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**Evaluation of the COPING parent online universal programme**

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**Evaluation of the COPING parent online universal  
programme**

**Dawn Adele Owen**

**A thesis submitted to the School of Psychology, Bangor University, in partial fulfilment of  
the requirements of the degree of Doctor of Philosophy.**

**January 2018**

This PhD was funded by an anonymous donor through the Development and Alumna Relations  
Office, Bangor University and by the Children's Early Intervention Trust Charity Ltd.

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### **Reflective commentary**

Psychology has always been a subject of interest for me, and I was extremely excited to complete my Undergraduate Health and Clinical Psychology degree at Bangor University. During my third year, I completed the Applied Behaviour Analysis (ABA) module and this is where my passion for behaviour analysis began. I immediately applied for a place on the ABA masters course at Bangor, and graduated with Distinction in the summer of 2012. I then went on to work, as a one-to-one assistant supporting a young child with additional learning needs under the supervision of a consultant behaviour analyst. As part of this post, I was required to observe and record behaviour and implement various behaviour change interventions, and with this my passion for returning to study grew further with an ambition to return to University to complete a PhD. Fortunately, I came across a job advertisement at Bangor University for a part-time Research Project Support Officer alongside completing a PhD at the Centre for Evidence Based Early Intervention. This is where I met Professor Judy Hutchings and her team and where my journey began ...

I was so excited to be evaluating the COPING parent online universal parenting programme, an intervention based on Judy's 'The Little Parent Handbook'. The content of the book incorporates behavioural principles in order to strengthen parent-child relations and encourage positive child behaviour – I couldn't wait to get started! I immediately began reading the literature and designing our new programme. The first six months of my journey involved reading the literature and writing a review, and studying the LifeGuide manual with a fine toothcomb. I attended a LifeGuide training course in March 2015 and started working on the intervention soon after. The designing and creating of the intervention took longer than anticipated with many computer-programming challenges faced along the way! Fortunately, the LifeGuide team offer consultation, and I was put in touch with Stephanie Hughes, a researcher at the University of Southampton who helped with the programming side of

things. By September 2015, we had our first version of the programme. We were keen to test the interactive features and gain user feedback from participants; ethical approval from the School of Psychology ethics committee was granted and we recruited twenty individuals to test our programme. Feedback was received in December 2015, and the start of 2016 involved making programme modifications based on the feedback received. In preparation for our main trial, I also completed both School of Psychology and NHS ethics applications, both of which were granted in January 2016. The final version of the programme was uploaded to the live server at the end of February 2016.

Recruitment for our randomised controlled trial began in early March 2016. As the COPING parent is a universal programme for all parents with an interest in learning more about positive parenting skills, the rationale was to provide access to evidence-based information for all parents. Many parents now access the internet for information regarding their child's development, therefore we wanted this programme to reach as many parents as possible. We had three recruitment methods. I approached health visitor managers who agreed to allow their health visitors and school nurses to approach parents on their current caseloads. We also distributed recruitment posters to local primary schools and nurseries. Additionally, a Barnardo's project worker, an educational psychologist and a behavioural practitioner approached us and asked if they could refer parents with whom they were currently in contact and who had an interest in our programme. From March 2016 until February 2017 I was busy conducting home visits and collecting first baseline and then follow-up data from parents in Anglesey, Gwynedd, Conwy, Denbighshire and Rhondda Cynon Taf in South Wales. I thoroughly enjoyed the experience of meeting families and collecting both observational and self-report data. During this time, I also continued with writing and our trials paper was published in the British Medical Journal (*BMJ Open*) in



March 2017, my first publication! Three months later in June 2017 our feasibility paper was published in the Journal of Public Health Research.

During the trial, we came across some unexpected barriers. Firstly, recruitment uptake was slower than anticipated and although our target was 60 parents, we thought we would recruit more with the programme being online and perhaps more convenient than traditional group-based programmes. In hindsight, more time should have been allocated to the recruitment process, but our intervention took longer to create, reducing our recruitment phase to only four months. Secondly, by the 3-month follow-up stage, many parents had not logged into the programme at all. Although we had expected that some parents might not have completed the entire programme by this stage, we had not expected so many to not engage at all. This is perhaps due to our text message reminders not working. We had encountered difficulties when setting up the text message prompting through LifeGuide, but numerous testing sessions (with three members of the LifeGuide team) demonstrated that they were working, as they should. It was only towards the end of our trial that we realised that the text messages had not been sent to all participants. This was extremely disappointing, as a lot of time had been spent working on this component of the programme. Thirdly, a number of parents reported issues with the programme, which meant that they could not progress, for example some parents could not progress to the next chapter. Again, we had not anticipated this as no such issues were reported during our initial feasibility study. Additionally, parents had been given contact details for the centre administrator so that they could contact us if they came across any problems accessing the programme. Some parents did report their difficulties (i.e. could not progress to the next chapter or unable to log on with the username and password), but most did not. Lastly, at follow-up we had great difficulty getting hold of some parents with a total of twenty lost. Of those parents lost who were

randomised to the intervention ( $n=13$ ), nine had not logged into the programme at all. This was also disappointing.

Despite the challenges, fifty-six eligible parents signed up to the trial and we found some promising results in terms of increased observed praise and decreased observed indirect commands for parents who had completed at least one chapter of the programme. The programme was also well received with many parents reporting that they would recommend it to other parents of children aged 3-8 years. Improvements were also found in child behaviour and although these were not significant, they demonstrated medium effect sizes and favoured the intervention. The results of this pilot trial and the lessons learned justify future research studies with the programme, which is an exciting prospect. Conducting a randomised controlled trial (RCT) in 'real world' settings has been both exciting and challenging, but an experience from which I have learned a great deal.

## Summary

Parents can face many new challenges in bringing up children with many now accessing the internet for general parenting support and advice. Much is known about patterns of parenting that support children's positive development and a lot of research has demonstrated the effectiveness of parenting programmes to support parents of high challenge children. These interventions teach positive parenting skills, including relationship building, play, positive reinforcement and emotional regulation generally taught through discussion, training in observation skills and positive role modelling. The growing evidence for the effectiveness of teaching parents positive parenting strategies has demonstrated the potential of such programmes to improve the mental health and well-being of both parents and children. However, there is relatively little evidence-based information on parenting available in general. Many of the available programmes target children at-risk of developing conduct problems or families living in high-risk areas (e.g. Flying Start areas), meaning that the majority of parents do not have access to evidence-based information.

Universal parenting programmes have the potential to promote positive child well-being and prevent future mental health problems. Advantages of a universal provision include (1) providing support for parents whose children do not have problems but who are concerned to parent their children in ways that provide them with the best outcomes, (2) facilitating access to evidence-based information for parents who are facing common everyday parenting challenges, but not currently in receipt of services, (3) impacting on societal norms by promoting positive parenting more widely, and (4) encouraging positive child development.

The COPING parent (**C**Onfident **P**arent **I**Nternet **G**uide) programme is a web-based universal programme that presents evidence informed parenting principles to support all parents in establishing positive relationships with children and promoting their children's

well being and development. This thesis reports on the development and evaluation of the programme in a randomised controlled trial with intervention and wait-list control conditions.

Chapter 2 is a review of universally available parenting programmes, based on social learning theory principles, that were either offered to a universal population or included universal goals i.e. development of parenting skills and promotion of child developmental outcomes. This review highlighted the need for more research to establish the effectiveness of universal programmes on promoting positive parenting skills and child development. This leads to chapter 3, which is a review of web-based interventions for behaviour change, both behaviour in general (such as weight-loss and smoking) and parenting behaviour are included. This review highlighted the need for further evaluations of web-based parenting interventions and associated attrition challenges. Chapter 3 discusses the many challenges, which parents can face, and how these challenges can compromise parenting, child behaviour and parent-child interactions. Chapter 4 contains a brief review of interventions created using the LifeGuide software and a detailed description of the development of the COPING parent programme. Chapter 5 is a published paper (Owen & Hutchings, 2017) reporting our feasibility study that was conducted to gain user feedback from an early version of the programme. Feedback suggested modifications that included adaptations to enable the programme to be accessed by tablet users; an option to look back over previously completed chapters, the inclusion of more video examples of positive parenting and text message reminders to address engagement. Chapter 6 is the published protocol paper (Owen, Griffith & Hutchings, 2017) providing details of the methodology of the main trial. Chapter 7 is the main outcomes paper, and reports the findings from the evaluation of the programme, limitations and suggested improvements. The COPING parent web-based universal programme was effective in increasing observed praise and reducing observed indirect commands for parents who completed at least one chapter of the programme, however trial

challenges included low engagement, high attrition at follow-up and software challenges. The final chapter of this thesis provides a summary of the research findings and discusses implications, strengths and limitations and future directions.

This was the first evaluation of the COPING parent online universal programme, an intervention for all parents of children aged 3-8 years who have an interest in learning more about positive parenting strategies. Findings from the main trial were promising and suggest that an online universal programme can significantly increase the positive parenting skills that are associated with good child outcomes for some parents. This thesis has highlighted the importance of providing all parents with the opportunity to access evidence-based support and further develop their parenting competencies in order to promote children's development.

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# **Chapter 1**

## **General Introduction**

---

## Background

Numerous randomised controlled trials of interventions, based on social learning theory and behavioural principles such as reinforcement (Bandura, 1977; Cooper, Heron & Heward, 2007) targeting the behaviour of parents of children displaying clinical levels of challenging behaviour have demonstrated the benefits of teaching structured parenting principles (Gardner et al., 2006; Hutchings et al., 2007; McGilloway et al., 2012). Many of these interventions, including the *Incredible Years*<sup>®</sup> (Webster-Stratton, 1998) and *The Positive Parenting Programme* (Triple-P; Sanders, 2008) teach positive parenting skills, including relationship building, play, positive reinforcement and positive role modelling (Furlong et al., 2013). The growing evidence for the effectiveness of teaching parents positive parenting strategies has demonstrated the potential of such programmes to improve the mental health and well-being of both parents and children (Vostanis et al., 2006; Sanders, 2008).

Although effective, many of these programmes were developed to target children with clinical level of problems and are not universally available to all parents (Sanders, Turner & Markie-Dadds, 2002). Many parents do not have access to good quality information and evidence-based advice when faced with everyday parenting challenges. Most of the available parenting programmes are delivered by health and social care services and reach few families (Sanders, 2008), targeting either clinically referred children or those at high risk of poor outcomes i.e. socially disadvantaged (Hutchings et al., 2007). Therefore, there may be other parenting advice and information needs in the population for some families who are not experiencing clinical difficulties.

The changing patterns of family life have increased the demands on all parents and many now seek advice online regarding everyday parenting challenges, for example mealtime and bedtime routines, potty training, and tantrums (Mumsnet website, 2015).

Universal web-based provision may be a useful public health tool to equip parents with the skills to practise positive parenting, address everyday parenting challenges, encourage positive child behaviour, achieve good child outcomes and avoid problems becoming more severe. An example of a theoretically underpinned public health approach to parenting is the Triple-P programme (Sanders, 2008) which gives parents simple and practical strategies to help them build parent-child relations, healthy relationships, confidently manage child behaviour and prevent problems from developing further (Sanders, 2008). The programme also aims to de-stigmatise parent help seeking and empower them to self-regulate when solving problems (Foster et al., 2008). The Triple-P programme is described in more detail in chapter 2. Numerous trials of the Triple-P parenting programme, both standard and web-based, have demonstrated positive outcomes for both parents and children (Markie-Dadds & Sanders, 2006; Prinz et al., 2009).

Universal parenting programmes have the potential to promote positive child well-being and development (Bayer et al., 2007). Although early indications of universal parenting programmes have shown promise in terms of increasing positive parenting (Sanders et al., 2008; Reedtz et al., 2011) further research is needed.

### **The COPING parent online universal programme**

This programme is informed by principles of behavioural and social learning theory (Bandura, 1977; Patterson, 1982; Cooper, Heron & Heward, 2007), and on work conducted by Judy Hutchings and colleagues in the 1990s (Lane & Hutchings, 2002; Hutchings et al., 2002). They found significant overall improvements in measures of child behaviour, parental practices and maternal mental health. The COPING parent programme incorporates key constructs, including observational learning, reinforcement, self-efficacy, goal setting and self-monitoring. These are introduced by video examples of positive parenting (observational



learning), setting achievable goals (i.e. spend ten minutes playing with your child every-day or praise positive child behaviour), monitoring the achievement of goals (by asking parents to report the number of times spent playing with their child), reinforcement of achievement (online feedback) and multiple-choice quizzes (online feedback and correct responses to the quiz). For a more detailed description of the intervention components see protocol paper (chapter 6). The COPING parent programme is intended for all parents of children aged 3-8 years with the aim of encouraging positive parenting and promoting positive child development and well-being.

### **Aims/objectives of thesis**

The main objective of the thesis was to develop and evaluate the effectiveness of an online universal programme, known as the COPING parent programme, for parents of children aged 3-8 years who have an interest in learning more about positive parenting skills. The specific aims of the thesis were to:

1. Review the universal parenting literature and web-based behaviour change programmes
2. Describe the challenges, which many parents can face when bringing up children that can compromise parent-child relations, child behaviour and parenting behaviour.
3. Describe the development of the online programme using the LifeGuide software.
4. Evaluate user feedback obtained from a small sample of participants who tested an early version of the programme.
5. Evaluate the effectiveness of the COPING parent online universal programme on parenting behaviour of parents of children aged 3-8 years in a pilot randomised controlled trial.
6. Report trial outcomes and discuss future implications.

## **Structure of thesis**

This thesis consists of nine chapters in total, including two published papers and one submitted to a scientific journal. The chapters are:

**Chapter 2** – A literature review of universally available parenting programmes

**Chapter 3** – A literature review of web-based behaviour change interventions

**Chapter 4** – Parental challenges

**Chapter 5** – Review of behaviour change interventions developed using the LifeGuide software and the development of the COPING parent online universal parenting programme

**Chapter 6** – An evaluation of the online universal programme COPING parent: A feasibility study (published)

**Chapter 7** – Evaluation of the COPING parent online universal programme: Study protocol for a pilot randomised controlled trial (published)

**Chapter 8** – An evaluation of the COPING parent online universal programme: A pilot randomised controlled trial (submitted)

**Chapter 9** – General Discussion

## **Chapter 2**

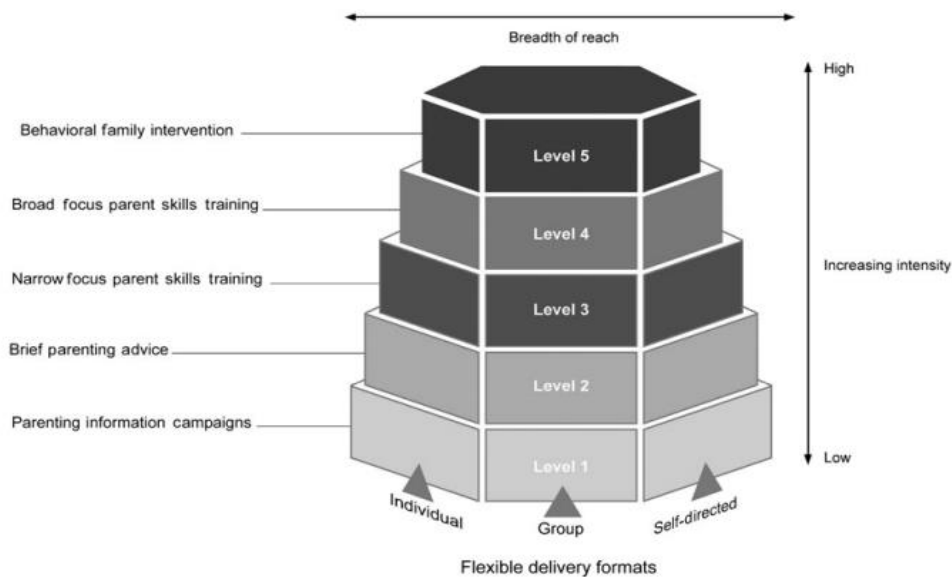
### **A literature review of universally available parenting programmes**

---

This chapter firstly introduces Triple-P (The *Positive Parenting Programme*; Sanders, 1999) which has a series of programmes to address different levels of need, providing a model of parenting support that describes how that model conceptualises levels of need and different levels of support from universal to clinical interventions (Sanders, 1999). This is followed by evidence for parenting interventions derived from targeted parenting programmes to reduce dysfunctional parenting practices and problematic child behaviour for which there is evidence from both randomised controlled trials (RCTs) and pragmatic Government funded evaluations. The importance of providing all parents with an opportunity to further develop their parenting skills and promote positive child development is introduced, followed by a review of universally available programmes. Each programme is discussed in terms of rationale(s), programme content, recruitment, outcomes and limitations.

### **Introduction**

The *Positive Parenting Programme* (Triple-P; Sanders, 1999) is one of a few examples of a model that was designed as a comprehensive population-level system of parenting and family support (Sanders 1999; Sanders, Markie-Dadds & Turner, 2002). The programme includes five intervention levels of increasing intensity and narrowing population reach (Foster et al., 2008) for parents of children up to the age of 12 years depending on the level of support required for individual families (Sanders, 1999).



*Figure 2:1.* The Triple-P tiered, multilevel system of parenting.

All five levels of Triple-P incorporate core principles of positive parenting to promote children's social and emotional competence (Prinz et al., 2009). For example, level-1 is universal and is a media-based information campaign targeting all parents with an interest in promoting child development, and level-5 is an intensive collaborative family intervention for parents of children with behavioural problems and concurrent family dysfunction (e.g. parental depression) or conflict between partners. Although the programme offers both targeted and universal parenting support, the substantial randomised controlled trial (RCT) evidence mainly demonstrates the effectiveness of higher tier levels of the programme with highly challenged families (Markie-Dadds & Sanders, 2006; Sanders, 2008). As with the field in general, there is less evidence for the effectiveness of the Triple-P at the universal tier, and the challenge is to identify realistic goals for universal parenting support and to develop and trial strategies and interventions that meet the criteria for successful population-level benefits on parenting and child variables (Sanders, 1999).

### **Targeted evidence-based programmes**

The role of parenting behaviour in the development and maintenance of child problem behaviours is well established in the literature with parenting considered the most significant factor in achieving positive child outcomes and the most effective way of addressing childhood conduct disorder (Patterson, 1982; Gardner et al., 2007; Sanders, 2008). For example, years of longitudinal research of parent-child conversation found that at age nine, children demonstrated a well-established link between their academic success and the number of words the child's parents spoke to the child age three, with children exposed to restricted parental language during their preschool years having poor outcomes (Hart & Risley, 1995). The knowledge of what constitutes poor and effective parenting has been incorporated into parenting programmes to address child behaviour problems since the evidence shows an association between poor patterns of parenting and the emergence of behavioural problems in children (Patterson, 1982; Gardner et al., 2010). The parenting behaviours that contribute to the establishment of conduct disorder are inconsistency, high criticism, harsh, and punitive punishment (Hutchings et al., 2007). Conduct disorder is a significant issue for society since the long-term consequences of these problems include impaired educational development, later adult mental health problems, early entry into crime and high social/ financial costs (Lindsay et al., 2008). Most effective parenting programmes for the treatment of child behavioural problems teach positive parenting behaviours and non-violent discipline strategies based on social learning theory principles (Bandura, 1977; Scott et al., 2001; Sanders et al., 2002).

Numerous RCTs have demonstrated the benefits of targeted parenting programmes on reducing child problem behaviours and dysfunctional parenting practices (Markie-Dadds & Sanders, 2006; Gardner et al., 2006; Hutchings et al., 2007). These programmes teach key positive parenting skills including relationship building strategies through time spent in play

or joint activities with children, improving parent-child interactions, positive reinforcement (encouraging positive child behaviour through praise and/or reward), developing children's language skills, teaching new behaviour through modelling, shaping and prompting and ignoring problematic behaviour (Furlong et al., 2013; Hutchings, 2013).

This growing evidence-base of 'gold standard' RCT trials (Barton, 2000) has led to parenting interventions being considered the primary means of addressing child conduct problems (Eisenberg et al., 2005; National Institute for Health and Care Excellence; NICE, 2013). Examples of targeted evidence-based parenting programmes, that are strongly informed by social-psychological theories, and NICE recommended (NICE, 2013) include *The Incredible Years*® (IY) parenting programme (Webster-Stratton, 1998), *Parent Management Training (PMT) – Oregon Model* (Forgatch, Patterson & DeGarmo, 2006) and some levels of *The Triple-P* (Sanders, 2008).

As a result of this evidence the Westminster Government funded a national roll out of targeted evidence-based parenting programmes for parents of high challenged children aged 8-13 years, across local authorities in England with two initiatives, the *Parenting Early Intervention Pathfinder* (Lindsay et al., 2008) and *Parenting Early Intervention Programme* (PEIP; Lindsay et al., 2011). The *Parenting Early Intervention Pathfinder* evaluation included three evidence-based programmes and the *Parenting Early Intervention Programme* five initially with a further three added later. The evidence-based programmes offered were *Families and Schools Together* (FAST), group-based level-4 of *The Triple-P*, *Strengthening Families* (SF), *Strengthening Families, Strengthening Communities* (SFSC), *The Incredible Years*® (IY), *Parent Power*, *STOP* and *Parent Plus*. The main objective of these initiatives was to evaluate whether the positive impact of targeted evidence-based parenting programmes demonstrated in research trials are replicated when the programmes are offered on a larger scale under different conditions (Lindsay et al., 2011). Both evaluations targeted

recruitment of families of children with significant challenges and both demonstrated positive parent and child outcomes in terms of reductions in child problem behaviour and increases in parental mental well-being, self-efficacy and satisfaction, with the PEIP evaluation also demonstrating maintained improvement at one year follow-up (Lindsay et al., 2011).

The Early Intervention Foundation (EIF), an independent charity supporting the use of effective early intervention, assesses the quality and strength of evidence of early intervention programmes. The EIF evidence rating system distinguishes levels of strength of evidence of impact – the degree to which a programme has been shown to have a positive, causal impact on specific child outcomes (EIF website, 2017). The term ‘evidence-based’ is applied to programmes with what the EIF have termed level three evidence or higher i.e. programmes with evidence of a short-term positive impact from at least one high-quality evaluation or multiple high-quality evaluations (EIF website, 2017). Parenting programmes that are considered ‘evidence-based’ are targeted programmes and include some levels of *The Triple-P* (Sanders, 2008), *The Family check-up* (Dishion et al., 2003), *The Incredible Years*<sup>®</sup> (IY) parenting programme (Webster-Stratton, 1998) and *Helping the non-compliant child* (McMahon & Forehand, 2005).

Both government funded evaluations and research based RCTs of parenting programmes, with sound evidence, have targeted parents of children either exhibiting or considered at-risk of developing behavioural difficulties. However, these programmes reach small numbers of families (Sanders, 2008; Foster et al., 2008; Lindsay & Totsika, 2017), therefore there may be other parenting advice and information needs in the population for some families that are not experiencing clinical difficulties.

### **Advantages of a universal parenting approach**



Challenges experienced in raising children are common (Sherr et al., 2014), and the positive results from targeted/preventive parenting evaluations (Sanders, 2008; Lindsay et al., 2011) **may** benefit a broader group of parents by providing all parents with the opportunity to access evidence-based support that will teach them the knowledge, skills and competence to encourage positive child development, well-being and academic outcomes such as school readiness. Universally available parenting programmes are offered to all parents and generally incorporate the same theoretical underpinnings (i.e. social learning theory) as targeted/preventive programmes. The rationale for universal programmes is varied. However, Sanders and colleagues (2003) defined the rationale for a universal population-level approach as promoting children's social, emotional, language, intellectual and behavioural competencies through positive parenting practices (Sanders, Cann & Markie-Dadds, 2003).

The advantages of offering parenting support universally (to all parents) includes (1) providing support for parents whose children do not have problems but who are concerned to parent their children in ways that provide them with the best outcomes, (2) facilitating access to evidence-based information for parents who are facing common everyday parenting challenges, but not currently in receipt of services, (3) impacting on societal norms by promoting positive parenting more widely, and (4) encouraging positive child development.

### **Review of universally available programmes**

Programmes included in this review met the following inclusion criteria (1) the programme rationale included universal goals i.e. development of parenting skills and promotion of child developmental outcomes, (2) the programme was offered to a universal population and (3) the programme was offered to groups of parents.

