelpful	Did not do this

Section C

As a result of attending the course:

1. How confident are you that the behavioural approach is helpful for the families of children with whom you work?

very confident	Confident	neutral	unconfident	very unconfident

2. How confident are you that you have sufficient knowledge to work behaviourally with children with developmental difficulties?

very confident	Confident	neutral	unconfident	very unconfident

3. How confident do you feel about implementing behavioural programmes with these families?

very confident	Confident	neutral	unconfident	very unconfident

Section D

General feedback on the course

1. Overall how satisfied were you with the course?

very satisfied	Satisfied	Neutral	Dissatisfied	very dissatisfied

2. Overall how satisfied were you with the written material provided?

very satisfied	Satisfied	Neutral	Dissatisfied	very dissatisfied

3. How likely are you to continue to use any of the methods taught in the course?

very likely	Likely	Neutral	Unlikely	Very unlikely

4. How likely would you be to recommend the course to a colleague?

very likely	Likely	Neutral	Unlikely	Very unlikely

What, if any, additional support do you feel that you would be need in order to continue to use the approach successfully?

Any other feedback you would like to provide

Thank you for taking the time to complete this questionnaire