## Evaluation of the COPING parent programme

Programme	Rationale	Inclusion criteria
Level 1 Triple-P	<ol style="list-style-type: none"> <li>1. Promoting positive parenting</li> <li>2. Reducing child problem behaviour</li> <li>3. Reducing dysfunctional parenting</li> </ol>	Offered to a universal population
Level-2 Triple-P	<ol style="list-style-type: none"> <li>1. Promoting positive parenting</li> <li>2. Reducing child problem behaviour</li> <li>3. Reducing maternal mental health</li> </ol>	Offered to a universal population and group-based
Incredible Years® (Basic –short version)	<ol style="list-style-type: none"> <li>1. Promoting positive parenting</li> <li>2. Reducing dysfunctional parenting</li> </ol>	Offered to a universal population and group-based
Toddlers without tears	<ol style="list-style-type: none"> <li>1. Promoting nurturing parenting</li> <li>2. Reducing harsh parenting</li> <li>3. Reducing child problem behaviour</li> </ol>	Offered to a universal population and group-based
Incredible Years® (Toddler)	<ol style="list-style-type: none"> <li>1. Promoting parenting skills</li> <li>2. Promoting child development</li> </ol>	Offered to a universal population, group-based and includes only universal goals
Incredible Years® (School Readiness)	<ol style="list-style-type: none"> <li>1. Promoting parenting skills</li> <li>2. Promoting child development, specifically educational outcomes</li> </ol>	Offered to a universal population, group-based and includes only universal goals
All children in focus	<ol style="list-style-type: none"> <li>1. Promote parental self-efficacy</li> <li>2. Promote child health and well-being</li> </ol>	Offered to a universal population, group-based and includes only universal goals
Tuning into kids	<ol style="list-style-type: none"> <li>1. Foster positive parent-child relations</li> <li>2. Promote children's emotional competence</li> </ol>	Offered to a universal population, group-based and includes only universal goals
CANparent trial	<ol style="list-style-type: none"> <li>1. Access to universal support</li> <li>2. Reducing maternal mental health</li> <li>3. De-stigmatising parenting support</li> <li>4. Discussion of barriers to participation</li> </ol>	Offered to a universal population and group-based

Group-based programmes with problem-focused rationales offered to a universal population are discussed first (part 1), followed by other programmes with universal rationales (Part 2). Each programme is discussed in terms of their rationale(s), programme content, recruitment, outcomes and limitations. The CANparent trial is also discussed in

terms of content, recruitment, outcomes and limitations but additionally discusses barriers to participation in universally available programmes.

## **Literature Review - Part 1**

### **The Triple-P (Level-1)**

The universal level of the Triple-P programme was developed as a public health approach to parenting to impact on societal norms by promoting positive parenting more widely (Sanders, 2008), and one means of increasing parent's exposure to evidence-based parenting principles is to take advantage of the influence of mass media to deliver parenting messages (Sanders et al., 2008). Sanders and colleagues (2008) investigated whether support for parents accessed via email following the programme enhances the effects of viewing a reality television series (*'driving mum and dad mad'*) based on the Triple-P programme. The rationale for this study was promoting positive parenting skills more widely, but also reducing child problem behaviours and dysfunctional parenting.

The TV programme was a six-episode series *'driving mum and dad mad'*, that showed parents of children aged 3-7 years with severe conduct problems, participating in the group-version of the Triple-P. This programme aims to teach parents' positive parenting skills (i.e. positive attention, praise, incidental teaching and reward charts) and manage child misbehaviour (i.e. clear instructions, quiet time and time-out). Parents in the series practised these skills during the televised sessions run by a clinical psychologist. Each episode showed families learning to implement the skills and included footage of parent-child interactions recorded in the home and in community settings.

Parents (N=545) with a child aged between 2-9 years were recruited by a variety of methods including features in national and local newspapers, local news programmes, posters, e-mails, internet links and word of mouth. Parents were randomly allocated to either

the standard ( $n=98$ ) or enhanced ( $n=76$ ) conditions. Parents randomised to the standard condition had access to the TV series, help sheets available from the ITV website and weekly e-mails to remind them to watch the current episode. Parents randomised to the enhanced condition had access to the TV series, the self-help workbook, were sent weekly-emails to remind them to watch the current episode, (these e-mails also provided tips on particular aspects of each episode) and could contact an accredited Triple-P service provider via e-mail. The authors hypothesised that parents randomised to the enhanced group would demonstrate greater improvements in child disruptive behaviour and lower rates of dysfunctional parenting. Although this programme was offered universally, only one of its goals are universal.

Measures were taken pre-and post-intervention and six-months later for all participants. Measures included family background questionnaire (Sanders, Markie-Dadds & Turner, 1999), Eyberg Child Behaviour Inventory (ECBI; Eyberg & Robinson, 1983), Parenting Scale (Arnold et al., 1993) and the Depression and Anxiety Stress Scale (Lovibond & Lovibond, 1995). Pre-intervention data demonstrated the majority of parents in both conditions reported high levels of dysfunctional parenting practices as measured by the Parenting Scale (Arnold et al., 1993) and clinical levels of child problem behaviour ( $>10$  on the problem sub-scale on the ECBI; Eyberg & Robinson, 1983).

Parents in both conditions reported significant improvements in child disruptive behaviour and improvements in dysfunctional parenting practices, but the effects, as measured by the ECBI and Parenting Scale (Eyberg & Robinson, 1983; Arnold et al., 1993), were greater for the enhanced condition. Levels of improvement were strongly related to the number of episodes watched, with greater improvements reported by families who watched all six episodes and these results were maintained at the six-month follow-up.

Although this was a universal access study, the recruited parents reported children with significant behavioural problems and the hypothesis was to decrease child problem behaviour and dysfunctional parenting, suggesting the programme was evaluated as a treatment. This is one possible role for universal access to parenting information, but is not a goal of universal provision. Recruiting a high challenged sample may have been because the TV programme showed a clinical population or because there is a lack of availability of specialised support and families are therefore taking up a universal offer.

Limitations of the evaluation include difficulty in distinguishing whether both components (self-directed and/or web support) were needed to achieve positive outcomes, lack of a universal rationale as the programme was considered a public health provision and a high rate of attrition. Only 50.3% watched all six episodes and programme attrition was higher among parents who reported more dysfunctional parenting. This highlights the fact that a media-based programme may not be suitable for all families reporting significant problems.

Despite the limitations reported, this was the first study evaluating the impact of providing additional support alongside a television series, demonstrating evidence-based principles. Millions of people watched the programme and the study recruited a large sample, demonstrating the ability of media to reach large numbers of parents and expose them to evidence-based knowledge and skills focused on managing child behavioural problems. These findings contribute to the evidence that media can be a useful strategy to reach more parents and promote positive parenting (Sanders et al., 2008).

### **The Triple-P (Level-2)**

Zubrick and colleagues (2005) evaluated a universally available group-based version of the Triple-P programme. The purpose of the trial was to investigate the transferability of

an efficacious clinical programme to a universal population delivered through regular child and community health services. The rationale for the programme was to reduce levels of dysfunctional parenting and maternal mental health problems and encourage positive parenting skills.

The group-based Triple-P programme involved groups of ten parents participating in a 2-hr training workshop once per week for 4 weeks. Trained community and child health nurses, social workers, health promotion officers and/or psychologists delivered the programme. Three key strategies were covered in the sessions (1) promoting children's development, (2) managing child misbehaviour and (3) planning activities and routines. These were followed by a 15-min telephone support session each week for the four weeks. Each family received a copy of the '*Every Parent*' workbook and a video to support their participation in the programme (Zubrick et al., 2005).

Parents of pre-school children aged 3-4 years living within a metropolitan health region were invited to participate. Recruitment methods included distributing posters, letters and brochures to schools, nurseries, day-care and family centres, doctor surgeries, health clinics and recreational clubs. This was a longitudinal design with researchers collecting data from one principal parent over a two-year period. Parents were randomly assigned to either intervention ( $n=804$ ) or a treatment as usual control group ( $n=806$ ). Parents randomised to the control group received services as usual (health care and family support) but not the Triple-P programme.

Measures, included demographics, ECBI (Eyberg & Robinson, 1983), Parenting Scale (Arnold et al., 1993) and the Depression and Anxiety Stress Scale (DASS; Lovibond & Lovibond, 1995), and were collected pre-intervention, nine weeks post-intervention and 12 and 24 months later. Over 40% of children were reported as scoring within the clinical range for behavioural difficulties although the mean ECBI intensity score of 121.6 was within the

normal range. Similarly, over 60% of parents were reporting problematic levels of dysfunctional parenting as measured by the Parenting Scale (Arnold et al., 1993).

Results favoured the intervention group with parents reporting significant reductions in levels of child problem behaviour as measured by the ECBI at both 12 and 24 months (Zubrick et al., 2005), with medium effect sizes. A significant reduction was also found in dysfunctional parenting as measured by the parenting scale immediately post-intervention for parents in the intervention condition (Zubrick et al., 2005). Although this trial was universally available, as with the TV trial of Triple-P, it recruited parents reporting significant child behaviour challenges again suggesting a lack of availability of targeted programmes.

Engagement was problematic with parents who engaged less with the programme being significantly more likely to be at-risk of poor outcomes and to be reporting significantly higher levels of depression, anxiety and stress (Zubrick et al., 2005), suggesting again that universal programmes may not be suitable for some families. A future trial will need to include universal goals and appropriate measures (i.e. child development) in order to explore the effectiveness of the programme on universal outcomes.

Despite the limitations, this universally available programme, delivered through regular child and community health service, recruited a large sample of parents, therefore suggesting the potential usefulness of this method as a means of disseminating parenting information.

### **The Incredible Years<sup>®</sup> (IY) Basic Parenting Programme**

Most of the IY research has been undertaken with families who are already experiencing severe child problem behaviour, and relatively little is known about the effects of the IY programmes when offered to non-referred parents. Reedtz and colleagues (2011)

explored whether a shortened version of the IY basic programme was capable of strengthening core resilient factors (i.e. parenting) related to child behavioural problems in a non-clinical community sample. The rationale for this study was to increase positive parenting style and competence and decrease dysfunctional parenting.

This shortened version covered the first six instead of the usual 12 sessions (the first half of the IY basic programme strengthens positive parenting competencies), and was delivered in the same way as the full version of the programme. Parents met in weekly groups of 10-12 for two hours in a public health centre. The programme was delivered by two trained and experienced facilitators, who led group discussions centred around aspects of parenting based on the videos, role-plays and homework assignments. Group leaders were trained nurses specialising in public health care with experience of clinical work.

Parents of a child aged between 2-8 years living in the city of Tromsø, Norway ( $N=189$ ) were self-recruited from a general population and randomised to either intervention ( $n=89$ ) or control ( $n=97$ ) conditions. Recruitment was via advertisement – posters in schools, nurseries and newspapers. Parents randomised to the intervention condition participated in the IY programme and parents randomised to the control condition completed the measures, but did not receive the programme.

Measures included the ECBI (Eyberg & Robinson, 1983), the Parent Sense of Competence (Johnson & Mash, 1989) and the Parenting Practice Interview (Webster-Stratton et al., 2001). Fifty-eight (22%) children were excluded from the study prior to randomisation due to scoring above the 90<sup>th</sup> percentile on the ECBI intensity sub-scale; these families were instead offered the full IY group-based programme, which is widely delivered in Norway.

The results showed significant differences between groups. Parents in the intervention condition demonstrated reductions in harsh parenting (moderate to large effects) and children's behavioral problems (small effects), and strengthening of positive parenting (large



effects) and sense of competence (small effects). The difference in child behavior and parent sense of competence was present at post-intervention, but not at one-year follow-up.

However, reductions in harsh parenting, parent sense of satisfaction and positive parenting (measures by the parenting practice interview) lasted through one-year follow up (Reedtz et al., 2011).

The rationale for this study was to reduce dysfunctional parenting and increase positive parenting skills in the general population, therefore children scoring highly on the ECBI intensity sub-scale were excluded and offered an evidence-based alternative treatment version of the programme (i.e. full IY group-based programme), as in Norway they are able to offer these services. This is a particular strength of the study, as outcomes were analysed with the intended non-clinical sample with the focus on parenting.

Although results from this trial are promising it did not include a positive parenting measure, which is disappointing as one of the rationales was to increase positive parenting skills. A behavioural observation would have been useful as an objective measure of the skills outlined in the programme. Secondly, given that this was a non-clinical sample a child development measure would have been useful in determining whether this programme, with a focus on increasing parenting, led to the promotion of positive child outcomes. Finally, high attrition rates were found from pre-to post-intervention and at follow-up, for parents in the control condition (46.4% lost at post-intervention and 52.6% at 12-month follow-up), and this may have resulted from the lack of incentive to continue in the trial, as they were not being offered the programme. A wait-list control condition may have resulted in more control parents providing data.

Despite some challenges, this universally available programme was successful in recruiting a large sample of parents who reported improvements in their parenting style and competence. Also, unlike the previous programmes included in this review, the study ensured

the recruitment of a non-clinical sample allowing conclusions to be drawn about the benefits of delivering positive parenting advice to a universal population.

### **Toddlers without tears programme**

Hiscock and colleagues (2008) designed a programme, delivered by trained health professionals working in primary care settings, to address a key developmental transition associated with a rise in parenting challenges (i.e. when infants become more mobile) and prevent the future emergence of problems. This programme was intended to be suitable for all parents and the rationale was to improve nurturing parenting and to reduce both child problem behaviour and harsh parenting.

Health nurses invited mothers of 6-7-month-old infants, who were attending their free health visit, to take part in the *toddlers without tears* study. Parents were required to have a good understanding of English in order to complete the questionnaires. Parents (N=733) were allocated to intervention ( $n=329$ ) or usual care control conditions ( $n=404$ ). Parents in the control condition received usual care from their health centre, which may have included advice on children's behaviour but did not include a structured, evidence-based parenting programme for early childhood behaviour (Hiscock et al., 2008). Parents in the intervention condition received the universally available programme that targeted three key modifiable risk factors for child behaviour, (1) unreasonable parental expectations, (2) harsh parenting and (3) lack of nurturing parenting (Hiscock et al., 2008).

At routine 8-month visit, mothers received four handout discussing normal child behaviour (including motor and social development) and ways of encouraging language development. At 12-months, mothers attended a 2-hour group session which discussed ways to develop a warm and sensitive relationship with their toddler, how to encourage desirable behaviours and the need to plan ahead for 'difficult' situations in which toddlers are likely to

misbehave. At 15-months parents attended another 2-hour group session discussing ways to manage unwanted behaviour in children. Parents were encouraged to identify ‘low priority’ behaviours (for which strategies such as planned ignoring and distraction can be used) and ‘high priority’ behaviours (for which quiet time was discussed). All sessions took place at a local maternal and child health centre. The authors hypothesised that families receiving the intervention would report fewer child behaviour problems, less harsh discipline, more nurturing parenting and fewer symptoms of poor mental health (Hiscock et al., 2008).

The primary outcome measure for the trial was the Child Behaviour Check List (CBCL; Achenbach & Edelbrock, 1991) collected at 18 and 24 months (outcomes – CBCL), and other measures included Parent Behaviour Checklist and the Depression and Anxiety Stress Scale (DASS) completed at seven months (baseline socio-demographic details, maternal mental health and family stress), 12 months (baseline parenting style and partner relationship) and 18 and 24 months (outcomes). Results demonstrated that mothers in the intervention group reported non-significant reductions in harsh discipline and inappropriate developmental expectations compared with control mothers (Hiscock et al., 2008). However, there were no differences between intervention and control on externalising problems in two year olds or maternal mental health. The intervention did not lead to more nurturing parenting, suggesting that a two-hour session may not have been enough to achieve significant increases in positive parenting skills or that the content focused too heavily on reducing harsh parenting.

Limitations include poor engagement as only 49% of parents received the full programme. Non-participating families were more likely to be from lower socioeconomic backgrounds, suggesting a short universal programme may not be suitable for some families, some families may not find it useful and/or they may need another provision (i.e. targeted service). In future, universal trials could ask parents to provide reasons for not fully engaging

with the programme. Although this may be difficult to obtain from parents that have not engaged, it could provide useful information in terms of future development. While this was a universal programme with some content designed to promote positive child outcomes (i.e. language development, desirable child behaviour) the measures included did not reflect this; instead, they focused solely on problem reductions.

Despite the lack of significant findings, the programme was acceptable to those parents that did engage, feasible in a routine primary care setting and reached many parents; supporting the acceptability of its approach as a recruitment mechanism and in utilising free health visits as a means of delivery of universal parenting support.

## **Literature Review - Part 2**

### **Incredible Years® (Toddler) Programme**

Hutchings and colleagues (2017) evaluated the effectiveness of the IY Toddler-Parenting Programme (IYTPP; Webster-Stratton, 2008) for parents of toddlers living in eight disadvantaged (Flying Start) areas of Wales. Although this programme targeted disadvantaged areas, it was offered universally. The development of the IYTPP coincided with Flying Start (FS) a Welsh Government initiative introduced in disadvantaged areas in Wales as part of the tackling poverty agenda. FS services receive funding for every 0-3-year-old child to deliver four universal components: (1) free good-quality childcare for all 2-year olds, (2) increased support from dedicated FS health visitors, (3) access to parenting programmes and (4) access to parent-child language and play schemes. The rationale was to improve positive parenting skills and child development.

The IYTPP is based on social learning theory principles and aims to teach parents positive parenting skills in order to develop children's social and emotional competence (Webster-Stratton, 2008). Skills outlined in the programme include social and emotional

coaching, positive reinforcement, child-directed play, spontaneous incentives and distraction and re-direction. The 12-session programme was delivered by experienced facilitators trained in the delivery of the IY programme, who led group discussions centred around aspects of parenting based on the videos, role-plays and homework assignments. Facilitators were health visitors and childcare practitioners, and were trained and supervised by the first author, an accredited IY trainer. Groups were delivered in FS children and family centres and free child-care was provided for all attending parents.

Group-leaders recruited parent-child dyads (N=89) from eight FS areas in North, Mid and South Wales, and parents were randomised to intervention or 6-month wait-list control conditions on a 2:1 ratio stratified according to child sex, age (younger and older than 2) and centre. Measures were collected at baseline, six-month and 12-months and included self-report mood and confidence (Beck Depression Inventory; Beck et al., 1996 & Warwick Edinburgh Mental Well-Being Scale; Tennant et al., 2007), Parenting Stress Index (difficult child sub-scale; Abidin & Abidin, 1991), Schedule of Growing Skills (SGS; Bellman, Lingam, & Auckett, 2008) and a 30-minute observation of parent-child interaction (DPICS; Eyberg & Robinson, 1983).

Results demonstrated significant improvements in parental mental well-being and observed praise at 6-months for parents in the intervention condition compared with controls. Significant intervention group improvements were also found at 12-months for child development, the quality of the home environment and parental depression (Hutchings et al., 2017), providing preliminary short and longer-term benefits in favour of attending the programme in terms of increasing parental praise and well-being as well as the quality of the child's environment and child development.

Although this programme was offered to parents living in disadvantaged areas, overall recruited parents did not report significant challenges (reporting low levels of child

problem behaviour and mental health symptoms at baseline) and were less disadvantaged than parents of young children recruited to a targeted Welsh Sure Start trial (Hutchings et al., 2007; Hutchings et al., 2013). This resulted in less challenged families taking up the opportunity to access evidence-based support.

Although the IYTPP trial was successful in achieving significant short and longer-term effects (in terms of parental praise, mental well-being and child development), the significant effects of child development at 12-months should be interpreted with caution as there was no control group at longer-term follow-up. Nonetheless, this universally available programme included universal goals, appropriate parent and child measures, reported high attendance (62% attending seven or more) and reported promising results. This suggests that offering the IYTPP programme universally can lead to improvements in positive parenting and child development.

### **Incredible Years® (School Readiness) Programme**

Hutchings and colleagues (submitted) evaluated the IY School Readiness programme (IY-SR) in a feasibility study to explore initial effectiveness of the programme in encouraging positive parenting skills associated with children's school readiness and home school engagement. This was the first evaluation of the programme and was delivered in Welsh primary schools, by school-based staff to parents of nursery-aged children. The rationale for the study was to strengthen home-school links and increase positive parenting skills associated with long-term positive educational outcomes of children.

The IY-SR programme is a short, four session universal intervention that incorporates the same delivery components and collaborative delivery style as the other IY programmes. The programme aims to encourage children's social and emotional competence and language skills by coaching parents in the use of descriptive commenting and reflecting/expanding on

child speech (Webster-Stratton, 2006). The programme has two parts: (1) child-directed play and (2) interactive reading. The first part involves strengthening the parent-child relationship through child-led play and the second part encourages children's social, emotional, academic and problem-solving skills using books. Trained school staff delivered the IY-SR in four 2-hour sessions to groups of up to 12 parents. Parents were invited to attend the sessions in their children's school in order to establish the home-school link.

Staff in ten primary schools in North West Wales recruited families (N=46) by sending out recruitment flyers and course information to parents of children who attended their nursery or reception classes. Inclusion criteria were having a child in the nursery or reception class of the participating school, living in the catchment area and parents being able to attend the sessions. Schools were allocated to intervention ( $n=32$ ) or wait list control conditions ( $n=14$ ) and measures collected at baseline and six-month post-intervention. The primary measure was a 30-minute observation of parent-child interactions – The Play and Reading Observation Tool (PAROT; Pye, 2015). Categories were selected from the DPICS (Eyberg & Robinson, 1981) with additional categories designed specifically to measure school readiness parenting behaviours (i.e. academic and socio-emotional coaching). Secondary measures included parent-report child behaviour (SDQ and ECBI) and family demographics. Parent and leader feedback interviews and questionnaires were also collected. Parents reported child behaviour within the normal range on the SDQ and ECBI at baseline.

Parents in the intervention condition demonstrated significant improvements at six-month follow-up in three observed parent verbal behaviours (academic coaching, encouragement/praise and socio-emotion coaching) compared with controls. There was no significant change in parent reported child behaviour. Feedback was positive with 92.6% of parents reporting that they felt confident in discussing problems with school and 89% reporting their relationship with school had improved as a result of attending the programme.

This IY-SR programme was effective in the short-term in increasing key parent verbal behaviours in the context of play and reading when delivered by school staff and at promoting home-school links. The programme effectively taught parents how to coach school readiness skills (i.e. language) and to respond with praise and encouragement.

Study limitations include the lack of randomisation as schools were allocated to each condition on a first come first served basis, due to time and funding constraints of the study being undertaken as the second author's PhD study, and a small sample size. Despite these challenges, this initial feasibility study demonstrated significant outcomes demonstrating that a short universal programme delivered in schools could successfully encourage positive parenting skills associated with child school engagement/success. A future trial would need to recruit a larger sample and an RCT design to strengthen these findings. Following this trial, two counties in Wales, Flintshire and Powys, have taken a strategic decision to roll out the programme through their schools on a countywide basis.

### **All children in Focus (ABC) programme**

A universal programme was developed in Sweden as a health-promotion intervention targeting children's health and well-being and parental self-efficacy (Ulfsdotter et al., 2014). The authors believed that to appeal to parents in the general population, the emphasis should be on the promotion of health. The '*All Children in Focus*' (ABC) programme was developed with this goal in mind.

The intervention is similar to other universal programmes (i.e. Reedtz et al., 2011) in that it is theory based and organised as group meetings with trained facilitators. The programme contains evidence-based content (i.e. child-directed play, positive reinforcement, consistency) and delivery methods (i.e. discussion, role-play, video modelling) that have been shown to be effective in previous trials (Markie-Dadds & Sanders, 2006; Hutchings et al.,



2007). The programme consists of four (2.5 hours) structured sessions delivered every other week by trained personnel/ABC-group leaders at local agencies, in preschools, schools, and family health centres. The programme focuses on positive parenting and includes parental warmth, special time, positive attention, positive parenting strategies and consistent parenting. Parents watched short films, engaged in discussions on observed parenting skills and received feedback on their role-play.

Parents ( $N=621$ ) of children aged 3-12 years were randomised on a 1:1 ratio to intervention ( $n=323$ ) or wait-list control ( $n=298$ ) conditions. Recruitment was undertaken locally in 11 boroughs and city districts in Stockholm, Sweden. The settings for recruitment were maternity health services, child health services, preschools and schools that included contacting parents personally, sending letters to parents as well as showing a promotional video at local supermarkets, advertisements in the local press and on websites. The most common settings for hosting ABC groups were schools and preschools; however, family centres and other community facilities were also used.

Parents completed questionnaires at baseline, two weeks after the intervention was delivered and six-months post-baseline. Measures included parental self-efficacy (PSE; Kendall & Bloomfield, 2005), Parental Mental Health (General Health Questionnaire; Goldberg, 1978), Child Health and Development and The Dyadic Adjustment Scale (DAS; Spanier, 1976). The mean scores for the General Health Questionnaire was well-above the clinical cut off ( $>4$ ) for symptoms of poor mental health (11.7 for the intervention and 11.6 for the control), suggesting that a significant proportion of this sample of parents were experiencing mental health challenges.

Results demonstrated a positive intervention effect for parental self-efficacy and parental perceptions of child health and development with moderate effect sizes, but these effects were not significant. Parents who rated their mental health as poor at baseline showed

greater increase in their parental self-efficacy, and greater improvements in their children's health and development, demonstrating that the programme may have a greater benefit for parents reporting poorer levels of mental health. Parental educational level moderated self-efficacy outcomes, indicating that the programme may have a greater effect on self-efficacy for parents who have a higher level of education, but further evaluations are needed.

Study limitations include attrition challenges as only 52.6% of parents attended all four sessions of the programme (Ulfsdotter et al., 2014) and programme content; it is unfortunate given its universal goals not to also have included content to promote child health and development. However, despite this, particular strengths of this study include the sole focus on positive outcomes, which are appropriate to universal parenting goals and the recruitment methods as a large sample of parents signed up.

### **Tuning into kids (TIK) programme**

Wilson and colleagues (2012) evaluated the effectiveness of the '*Tuning into kids: Emotionally Intelligent Parenting Programme*' (TIK), with the rationale of targeting children's emotional competence, assisting parents in emotionally connecting with their children and fostering a positive parent-child relationship. The authors believed that the programme would provide an important alternative to, or complement, existing behavioural parenting programmes designed to address problematic child behaviour (Wilson et al., 2012).

The programme is universally delivered to parents and teaches the skills of emotion coaching that help children learn about regulating their emotions, with the added benefit of enhancing or improving parent-child relationships. The programme is based on research demonstrating the role of emotional competence in promoting positive behaviour, social skills and other developmental outcomes (Wilson et al., 2012). The TIK programme incorporates common elements found in other behavioural programmes such as the use of

descriptive praise, playing with children and the importance of consistency in routines and limits (Wilson et al., 2012).

The programme has six structured sessions delivered weekly for two-hours to groups of twelve parents by trained facilitators. Additionally, the programme offers two follow-up ‘booster’ sessions to consolidate the skills learned. Parents are taught five steps of emotion coaching, (1) become aware of the child’s emotion, (2) view the child’s emotion as an opportunity for intimacy and teaching, (3) communicate understanding and acceptance of emotion, (4) help the child to use words to describe how they feel and (5) if necessary, assist them with problem-solving (while setting limits). The key research question was – ‘when delivered by community practitioners, does participation in TIK lead to improved parenting practices and improved child outcomes?’

Recruitment involved pre-schools distributing information and letters of invitations to parents of enrolled children aged between 4 and 5 years. Inclusion criteria were English language proficiency and return of a pre-intervention questionnaire booklet before a specified cut-off date. Parents (N=128) of children aged 4-5 years who consented to participate were allocated to intervention or wait-list control conditions depending on which pre-school their child attended. Fifteen pre-schools were randomised to the intervention condition and received the programme immediately whilst the remaining ten pre-schools were randomised to the control condition and were offered the programme after the completion of follow-up data.

Measures were collected at baseline and seven-months later and included the Maternal Emotional Style Questionnaire (MESQ: Lagace-Seguin & Coplan, 2005), Coping with Children’s Negative Emotions Scale, (Fabes et.al, 2003), the Alabama Parenting Questionnaire (Frick, 1991), the ECBI (Eyberg & Robinson, 1983) and a shortened version of the Social Competence and Behaviour Evaluation (SCBE; LaFreniere & Dumas, 1995).

The child's teacher completed the SCBE whilst the rest were parent self-report. Twenty-seven children (21%) scored above the clinical cut-off on the ECBI intensity sub-scale at baseline.

Results demonstrated that intervention parents were significantly less emotionally dismissive, practised significantly more emotional coaching in response to children's regulative emotions and were more positively involved with their children compared with controls. Intervention parents also reported significantly greater reductions in the number of child problem behaviours compared with controls as measured by the ECBI (Eyberg & Robinson, 1983). These results are promising and the programme was successful in changing certain emotion coaching practices that are central to positive child development (Wilson et al., 2012).

Although results were promising, there was an over-reliance on parent-report measures (although a teacher-report measure was also included) and the study could have been strengthened with the addition of an observational measure to directly capture parental emotional coaching. There was also no child development measure, which would have been useful to explore whether changes in parental emotion coaching led to child development improvements. Nevertheless, the programme was well-received by parents with 97% attending at least four of the six sessions, suggesting that offering a universal programme delivered by community practitioners through pre-school settings is acceptable.

### **The CANparent trial**

From a public health perspective, programmers seek to make parenting programmes as broadly accessible as possible, and one way to do this is to involve service providers from many disciplines (Sanders, 2008). Lindsay and colleagues (2017) included service providers

in their evaluation of the effectiveness of twelve universal parenting programmes, that were available to all parents of young children (aged six years or younger) in three local authorities in England. This is the first study of universally available parenting programmes on this scale (Lindsay & Totsika, 2017), and builds upon the success of the evaluators in undertaking the previous large-scale dissemination of targeted parenting programmes across England (Lindsay et al., 2008; Lindsay et al., 2011).

The aim of this trial was two-fold, (1) to evaluate whether free provision of universal parenting classes would provide sufficient incentive to service providers to start offering additional universal support and (2) whether a universal approach could normalise and destigmatise parenting support. This evaluation has a different focus from the previous trials reviewed, however the findings are important in terms of the development of universal provision and ensuring that all parents are given the opportunity to further develop their parenting skills. The trial combined a mixed-methods approach and included large-scale surveys, standardised questionnaires and in-depth interviews with parents and service providers.

Parents living in three local authority areas in England were eligible for free vouchers (worth £100) entitling them access to an accredited CANparent parenting course. Service providers received £75 for signing-up a parent and a further £25 upon course completion. The CANparent courses included online and group-based *Triple-P*, *Solihull Approach*, *Strengthening Families*, *Strengthening Communities* and *High Peak Parenting* (based on the principles of the Incredible Years<sup>®</sup> programme). There were four main delivery methods, face-to-face group, face-to-face one-to-one, blended online with face-to-face and pure online. The most popular was group-based (93%). Participants (N=675) accessed a free voucher from an available source and presented it to a service provider. Upon enrolment, demographic and pre-course data was collected during the first session. Measures included

Being a Parent (Johnston & Mash, 1989), Parenting Daily Hassles (PDH; Crnic & Greenberg, 1990), Warwick-Edinburgh Mental Well-Being Scale (Tennant et al., 2007) and how was your class (?) questionnaire (developed by the evaluators) to measure parental perspective of attending a class. Parents from sixteen other local authorities were randomly selected as a comparison group and asked to complete pre-and post-course measures only.

At the beginning of the trial, CANparent participants were reporting higher levels of parenting stress, more parenting difficulties and lower overall well-being compared to national averages. This is similar to other universal trials (Zubrick et al., 2005; Reedtz et al., 2011), and may suggest a lack of availability of targeted interventions resulting in many families with challenges accessing universal provision. Compared to controls, CANparent participants demonstrated small to medium gains in parental satisfaction with being a parent, sense of effectiveness with being a parent and significant improvements in maternal mental well-being (Lindsay & Totsika, 2017). Additionally, parental satisfaction was high with 93% of parents reporting they were satisfied or very satisfied with the CANparent programme and would recommend it to other parents and 88% reported they would like to attend further classes in the future. The voucher system was successful in stimulating the supply of universal programmes, reducing the stigma associated with seeking parenting support and resulting in higher levels of parental mental well-being for parents who engaged.

At the start of the trial it was estimated that over 50,000 parents in the CANparent areas were eligible for a voucher, however, only 675 took advantage of the free provision. Forty-two in-depth interviews with parents and service providers explored possible causes of the disparity between expected take-up and actual enrolment. Service providers reported barriers and these were grouped into four sub-headings:

1. Parental resistance to universal parenting support - *“it’s not the norm, parents don’t go on parenting classes, especially when it’s going well”*.

2. Stigma associated with parenting classes – *“parenting programmes are seen to be for defective or dysfunctional parents”*.
3. Availability of other sources of parenting support – seeking support from friends and family members, doctors, health visitors etc. benefited from being accessible, trusted and stigma-free.
4. Issue of paying for parenting support in the future– providers did not believe parents would be willing to pay for parenting support (if funding became unavailable).

CANparent participant interviews indicated an overall positive picture describing the experience of participating in a universal parenting class as well facilitated, with useful content, helpful discussions and positive peer support. A majority of parents also reported lasting positive changes to family dynamics as a result of implementing the learning from their CANparent class at home, although this was self-report. Parents also described a range of motivations for attending universal classes, including a desire for parenting advice and guidance, an interest in learning more about child development and previous positive experiences of similar courses. Parental perspectives can be useful for designing content of future universal trials (depending on their goals). Free courses were particularly attractive for parents. Findings from this first large-scale implementation of universal provision are useful as the trial demonstrated that more time is needed to increase awareness of all parents to the benefits of quality universal provision (Lindsay & Totsika, 2017).

Although this was the first trial of its kind, it had some limitations. Firstly, the uptake was extremely poor, with only a small percentage of the expected total using the free vouchers. However, there was indication that demand was increasing during the course of the trial as availability and awareness of the classes became known (for example through parental recommendations to other parents and family). By the end of the trial providers had claimed voucher money for a total of 2,956 parents who had at least started a CANparent class.

Secondly, service providers highlighted challenges with planning, training facilitators and continued supervision which all contribute to programme fidelity in delivering evidence based programmes (Hutchings et al., 2007). Thirdly, there was a lack of parent and child outcome measures, including parenting skills and child development. Such measurements would have been useful to explore whether a large rollout of universal parenting programmes led to positive parent and child improvements, however this was not the goal of this evaluation (although an important goal of universal parenting). A particular strength would have been to evaluate which evidence-based programme was most effective when offered universally in terms of parent and child outcomes. Finally, although a comparison group was included, this was not a randomised controlled trial, which would have added strength to the findings. However, comparative data were derived from a sample of non-participant parents in local authorities not offering CANparent programmes.

Nevertheless, the trial demonstrated moderate changes in terms of mental health and parental satisfaction, suggesting that there is worth investing in widespread implementation of universal provision across local authorities, although further research is needed. A particular strength of this trial is the use of qualitative methods to capture the perspectives of parents and service providers in considering how to de-stigmatise parenting support.

## **Discussion**

Treatment programmes aim to reduce problematic child behaviour and dysfunctional parenting (Scott et al., 2001), and there have been numerous evaluations demonstrating the effectiveness of these programmes in achieving this (Gardner et al., 2006; Hutchings et al., 2007; Lindsay et al., 2008). Additionally, targeted programmes that are NICE recommended (NICE, 2013), have been recognised by the EIF as level three or ‘evidence-based’, as there is sufficient confidence that a causal relationship can be assumed (EIF website, 2017). By



contrast, universal parenting programmes are intended to be available to all parents (Sanders, 2008) with the rationale of teaching parents positive parenting skills that will enable them to encourage positive child development, well-being and educational outcomes (Sanders, Cann & Markie-Dadds, 2003). There is less evidence for the effectiveness of universal parenting programmes and, according to the EIF standards, they are yet to achieve above a level two, which recognises that whilst there is preliminary evidence of improved outcome, assumption of causal impact cannot be drawn (EIF website, 2017).

Effective treatment programmes reach only selected families (Sanders, 2008), and the universal trials suggest that some families experiencing problems have no access to additional support. Many of the trials, although universally available, recruited samples that were also reporting significant levels of problems (Sanders et al., 2008; Zubrick et al., 2005; Ulfsdotter et al., 2014; Wilson et al., 2012) suggesting that some families needing services are not able to access them and are enrolling on universally offered programmes instead. Although universal programmes address the needs of some families with young children with significant behavioural challenges, several trials show higher levels of dropout from families experiencing challenges and suggest that these families may need a targeted provision.

Parents are not easily gaining access to the (evidence-based) knowledge that will enable them to further develop their skills and encourage the best developmental outcomes for their children. Teaching parents the positive parenting skills that will successfully promote positive child development should be the goal of all universal programmes. However, this review has highlighted the conflicting and varying rationales with few focused on universal goals, particularly on promoting child development (Wilson et al., 2012; Ulfsdotter et al., 2014; Hutchings et al., 2017) whilst several focus on problem reduction (i.e. reduce child problem behaviour and dysfunctional parenting) that are also goals of targeted programmes and have a diluted version of the content of targeted programmes.

The studies that investigated universal goals of parental mental well-being and enhancing child development and had content designed to achieve them demonstrated positive outcomes (Ulfsdotter et al., 2014; Hutchings et al., 2017), and this is promising in terms of supporting families and promoting optimal child outcomes. However, more rigorous evaluations of universal programmes are needed to establish an evidence-base.

The recent launch of the CANparent quality mark by 'Parenting UK' may prove beneficial in progressing the universal field as introducing quality assurance to universal programmes could encourage the investment by services in delivering *effective* universal programmes, therefore promoting positive parenting and child development more widely (Parenting UK website, 2017). Achieving the CANparent quality mark demonstrates that organisations have met the unique elements and high standards of the quality assessment process. These unique elements are, (1) experience of delivering parenting classes using an evidence-informed approach, (2) continuous monitoring and evaluation of its provision, (3) quality assurance to ensure programme fidelity and (4) programme is delivered by a trained and supervised workforce (Parenting UK website, 2017). However, it is important to consider, that in a time of financial constraints and austerity it may be difficult for some services to find the funds to do this.

Although the quality mark highlights the steady progression of the universal field (in terms of achieving an evidence-base), this review highlighted the need for *shared* universal goals and future evaluations of programmes in research trials in order to achieve evidence-base status.

## Conclusion

In order to improve the social and emotional development and well-being of all children, parents must be given an opportunity to access evidence-based content that is

associated with optimal child development. Early universal trials, targeting a range of outcomes and recruiting quite varied samples of parents including parents reporting children with clinical levels of problems, have shown promise but few address or evaluate the impact on universal goals. This field is in its infancy and more RCT evidence is needed of programmes with shared universal goals. Specifically, more research is needed to establish the effectiveness of universal programmes on promoting positive parenting skills and child development.

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## **Chapter 3**

### **A literature review of web-based behaviour change interventions**

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This chapter firstly discusses the role of technology in eliminating treatment barriers associated with traditional group-based programmes. Secondly, web-based interventions targeting generic health behaviour such as smoking and weight-loss that incorporate behavioural principles are reviewed. Thirdly, the review reports on the effectiveness of web-based parenting interventions using behaviour principles as they are based on the same content and theoretical underpinnings as the COPING parent online universal programme. Finally, the possible detrimental effects of accessing non-evidence-based information posted online regarding child behaviour are explored.

### **Introduction**

The advantages of web-based programmes over more traditional approaches in targeting public health concerns include convenience, relatively low cost of dissemination, reaching more individuals and the options to incorporate behavioural principles (e.g. audio, video and feedback) to target engagement (Alexander et al., 2010; Gold et al., 2006). These advantageous features can also be beneficial when delivering parenting interventions online.

According to UK national statistics, in 2016 89.4% of men (22.8 million) and 86.4% of women (23.1 million) accessed the internet for a variety of purposes, including seeking health related information, an increase from 87.9% and 84.6% in 2015 (ONS, 2016). These figures demonstrate the extensive use of the web in modern-day society in Britain. Similarly, in the United States, approximately 93 million Americans in recent years have searched for at least one major health topic online (Wantland et al., 2004), ranging from mental health and immunisations to sexual health behaviour. More recently, 63% of a sample of 3,000 Americans searched the internet for information regarding a specific medical problem (NBC news, 2013). The accessibility and convenience of access to the web has introduced the opportunity for web-based delivery for health promotion (Elgar & McGrath, 2003; Taylor et

al., 2008). Accessing the internet has become easier with cheaper internet providers and the availability of devices such as mobile phones and tablets. The internet provides individuals with a useful source of advice and/or support, offers convenient and flexible access within the home and can reach more populations (Gold et al., 2006).

### **The role of technology in eliminating treatment barriers**

Delivering evidence-based parenting programmes online could be beneficial as traditionally, interventions are delivered by health and social care providers who may not have sufficient training in effective evidence-based behaviour change approaches (Taylor et al., 2008; Jones et al., 2014). Lack of expertise in evidence-based practice can be problematic. Hutchings and Nash (1998) found that only 10% of their sample of health visitors felt confident or very confident in their knowledge of behavioural theory in relation to their work with children and families. Additionally, only a quarter of the health visitors who participated in the study felt confident in their ability to teach behavioural techniques to parents (Hutchings & Nash, 1998). These findings are concerning, especially when considering the extent of involvement of health visitors with families of young children with behavioural problems (Hutchings & Nash, 1998).

Feil and colleagues (2008) reported that services for families with infants are limited by the scarcity of professionals with expertise in evidence-based infant mental health practices (Feil et al., 2008). Delivering evidence-based interventions online could overcome this problem as interventions have the capacity to be delivered online without additional therapist involvement. Additionally, the web has the potential to teach health care professionals in the delivery of evidence-based practices (Ary, Glang & Irvine, 2012).

Some families can feel embarrassed or fear being classed as a poor parent when seeking parenting support for their child's behaviour, and this could potentially affect their

attendance as traditional parenting interventions involve parents attending face-to-face therapy with a trained therapist either one to one or in groups. This could be challenging for some families due to the stigma associated with seeking professional help (Elgar & McGrath, 2003; Breitenstein et al., 2014). Web-based technology could eliminate this barrier by providing a less intimidating learning environment (Ary, Glang & Irvine, 2012). This is especially important when considering the daily challenges faced by some families including poverty, child behavioural problems and mental health issues (Hughes & Gottlieb, 2004).

Parenting skills taught in clinical settings are not always generalised to home or community settings (Webster-Stratton, Reid & Hammond, 2001), as parents are not always able to successfully implement behavioural techniques. Health care professionals do not always have the time or resources to help families practise skills in different settings, as this is a substantial cost and resource burden (Jones et al., 2014; Williams & Hutchings, submitted). This could lead to some families not fully benefiting from parenting programmes with child behaviour problems either remaining unchanged or returning once treatment has ended. The internet has the potential to promote behaviour change and generalisation outside the clinical setting by (1) providing accurate demonstrations of skills through video modelling and prompting skills based practice (Breitenstein et al., 2014), and (2) by allowing parents to engage with the programme within the context of daily experiences of the child allowing for direct practise of skills within the environment in which the problem behaviours occur most often (Elgar & McGrath, 2003; Jones et al., 2014).

### **Review of generic web-based behaviour change interventions**

Overweight and obese individuals are costly to the health service. The US spends between 92-117 billion dollars each year on overweight and obesity-related problems (Gold et al., 2006). The problem is also of concern in the UK with, in 2008, 60% of males and 52%

of females classed as over-weight or obese (ONS, 2011). Gold et al., (2006) compared two online weight-loss interventions. Participants were randomised to the VTrim intervention, a behaviourally orientated intervention with supplementary therapist support, or the eDiets commercial website which provided general information regarding weight-loss and exercise regimes. A total of 124 obese Americans were recruited with each group having 62 participants; the primary outcome measure was weight-loss. Eligibility criteria included having a BMI score of  $>25$  and having access to a computer with an internet connection. Participants agreed not to participate in any other weight-loss treatments for the duration of the research. The VTrim programme comprised two components, (1) a six-month online therapist-led intervention and (2) a six-month online maintenance intervention.

The therapist-led component comprised weekly 'lessons' focusing on behavioural and self-management strategies involving reducing calorie intake and increasing physical exercise. Participants were asked to engage with weekly online lessons and participate in an hour-long online chat with a therapist, providing an opportunity to ask questions and receive additional support and feedback. Therapists also reinforced the messages within the material. Weekly homework assignments were set to encourage participants to practise skills and therapists provided feedback on the assignments. Participants were also required to set individual weight goals and self-report their weight each week. An online discussion board allowed participants to interact with others during the course of the study. The eDiets commercial website included informative material on weight-loss and exercise; participants received no guidance from therapists and no structured curriculum. Instead, they received generic automated online feedback.

At baseline, there was no significant differences between the groups in terms of age, BMI, weight, education level or computer skills. However, at six-months post-intervention results indicated that the VTrim group had lost significantly more weight than the eDiets



group and these results were maintained at 12-month follow-up. As this intervention was multi-component, it is not clear how the VTrim programme behavioural components contributed to the outcomes as they had both the online programme and online contact with a therapist. However, participants in both groups achieved weight-loss.

A diet rich in fruit and vegetables has health benefits including the reduction in the risk of heart disease and stroke (Lock et al., 2005) and Alexander and colleagues (2010) investigated whether an online intervention could increase fruit and vegetable consumption. A total of 2,513 participants (21-65 years of age) were randomised to one of three conditions (1) untailored website (control condition), (2) tailored website and (3) tailored website plus motivational interviewing counselling delivered via e-mail. Both tailored sites matched needs, dietary preferences and interests with the participant data collected from surveys at baseline and 3-month (Alexander et al., 2010), after which the level of tailor could be changed to suit the individual. Self-report measures included fruit and vegetable consumption at baseline, 3 months, 6 months and 12-month follow-up. Control participants had access to an attractive and well-designed general fruit and vegetable information website, but did not receive tailored information. Both tailored website groups had illustrations, short chunks of text, links to more detailed sites and features intended to reinforce the online material, for example recommended serving sizes and 300 recipes for fruit and vegetable dishes. Videos demonstrated behavioural strategies, for example serving sizes and nutritional similarities of fresh versus frozen versus canned foods.

The tailored website plus motivational interviewing group, received e-mails from researchers to motivate and prompt them to make healthy food options, and were also given the opportunity to ask questions. Researchers also encouraged participants to overcome challenges by reflecting back (self-monitoring) on their current intervention goals. Results demonstrated an increased intake of fruit and vegetables for all three groups (Alexander et

al., 2010), but a greater effect size was found for the tailored plus e-mail counselling group. As with any multi-component trial, it is difficult to establish the contributions of the individual components, however, the motivational interviewing addition resulted in a greater effect than the tailored website alone. Participants in the website only group also improved their fruit and vegetable consumption suggesting that well-designed websites can also have an impact on behaviour change (Alexander et al., 2010).

In Great Britain 19% of adults currently smoke, down from a peak of 46% in 1974 (ONS, 2016). Although smoking rates are declining, smoking has a negative impact on health outcomes and increases the risk of diseases such as cancers and heart disease. In 2006-2007, smoking cost the NHS £3.3 billion (Scarborough et al., 2011), prompting the need for intervention. Strecher and colleagues (2008) targeted smoking as a public health concern using an online programme. Participants were randomised to either (1) a high tailored group receiving specific feedback and advice relating to their personal motives for quitting, or (2) a low-tailored group who received feedback that did not make specific connections with individual personal motives for quitting (Strecher et al., 2008). Participants in both groups received free access to the smoking-cessation online programme and a weekly supply of nicotine patches for the duration of 10 weeks. Abstinence from smoking was measured by self-report during a telephone interview at self-identified six-months post-quit date.

The web-based programme utilised messages from individual participant assessment responses to develop sentences and paragraphs written specifically for them. Results indicated that more personal messages led to significantly higher cessation rates at six-month follow-up compared with general feedback. This study highlights the effectiveness of the behavioural principle of providing specific feedback on individuals' own smoking habits in terms of reducing smoking rates. Personalised feedback on the amount of time spent without

smoking or engaged with a programme or on weight-loss proved to be effective in changing behaviour in other online interventions (Streicher et al., 2008; Gold et al, 2006).

### **Review of web-based parenting interventions**

Baggett et al., (2010) evaluated the effectiveness of an online parenting programme promoting social-emotional development in infants in a randomised controlled trial (RCT). The study hypothesis was that engagement with the programme would increase sensitive and responsive interactions between mothers and infants. A total of forty infants aged between 3-8 months and their mothers, living in disadvantaged Head Start areas in Oregon participated in the study. The recruited sample were predominantly socially disadvantaged and had significant depressive symptoms. Parental mean age was 24 years and infant mean age 4.4 months. Participants were randomly assigned to either (1) Infant-Net or (2) computer-control conditions. Control parents received a computer and an internet connection for six months. The computer had links to infant development websites and resources for parents to utilise if they wished. The Infant-Net group also received a computer and an internet connection, but additionally received the Infant-Net programme which included:

1. Infant-net structured content (including reading infant signals, responding with warm and sensitive behaviours and using rich verbal content)
2. Video modelling of core behavioural skills (social learning principle)
3. Questions with feedback (reinforcing correct responses and effort)
4. Summary of key concepts (retention/revision)
5. Daily homework tasks based on skills learned (practice and generalisation)
6. An information-sharing bulletin board between participants (peer reinforcement and sharing of experience)

7. Option to upload a 5-minute video of parent-child interaction (implementation of key skills)
8. Weekly coach calls (for video review and individualised support).

Measures were collected pre-and post-intervention at 6-month follow-up and included maternal and infant functioning and a 30-minute observation of parent-infant interaction (both parent and infant behavioural categories coded). At post-intervention, infants in the intervention group demonstrated more social engagement and more engagement with the environment during interactions with their mothers compared with infants in the control condition ( $p = .045$ ), as measured by the 30-minute behavioural observation of parent-child interaction. Parental self-report measures also demonstrated medium to large effect sizes for improvements in maternal depressive symptoms for parents in the intervention group. Online tracking data of website usage demonstrated a high engagement; with 16/19 mothers completing all 11 sessions of the programme with an average log in time of 22.7 hours. A total of 40% of time online was spent on programme content, 33% on making, reviewing and watching video clips, 12% on coach calls, 7% on homework activities, 7% interacting with the social bulletin board and 1% on summary pages.

Mothers and infants in the intervention condition achieved successful outcomes following engagement with the programme relative to control parents and this could be for a number of possible reasons. Firstly, parents in the intervention group were exposed to the social learning theory principle (Bandura, 1977) of modelling as the intervention included video examples of other parents implementing key parenting strategies in addition to parents filming themselves replicating those skills with their own child. Observing the behavioural skills being modelled correctly could have encouraged them to replicate and practise the skills at home (as 33% of online time was spent either watching, reviewing or making videos). Parents additionally received weekly phone calls from a trained therapist who (1)

reviewed their observations and (2) provided individualised support in implementing the skills and encouraging them to continue with the programme. Therapists' reinforcement of parent's efforts may have contributed to continued engagement with the programme, however therapist behaviours were not reported.

Taylor et al., (2008) investigated the effects of a computer-based intervention with therapist coaching based on the Incredible Years Programme (Webster-Stratton, 2006) on participation attrition and treatment satisfaction from data collected from a previous RCT. Webster-Stratton developed a self-administered and self-paced version of the Incredible Years parenting programme that included the same content and videotapes, hand-outs and home activities as those used in the traditional group-based format. Like the group-based version, this version also focused on positive parenting and teaching parents core parenting strategies to encourage positive child behaviour. Parents were asked to read through the content and watch video examples of positive parenting (as they would in a group-format). After each video, a series of audio questions were asked. Parents were then asked to answer the questions to get them to think about what they had observed and why it was an effective or ineffective strategy. Parents were also supplied with learning materials and home activities and asked to engage with the web-based programme weekly for the duration of 12 weeks in their homes.

This web version of the programme incorporated (1) the same skills based practice as the traditional format, (2) the advantages of web-based intervention (i.e. convenience and flexibility) and (3) support from a professional (i.e. weekly telephone calls and home-visits). The rationale for transferring the programme to the web was to enable some families that were unable to attend groups to access the programme (Baggett et al., 2010).

Ninety ( $n=90$ ) parents of four-year old children living in Head Start areas in Oregon and reporting elevated levels of child problem behaviour participated in the study. Families

were randomly assigned to either receive the online programme ( $n=90$ ) or to a computer-control ( $n=88$ ) condition. Data is supplied for the 90 parents who received the web-based intervention. Parents were supplied with loaned computers and an internet dial-up connection for the duration of the study. In addition to having access to the online version of the programme, parents also received weekly telephone contact with professionals and five scheduled home visits during the intervention. The role of the professionals was to ‘encourage and reinforce’ problem-solving skills (Taylor et al., 2008) by reviewing programme content and setting-up practice role-play sessions (to practise the behavioural strategies outline in the programme). Measures included a 7-point satisfaction scale and a goal-setting self-report measure. This study served as a case study for the adaptation of an evidence-based skills-training intervention to a new web-based format, therefore no behavioural observation of parent-child interaction or validated child behaviour and parenting measures were included.

The web-based training combined with professional support achieved high engagement rates among a high-risk population (Taylor et al., 2008). Researchers were able to track engagement as they had access to online data that graphed individual participant progress and used this information to shape their telephone contact with individual participants, for example they would reinforce continuation of effort if the individual had made progress and prompt individuals to continue if they did not make progress. Researchers also prompted and reinforced parents during home visits and also reinforced parents with both planned and spontaneous rewards for continued engagement with gift vouchers. Parents were encouraged to problem-solve and practise essential skills at home with their children to promote generalisation and maintenance. Parents were able to learn and practise behavioural skills within the home environment. Overall, engagement levels were good with 66% of parents completing the whole programme and 76% of parents completing at least half (Taylor

et al., 2008). The majority of parents (87%) also reported they felt ‘very positive’ or ‘positive’ about the programme. The authors suggest that successful engagement was due to a combination of additional support provided by the professional, and the online material available 24 hours per-day (Taylor et al., 2008). However, no data comparing the intervention and control conditions was reported. Consequently, the effects of the intervention on child behaviour are not known. Nonetheless, the trial proved useful in terms of transferring an existing group-based programme to the web and to enable parents to engage in the same core practice activities that are important in evidence-based programmes (Hutchings et al., 2007).

Enebrink, Högstöm, Forster & Ghaderi (2012) evaluated the efficacy of a seven-session internet-based version of Parent Management Training (PMT) programme for children aged 3-12 years with conduct problems in an RCT in Sweden. PMT programmes are based on Patterson’s (1982) coercive theory and focus on teaching parents parenting strategies for handling child misbehaviour, implementing behaviour change strategies to encourage positive child behaviour and improving the quality of parent-child interactions (Enebrink et al., 2012). The main aim of the programme is to reduce the coercive interactions and processes involving inconsistent parenting (Coercion Theory; Patterson, 1982). The study hypothesis was that following completion of the online parenting programme, parents would report significant increases in positive child behaviour and positive parenting practices compared with controls.

Like other versions of PMT, the web-based programme was based on the principles of the social learning theory (Bandura, 1977) and focused on positive parenting in terms of teaching effective communication, positive reinforcement, modelling positive behaviour and spending time playing with children. One session covered consequences for problematic behaviours, and the remaining six sessions focused on positive parenting. Each session took approximately 1.5 hours to complete and parents had a total of 10 weeks to complete the 7

sessions. Parents were expected to log on and read through information, watch video examples of positive parent-child interactions and complete multiple-choice quizzes. Research assistants provided feedback on parental responses to the quiz questions to encourage parents to problem-solve. Researchers also gave suggestions regarding activities that participants could do with their children. Parents could also download resources to encourage positive child behaviour, e.g. sticker charts, and had the option of completing online diaries (which research assistants also gave feedback on).

A total of 104 mothers and their children were randomly assigned to one of two conditions, (1) 10 weeks of web-based PMT or (2) wait-list control. In order to be eligible to participate, children must score above the clinical cut-off (Swedish norms) on the parent-report Eyberg Child Behaviour Inventory (ECBI: Eyberg & Robinson, 1983). Parents randomised to the intervention group received the online programme immediately, and control parents accessed the programme 3-months later, once all post-intervention data had been collected. Measures were collected pre-intervention, post-intervention and 6-months for all participants. Demographic data demonstrated high levels of child conduct problems (as children had to score above the cut-off on the ECBI to be eligible to participate) and dysfunctional parenting.

Baseline data demonstrated no differences between the two groups in terms of personal characteristics such as age, gender and symptoms of oppositional defiant disorder. The primary measure was the Eyberg Child Behaviour Inventory (Eyberg & Robinson, 1983), and for intervention parents the number of reported problems reduced from a mean of 18.28 at baseline to a 7.65 post-intervention (Enebrink et al., 2012) with medium effect sizes. Parents in the intervention group also reported significantly less use of harsh and inconsistent discipline and significantly more positive praise and incentives at follow-up compared with controls. Results were maintained at 6-month follow-up.



As with most parenting interventions, this was a multi-component trial therefore the positive outcomes achieved for intervention parents could be due to a number of factors. Firstly, as part of the intervention parents were expected to watch video examples of positive parenting and previous research trials incorporating video modelling have demonstrated positive outcomes (Baggett et al., 2010) possibly due to video modelling prompting parents to try out the observed strategies, which if reinforced, will then be repeated (Webster-Stratton & Hammond, 1997). Secondly, parents received feedback from research assistants at the end of each session (after which the researcher would allow parental access to the next session), which could have contributed to the desired behaviour change through the process of reinforcement of skills. However, during the intervention, contact with the research team was through the web only, researchers did not have personal contact with participants. Thirdly, parents were encouraged to problem-solve and practise behavioural skills within the home environment alone, therefore potentially increasing the generalisability of the parenting skills. Finally, a high percentage of parents reported engaging with the programme with a partner (69.2%), suggesting potential benefits of both parents being taught parenting strategies.

In this study, parents learned behavioural strategies through an internet-based approach alone (Enebrink et al., 2012), and significant differences were found between intervention and control parents on child behaviour and parenting measures. However, it is important to consider the limitations. Firstly, demographic data showed that the sample of parents recruited were well educated with 63.6% having obtained a university degree, which may have contributed to the outcomes. It would be interesting to explore whether the study would also be as effective with a more disadvantaged sample. Secondly, the study did not include a behavioural observation of parent-child interaction. An observational measure would have provided a more reliable demonstration of the use of parenting strategies at home.

Sanders and colleagues (2012) examined the efficacy of the Triple-P online parenting programme in an RCT with parents of children with early-onset disruptive behaviour problems. A total of 116 parents with a child aged between 2-9 years displaying early-onset conduct problems were randomly assigned to either intervention ( $n=60$ ) or an internet-use-as-usual control group ( $n=56$ ). Parents were eligible to participate if (1) they had a child in the age-range, (2) child had elevated levels of child behaviour problems based on parent report on the Eyberg Child Behaviour Inventory (ECBI; Eyberg & Robinson, 1983), (3) parents had access to a computer with a broadband connection and (4) parent had good literacy skills. Exclusion criteria included (1) child having an intellectual or developmental disability, (2) child was currently in contact with a professional regarding his or her behaviour and (3) parent was currently receiving support for psychological or relationship problems (Sanders, Baker & Turner, 2012).

The online intervention consisted of eight self-directed modules providing instruction in the use of 17 core positive parenting skills (including descriptive praise, quiet time, time-out). Parents were asked to complete the online modules and watch video examples of key parenting principles. Parents were also encouraged to set individual goals and practise the skills outlined in the programme. Automated texts were sent to encourage parents to continue engaging with the programme. Intervention parents accessed the programme immediately whilst control parents were offered access at the end of the study (i.e. 9 months later). Measures were collected pre-and post-intervention and 6-months later and included demographics, child behaviour, observation of child disruptive behaviour, parenting style, parental mental health and client satisfaction.

Demographic data showed the sample to be affluent with 90% of parents either married or living with partner, 58% had a university degree, over 60% were in employment and 76% had an income above the Australian median. Mean parent age at baseline was 37.37

years. The mean child age was 4.7 years with 67% being male. Parents in the sample were also frequent computer users with over 80% reporting that they accessed the internet daily. At post-intervention follow-up, intervention parents had significantly better outcomes on measures of child behaviour (ECBI) and dysfunctional parenting style (Arnold et al., 1993) in addition to parental confidence and anger management compared with controls, and these results were maintained at the 6-month follow-up. For the intervention group, mean ECBI problem score had significantly decreased from 22.13 to 13.10 and intensity from 154.35 to 121.05 (Sanders, Baker & Turner, 2012). Intervention parents also reported significantly less dysfunctional parenting compared with controls at post-intervention. High satisfaction rates were also reported.

Although these results demonstrate significant improvements for parents accessing the online programme in terms of parenting and child behaviour, it is important to consider limitations. Firstly, the recruited sample was mainly educated parents in employment and this could have influenced results. Secondly, the observation of parent-child interaction demonstrated low rates of negative child behaviour at baseline, and this may have been due to families being observed in the clinical setting. It is possible that home observation would have captured a more typical rate of child problem behaviour. Nevertheless, results are promising in terms of teaching positive parenting skills and reducing child conduct problems through an online self-directed programme with no therapist involvement.

### **What is currently freely available on the web for parents?**

The internet provides a quick means of accessing information, with many people finding this method most preferable (Wantland et al., 2004). Parents who have an interest in child development, a concern regarding their child's health or who feel that they would benefit from additional support may search online, and there is evidence that many parents do

this possibly due to the convenience or the anonymity associated with seeking information online (Ary, Glang & Irvine, 2012). However, most online parenting sites have no expert input and advice given come from one parent to another (Pedersen & Smithson, 2010). Information/advice could be inaccurate or not relevant or could lead parents to misdiagnose a problem or use ineffective strategies (Wald, Dube & Anthony, 2007).

‘Mumsnet’ (Mumsnet website, 2015) and ‘Babycentre’ (Babycentre website, 2010) are popular websites in which parents can search for information regarding their child’s development. These sites offer help and advices related to different aspects of parenting ranging from conception through to the teenage years and include advice on some of the day-to-day problems parents may face, such as toddler tantrums, potty training, diet and sleeping patterns. A popular feature of the sites is a discussion board, which allows parents to start a discussion by posting their own personal questions, and other parents can then comment on the post and share their own personal experiences. Discussion boards can be beneficial in terms of knowledge sharing however; it may not always be clear whether the advice posted is supported by research findings (Pedersen & Smithson, 2010). Much advice posted on these websites does not (1) account for children’s developmental levels or (2) consider the function of the behaviour. A study of discussion boards on parenting websites, reported that website users believe that the opinions and advice of other parents are more valuable than expert advice (Pedersen & Smithson, 2010).

The internet is a popular and easy to access means for parents to seek parenting advice including advice on children’s behaviour, and parenting advice websites can potentially be beneficial if the advice is based on behavioural principles (Ary, Glang & Irvine, 2012) and is developmentally appropriate. However, most advice posted online is based on personal experiences and opinions and does not appear to include evidence-based

principles, and has not been evaluated. Although the internet is an increasingly useful way of obtaining information, it is not helpful if the information is not supported by valid evidence.

The challenges faced by all parents are discussed in detail in chapter 4, however parents need to have access to evidence-based online interventions, which teach the core behavioural principles that have been shown to be effective in many well-evaluated trials (Gardner et al., 2006; Hutchings et al., 2007; Bywater et al., 2011; Furlong et al., 2013), as this would teach parents how to encourage positive child behaviour and improve child outcomes. Effective interventions teach parents strategies for helping to develop children's social and emotional skills and appropriate behaviour management based on the social learning theory principles (Furlong et al., 2013). Effective strategies include spending positive time with children to strengthen parent-child relationship, positively reinforcing appropriate child behaviour, limit setting, ignoring or removing attention from low level unwanted behaviour and providing developmentally appropriate consequences for unacceptable behaviour (Webster-Stratton, 1998; Hutchings et al., 2007; Markie-Dadds & Sanders, 2006; Furlong et al., 2013). It is important that these effective parenting strategies are made available to all parents. Universal access could potentially increase the use of evidence-based strategies, discourage parents from seeking potentially detrimental online advice and suggestions and promote a culture of change in relation to parenting (Sanders, 2008).

## **Conclusion**

Like group-based parenting programmes, web-based interventions have to date tended to target families experiencing elevated levels of child problem behaviour (Enebrink et al., 2012; Sanders, Baker & Turner, 2012). However, universal access to evidence-based support is now feasible given the extent of internet access in reaching more families (Wantland et al.,

2004) and the potential of web-based programmes in eliminating treatment barriers (i.e. more convenient, less stigma and more privacy to access support at home, less reliance on professionals).

Web-based parenting interventions, like group-based programmes, include positive parenting content that is based on social learning theory principles. These programmes differ however in their mode of delivery. Traditional programmes are delivered by trained facilitators to groups of 10-12 parents. Web-based programmes instead incorporate behavioural principles in their delivery and these can include feedback (either online or by a therapist), online discussion boards so that parents can communicate with one another, e-mail (and text) prompting to keep parents on track, video examples of positive parenting, online quizzes, suggested homework activities for skills practice and professional coaches (Taylor et al., 2008; Breitenstein et al., 2014).

An important issue that was highlighted in this review was attrition and engagement. Parenting programmes, both group and web-based, have been associated with attrition challenges (Sanders et al., 2012; Hiscock et al., 2008; Reedtz et al., 2011), however future web-based programmes need to consider strategies to target this (i.e. more effective use of prompting/ reminders). However, despite some studies reporting such challenges, promising results were found in terms of their potential in changing generic behaviours (Alexander et al., 2010) and prompting positive parenting for families reporting challenges (Enebrink et al., 2012).

The review also briefly explored online parenting resources (i.e. 'Mumsnet') and concluded that most do not include evidence-based information; therefore, parents may be accessing information based on opinions and not valid research.

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## **Chapter 4**

### **Parental Challenges**

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## **Background**

Parents have the biggest single influence over their children's development and behaviour both in the short and longer term, and good quality parenting is key in the establishment of positive child behaviour and the prevention of conduct problems (Gardner et al., 2006; Hutchings et al., 2007; Furlong et al., 2013). The past half-century has seen dramatic lifestyle changes, which can present challenges for all parents. Some changes have brought benefits, such as advances in medical treatment, better working conditions and improved communication, however others can present challenges, especially for parents. Until fairly recently, in many homes fathers were the breadwinners and mothers stayed at home to raise the family. Additionally, families were larger with children having more siblings and more time was spent playing outdoors. Nowadays, there are increased levels of parental separation and single parenthood (Lipman, Boyle, Dooley & Offord, 2002), fewer marriages, and more working mothers (ONS, 2013). Some children spend large amounts of time away from parents in childcare settings and when at home, more time spent indoors playing on computers or watching television, often in their own rooms away from adults, and little time is spent playing outside (Palmer, 2006).

Despite risk for poor outcomes presented by societal changes, good quality parenting remains key. Gardner et al (2006) found that teaching parents positive parenting skills, based on the principles of the social learning theory (Bandura, 1977), led to positive changes in child conduct problems despite recruiting a socially disadvantaged population with a high proportion of conducted disordered boys with lone-parents displaying signs of depression. Similarly, early work by Patterson and colleagues with families of both young children and adolescents concluded the extent to which these factors impact on child outcomes are largely mediated by parenting practices (Patterson, Forgatch, Yoerger & Stoolmiller, 1998). It is therefore important to support parents in learning positive parenting skills that encourage



positive child behaviour and ensure longer term outcomes (Gardner et al., 2006; Furlong et al., 2013) to ensure that both disadvantaging factors and lifestyle changes do not compromise parent-child relations and put children at risk of poor outcomes. This chapter describes some of the disadvantaging factors and societal changes that can potentially make parenting more difficult for all parents.

## **Disadvantaging factors that are associated with child behaviour problems**

### **Poverty**

Poverty is a persistent challenge for a growing number of families. Between 2008-2013 in the UK, 7.8% of the population were living in persistent income poverty, the equivalent of 4.6 million people (ONS, 2013) and in 2014 around 1 in 10 people aged 16 or older reported finding it ‘quite’ or ‘very’ difficult to get by financially (ONS, 2016). Poverty is associated with increased risk of child mental health difficulties (Evans et al., 2005) with up to 20% of children living in disadvantaged areas having conduct disorder (Hutchings et al., 2007) compared with the population in general. Children living in poverty are at increased risk of exposure to poor parenting practices, lack of routine, structure and stimulation (Evans et al., 2005). Exposure to these challenges can increase parent-child conflict and reduce opportunities for children to develop social, emotional and behavioural competencies including self-regulation skills (Evans et al., 2005).

Poverty affects children’s day-to-day lives in a variety of different ways including inadequate nutrition, fewer learning experiences, fewer resources for child development and instability of residence, all of which have been associated with the development of conduct problems (Brooks-Gunn & Duncan, 1997). Children living in long-term poverty have higher rates of psychiatric disturbance and maladaptive social functioning in comparison to children from more affluent backgrounds (Bradley & Corwyn, 2002). Low income parents are more

likely to use physical discipline, exhibit authoritarian parenting styles and engage less frequently in verbal and cognitive stimulation (Patterson, DeBaryshe & Ramsey, 1990), all parenting behaviours associated with the emergence of child conduct problems. Research in a Head Start area targeting low-income families, found that more than 40% of mother's displayed high rates of harsh and negative discipline towards their children (Conners, Edwards & Grant, 2007).

### **Single parent households**

Children from single-parent households are at increased risk of psychosocial difficulties, including social problems and academic difficulties (Lipman, Boyle, Dooley & Offord, 2002), which can lead to increased likelihood of poor outcomes (Weinraub & Wolf, 1983). Single mothers have more stressors compared with mothers who are either married or in a relationship including higher levels of poverty, social isolation and increased childcare responsibilities (Lipman, Boyle, Dooley & Offord, 2002). Spending time with a parent is linked to children's overall well-being and development (Gauthier et al., 2004) and a recent Government survey reported that children aged 3-5 years spend less time with a caregiver if they come from a single-parent household than do children living in two parent families (ONS, 2016). Additionally, children from one-parent households only have one available adult for monitoring and supervision (ONS, 2016) and poor parental monitoring has been shown to be associated with problematic behaviour in early adolescents (Fosco et al., 2012). Data from the Canadian National Longitudinal Survey of children and youth (1995-96) found that single-mother family status was a significant predictor of all child difficulties (Lipman, Boyle, Dooley & Offord, 2002).

### **Teenage parenthood**

The UK has the highest teenage birth rate in Europe, and despite this percentage reducing recently (ONS, 2014); it is a continuing public health concern (Barlow et al., 2011). Children of teenage parents are at risk for poor outcomes in terms of low educational attainment, emotional and behavioural problems and higher rates of illness (Barlow et al., 2011). Teenage mothers are considered less cognitively prepared for parenthood, experience more stress, are less adaptive in their parenting style than older mothers and provide a less stimulating environment (Sommer et al., 1993; Callan & Dolan, 2013).

### **Divorce**

“Divorce rates increased dramatically from pre-1960s to 1970s after no-fault divorce was first made available in the 70s. It was the first time that irreconcilable differences became an acceptable reason for divorce, making divorce much easier to obtain. Prior to this, anyone wanting to end their marriage had to prove the presence of adultery or cruelty in the marriage”, (Census Bureau, 2011). The increase in social acceptability and changed expectations on the part of women for personal fulfilment and ease of divorce (Amato, 2000) has led to a steady increase in divorce rates, with 22% of marriages in 1970 having ending by the 15th wedding anniversary, and 33% of marriages in 1995 ending after the same period of time (ONS, 2014). Although divorce rates were on the rise in 2012 with an increase of 0.5% from 2011 to 2012 in England and Wales (ONS, 2012), rates appear to be decreasing, possibly due to the rise in couple co-habiting (ONS, 2014). However, divorce and relationship breakdown can put children at risk of poor outcomes (Amato, 2000).

Children from divorced families are at increased risk of developing emotional and behavioural problems and perform less well on cognitive tests when compared with children whose parents are not divorced (Clarke-Stewart et al., 2000; Amato, 2000), and divorce has also been shown to be associated with child conduct problems (Lahey et al., 1988). Possible

reasons for the increased risk of emotional and behavioural problems in children who have experienced divorce include (1) growing up within an already dysfunctional family and (2) exposure to diminished parenting (Cherlin et al., 1991). Children from divorced families may have been exposed to more conflict and arguments between parents (Cherlin et al., 1991), putting them at increased risk for a wide variety of emotional and behavioural problems including aggression, conduct disorder, anxiety and depression (Repetti, Taylor & Seeman, 2002). Additionally, recent survey data has suggested that people who were separated or divorced were the least satisfied with their lives, with only 19.1% rating their life satisfaction as very high – lower than individuals who were single (ONS, 2016), suggesting that divorce can also impact on parental mental health and well-being.

### **Parental mental health challenges**

Mental health problems are a growing public health concern in the UK with an estimated one in four people experiencing mental health problems in any given year (Mental Health Foundation, 2016). A General Health Questionnaire (GHQ) survey of people in the UK aged 16 or older found that 19% reported some evidence of anxiety and/or depression and this was higher in women (21%) than in men (16%) (ONS, 2013) with people now ten times more likely to experience depression than in 1945 (Clinical Depression Website, 2016).

Maternal depression and child behavioural problem often coexist (Elgar et al., 2004; Goodman et al., 2011) increasing the risk of poor child outcomes (Kiernan & Huerta, 2008). Data from the Millennium Cohort Study found that depressed mothers were less responsive and less positive towards their children than mothers who were not depressed (Kiernan & Huerta, 2008). Structural equation modelling showed that maternal depression was associated with the use of harsh discipline practices such as frequent smacking and shouting (Kiernan &

Huerta, 2008) parental strategies associated with increased aggression and misconduct in children (Benjet & Kazdin, 2003).

### **Other societal challenges to parenting - Impact of technology**

Technology presents new challenges for parents. The use of technology has dramatically increased in recent years with more people, including children, having access to the internet (ONS, 2014) on mobile phones, laptops, tablets and smart televisions. Access to the internet on mobile phones has more than doubled between 2010 and 2014 from 24% to 58% (ONS, 2014), and 65% of children aged 8-18 have access to a mobile device (GSMA, 2012). Supervision is a key parenting skill, knowing what children are doing therefore technology presents new challenges for parents. The ease with which children can access the internet enables them to potentially view inappropriate content. An international comparison of mobile usage across five different countries (Egypt, Japan, Chile, India & Indonesia) reported that over 70% of parents had concerns regarding their child's mobile phone usage (GSMA, 2012). High levels of internet use are associated with less time spent with other people, lower communication, and increased depression and loneliness (Gentile & Walsh, 2002).

As well as internet use, children are spending increasing amounts of time (between 2-5 hours per day) watching television (Vandewater, Bickham & Lee, 2010) and less time engaging in more developmentally appropriate activities, such as creative play. Watching television is negatively associated with spending time as a family, doing homework (for older children) and engaging in creative play (Vandewater, Bickham & Lee, 2010). Children's television viewing habits are positively associated with parental television viewing (Salmon et al., 2005). For children's language development, fewer communication opportunities between parents and children are detrimental as the amount of talk that mothers direct

towards children are strongly associated with children's vocabulary growth (Hart & Risley, 1995).

High levels of television exposure can affect children's language development and Willinger and colleagues (2003) found that 34% of children with language development disorders displayed behavioural problems within the clinical range. A study conducted in the US with fifty-one infant and toddlers found that some television programmes supported and others inhibited language development (Lineborger & Walker, 2005). Exposure to 'Dora the Explorer' supported children's language development; but exposure to 'Teletubbies' inhibited language development, demonstrating the importance of parents monitoring children's television viewing habits (Lineborger & Walker, 2005), either by ensuring the programme is appropriate or by watching television together.

Watching excessive television reduces the amount of time children spend playing outdoors. A survey of 830 mothers in the United States reported that 70% of mothers played outside when they were younger compared with only 31% of their children (Clements, 2004). This reduces the opportunities for children to learn many valuable skills, including social competence, problem-solving, creative thinking and safety skills (Clements, 2004). The Government has attempted to address this in the foundation phase educational curriculum for children aged 3-7 years in both England and Wales. This curriculum emphasised the importance of outdoor play in early education (Waller, 2008). However, out of school opportunities for outdoor play have much reduced over the last three generations due to a rise in traffic, children spending longer time in school (breakfast and after school clubs, etc.) and parental safety concerns (Waller, 2008).

Video games can have detrimental effects on children's behaviour when game characters model aggressive and unsociable behaviours. Silvern and Williamson (1987) explored whether children's exposure to violent video games led to aggressive behaviour.

Children aged between four and six years were asked to play with toys for ten minutes, toys included the bobo doll, blocks, plastic zoo animals and toy cars. Children were told that they could play with the toys however they wanted. A researcher unobtrusively observed the play. The next day, half of the children played 'space invaders' and half of the children watched 'road runner' cartoon. The following day, children were observed playing with the same toys as in the baseline condition and told that they could play however they wanted with the toys. Aggression, fantasy and pro-social behaviours were compared at baseline and after exposure to television/video game. Children who had viewed an aggressive cartoon or played an aggressive video game exhibited increased levels of aggression (Silvern & Williamson, 1987).

Increasing amounts of time spent watching television (Vandewater, Bickham & Lee, 2010) at home has led to sleep-related problems in young children and irregular sleep schedules in infants (Thompson & Christakis, 2005). Taveras and colleagues found that more than a third of six year olds or younger have a television set in their bedrooms, and this strongly predicted television viewing (Taveras et al., 2009). The majority of television news stories depict issues such as conflict and abuse (Palmer, 2006), and exposure to environmental stress triggered by the media can be problematic in terms of sleeping patterns for infants, children and adolescents (Sadeh, Raliv & Gruber, 2000).

Children with television sets in their bedrooms go to bed significantly later on weekdays and get up significantly later on weekend days compared with children without a television set in their bedrooms (Van den Bulk, 2004). Sadeh, Raliv and Gruber (2000) found that learning and attention skills of children are significantly compromised by insufficient sleep or sleep disturbance, suggesting that poor sleep habits affect academic outcomes. Shortened sleep duration, especially for young children, is associated with externalising problems such as hyperactivity-impulsivity and lower cognitive performance on

neurodevelopmental tests (Touchette et al., 2007). Touchette and colleagues (2007) have demonstrated that children need to sleep at least 10 hours per night, especially throughout early childhood.

Unhealthy foods and sugary drinks are advertised on the television using persuasive techniques, influencing children's exposure to advertisements and their food choices (Kelly et al., 2010). Sugar intake has been linked with increased hyperactivity and decreases in concentration levels in children, although more research is needed in this area (Bellisle, 2004). Changes in eating habits have been attributed to (1) parents working more hours and spending less time cooking nutritious food, instead relying on convenient foods (Pollard, Kirk & Cade, 2002), (2) the perceived greater cost of healthy food in particular fruit and vegetables (Pollard, Kirk & Cade, 2002), (3) increased consumption of sugary drinks, (4) less physical activity (St-Onge, Keller & Heymsfield, 2003), and (5) increased television viewing (Reilly et al., 2005). Poor quality diet is also associated with poorer academic performance in children aged 10-11 (Florence, Asbridge & Veugelers, 2008).

In the US, 16% of children aged between six and eleven are overweight, with an additional 14.3% at risk of becoming overweight, (St-Onge, Keller & Heymsfield, 2003). The situation is similar in England with 9.3% of children in reception classes (4/5 year olds) and 18.9% of children in year 6 classes (10/11 year olds) classified as obese (Public Health England, 2014). The figures in Wales are equally as problematic with 30% of five-year olds in the county of Gwynedd and 34% in Merthyr Tydfil children classified as obese (Public Health Wales, 2014). Childhood obesity is associated with negative social and psychological effects such as victimisation, name-calling and teasing (Janssen et al., 2004), all of which can affect children's social and emotional competence and wellbeing.

### **Importance of parenting**



Despite risk for poor outcomes presented by societal changes, good quality parenting remains key (Gardner et al., 2006). For example, despite the challenges of single-parenthood, parenting trials teaching positive parenting strategies that have included between 40-50% of single parents have demonstrated positive child behaviour outcomes (Hutchings et al., 2007). Similarly, parenting interventions targeting young parents that teach positive parenting strategies and non-coercive methods of dealing with problem behaviour have demonstrated positive results (Barlow et al., 2011). Poor maternal mental health can put children at increased risk of poor outcomes, but parenting interventions targeting positive parenting based on the principles of the social learning theory have demonstrated their effectiveness in increasing positive parenting and reducing child conduct problems (Hutchings et al., 2007; Gardner et al., 2010).

### **Conclusion**

A number of family characteristics such as divorce, young parenthood, poverty and mental health (many of which are increasing) are associated with increase risk for dysfunctional parenting and poor child outcomes. In recent years, newer challenges have emerged for all parents with the increase in technological devices and internet access. Although many factors can increase challenges for parents, randomised controlled trials of parenting interventions, have shown significant improvements in child behaviour and parenting for families considered at-risk of poorer outcomes (Gardner et al., 2006, Hutchings et al., 2007; Barlow et al., 2011), with parenting the key mechanism of change for challenging child behaviour (Gardner et al., 2006; Furlog et al., 2013). It is important that all parents understand the importance of key positive parenting behaviours that enable them to provide the best possible outcomes for their children - even when faced with challenging situations.

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## **Chapter 5**

# **Review of behaviour change interventions developed using the LifeGuide software and the development of the COPING parent online universal parenting programme**

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LifeGuide is a tool for the development of web-based behaviour change interventions, and has been used particularly in the field of public health and illness management (LifeGuide Community Website, 2015). Part 1 of this chapter reviews individual interventions developed using the LifeGuide software. Web-based interventions using LifeGuide include programmes targeting hand hygiene in the prevention of respiratory infection and weight-management to target obesity (LifeGuide Community Website, 2015). A detailed description of LifeGuide features and an explanation of how to create interventions using this software are described in appendix C.

Part 2 of this chapter describes the development of the COPING (**Confident Parent Internet Guide**) parent online universal programme created using the LifeGuide software. The content of the programme and the underpinning behavioural principles on which the programme is built are discussed first, followed by a detailed description of the behavioural principles employed using LifeGuide in the delivery of the programme.

### **Part 1 – Review of LifeGuide interventions**

To date there has only been limited use of LifeGuide software, with a small number of randomised controlled trials (RCT) and exploratory pilot trials. This review describes the web-based interventions, created using LifeGuide, that use behavioural principles to encourage behaviour change and report on their outcomes.

#### **The ‘Internet Doctor’ intervention for the self-care of cold and influenza symptoms**

LifeGuide was used in the creation of the ‘Internet Doctor’, an online intervention designed to provide tailored advice on how to better manage symptoms of respiratory tract infection (RTI) (Morrison, Joseph, Andreou & Yardley, 2009). Many individuals suffer with RTI more than once a year, however, in most cases RTIs do not pose a serious threat to

health and, with access to the right information regarding symptom management, RTIs could be self-managed at home reducing GP visits and antibiotic prescription (Little et al., 2016).

Participants were recruited from GP computerised lists and were aged 18 years or older. Recruited individuals were randomised to either the intervention (access to the Internet Doctor website) or control condition (usual care with access to the website at the end of the trial). The ‘Internet Doctor’ website provided information on the natural history of RTI’s, symptoms and self-care advice (Little et al., 2016). The intervention involved participants ( $n=852$ ) logging in and answering a series of questions regarding their symptoms and medical history. The programme then provided tailored advice regarding self-management of mild symptoms or advised phoning the ‘NHS helpline’ for more serious symptoms, which potentially required medical assistance. Information was also provided on medication for self-management, and the website recommended effective over-the-counter alternatives to antibiotics. Participants were sent e-mail prompts and reminders to engage with the website.

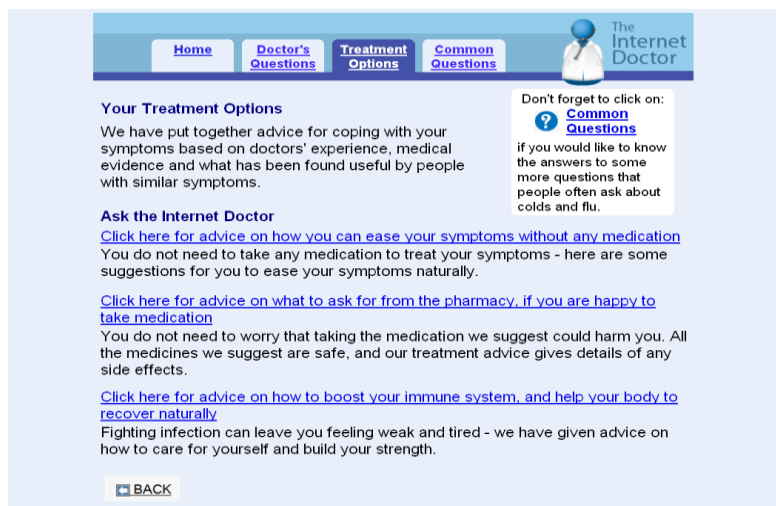


Figure 5:1. ‘Internet Doctor’ online intervention example page.

The primary outcome measure was the number of GP consultations and secondary measures included antibiotic prescriptions from patient records and self-reported contact with

NHS direct (Little et al., 2016). Measures were collected online each month with reminder emails sent to all participants as a prompt to complete them. Results demonstrated a modest increase in NHS direct contact, a reduction in consultation with GPs, and an estimated 6-12% reduction in antibiotic prescriptions over 6-12 months for individuals in the intervention group compared with controls (Little et al., 2016). The results demonstrated the potential of web-based self-management programmes in alleviating pressures on health care services (in particular GPs) and reducing antibiotic prescription. Although the results appear to be beneficial to health care services, and to individuals who used fewer antibiotics, there was an over-reliance on self-report measures with individuals recording their own symptoms.

### **PRIMIT: Hand washing intervention to avoid respiratory infection transmission**

Since we are all at risk of developing infectious diseases, freely available, low cost intervention could be beneficial and LifeGuide was used in the PRIMIT trial (Primary Care Trial of a Website Based Infection Control Intervention to modify Influenza-like Illness and Respiratory Infection Transmission) to encourage increased use of hand washing in order to reduce respiratory infection transmission especially during pandemics (Yardley, Miller, Scholtz & Little, 2011).

Participants were recruited by mailed invitation through their general practice and were randomised on a 1:1 ratio to either intervention (access to the PRIMIT website) or control conditions (treatment as usual i.e. contact their GP - with no access to the website). The intervention consisted of four weekly-based sessions, each with new content to encourage participant engagement and retention (Little et al., 2015). Information included the history of influenza, the importance of hand washing as a preventative factor and how to devise a plan for hand washing. Participants inputted information about their hand washing behaviour and received tailored feedback based on the information provided. Automated e-

mails were sent to prompt participants to complete the sessions, maintain hand washing behaviour and complete questionnaires (Little et al., 2015).

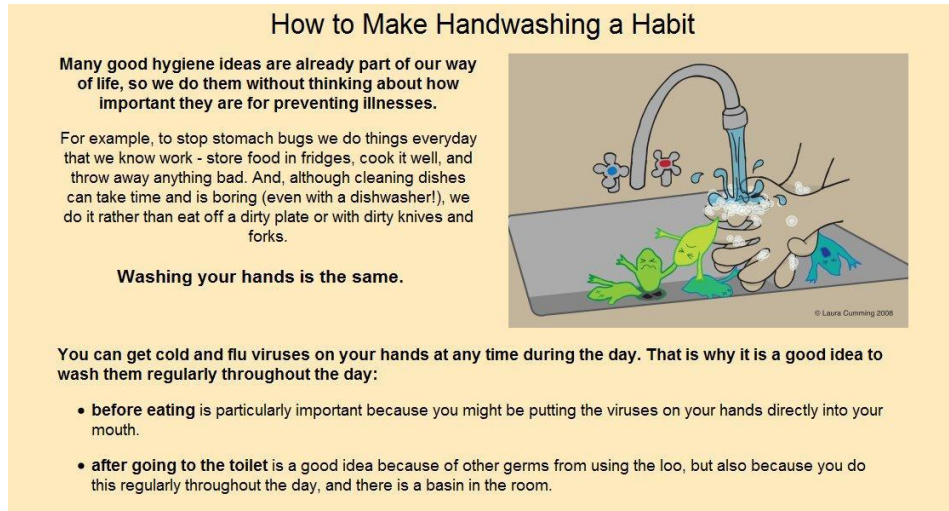
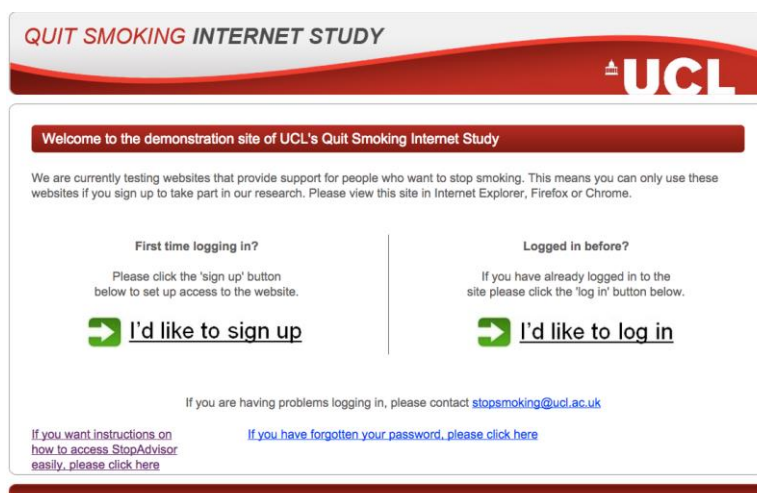


Figure 5:2. PRIMIT online intervention for hand washing example page.

The primary outcome was the number of individuals reporting one or more RTI at 16 weeks after the start of the trial. Secondary outcomes included measures of duration of symptoms, transmission of respiratory infection, gastrointestinal infections and use of health care resources. Measures were completed online on a monthly basis and results demonstrated moderate but not significant intervention benefits after 16 weeks, with 51% of individuals in the intervention group reporting one or more episodes of RTI compared with 59% of the control group (Little et al., 2015). Additionally, there were fewer reported episodes of influenza-like illness by individuals in the intervention group. This trial suggests possible benefits of the intervention in the encouragement of hand washing, which could reduce cost and resource burden on health care services. A limitation of the trial is the absence of a measurement of whether participants were in receipt of other treatment during the course of the study that could have contributed to improved symptoms. Participants also reported that the website was complex and difficult to engage with.

### **‘Stop Advisor’ smoking cessation online intervention**

Smoking remains the largest single preventable cause of premature death and illness worldwide and there is a pressing need for effective interventions to support individuals to quit (Michie et al., 2013). LifeGuide was used for an online smoking cessation intervention to target this public health concern. The aim was to evaluate the intervention in a large-scale trial to evaluate outcomes for different social class groups, as poorer intervention outcomes often found for lower social class people leading to increased health inequality (Brown et al., 2014). To the authors’ knowledge, this was the first trial of internet support for smoking cessation to assess the effects within different socioeconomic status groups (Brown et al., 2014).



*Figure 5.3. Log in page for the ‘Stop Advisor’ smoking cessation intervention.*

Participants aged 18 years or older who smoked everyday were randomised on a 1:1 ratio to either the intervention (access to the Stop Advisor website) or control group (access to a standard information only website). The Stop Advisor intervention consisted of a virtual stop smoking advisor who provided information and helped the smoker through the process of quitting with a structured plan. The website provided targeted content through the use of

menus and ‘tunnelled’ exposure to key messages based upon information inputted by participants regarding their smoking behaviour throughout the programme. At the beginning of the study users were asked to set a quit date and, prior to this date, were asked to complete five sessions consisting of:

1. Acquiring appropriate medication
2. Usage of appropriate medication
3. Making necessary changes in routines to minimise difficulties and urges
4. Developing of specific coping strategies when faced with difficulty
5. Clear expectation

Once participants passed their quit date, they had access to a new interactive menu and up to thirteen ‘tunnelled’ sessions tailored on self-reported abstinence, urges to smoke, self-efficacy, use of medication and anticipated frequency of stressful and/or social events which may prompt them to smoke. Sessions decreased in frequency the further away the individual got from the quit date (for example 7 sessions in week 1 post quit date and 3 sessions in week 2). The primary outcome measure was the Russell Standard 6-month sustained abstinence (RS6) defined as a self-report of smoking no more than five cigarettes in the previous six months and not smoking in the previous week, verified by a saliva sample. Intended secondary outcomes included website interaction data (log in, page views, time spent on each page, etc.) and a point prevalence abstinence measure (defined as a self-report of not smoking in the previous 7 days at follow-up). However, due to a low response rate, the secondary outcomes were not used in the main analysis (Brown et al., 2014).

Overall rates of cessation were similar for intervention and control participants. However, the intervention effect was more effective in terms of smoking cessation in smokers from low socioeconomic backgrounds compared with smokers from high socioeconomic backgrounds (Brown et al., 2014). Total smoking cessation rate for low



socioeconomic status intervention group participants was 8% compared with 6% in the control group (Brown et al., 2014). The original intervention was being user tested with low socioeconomic individuals and so the authors suggest that the intervention may have suited them better, although further research would be required to verify this. Lower SES participants had higher smoking rates and poorer outcomes, therefore future smoking programmes need modifying to ensure better outcomes for all participants. The absence of participant user data in the main analysis is a limitation of the trial as data on the amount of time spent on the website, number of log in etc. could have been beneficial when exploring differences in website engagement for individuals who were successful in achieving their target behaviour of smoking cessation.

### **SPaCE: Supporting Parents and Carers of Children with Eczema**

Santer and colleagues (2014) used LifeGuide to pilot an intervention to support self-care for families of children suffering from eczema in an RCT. This was a feasibility study to gather preliminary data to inform a subsequent RCT. Childhood eczema affects more than 25% of children aged 5 years or younger at some point, and can cause significant distress in terms of sleep disturbance and discomfort due to extensive scratching (Santer et al., 2014). The main causes of treatment failure are carers not utilising treatment correctly, children's refusal to apply ointment or treatment being too time consuming (Santer et al., 2014). This web-based study aimed to improve management of childhood eczema and reduce child distress. The target behaviour was regular emollient use, and inclusion criteria included being a parent/carer of a child aged five years or younger who had been diagnosed by a GP as having eczema and had been prescribed emollient for this within the last 12 months.



Figure 5:4. SPaCE eczema online intervention example page.

Upon expression of interest, participants were given log in details to SPaCE (Supporting Parents and Carers of Children with Eczema), and asked to complete an online consent form and baseline questionnaires. The LifeGuide software then randomised participants to one of three equal groups:

1. Web-based intervention plus usual care
2. Web-based intervention plus usual care and health care professional (HCP) support
3. Usual care alone

All registered users ( $n=149$ ) accessed two core modules, “what is eczema?” and “emollient moisturisers”. Participants randomised to one of the web-based groups then received a menu of 14 modules and chose which ones they wanted to complete. Modules included concerns of carers, diet and sleep problems, managing scratching and bath time. A tick would appear next to the module if it had been completed (visual prompt) and a star would appear if the participant selected that particular module as ‘favourite’. Some modules included video examples of good practice, for instance how to apply ointment correctly. Help sheets were also available to download and print, for example tick charts for children and eczema

management summary sheets for parents, relatives and teachers, in order to increase consistency of treatment goals (Santer et al., 2014).

Participants in the web-based plus usual care plus HCP support group were offered a single appointment with a health care professional that aimed to engage carers with the intervention. HCPs were asked to spend up to one hour familiarising themselves with the programme, and then arrange a 20-minute appointment with the participant a few weeks after randomisation. During the appointment, participants were encouraged to engage with the intervention and given an opportunity to discuss the modules that they had completed and which ones they might do next. Participants in the usual care group consisted of carers who continued to attend usual services and for most participants this involved appointments with the GP when they felt it necessary. Participants in the web-based plus usual care had access to both the programme and their GP.

The primary outcome measure was the Patient-Oriented Eczema Measure (POEM) questionnaire completed by carers at 12 weeks. Secondary measures included emollient use and adherence to intervention. A decrease in the POEM score of 2 or more was considered to be clinically significant. Results found improvement in all groups by 12 weeks. This was greatest in the website groups (but only significant at the 10% level). A decrease of 2 or more on the POEM measure was found at follow-up compared with baseline in:

- 23 out of 42 (55%) in website group with usual care
- 18 out of 47 (38%) in website plus usual care plus HCP support group
- 16 out of 49 (33%) in usual care group

Findings from this pilot RCT demonstrated a greater improvement in carer-reported eczema scores in both website groups compared to the usual care control group (Santer et al., 2014), that were significant at the 10% level. Interestingly, only four of the ten participants in the web group plus usual care plus HCP support group who attended appointments found

them useful. Possible reasons why the intervention was successful were that the information was specific and optional, allowing carers to choose modules most suited to their personal situations. Log in details allowed carers to revisit the intervention multiple times and this could have aided retention of information.

Some modules included visual examples of how to apply ointment correctly that could have aided learning and contributed to outcomes. Further research could expand on this, for example participants could upload their own video examples of them applying ointment on their child's eczema and receive feedback. This could demonstrate whether or not visual examples (prompts) followed by feedback, facilitated change in parental behaviour in terms of applying ointment correctly. However, the pilot study was successful in demonstrating that web based information delivery for carers of children with eczema was feasible and provided information on possible programme adaptations.

### **Managing cancer-related fatigue following primary cancer treatment**

Calman and colleagues (2015) designed a LifeGuide web-based intervention (RESTORE) to enhance self-efficacy in patients with cancer-related fatigue (CRF) following primary cancer treatment. The aim of this study was to gain user feedback to provide researchers with data to inform programme development for a subsequent RCT and no measures were taken and no findings reported. However, the intervention is described in relation to the behavioural principles employed and how they could contribute to successful behaviour change for participants with chronic fatigue following cancer treatment.



Figure 5:5. RESTORE online intervention example page.

Macmillan cancer specialists developed the content and the LifeGuide team designed the intervention. The LifeGuide team made the intervention web-appropriate by adding sub-headings, bullet points, images, fewer and shorter paragraphs, shorter sentences and highlighting key points in bold font. The intervention consisted of five sessions and participants were asked to complete one each week (participants had a time frame of six weeks to complete the whole intervention). Participants first accessed the welcome page, which outlined the purpose of the intervention. Sessions 1 and 2 were compulsory and covered an introduction to CRF, its causes and effects and goal setting. Sessions 3-5 were optional and participants could choose topics that were more appropriate for them. These sessions covered life areas where CRF would be likely to have the most impact, personal relationships with family and friends and emotional adjustment following treatment.

The intervention incorporated behavioural principles, including prompting, by encouraging users to set weekly goals. When participants logged into the intervention the following week, they were asked whether they had reached those goals and received automated tailored feedback based on their response. If a participant was successful, a

congratulations message appeared on the screen and if participants did not achieve their goal, they were prompted to set a different, more achievable one. Further research could explore the benefits of automated feedback by having separate groups, and giving feedback to one group in order to directly compare outcomes. Participants were able to log in and out, revisiting topics (retention of information) and download help sheets (that could act as prompts alongside the web programme) for example a suggested activity sheet, which could prompt them to engage in more physical activity. Measures were not taken in this trial and in order to clarify whether the package as a whole was effective, or which content or the behavioural principles were effective in changing behaviour, further research is required.

### **Positive Online Weight Reduction intervention for weight loss**

The POWER (Positive Online Weight Reduction) intervention was piloted using the LifeGuide software to explore whether it warranted a future RCT. It was designed as a tool for weight management for obese patients in a primary care setting (Arden-Close et al., 2015). Inclusion criteria were individuals aged 18 years or older with a BMI of  $>30$ , or individuals with a BMI of  $>28$  diagnosed with diabetes or high cholesterol levels. Participants were randomised to one of four conditions: (1) usual care participants who did not have access to the website but accessed services as usual, (2) website only, (3) website with basic nurse support or (4) website with regular nurse support. The intervention consisted of 12 sessions, and users were asked to complete one session each week.



Figure 5:6. POWER weight reduction online intervention.

The three active conditions all accessed the same web-based information. The content aimed to teach active cognitive and behavioural self-regulation techniques or ‘power tools’ (Arden-Close et al., 2015). Session 1 was an overview of the intervention, advice on choosing low calorie or low carbohydrate eating plan, eating goals and how to use weekly weighing as a form of individual self-monitoring. All subsequent sessions began by asking users to enter their current weight and to report on whether they had successfully achieved their goals for that week. Participants received automated feedback based on their responses and were then prompted to set another goal for the following week.

Sessions 1-3 were core sessions and included advice on choosing and implementing a physical activity plan and getting other people (friends and family) involved in the weight loss plan. The remaining sessions were optional and participants could choose topics that they would find most relevant and beneficial (topics included cravings, busy lives, eating out, etc.). Participants were given login details and could revisit topics if they wished, however it was not clear if participants had access to the topics for an unlimited number of times. The nurse support element involved users selecting the ‘nurse function’ button, which enabled

them to contact a qualified nurse for further support if needed (for participants randomised to groups 3 and 4). Participants randomised to the website group with basic nurse support had three scheduled contact appointments with a nurse, and participants randomised to the website group with regular nurse support had seven scheduled contact appointments. The appointments were 15-20 minutes in length, and conducted either face-to-face, over the telephone or via e-mail. The nurses were asked to provide positive reinforcement for participant efforts and encourage participants to find their own solutions to their weight management challenges rather than relying on the nurse for advice (Arden-Close et al., 2015). Before the scheduled appointments, the nurses could access individual usage data to see number of log ins, use of diaries, weight entry and current goals.

Ninety per cent of participants completed session 1, after which attrition occurred at approximately 10% per session (Arden-Close et al., 2015). Only half of the participants accessed the optional topics and, optional topics were viewed by less than 25% of participants. At 6 months, weight loss was least in the usual care group (2.3kg) and greatest in the website with regular nurse support group (4.31kg) (Arden-Close et al., 2015), suggesting that a combination of the website and regular nurse contact was more effective in weight loss. At 12-months, the website group with basic nurse support resulted in better outcomes than the regular nurse support group, and the authors attributed this difference to participants in the regular nurse support group possibly being over-reliant on support and therefore having difficulty implementing the procedures independently when it ended (Arden-Close et al., 2015), but further research is needed to validate this finding. Participants were able to input their data (i.e. whether or not they achieved their target weight goal) and receive online feedback messages, which could have possibly reinforced their behaviour. The effectiveness of the feedback messages could be researched further by comparing outcomes for participants with and without feedback.



Further research is needed to establish the reasons for attrition and for participant failure to access the optional topics before conducting a larger-scale trial. Further research could explore the topics accessed by participants who achieved the greatest weight loss in order to see which topics had the greatest effect on the target behaviour, however, there was no difference in weight loss between participants who accessed the optional topics and those who did not (Arden-Close et al., 2015).

## **Part 2 – Development of the COPING parent online universal programme using the LifeGuide software**

Part 2 of this chapter will firstly describe the design of the intervention and how key behavioural principles are employed within the programme to encourage positive parenting. It then describes how the programme is delivered using the LifeGuide software and how many of the same key behavioural principles that the programme introduces to parents also underpin programme delivery to encourage programme adherence. The online programme is based on the content of ‘The Little Parent Handbook’ (Hutchings, 2013) and example slides from the online programme are included in appendix D.

### **Intervention Design**

Due to increasing demands on the time and resources of health care professionals (Wilson et al., 2008) and increasing use by parents of the web as an information source (Duggan & Lenhart, 2015), the programme was designed as an intervention without additional therapist support for parents of children aged 3-8 who would like to learn more about positive parenting. The programme was developed as a universal intervention, allowing parents to access evidence-based parenting advice, without relying on professionals such as

health visitors and school nurses. This could reduce service burden as parents can access support/advice online in their own time. The intervention consists of ten chapters, (eight content and two revision) each outlining a separate topic and related behavioural principles derived from components of effective parenting programmes (Furlong et al., 2013). Content includes play, positive reinforcement, relationship building, language development and skills include observation and modelling. The intervention lasts for a minimum of ten weeks and parents are encouraged to (1) log in and complete one chapter each week and (2) practise the behavioural skills between sessions at home.

### **Chapter 1 - Building a positive relationship between you and your child**

Chapter one explains the importance of engaging in child-led play, ideally for ten minutes every day, and examples of desirable, creative activities are provided (e.g. lego, play dough, arts & crafts and pretend play). A list of less suitable activities and reasons why they are not suitable is also provided to help parents avoid challenges during play sessions, for example playing competitive games that can produce conflict. Twenty rules to make play sessions effective in improving parent-child relationships are presented. These include describing what the child is doing (descriptive commenting), copying what the child is doing (imitation), using the child's name (making the child feel important and valued), reducing the number of questions (if a parent does ask a question they are advised to answer it themselves so as to avoid putting the child under pressure to answer the question correctly), speaking with enthusiasm, letting the child take the lead and avoiding giving too much help (supporting the child's problem-solving skills) and allowing the play to go at the child's pace.

The importance of building a positive relationship between parents and children through play and letting children know that they are important to, and valued by, their parents is strongly emphasised. The aim is to establish the parent as a reinforcer by pairing parental

attention with activities that the child enjoys (Hutchings, 2013). This is the first behavioural step. Building a positive bond between parents and children is very important, as this facilitates opportunities for parents to encourage positive behaviours, build children's social competencies and reduce parent-child conflict (Webster-Stratton, 2006; Forehand & Long, 2010). Spending time with children helps to establish the parent as a reinforcer and provides opportunities to encourage positive behaviours with praise and reward. This is the second behavioural step, the parent using their reinforcer status to help establish other desirable behaviours (Hutchings, 2013). These special time activities help parents to focus on positive behaviours (Forehand & Long, 2010). The aim is to encourage parents to spend more time with their children in order to encourage positive child behaviour as "children may learn to emit behaviour problems in response to low levels of adult attention", (Carr & Durand, 1985).

Imitation is also introduced as a strategy in the first chapter, as a way of showing children that the parent is concentrating and paying full attention to what the child is doing. Parents are encouraged, during play, to copy what the child is doing and to do this the parent has to pay full attention to the child. This also lets the child know that the parent sees and values what they are doing (Hutchings, 2013). Attending to, and imitating children is effective in helping to develop positive parent-child relationships (Forehand & Long, 2010).

The over-riding goal of chapter one is to let children know that they are important to their parents and that what they enjoy is of interest to the parent. Through this positive interest and attention, the relationship between children and parents is strengthened and children can feel important and valued.

## **Chapter 2 - Encourage good behaviour from your child by praising**

Whilst reminding parents to continue to spend special time with children, chapter two helps parents to be effective in using social rewards more generally to increase desirable behaviour. It builds on the play activities that have helped to establish parents as reinforcers, encouraging them to notice and praise their children's good behaviour by giving them lots of attention. Ten important rules on how to praise effectively are presented. These include praising a child immediately following desirable behaviour, as reinforcement delivered immediately is more effective than delayed reinforcement particularly when new behaviours are being established (Cooper, Heron & Heward, 2007). Another important rule includes labelling the positive behaviour that is being praised so that the child learns what behaviour gets praise, increasing the likelihood that the behaviour will be repeated. Using positive non-verbal cues when praising such as smiling (the child then knows that their parent is happy, helping them to learn about emotions and non-verbal cues) and encouraging children to praise themselves (encouraging their self-esteem) are other key principles.

### **Chapter 3 - Rewarding good behaviour when praise on its own is not enough**

Chapter three covers how to use small tangible rewards as reinforcement to encourage positive behaviour (Christy 1975). This can be helpful in establishing new complex behaviours or in addressing problems that have previously been associated with conflict (Cooper, Heron & Heward, 2007). Examples of small inexpensive tangible rewards are included, for example extra computer time, stickers, choosing a favourite snack, an extra story at bedtime and an extra five minutes of playtime. Rewards can be provided in two ways: (1) children can perform one desirable behaviour and get one specified reward or (2) older children can earn tokens for engaging in desirable behaviours and then get either one or a choice of small reinforcers (Kazdin & Bootzin, 1972). Effective reward systems often use rewards that are freely available (Kazdin & Bootzin, 1972) such as a trip to the park, having a

friend over for tea or being allowed to help parents (for example in making a meal). This can be a valuable reinforcer for some children, demonstrating that parents trust them to take responsibility. When parents have been spending time with their children and developed a good relationship with them, additional time in activities with parents can be a reward. This also creates additional opportunities for praising children.

Six rules on how to reward children effectively are described, including making sure the child knows what is needed to get rewarded, making sure the reward is of value to the child (this will ensure that the child is motivated to achieve it), praising and rewarding together so that praise also becomes established as a reinforcer by association with the tangible reward, rewarding immediately after the behaviour occurs and making sure the child can achieve the required behaviour (ensuring the task is developmentally appropriate and achievable for the child). Dozier and colleagues (2012) demonstrated that pairing praise with a tangible reward (food) was effective in establishing praise as a reinforcer for simple target behaviours displayed by individuals with intellectual disability.

## **Chapters 4 & 5 - Helping parents to get better at giving instructions**

Chapters four and five focus on teaching parents to get better at giving instructions since reducing non-compliance to instructions is a key issue in addressing conflict between parents and children (Forehand & Long, 2010). Giving better instructions improves children's compliance, giving parents further opportunities to praise children's good behaviour and increasing opportunities for children to experience new situations, which become possible if children follow parental instructions (Forehand & Long, 2010).

Common mistakes made by parents when giving instructions are outlined, followed by solutions. Together, the two chapters present twenty common mistakes and solutions. For example, the programme advises giving one instruction at a time followed by praise for

compliance (Hutchings, 2013). This helps children to remember what is required of them and increases compliance especially when praised (Forehand & Long, 2010). These chapters also outline the importance of establishing 'house rules' giving parents further opportunities to praise compliance and helping children know what behaviour is required. Parents can teach children household rules by following the rules themselves. Parental modelling of behaviour is an antecedent (or prompt) to children to copy the behaviour, showing the child what behaviours are expected. Parents also learn that once the child has copied the behaviour they must be reinforced to encourage them to repeat it.

In chapter five, the 'when-then rule' is introduced, which can be particularly useful with older children (Hutchings, 2013). For example, "when you have done your homework, then you can watch television". This rule can motivate children to follow instructions, as they know a reward that they want/enjoy will follow the target behaviour. Instruction following is an important component of many parenting programmes as non-compliance is a common problem faced by parents (Forehand & Long, 2010). Chapter six is a revision chapter that reviews all of the content from chapters 1-5.

## **Chapter 7 - Ignoring problem behaviour**

The basis of ignoring is differential reinforcement of alternative behaviour (DRA), an evidence-based technique that is widely used to reduce problematic behaviour and increase desirable behaviour (Vollmer & Iwata, 1992; Vollmer et al., 1993). The parent removes attention from a problem behaviour and "reinforces a response that is an appropriate alternative to problem behaviour", (Cooper, Heron & Heward, 2007). This teaches children which behaviours access reinforcement from parents and which behaviours will not. Differentially reinforcing of a more desirable, alternative behaviour whilst removing attention

or other reinforcers for problem behaviour (extinction) will result in the desirable behaviour strengthening (Cooper, Heron & Heward, 2007).

In this chapter parents are taught to pay attention to desirable behaviours whilst ignoring undesirable behaviours (Hutchings, 2013). Extinction is defined as the withholding of reinforcement (Cooper, Heron & Heward, 2007) and has “been demonstrated to be effective in a wide variety of settings, homes, schools, and institutions”, (Cooper, Heron & Heward, 2007). Ignoring is a difficult skill for parents to master (Hutchings, 2013), partly because the existence of a problem behaviour that is maintained by attention already has a history of having been reinforced, the behaviour may initially get worse as the child escalates the behaviour in an attempt to achieve reinforcement (extinction burst) and not all behaviours can be ignored. However, parents find ignoring an effective skill when faced with challenging behaviours in which parental attention is the established reinforcer (Forehand & Long, 2010).

Ten rules for ignoring problem behaviour are described, including giving no attention to the behaviour (including no eye-contact), praising the first positive behaviour immediately when the child ceases to display the problem behaviour, being consistent and remembering to praise other children who are behaving well (proximal praise) so that the child can see which behaviours get parental attention. Parents are encouraged to identify and ignore problem behaviours and praise and reward the ‘opposite’ behaviour, for example to ignore shouting but praise talking politely.

## **Chapter 8 - Teaching your child new behaviours**

Chapter eight focuses on teaching new behaviours and introduces the three teaching tools of prompting, shaping and modelling/imitation.

Parents are encouraged to prompt the behaviour they want to teach (prompting can be verbal, physical or gestural). Prompting is an important tool as it evokes the final behavioural response more quickly (Ingvarsson & Hollobaugh, 2011) and is used to assist in the acquisition of a new skill or in the appropriate performance of an existing skill, (Grice & Blampied, 1994). Parents are reminded to praise and reward new emerging behaviours to ensure that they become established in their children's behavioural repertoires and to fade their prompting once children start performing the behaviour independently.

The core theme of the programme, "we are models for our children's behaviour", is derived from social learning theory (Bandura, 1977). The programme frequently reminds parents that children learn by observing and imitating their parents' behaviour so it is important to model, but then praise and reward desirable behaviours (Bandura, 1977). If the modelled behaviour is strengthened by reinforcement, it is more likely to occur again in the future (Cooper, Heron & Heward, 2007). Parents are encouraged to behave positively and be good role models for their children to promote the development of socially significant behaviours. Sometimes parents need to specifically demonstrate the behaviour they want as a tool for teaching a new and desirable behaviour, such as how to hold a knife and fork and this has been shown to be an effective training strategy (Cooper, Heron & Heward, 2007) and can be combined with physical prompting. Parents can encourage children to imitate waving bye-bye or playing pat-a-cake games by performing the behaviour themselves first, and then reinforce their child for copying (Hutchings, 2013).

Shaping is another positive teaching procedure (Cooper, Heron & Heward, 2007) and an example from the programme is reinforcing a child for playing the recorder. The terminal behaviour is playing the recorder fluently and reinforcing successive steps would include reinforcing the child for holding the recorder correctly, for placing fingers over the holes, for playing the correct notes and so on.



## **Chapter 9 - How to develop your child's language skills**

Chapter nine teaches parents how to encourage children's language skills, using key strategies previously introduced (descriptive commenting, prompting, modelling, shaping, praising, rewarding, giving effective instructions and engaging in special time). The importance of facilitating children's language skills is explained to help parents understand the role of language in communication, expressing feelings and emotions, managing behaviour (self-control), problem-solving and developing empathy. Language also helps children to develop the social skills that will help them to engage with their environment, form strong relationships and learn from others (Hart & Risley, 1975).

Many children with behavioural problems also have limited language skills (Stansbury & Zimmermann, 1999), so developing children's verbal comprehension and communication skills is an important component in behavioural interventions as part of the approach to replacing problem behaviour with more socially appropriate behaviours. The key techniques introduced in the previous chapter, including imitation, shaping and prompting are further explained and examples demonstrate how they can be used to encourage language skills. Five important rules to develop children's language skills are described, (1) talk to your child whenever possible, (2) use words that label feelings, (3) teach self-calming talk, (4) teach your child to reflect and problem-solve and (5) teach your child to give compliments to others. Chapter 10 is a revision chapter reviewing the content of the entire programme.

### **Participant log in**

Participants are given a unique username and password to enable them to log in at times convenient to themselves. They do not have to complete each session in one sitting, they can log in whenever they wish and are encouraged to engage with the material multiple

times. There is growing evidence within the web-based interventions literature that repeated website visits are necessary to achieve sustained behaviour changes (Brouwer et al., 2011). An online weight-management intervention found that more participant log-ins was associated with more weight-loss, and participants who logged in more maintained clinically important weight-loss compared to others (Arden-Close et al., 2015). Similarly, an online smoking cessation study found that participants who logged into the website once or twice had a 29% chance of quitting or significantly reducing cigarette usage, but those who logged into the website three or four times had 82% chance (Lenert et al., 2003).

### **Text message reminders**

Prompting is a key strategy within the programme and the LifeGuide software can send text message reminders to help keep participants on track, a useful prompt for interventions with multiple sessions. A systematic analysis of the use of behaviour change techniques in web-based interventions concluded that their effectiveness was enhanced by the use of additional methods of communicating with participants, especially the use of text messages (Webb et al., 2010). Similarly, a systematic review of the use of prompts in health promotion interventions found that 11 of 19 articles reviewed reported positive findings regarding the use of periodic prompts (Neff & Fry, 2009). Results from an RCT concluded that postcard reminders and telephone call reminders were equally effective in achieving statistically significant reductions in depressive symptoms compared with control (Clarke et al., 2005).

### **Online praise messages**

Feedback in the form of praise is used in parenting programmes to increase engagement, and significant improvements in skills were found in parents randomised to the

feedback group in comparison to parents who received no feedback (Shanley & Niec, 2010). In terms of web-based programmes, online feedback can also contribute to the desired behavioural outcome. Participants randomised to web-based weight loss intervention, which included individualised e-mail feedback based on weight, eating habits, physical activity and homework tasks, lost significantly more weight than participants randomised to a website without such feedback, and these improvements were maintained at 6-month and 12-month follow-up (Gold et al., 2006). In the online parenting intervention, a ‘well done’ message appears at the end of each chapter to reinforce parents for completing the chapter. A ‘well done’ message also appears half way through the chapter to reinforce parents for working through the material and to prompt them to continue to the end of the chapter.

### **Page Layout**

Each page follows the same layout in order to make the programme feel familiar as parents work through the chapters. At the beginning of the programme, an explanation of the page layout is given as previous research has shown this to be helpful (Morrison, Joseph, Andreou, & Yardley, 2009). Each page has a title and the information is presented in bullet-point format. Many people scan rather than read information presented online (Morkes & Nielsen, 1998), and consequently the majority of the information is in bullet points. Key points are highlighted in different colours or in bold and the video clips with examples of positive parenting are located at the bottom of each page with instructions on how to view the video full-screen located to the right of each video.

An audio button is located at the top left-hand side of the page for individuals who would prefer to listen to the material. This is intended to keep parents engaged by keeping the literacy requirements of the programme low (Taylor et al., 2008).

### **Video examples of positive parent-child interactions**

Video modelling has been shown to be effective in reducing child problem behaviour for parents randomised to a video-based group (Coughlin et al., 2009). Video examples of positive parenting are included in the programme to complement the written text, and provide parents with a model and a visual prompt for how to use the behavioural principles correctly. Principles of social learning theory (Bandura, 1977) underpin the video examples and parents can learn observationally by watching other parents successfully demonstrate the behavioural skills (which has been shown to be effective in other studies e.g. Sanders et al., 2008).

At the end of each chapter there is a longer video which parents are prompted to watch carefully before answering questions intended to improve their observational skills. Effective observation is a core problem solving skill and parents of children with conduct problems have poor observation skills (Hutchings et al., 2002), and do not accurately observe their children's behaviour. Asking parents to watch the videos carefully before answering questions aims to prompt parents to accurately observe and focus on positive behaviours so that opportunities for praise and reward are not missed. Parents are given immediate feedback on their responses to enable them to monitor their own progress (self-monitoring) and to see how successful they were in identifying the positive parental strategies demonstrated in the video.

### **Multiple-choice quiz and automated feedback**

Once participants have worked through the material and watched the video examples, they are asked to complete a multiple-choice quiz to enhance retention of material (Butler & Roediger, 2008). The quiz allows the programme implementer to see how much information the parent has learned and retained. Individual participant data is saved through LifeGuide and parents are given a total score and immediate feedback (self-monitoring) to

enable them to see how well they have understood the material and also provide an opportunity to praise/reinforce the parents through online feedback. A congratulations message appears if they have scored top marks and a 'good effort' message appears if they have scored less than full marks in order to reinforce their continued effort. Research using LifeGuide has shown feedback messages to be effective, for example, small but significant behaviour change was found for interventions that provided automated tailored feedback for individual progress (Webb, Joesph, Yardley & Michie, 2010).

The multiple-choice questions in the programme are designed to promote parental confidence and self-esteem allowing feedback to be provided immediately through LifeGuide. Participants must answer all questions before moving to the next page. Parents can complete each quiz multiple times, and if they obtain a low score, they are encouraged (online message) to repeat the quiz to see if they can improve.

### **Play session feedback**

At the beginning of each chapter, participants are asked to report the number of times that they have played with their child during the previous week for which they receive online feedback. If they selected five or more times they receive feedback that congratulates them on spending ten minutes playing with their child each day, and achieving the goal of developing a positive relationship with their child. If they selected four or less they are also congratulated for spending time with their child, but reminded of the importance of spending regular quality time with their child. Spending ten minutes special time with their child daily is a homework task for parents throughout the programme with the aim of achieving generalisation by connecting content to practice (Borden, Schultz, Herman & Brooks, 2010). This feature enables the online programme more opportunities to praise individual progress and individual effort, to encourage parents to continue to practice key behavioural techniques

outlined in the programme and progress towards skill mastery. Parents cannot move to the next page without selecting a number and an error message appears in red prompting them to select a number (although recognising that it is not possible to know whether the number reflects actual parenting behaviour). This ensures that opportunities to praise progress are not missed, and encourages parents to self-reflect on their progress during the previous week and to set themselves individual goals.

### **Suggested homework activity**

The final page of each chapter consists of a ‘top tip’ bubble, to encourage parents to practise the behavioural skills at home with their child. This is the final page the parents see before logging out of the programme and is intended to act as a visual prompt to practise the skills outlined in the programme at home. This page also includes a link for enabling parents to click and download a summary sheet.

Visual prompts can be effective in producing the target behaviours. Researchers wanting hospital staff to keep their dishes in the correct place as opposed to leaving them in or around the sink area posted a visual prompt in the kitchen as a reminder to keep the dishes in the correct place. “Relative to baseline, fewer dishes were stored improperly when a sign was posted and these effects were maintained at the four-month follow-up”, (Rubio & Sigurdsson, 2014).

### **Conclusion**

The first part of this chapter reviewed web-based interventions created using the LifeGuide software. An advantageous feature of LifeGuide is its ability to allow researchers to continue to modify interventions based on feedback from both feasibility/pilot studies and colleagues, allowing interventions to be continuously improved and tested (Joseph et al.,

2009; Yardley et al., 2009). The software is in its infancy and some were pilot trials prior to conducting larger trials with the findings discussed still to be replicated. Some interventions were large RCTs and the findings were promising in terms of the effectiveness of web-based interventions using LifeGuide for promoting positive health behaviours.

The trials reviewed have demonstrated potential in achieving desired behaviour change outcomes, for example reducing GP consultations and antibiotic prescribing (Little et al., 2016) and influenza-like illness (Little et al., 2015). These studies suggest that web-based interventions have the potential to promote public health and allow individuals to manage and self-regulate their own symptoms potentially alleviating the burden on health care professionals and services. The review has demonstrated the effectiveness of combining additional health care support and online intervention, suggesting that some interventions are more effective when combined with either face-to face support or telephone/e-mail contact (Santer et al., 2014; Arden-Close et al., 2015).

The second part of this chapter described the content of the COPING parent online universal programme (i.e. play, positive reinforcement, language development, teaching new behaviours) and the behavioural principles employed through LifeGuide in programme delivery (i.e. online feedback, text message prompting).

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## **Chapter 6**

**An evaluation of the online universal programme**

**COPING parent: A feasibility study**

**(published paper)**

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**Title:** An evaluation of the online universal programme COPING parent: A feasibility study

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**Institution:** Bangor University

**Running title:** COPING parent: A feasibility study

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**Author's contributions:** DAO: designing of the online programme, manuscript writing, gaining ethical approval, data collection, data analysis, critical revision and final approval of manuscript. JH: author of 'The Little Parent Handbook', critical revision and final approval of manuscript.

**Competing interests:** The second author (JH) is the author of 'The Little Parent Handbook'.

**Significance for public health:** Good quality parenting is associated with positive child outcomes, including increased social and emotional competence, pro-social behaviour and well being; therefore, providing evidence-based parenting support is potentially a useful way of promoting positive child development. Whilst there are evidence-based services for parents of children with identified behavioural and other developmental problems, there is less reliable support for parents in general. Most parents do not receive evidence-based advice on dealing with common everyday parenting challenges, as there are fewer public health resources available for parents in general. The changing patterns of family life have increased the demands on all parents and many now seek advice online, therefore universal web-based provision may be a useful public health tool to equip parents with the skills to practice positive parenting, address everyday parenting challenges, encourage positive child behaviour, achieve good child outcomes and avoid problems becoming more severe.

## **Abstract**

**Background:** COPING parent (**C**onfident **P**arent **I**nternet **G**uide) is an online universal parenting programme designed for parents of children aged 3-8 who are interested in learning positive parenting strategies to address everyday parenting challenges. Most people now have access to the internet and many parents seek online parenting advice, so it is important to ensure that advice is both evidence-based and freely available. The 10-week online COPING parent programme presents information and activities based on core social learning theory principles. The programme provides information and video examples of parenting skills, uses quizzes to test knowledge and suggests home practice activities. This study was undertaken to obtain feedback on the usefulness and acceptability of the programme to inform its further development.

**Design and Methods:** The programme was created using the LifeGuide software and participants ( $n=20$ ) were asked to complete one chapter of the programme each week and provide feedback. This feasibility study was undertaken to highlight any technical issues and suggest modifications prior to a more rigorous evaluation.

**Results:** Both participant feedback and programme usage data are reported. Thirteen ( $n=13$ ) feedback forms were returned and programme usage data was downloaded for all participants. Feedback suggested modifications that included adaptations to enable the programme to be accessed by tablet users, an option to look back over previously completed chapters, the inclusion of more video examples of positive parenting and text message prompting to address attrition challenges.

**Ethical approval:** The School of Psychology Ethics Committee, Bangor University (research proposal number 2015-15506) reviewed and approved this feasibility study.

Societal changes have always presented new challenges for parents and impacted on parent-child relations, child behaviour and parenting style. However, the pace of change has accelerated, and recent changes such as children spending increasing amounts of time watching television, surfing on the internet and/or playing video games can put children at risk of poor outcomes (Silvern and Willimson, 1987; Vandewater, Bickham & Lee, 2006). Apart from the direct risks associated with spending a lot of time in front of the TV, playing video games or accessing inappropriate internet content, these activities also have other effects in terms of less time spent in physical activities (Reilly et al., 2005) and, for busy families, increasing use of convenience food (Pollard, Kirk & Cade, 2002), and children spending less time in the company of adults and more in their own rooms.

Other recent changes also include increasing rates of divorce and/or single parenthood, all of which can contribute to parental challenges (Clarke-Stewart et al., 2000). Increased economic uncertainty has led to many dual-career families with children spending less time with parents and more time in child-care (Belsky et al., 2007), which can compromise parent-child relations. Belsky (2001) concluded that more than 20 hours per week of such care posed risks for the infant—parent relationships and for psychological and behavioural adjustment during the toddler, preschool, and early primary-school years (Belsky, 2001). The increased strain caused by work-life balance can also impact on parenting behaviour, as short-term fluctuations in levels of daily work stress appeared to contribute to day-to-day changes in parenting behaviours, primarily resulting in mothers becoming more withdrawn (Repetti & Wood, 1997).

Despite these lifestyle changes, good quality parenting remains key to achieving good child outcomes (DeGarmo, Patterson & Forgatch, 2004; Gardner et al., 2006), and numerous studies have demonstrated the benefits of teaching positive parenting strategies for both parent and child outcomes in both targeted and preventive trials (Gardner et al., 2006;

Hutchings et al., 2007; Furlong et al., 2013). Interventions based on learning theory (Bandura, 1977; Patterson 1982) have demonstrated significant increases in the use of positive parenting practices and reductions in child problem behaviour in young children (Gardner et al., 2006; Hutchings et al., 2007; Furlong et al., 2013). This growing evidence for the effectiveness of teaching parents positive strategies has demonstrated the potential of such programmes to improve the mental health and well being of both children and parents (Vostanis et al., 2006; Sanders, 2008). However, although effective, such programmes are generally targeted and therefore not accessible to all parents (Sanders, Turner & Markie-Dadds, 2002; Foster et al., 2008) with many not having access to good quality advice when faced with everyday parenting challenges.

Public health is defined as an approach to prevent disease, prolong life and promote health through the organised efforts of society, and can include the provision of personal services to individuals such as vaccinations, behavioural counselling or health advice (WHO website, 2017). A targeted approach to improve health and well being can target behaviours such as smoking cessation or weight loss, which together could significantly benefit society and reduce both the risks and financial burden of ill health (Gold et al., 2006). There is increasing evidence to suggest that public health and health promotion interventions based on social and behavioural science theory, such as social learning theory (Bandura, 1977), are effective (Glanz & Bishop, 2010). A systematic review of theory-based practices for improving health behaviour such as contraception use, found that of the 14 trials included, 10 showed positive results in favour of the social cognitive theory-based groups (Lopez et al., 2009).

In the field of parenting an example of a theoretically underpinned public health approach to parenting is the Triple-P parenting programme (Markie-Dadds & Sanders, 2006) which provides parents with parenting tips and strategies but also de-stigmatises parent help

seeking, empowering parents to self-regulate when solving problems and validating positive parenting strategies (Foster et al., 2008). The Triple-P programme is both universal and targeted, and incorporates five levels of intervention (Sanders, Turner & Markie-Dadds, 2006), with all levels incorporating the same content but different intensities of skills training and practitioner support are provided. For example, level-1 is a universal population-level approach with the aim of increasing community awareness for parenting by providing access to parent information to all interested parents. In contrast, level-5 is a targeted approach, providing 11-session enhanced version of the programme to families where parenting difficulties are complicated by other sources of difficulty, i.e. parental depression (Sanders, Turner & Markie-Dadds, 2006). Numerous trials of the Triple-P parenting programme, both standard and web-based, have demonstrated positive outcomes for both parents and children (Markie-Dadds & Sanders, 2006; Prinz et al., 2009). As a public health approach to supporting parents, the web offers a potentially efficient, accessible, convenient and affordable method to reach a large number of parents with evidence-based parenting information (Copeland & Martin, 2004).

In the UK, in 2016, 89.4% of men (22.8 million) and 86.4% of women (23.1 million) accessed the internet, an increase from 87.9% of men and 84.6% of women in 2015 (ONS, 2016), suggesting the potential of the internet for disseminating evidence-based information to the population at large. The advantages of web-based programmes over more traditional approaches in targeting public health concerns include convenience, relatively low cost of dissemination, and reaching more individuals and the options to incorporate behavioural principles such as audio, video and feedback (Gold et al., 2006). Although not as extensively researched there is some evidence demonstrating increased positive parenting following web-based interventions (Sanders, Baker & Turner, 2012; Enebrink et al., 2012), but these programmes were for parents of children with early-onset conduct problems. Although

positive findings have been reported following parent engagement with web-based programmes, they are associated with high attrition with many participants starting, but not completing programmes. For example, 95% of parents completed session 1 of a Triple-P online parenting programme and only 47% completed all eight sessions (Sanders, Baker & Turner, 2012). In a separate Triple-P trial, only 50.3% of parents watched all six episodes of '*driving mum and dad mad*', and as the weeks progressed fewer parents accessed the website to download resources (Sanders et al., 2008).

The COPING parent online universal programme is derived from the principles of behaviour, including reinforcement (Patterson, 1982) and the social learning theory (Bandura, 1977). The basic premise of the social learning theory is that people learn by observing the actions of others (Glanz & Bishop, 2010) and the consequences of those actions (Patterson, 1982). Key constructs include observational learning, reinforcement, self-efficacy, goal setting and self-monitoring (Glanz & Bishop, 2010), and can be used in interventions to promote healthier behaviour. The COPING parent online universal programme incorporates these key constructs, by including video examples of positive parenting (observational learning), setting achievable goals (i.e. spend ten minutes playing with your child every-day or positively reinforce positive child behaviour), monitoring the achievement of goals (by asking parents to report the number of times spent playing with their child), reinforcement of achievement (online feedback) and multiple-choice quizzes (online feedback and correct responses).

The content of the programme is based on 'The Little Parent Handbook' (Hutchings, 2013), which originated as a set of help sheets for parents developed as part of trials conducted by Judy Hutchings and colleagues during the 1990s (Hutchings et al., 2002; Lane & Hutchings, 2002). The initial trial recruited parents of children with significant problems who were treated by Child and Adolescent Mental Health Service (CAMHS) professionals

and subsequently in home based interventions delivered by health visitors. The programme involved teaching parents behavioural management advice targeting problematic child behaviour. Advice was given on how to respond to problematic child behaviour in a clear and consistent way and to encourage positive child behaviour by providing reinforcing consequences. Strategies also included record keeping, setting achievable goals and providing parental feedback and prompting and reinforcing parents when using the strategies effectively in order to increase confidence and exposure to success. Parents were observed implementing the strategies both within a clinical setting and at home in order to encourage generalisation of skills. Significant overall improvements were found from these multicomponent trials in measures of child behaviour, parental practices and maternal mental health (Hutchings et al., 2002). The help sheets were subsequently published as ‘The Little Parent Handbook’, (Hutchings, 2013), as a tool for all parents allowing for the wider dissemination of evidence-based parenting strategies.

Table 6:1

*The intervention consists of ten chapters, eight content and two revisions.*

	Chapter title	Strategies/Skills
1	Spending special time with your child through play	Building positive relationships Spending quality time together Descriptive commenting
2	Encouraging good behaviour through praising	Reinforcing positive behaviour Labelled praise Sharing positive emotions
3	Encouraging good behaviour through rewarding	Reinforcing positive behaviour Planned rewards



		Unexpected rewards Praise and reward together
4	How to get better at giving instructions [part 1]	Give one instruction at a time Give specific instructions Praise compliance
5	How to get better at giving instructions [part 2]	House rules Apply rules consistently
6	Revision	Summary of chapters 1-5
7	Ignoring problem behaviour	Ignore problem behaviour Consistency
8	Teaching your child new behaviours	Modelling Shaping Prompting
9	How to develop your child's language skills	Labeling feelings Reflection and problem-solving
10	Revision	Summary of chapters 1-9

The intervention is available continuously and individuals can log in at times most convenient for them. Individuals are expected to complete one chapter each week and each chapter takes approximately thirty minutes. The intervention is programmed to leave a five-day gap between the completion of one chapter and access to the next chapter in order to give individuals an opportunity to practise the skills demonstrated in the programme. It is not necessary to complete each chapter in one sitting, participants can log in and out as they wish. Suggested activities are provided at the end of each chapter, for example to provide specific labelled praise for positive child behaviour e.g. *“well-done for coming to sit at the*

*table when I asked you to*”. If individuals log in before five days had elapsed, a message appears telling them it is not quite time for the next session yet. If participants log out before completing the chapter, the programme takes them back to the last page they viewed, avoiding participants having to start chapters from the beginning.

Each chapter follows the same format and includes information presented in bullet point format, colourful images to complement the text, an audio button enabling individuals to listen to the information rather than reading it, video examples of positive parenting to illustrate key skills, questions based on the video examples to teach observational skills and multiple-choice questions based on content to test information retention (online feedback appears on the screen with a score and correct answers to the questions). The researchers have attempted to make the programme as easy to navigate as possible by keeping written content minimal and putting large back and next buttons at the bottom of each page. A summary of the key points in each chapter is available to download and save (or print if the participant has access to printing).

The first chapter covers the core principles of relationship building through play emphasising the importance of parents taking an interest in their children by setting them a goal to spend 10 minutes engaged in child-led play every day at home. In order to encourage self-monitoring, individuals are asked to record online how many times they had played with a child during the previous week by selecting a number from a drop-down menu. Automated feedback is given (on screen) based on the responses selected. Participants who report having played with their child once every day for ten minutes (i.e. selected 5 or more) are congratulated for taking the first step in improving their relationship with a child by making time for play. If they fail to engage with the task and report that they have not played with their child (i.e. selected 4 or less), participants are reminded of the importance of play.

The online intervention was created as a universal access preventive programme using the LifeGuide software. LifeGuide can be programmed to deliver evidence-based behavioural advice (Furlong et al., 2013) and to employ behavioural principles within intervention delivery (Yardley et al., 2009) to make the intervention more engaging to users. The COPING parent programme is intended for all parents of children aged 3-8 years with the aim of encouraging positive parenting. This feasibility study was undertaken to inform a future evaluation in terms of programme delivery, usefulness and acceptability. Additionally, the study will inform researchers of the effectiveness of recruitment methods, the time frame for programme completion and programme adherence. Other important feasibility parameters such as demand, implementation, practicality and efficacy (Bowen et al., 2009), will be explored with the intended population (parents of children aged 3-8 years) in a future trial.

### **Materials and Methods**

Twenty ( $n=20$ ) individuals were recruited by word of mouth and/or through recruitment posters displayed in two local nurseries. A member of the research team contacted the nursery managers to explain the project. Both managers agreed to distribute recruitment posters to parents of children aged 3-8 years who attended their nurseries. One manager requested that two newly appointed nursery nurses try the programme as a training exercise; both signed up for the study. Former colleagues and people with an interest in the work of the centre were also invited to participate. Sixteen individuals recruited were parents, eleven with children aged between 3 and 8 years, two with younger and three with older children. Four participants had no children, two were colleagues and two worked as nursery assistants in a local nursery.

Individuals who expressed an interest in participating met with a researcher, received a detailed information sheet and were given opportunity to ask questions. Individuals who

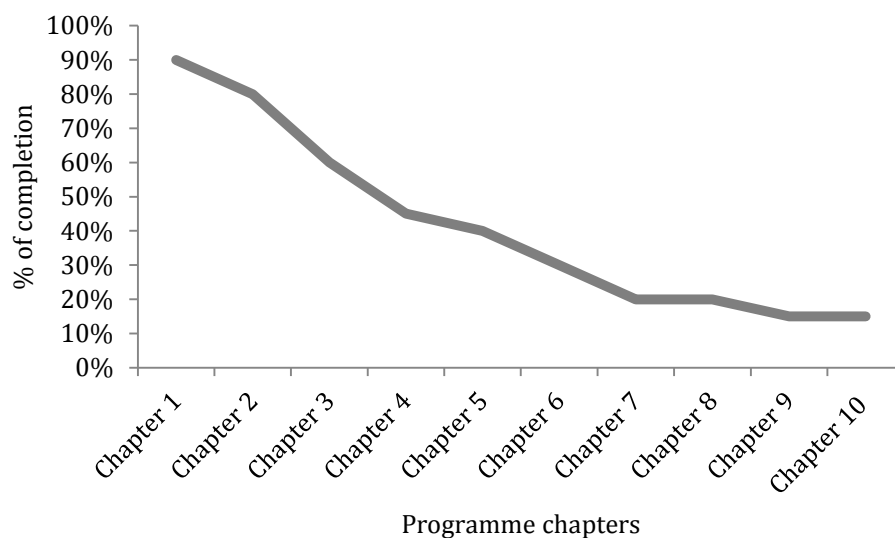
agreed to participate were asked to sign a consent form. Once written consent had been obtained, participants were provided with a detailed programme information sheet that included instructions, the link to the programme, an individual username and password to log in and the researchers e-mail to use in event of experiencing problems. Participants needed an internet connection and access to a PC or laptop. The intervention can be accessed on smartphones and tablets, but some of these devices do not support flash player, and individuals accessing the programme on these devices would be unable to watch the videos or listen to the audio. To obtain participant feedback on all aspects of the intervention, including the content of the videos, participants were asked to view the programme on a PC or laptop. There were no programme access costs involved for participants as the programme was hosted on Southampton University live server therefore no downloading was required.

Participants were provided with a feedback form at the end of the study. The intervention was on-line from October 2015 until January 2016, although participants were asked to complete the programme by December 18<sup>th</sup> 2015 to give the research team time to analyse the feedback and make any modifications to the programme in preparation for the evaluation in early 2016. Participants who had not completed the programme by December 18<sup>th</sup> 2015 but wished to carry on were told that it remained accessible until the end of January 2016.

Individuals were asked to contact the research team once they had completed the programme to receive the feedback form. Individuals who had not completed the programme before the Christmas break, were sent the feedback form by e-mail and asked to share their views on the chapters they had completed. Once feedback was received, participants were given a copy of 'The Little Parent Handbook' as a thank you for their time.

## Results

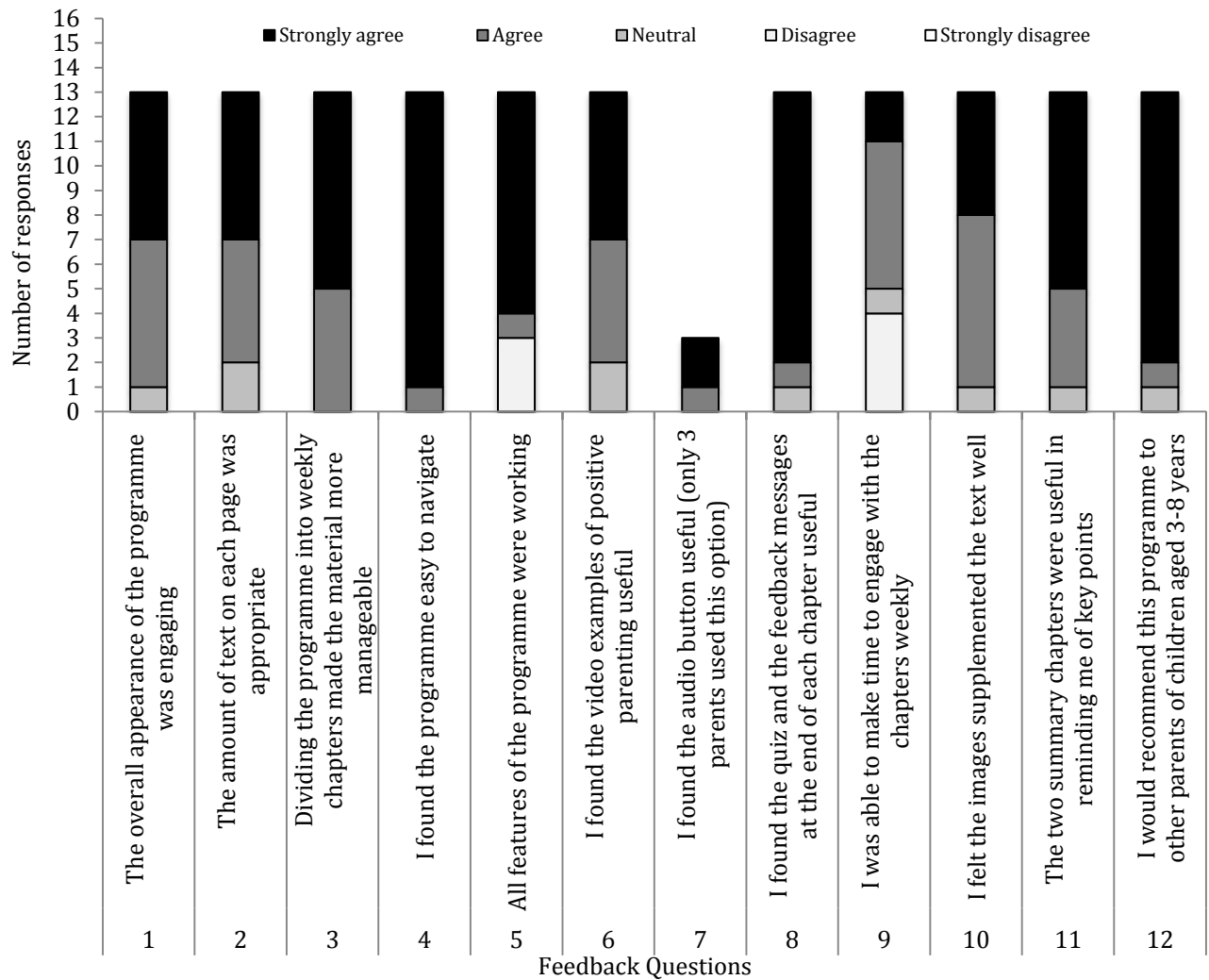
Twenty participants consented to undertake the programme. Thirteen (65%) returned completed feedback forms by December 18<sup>th</sup> 2015, and LifeGuide usage data was collected and downloaded for all participants who had logged into the programme. One parent was recruited after seeing the recruitment flyer in a nursery, two were recruited after a nursery manager asked if they could undertake the programme for training purposes and the remaining participants were recruited by word of mouth. Ten participants were well-educated (post-16), seven ( $n=7$ ) had a university degree and three ( $n=3$ ) were currently completing a college course, the remaining ten ( $n=10$ ) were in paid employment. Nineteen ( $n=19$ ) participants logged in and began chapter one, and eighteen (90%) completed it, with only three completing all ten chapters (15%). The rate of completion decreased from chapter two onward as illustrated in figure 1 below. The mean number of completed chapters was four.



*Figure 6:1.* The percentage of programme completion for nineteen ( $n=19$ ) participants.

The ten participants (77%) who had not completed the programme were asked to give reasons for non-completion within the given timescale. Eight reported that they had forgotten, one that a family member had fallen ill and the other reported workload pressures and not having access to a PC or laptop at home.

Participants were asked to rate 12 statements using a five-point Likert scale ranging from strongly disagree to strongly agree. Responses from the thirteen participants are illustrated in the figure below.



*Figure 6:2.* The number and distribution of responses to each statement from thirteen ( $n=13$ ) participants.

Twelve of the thirteen participants agreed or strongly agreed that the overall appearance of the programme was engaging and 11 agreed or strongly agreed that the amount of text on each page was appropriate with two participants rating this as neutral and that they felt some chapters had a lot of text. All participants either agreed or strongly agreed that

dividing the programme into weekly chapters made the material more manageable, and 12 reported that the programme was easy to navigate. With regards to whether or not the programme features were working, ten agreed or strongly agreed with this statement, whilst three individuals reported problems, one was accessing the programme on an iPad (as access to a laptop became difficult during the study), which does not support the LifeGuide software and was therefore unable to watch the videos or listen to the audio button. Two participants reported issues with their PCs, however these were unrelated to the LifeGuide software.

Eleven participants agreed or strongly agreed that the video examples of positive parenting were useful with two individuals selecting neutral. Only three participants utilised the audio button, and two strongly agreed that the audio button was useful. Eleven participants either agreed or strongly agreed that the end of chapter quizzes and online feedback were useful. Only eight participants agreed or strongly agreed with the statement that they were able to make time each week to engage with the chapters, four disagreed with this statement.

Twelve participants agreed or strongly agreed that the images supplemented the text well, and 12 also either agreed or strongly agreed that the two summary chapters were useful in the reminding of key points. One individual rated neutral for this question and reported that the two summary chapters made the programme longer than necessary. Twelve participants either agreed or strongly agreed with the final statement, 'I would recommend this programme to parents of children aged 3-8 years'.

Overall, this feedback was predominantly positive despite the majority of participants not having accessed the full programme, which makes its usefulness questionable. For example, twelve participants either agreed or strongly agreed that the two summary chapters were useful in the reminding of key points despite only six participants having accessed a summary chapter and only three accessing both (see figure 6:2). However, of the 13

participants who returned a feedback form, eleven supplied additional comments, which proved more useful in terms of possible programme modifications. The comments were classified into four main themes:

*1. Programme reminders would have been useful to avoid forgetting*

Eight participants reported forgetting to log in and reported that reminders would have been useful in keeping them on track (either text or e-mail).

*1. Log in and review of previously completed chapters*

Three participants reported that an option to log in and look over previously completed chapters would have been useful. There was a five-day gap between each session to allow time to practise the skills outlined in the programme. If participants logged in before the next session became available, a message appeared telling them that the next session was not yet available. Participants would have liked the option to look back and revise previous topics during the five-day gap, and the LifeGuide usage data reported that the 'log in early' page was viewed 22 times.

*2. More video examples of positive parenting*

Eleven participants (85%) reported that they found the video examples of positive parenting useful and would have liked more visual examples in the programme.

*3. Instructions for how to make the videos bigger*

Two participants reported that the video boxes were small and that it was difficult to see exactly what was happening in the video clip, another reported that it took a long time to realise that you could make the videos full screen, and that instructions for how to do this would be useful in future.

LifeGuide software allows researchers to view and/or download individual usage data including the number of completed chapters, number of log-ins and data on any programmed variable using the 'saved value' logic command, for example questions that require the user



to select a response. Participants were asked to record the number of times they played with a child each week (they were not able to proceed to the next page without selecting a response). The data for parents ( $n=11$ ) who had a child aged between 3-8 years (target child age for the programme) are represented in table 2.

Table 6:2

*The total number of times reportedly spent playing with a child as reported by parents ( $n=11$ ) with children aged between 3- 8 years.*

Parent	Total number of chapters completed	Total number of times reportedly spent in child-led play
Parent 3	5	19
Parent 4	5	9
Parent 6	10	61
Parent 7	2	4
Parent 8	2	4
Parent 9	3	8
Parent 10	4	15
Parent 11	8	11
Parent 13	10	68
Parent 15	1	15
Parent 16	3	15

Parents 6 and 13 both completed the programme and reported spending more time spent engaged in child-led play (61 and 68 times in total) compared to other parents. The mean time spent engaging in child-led play was 20 and the mean number of chapters completed was four. In a future study these data can be used to explore whether more self-reported instances of child-led play are associated with better outcomes, however for the present study, the data only demonstrates the total number of times spent in child-led play.

LifeGuide also provides data on the number of log-ins and the number of completed chapters for each participant indicating how many individuals completed chapters in one sitting, and how many logged-in multiple times. These data can be used to explore whether more log-ins are associated with better outcomes, however for the present study, it only demonstrates whether individuals completed chapters in one or more sittings. Only five of the twenty (25%) individuals completed the chapters in one sitting, the remaining participants (75%) logged in more than once to complete them and the mean for the number of log ins for the sample ( $n=20$ ) was five.

### **Discussion**

This feasibility study examined programme delivery, usefulness and acceptability and gained user feedback to enable adaptations prior to a more rigorous evaluation. Twenty participants were recruited through word of mouth and/or recruitment posters and asked to complete the programme and fill out a feedback form.

The feedback reported on the Likert scale did not prompt any significant modifications, as it was predominantly positive, despite the majority of participants not fully engaging with the programme. This could possibly be explained in terms of participant self-report bias. Participants who are required to self-report tend to under-report behaviours that are deemed inappropriate or negative by researchers and over-report on behaviours viewed as

appropriate or positive (Donaldson & Grant-Vallone, 2002). Participants in this feasibility study may have selected positive responses in order to please researchers rather than giving objective views. For example, on the whole, feedback was promising and participants reported that they found the material engaging, thought the programme easy to navigate and would recommend it to parents of children aged 3-8 years. Despite these positive responses, the majority of participants did not complete the programme with only three completing all ten chapters. Perhaps qualitative semi-structured interviews or focus groups would have been more valuable methods of gaining participant feedback and informing future evaluations. A particular strength of a large scale-evaluation of universal parenting programmes in England was the use of qualitative methods, including in-depth interviews, to capture the perspectives of parents and service providers regarding treatment barriers (Lindsay et al., 2017). Nevertheless, the additional comments provided by thirteen participants proved useful in terms of programme modifications.

Programme engagement was poor with 90% of participants completing chapter one but only 15% completing all ten chapters. This is consistent with the literature as attrition rates with web-based interventions can be problematic (Sanders et al., 2008; Sanders, Baker & Turner, 2012), highlighting the need for strategies to increase retention and programme completion in web-based programmes. Dittman and colleagues (2014) examined the extent to which session completion predicted post-intervention child behaviour and parenting outcomes after participation in the Triple-P online parenting programme. They concluded that the number of completed modules predicted mother and father-reported child behaviour outcomes (less disruptive child behaviour) and mother-reported ineffective parenting (less ineffective discipline and increased parental confidence). Pre-intervention measures were not taken for this study; therefore, it is not possible to relate the high attrition rate with the identified variables. A future evaluation will be incorporating a demographic pre-intervention

measure; therefore, engagement with the programme can be explored further in relation to the identified pre-treatment variables (Sanders & McFarland, 2001).

Additional comments suggested the need for weekly prompts informing individuals when the next session was available. Due to eight participants reporting they had forgotten to log on, modifications to the programme include text message prompts to inform future participants when the next chapter becomes available. If parents do not log on to access the new chapter for three consecutive days, a reminder text is sent. If the parent still has not logged on for a further three days, another reminder is sent. Failing this, weekly reminder texts are sent. The text message service was set up through 'Janet txt' service and text messages will be automatically sent through LifeGuide; therefore, no cost will be involved for the participant. Text message prompt may increase programme engagement as a systematic review of studies using text message reminders to increase medical attendance rates found that short message service reminders in health care settings substantially increase the likelihood of attending clinic appointments (Guy et al., 2012).

Participants reported that the option to look back over previously completed chapters would have been useful, as in this study each chapter could only be viewed once and could not be accessed again after it had been completed. As a result of this feedback, the programme has been modified to allow participants the option to look back over previously completed chapters an unlimited amount of times. This allows the option of content rehearsal which has been demonstrated to benefit learning (Beverley, Hughes & Hastings, 2009) allowing future exploration of whether more revision leads to better outcomes in terms of increased positive parenting.

One individual reported difficulty in accessing the programme on an iPad, which does not support the LifeGuide software (after access to a laptop became difficult during the study). This participant was unable to watch the videos or listen to the audio button. In

anticipation that some families may only have access to the internet on these devices and not on a PC or laptop, the programme has been modified to allow individuals the option to access the programme on an iPad or tablet. This modification allows participants accessing the programme on an iPad or tablet to click on an external link through LifeGuide and watch the videos on 'Vimeo' (private video uploading site) in a separate window.

Video examples of positive parenting were included in the programme to visually illustrate key principles; however, some chapters did not have many videos. The researchers were at the time unclear as to the number of videos that could be uploaded without affecting the quality of the videos, as videos were streamed from the live server. Participants reported that more video examples of positive parenting would be useful, and based on this feedback twenty additional video clips have been added to the programme (without affecting the quality). Additionally, as a result of feedback from two participants, instructions have been added next to the videos to ensure that individuals know how to make videos appear full screen and how to exit videos and return to the programme.

This feasibility study was useful in gaining user feedback, which led to programme modifications in preparation for a future evaluation. Firstly, the features of the programme were working correctly, apart from for the one individual using an iPad – but this led to a modification which allows future participants to have the option of which device to use to access the programme. Secondly, the programme was well received, especially the video content of which participants wanted to see more. This led to the modification of adding more video examples of positive parenting. Thirdly, the majority of individuals would recommend the programme to other parents, and this was extremely positive in terms of progression with a larger evaluation. Nevertheless, the study did have some limitations.

Firstly, programme completion was poor with only 15% of individuals completing all ten chapters in the given time frame. This made it difficult to test the features of the entire

programme and limited the validity of some of the user feedback. Secondly, only one parent was recruited after seeing the recruitment flyer in a nursery, the remaining participants were recruited by word of mouth, suggesting that other recruitment methods must be explored. For a future trial, it is intended to recruit parents by sending recruitment posters to primary schools in addition to nurseries and also utilising health visitors and school nurses by asking them to approach parents. Thirdly, only eleven individuals had a child aged 3-8 years, therefore feedback from the target sample was limited. Finally, half of the participants ( $n=10$ ) were well educated (post-16 education) and the other half ( $n=10$ ) were in employment and did not report any issues with the literacy requirement of the programme; however, the programme does include video-based modelling of skills and an audio option to reduce the literacy requirement.

The feasibility study gained user feedback in terms of programme delivery, usefulness and acceptability. A future trial will evaluate the programme further with parents of children aged 3-8 years in a pilot RCT through parent self-report measures and a behavioural observation of parent-child interaction. The aim is to recruit 50-60 parents of children aged 3-8 years who would like to learn more about positive parenting. The evaluation would establish whether this programme is useful in encouraging positive parenting practices and promote positive behaviour change more widely.

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## **Chapter 7**

# **Evaluation of the COPING parent online universal programme: Study protocol for a pilot randomised controlled trial (published paper)**

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**Title:** Evaluation of the COPING parent online universal programme: Study protocol for a pilot randomised controlled trial

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**Trial Sponsor:** Bangor University, Brigantia Building, College Road, Bangor, LL57 2AS



## **Abstract**

**Introduction:** The COPING parent online universal programme is a web-based parenting intervention for parents of children aged 3-8 with an interest in positive parenting. The programme focuses on strengthening parent-child relationships and encouraging positive child behaviour. This trial will evaluate whether the intervention is effective in increasing the use of positive parenting strategies outlined in the programme using parent report and blind observation measures.

**Methods and analysis:** This is a pilot randomised controlled trial with intervention and wait-list control conditions. The intervention is a ten-week online parenting programme to promote positive parent-child relations by teaching core social learning theory principles that encourage positive child behaviour, primarily through the use of positive reinforcement. Health visitors and school nurses will circulate a recruitment poster to parents of children aged 3-8 years on their current caseloads. Recruitment posters will also be distributed via local primary schools and nurseries. Parents recruited to the trial will be randomised on a 2:1 ratio to intervention or wait-list control conditions (stratified according to child gender and age). The primary outcome measure is positive parenting as measured by a behavioural observation of parent-child interactions using the Dyadic Parent-Child Interaction Coding System. Secondary outcomes include parent report of child behaviour, and self-reported parental sense of competence, parenting behaviour and parental mental health. Data will be collected at baseline and three months later (post-intervention) for all participants and six months post-baseline for the intervention group only. ANCOVA will be the main statistical method used.

**Trial registration:** Current Controlled Trials ISRCTN89370147 (May 5th 2016).

## **Strengths and limitations**

- This is a randomised controlled trial (RCT) with a wait-list control group.
- The behavioural observations will incorporate an inter-rater reliability component (20% of all observations at each time point).
- Once randomised, intervention parents start the online programme immediately thus reducing the amount of time spent waiting for the intervention.
- A limitation of this study is internet based only without any additional support and parents are required to log in each week and engage with the programme. This may result in some parents not fully engaging and the potential loss of follow-up data.
- Due to time and funding constraints, this pilot trial aims to enroll sixty parents, which is a fairly small sample size not based on a power calculation.
- Funding and time constraints do not allow for a follow-up beyond 6 months.

## **Background**

Societal changes are presenting new challenges for parents that can impact on parent-child relations, child behaviour and parenting style. For example, increased time spent playing video games impacts on child mental health and social relationships (Palmer, 2006) and changes in marital status/family structures including divorce affect children's social and emotional competence (Amato, 2000) and can reduce parental competencies (Cherlin et al., 1991). Dysfunctional parenting is a key factor in the subsequent development of problematic child behaviour (Smith et al., 2014).

Minor child problem behaviours can develop into significant problems unless addressed whilst children are still young (Nixon, 2002; Knapp et al., 2002). Conduct problems have a significant impact on children's functioning and quality of life (NICE, 2013) with up to 50% of children and young people with conduct disorder developing antisocial personality disorder (Foster & Jones, 2005; NICE, 2013). It is therefore important to provide

early universal support to all parents to help them to address the small behavioural challenges faced by parents and prevent them from progressing into longer-term ones.

Increases in the numbers of children with identified early onset of behavioural difficulties have resulted in health visitors and school nurses spending much of their time supporting families with children at significant risk of poor outcomes (Wilson et al., 2008), reducing their ability to provide more general support to all families (Williams & Hutchings, submitted 2017). A survey of health visitors and school nurses reported that 53% of health visitors saw between 21-50, and 46% of school nurses saw between 50-99 children with emotional or behavioural problems each week (Wilson et al., 2008). These growing demands on health visitors and school nurses' time reduces their ability to support all parents at a time when parents are bringing up children in a rapidly changing world with additional challenges (Palmer, 2006).

The positive parenting practices that support children's development are well established (Gardner et al., 2006) and these include relationship building strategies through time spent in play or joint activities with children, positive reinforcement to encourage positive child behaviour and positive parental role modelling (Hutchings, 2013). However, evidence-based support for parents is not universally available and changing demands on parents make it important to provide all parents with access to evidence-based information.

Technology has the potential to provide knowledge about key parenting skills, reduce pressures on services; particularly those delivered by health visitors and school nurses, and offer flexible access (Wantland et al., 2004; Bert, Farris & Borkowski 2008; Jones et al., 2014). Access to technology is now feasible for many parents due to increased availability of the internet (ONS, 2013). In 2016, 89% of households in Great Britain (23.7million) had access to the internet, an increase from 86% in 2015 (ONS, 2016). The majority of parents (75%) now use social media to obtain parent-related information (Duggan & Lenhart, 2015)

with over eight million people visiting an online parenting information and advice website every month (Netmums, 2016).

The accessibility and convenience of access to the web has introduced the opportunity for web-based delivery preventive behavioural interventions for health promotion (Elgar & McGrath, 2003; Taylor et al., 2008). Accessing the internet has become easier with cheaper internet providers and the availability of devices such as mobile phones and tablets. The internet provides individuals with a useful source of advice and/or support, and offers convenient and flexible access within the home. This has the potential to reduce the burden on health care service providers (Copeland & Martin, 2004).

Although limited in number, web-based interventions have been shown to be effective in achieving a wide range of positive outcomes to promote healthy behaviours including smoking cessation and weight-loss (Strecher et al., 2008; Hustad et al., 2010; Brown et al., 2014), suggesting that the web is an effective means of providing behaviour change advice. There is evidence demonstrating increased positive parenting following web-based interventions (Enebrink et al., 2012), however, high attrition rates have been reported (Sanders et al., 2008; Arden-Close et al., 2015), with many participants starting, but not completing programmes (Wantland et al., 2004). Universal parenting programmes in general, including web-based, have not yet been extensively researched (Ulfsson et al., 2012). Early indications have suggested potential benefits of web-based support (Enebrink et al., 2012; Sanders et al., 2012) however more research is needed.

## **Rationale**

The COPING (**C**onfident **P**arent **I**nternet **G**uide) parent web based parenting programme, is based on the content of 'The Little Parent Handbook' (Hutchings, 2013), and provides information and activities based on core social learning theory principles associated

with positive parenting practices and good child outcomes to parents of children aged 3-8 years. The study will explore the delivery of the programme, parental satisfaction and engagement with the programme and whether it is effective in demonstrating increased use of positive parental practices in parents of children with a wide age range and varying behavioural patterns.

### **Aims and Objectives**

The aim of this trial is to conduct a pilot randomised controlled trial on the effectiveness of an online parenting programme, for parents of children aged 3-8 years who would like to learn more about positive parenting by comparing outcomes for intervention and wait-list control conditions.

The key objectives are to establish whether the programme successfully engages and retains parents; whether the programme produces statistically significant increases in positive parenting as observed in a parent-child observation when compared to wait-list control parents; and to determine whether the online programme produces any changes in secondary outcomes (parent-reported child behaviour, parent self-reported sense of competence, behaviour and mental health). The study hypotheses are:

- i. the online parenting programme will lead to significant increases in the use of positive parenting strategies as displayed in the behavioural observation coded using Dyadic Parent-Child Interaction Coding System (DPICS; Eyberg & Robinson, 1981)
- ii. the online programme will significantly increase positive self-reported parenting skills, parental sense of competence and parental mental health
- iii. the online programme will lead to reduction in parent-reported levels of child problem behaviour as reported using the Eyberg Child Behaviour Inventory (Eyberg & Robinson, 1983)

## **Methods/Design**

### **Trial design**

This pilot RCT will explore the effectiveness of an online parenting programme. Parents of children aged 3-8 years who would like to learn more about positive parenting will be randomly allocated to the intervention condition with immediate access to the programme or to a 3-month wait-list control condition on a 2:1 ratio. Self-report and observational data will be collected in parents' homes during home visits and parents will access the programme at home.

### **Eligibility criteria**

To be eligible for the study parents must have a child aged between 3-8 years, be able to understand English (as the programme is only currently available in English) and be able to access the internet on a PC, laptop or tablet. The software does not yet support smartphones. Parents who are currently receiving support from services are also invited to participate (they will be asked to record which services they are receiving and the duration). Individuals will be excluded from the study if a parent does not have a child aged between 3-8 years, does not understand English and does not have access to the internet.

### **Recruitment**

Health visitors and school nurses in Gwynedd and Anglesey (North-West Wales) will approach parents of children aged 3-8 years on their own caseloads and describe the online programme and the research trial. If parents decide that they might want to sign up for the study, they will be asked by the health visitor/school nurse to complete a note of interest form, that will be sent to the research office at Bangor University, giving consent for a member of the research team to contact the parent.

On receipt of the note of interest form, a member of the research team will contact the parent to arrange a convenient time to visit and discuss the project further. The researcher will go through the information sheet with the parent during this home visit and ensure that any questions are answered. If the parent is happy to continue, the researcher will obtain informed consent from the parent to participate in the study. Only when consent has been obtained will the researcher proceed to ask the parent to fill out the self-report measures and take part in a 30-minute behavioural observation.

In addition to health visitors and school nurses approaching parents on their caseloads, recruitment posters will be distributed in primary schools and nurseries in Gwynedd, Anglesey, Conwy and Denbighshire. An e-mail address and a contact telephone number will be provided on the recruitment poster so that interested parents can contact the research team directly. Parents will either be sent a detailed information sheet via e-mail or the researcher will discuss the study in depth over the telephone. If parents would still like to participate, arrangements will then be made for a home visit to discuss the study further. Similarly, parents who hear about the study through word of mouth can contact the research team for further information regarding the trial.

It is expected that both forms of recruitment (poster and health visitor/ school nurse) will attract parents from varying socioeconomic backgrounds who are experiencing varying levels of child problem behaviour. For the purpose of this pilot trial, baseline characteristics of all parents will be reported and compared with the population as a whole. Additionally, the percentage of parents recruited from each source will be reported and their characteristics compared in order to explore the effects of the intervention for the whole sample.

### **Intervention**

Trials conducted by Hutchings and colleagues during the 1990s (Hutchings et al., 2002; Hutchings, Lane & Kelly, 2004) with parents and health visitors demonstrated positive outcomes from teaching effective behavioural strategies to parents of children with challenging behavior for both clinically referred and pre-school prevention populations. Significant overall improvements were found for intervention families on measures of child behaviour, parenting practices and maternal mental health (Hutchings et al., 2002; Lane & Hutchings, 2002). As part of these trials intervention parents were provided with help sheets that were subsequently published as 'The Little Parent Handbook' (Hutchings, 2013). These trials were multi-component trials and so it is difficult to establish the true extent of the effectiveness of the parent help-sheets, however they contained the evidence based behavioural principles on which the interventions were based.

The LifeGuide software, developed at the University of Southampton (Yardley et al., 2009), was used in the creation of the online parenting programme. The aim of LifeGuide is to continuously develop, evaluate and disseminate a set of tools that will allow researchers to flexibly create and modify online behaviour change interventions (Hare et al., 2009). LifeGuide software allows researchers to deliver behavioural principles both through programme delivery (text message prompts etc.) and programme content (The Little Parent Handbook).

Features of the online parenting programme include automated feedback based on individual performance, online praise messages for spending time with their child, text message reminders to access the next session, and multiple-choice quizzes to test knowledge. The programme also enables the tracking of individual usage data (which can be extracted into Microsoft Excel), including the number of log in, time spent on each page and the number of chapters completed.



The programme introduces evidence-based behavioural principles that have been shown to be effective in strengthening parent-child relations and encouraging positive child behaviour (Cooper, Heron & Heward, 2007). A small-scale feasibility study of the online parenting programme was conducted at the end of 2015 with the aim of providing user feedback prior to conducting this pilot RCT trial. The study had no measures and participants were not randomised, instead twenty participants were asked to complete the intervention and fill out a feedback form. Overall, feedback was very positive with the majority of participants reporting that they would recommend the programme to parents of children aged 3-8 years. Minor modifications were made based on the feedback, these include text message prompting to remind parents to log-in to subsequent sessions, more video examples of positive parenting and the option to look back over previously completed chapters again. The intervention consists of ten chapters, eight content and two revision chapters. The topics are:

- i. Spending special time with your child through play
- ii. Encouraging good behaviour through praising
- iii. Encouraging good behaviour through rewarding
- iv. How to get better at giving instructions [part 1]
- v. How to get better at giving instructions [part 2]
- vi. Revision [a review of chapters 1-5]
- vii. Ignoring problem behaviour
- viii. Teaching your child new behaviours
- ix. How to develop your child's language skills
- x. Revision [a review of chapters 1-9]

Intervention parents will be provided with a link to the website and a username and password. Contact details of an administrator will be provided in case any parent requires technical support during the programme. Parents will be asked to log in and complete one

chapter each week, each chapter will take approximately thirty minutes to complete. The software ensures that parents have completed each chapter before they can move on to the next one; they are not required to complete the chapter in one sitting. Log in details allow parents to access the programme as many times as they wish. The intervention has been programmed to take parents to the last page that they viewed on the next occasion that they log in to avoid parents having to start the programme from the beginning. In order to give parents sufficient time to practise the principles outlined in the individual chapters, the intervention has been programmed so that there will be a minimum five-day gap between each chapter. If parents log in before the five days have elapsed, they will be offered the opportunity to look back over previously completed chapters again.

The programme asks parents to practise the skills presented in the chapter with their child at home. Each chapter concludes with a suggested practice activity. Parents are also encouraged to keep paper records detailing their activities. Parents can also record online each week how many times they have played with their child by selecting the amount of times from a drop-down menu. The programme encourages parents to spend more time playing with their child in order to strengthen their relationship, and they are continuously reminded to engage in this activity throughout the programme both by praise messages and by being prompted to record the amount of time spent playing. A praise message congratulates the parent for spending time with their child if they report spending time with their child during the past week, or since the last time they logged in. If parents do not report having spent time with their child during the past week, a prompt message appears reminding them of the importance of this activity.

Each chapter covers an individual behavioural principle that aims to strengthen the parent-child relationship. Parents read through information (or listen via an audio button if they prefer) and watch video examples of positive parenting. The video clips are short in

length (all are less than one minute long) allowing the opportunity for multiple viewing. At the end of each chapter there is a longer video and parents are asked to answer three questions based on the video clip (by selecting yes or no) in order to develop their observational skills and to encourage them to identify positive child behaviours. For example, at the end of chapter two (praising positive behaviour) parents are prompted to watch a video of a parent giving her child a specific labelled praise, and then answering three questions based on the video; (1) did the parent praise the child immediately? (2) Was the parent close to the child when praising? (3) Did the parent share positive feelings when praising? A score out of three and the correct answers are provided for the responses to the videos. Each chapter ends with a multiple-choice quiz to test parents' knowledge and understanding of key principles. Parents will be given online automated feedback based on their quiz scores in addition to the correct answers. Parents also have an option to download and print a summary sheet for each chapter.

Parents will be given an opportunity to receive text message prompts to help keep them on track. If they would like to receive text messages, they will be asked at the beginning of the programme to enter their mobile phone number. The programme is fully automated, and the research team will have no contact with parents during the intervention. The centre administrator can be contacted if parents require any technical assistance during the study. A text message will be sent five days after the completion of a chapter informing the parent that the next chapter is now available. If the parent has not logged into the programme to complete the next chapter three days after it becomes available, a reminder text will be sent prompting them to log in and complete the next chapter. If a parent still has not logged in, weekly reminders will be sent. LifeGuide does not allow researchers to track how many messages parents have received, however, researchers will calculate the number of text messages each participant has received depending on the programme schedule, e.g. if a

parent has not logged on after three days of the chapter becoming available they will have received one text message, etc. Therefore, it will be possible to monitor the level of prompting each participant receives.

Baseline data will be collected prior to randomisation and, once completed, intervention parents will receive a notification of their status and their log in details, whilst parents in the wait-list control group will be informed that they will have access to the programme after three months. Follow up data will be collected after three months regardless of whether intervention parents have completed the programme. Once post-intervention data has been collected, control parents will receive their log in details for the programme. On completion of both baseline and follow-up visits, families will receive a children's book as a thank you for their time. On completion of all measures, parents will receive a copy of 'The Little Parent Handbook'. Data collection will begin in April 2016 and end in February 2017.

### **Primary measure**

The primary outcome is to establish whether the online parenting programme produces significant changes in positive parenting practices from baseline to follow-up as recorded using the DPICS. The researcher will observe the parent and child engaging in child-led play for thirty minutes. This coding system was specifically designed to assess the quality of parent-child social interaction (Robinson & Eyberg, 1981). The DPICS has demonstrated high inter-rater reliability for parent and child behaviours,  $r = 0.67$  to  $1.0$  and  $r = 0.76$  to  $1.0$  respectively (Robinson & Eyberg, 1981). Direct observation was selected as the primary outcome as direct observational methods provide a more precise account of behaviour defined by the researcher and not the parent (Aspland & Gardner, 2003). Additionally, this observational measure has been used in a number of previous studies at the centre (Hutchings et al., 2007; Hutchings, Lane & Kelly, 2004; Eames et al., 2012).

There are eight DPICS parent categories summarised in terms of positive and negative parenting. Positive parenting categories comprise direct command, labelled praise, unlabelled praise and descriptive commenting/verbal labelling. Negative parenting categories comprise indirect command, questions, critical statement and negative command. No child categories will be recorded; child behaviour will be measured using the parent report ECBI only, as the main purpose of this study is to see whether the intervention has an effect on parental behaviour. Observational coding is continuous and records the total frequency of each category of parent behaviour for a total of thirty minutes. Inter-rater levels of reliability will be assessed for 20% of all observations at all three-time points.

### **Secondary measures**

The following secondary outcomes will be collected at three time points by the research team for the intervention group and at two time points for the wait-list control group.

- i. Child behaviour as measured by the Eyberg Child Behaviour Inventory (Eyberg & Robinson, 1981). This measure is a 36-item inventory completed by the parent to assess the frequency and intensity of child behavioural problems for children aged 2-16 years, and has been used in many previous trials including several that have been conducted at the centre (Hutchings et al., 2007; Hutchings et al., 2002). Factor analyses of the ECBI for both children and adolescents indicate that it is a uni-dimensional measure of conduct problem behaviours (Eyberg & Robinson, 1983).
- ii. Parenting practices as measured by the Arnold O'Leary Parenting Scale (Arnold et al., 1993). This is a 30-item inventory with three subscales measuring parental behaviour: laxness, over-reactivity and verbosity. Responses are recorded on a seven-point scale with two alternative responses to a particular parental situation. The parenting scale has been shown to exhibit adequate internal validity and test-retest reliability (Arnold et al., 1993)

in addition to demonstrating significant correlations with observational measures of child problem behaviour (Arnold et al., 1993).

- iii. Parental confidence as measured by the Parental Sense of Competence questionnaire (Johnston & Mash, 1981). This 17-item Likert scale questionnaire measures competence on two separate dimensions: satisfaction and efficacy. The satisfaction questions measure parental anxiety, motivation and frustration (for example, 'sometimes I feel like I'm not getting anything done') and the efficacy question examine competence, capability levels and problem-solving skills (for example, 'I meet my own personal expectations for expertise in caring for my child') in relation to parenting (Johnston & Mash, 1981). Ohan, Leung and Johnston (2000) replicated the factor structure of the Parenting Sense of Competence Scale produced by Johnston and Mash (1981), and provided evidence that the satisfaction and efficacy scales from this measure assess distinct aspects of parenting self-esteem.
- iv. Parental mental health as measured by the General Health Questionnaire (Goldberg, 1978). This is a 30-item questionnaire and each item invites one of four responses in order to assess psychiatric symptoms including social dysfunction, sleeping patterns and depression (Huppert et al., 1989). The responses include 'better than usual', 'same as usual', 'less than usual' and 'much less than usual' to questions such as 'have you found everything getting on top of you?' and 'have you been getting edgy and bad tempered?' This measure was used as research has demonstrated the association between maternal mental health and child conduct problems (Jackson, 2007). Reliability coefficients of the questionnaire have ranged from 0.78 to 0.95 in various studies (Hutchings et al., 2012). There have been several factor analyses of the GHQ-30 in relatively large community samples (Jackson, 2007).

## **Demographic information**

Demographic information will be collected from all participants at baseline prior to randomisation. The demographic questionnaire is based on the 'Personal Development and Health Questionnaire' (Hutchings, 1996) and will include data on socioeconomic status, including poverty, parental educational level and single-parent status. The questionnaire will cover the following information:

Age of parent and child, gender of parent and child, child diagnosis, parent's relationship to the child (biological or non-biological parent), parent's age at birth of first child, how many children the parent has, ages of all children, parent's current relationship status, partner's relationship to the child, housing situation, employment status, income, parent's level of education and whether they have previously attended a parenting course. An additional question regarding their internet usage is also included.

## **Data Collection**

Members of the research team will collect parental self-report measures and observational data on parent-child interaction using the DPICS behaviour coding system, during home visits at baseline and follow-up. There is a possibility that parents will drop out of the programme before the end; nonetheless all efforts will be made by researchers to collect follow-up data in the form of telephone contact and appointment letters. Parents will also be asked to complete a short feedback/satisfaction questionnaire at the end of the study to share their views of the programme.

The DPICS has been used in a number of studies evaluating parenting programmes (Hutchings et al., 2007; Arnold et al., 1993; Hutchings et al., 2012). Research team members are already trained in DPICS coding and have reached 80% inter-rater reliability across all categories. At least two coders, to establish inter-rater reliability, will code 20% of

observations at each time-point simultaneously (baseline and follow-up). Frequent practice sessions and meetings will be held to discuss any matters arising and to ensure maintenance of a minimum level of 80% reliability.

### **Sample Size**

The intention is to enroll 60 parents of children aged 3-8 years (40 to intervention and 20 to wait-list control, randomised on a 2:1 ratio). Due to limited funds and time restrictions associated with recruitment and data collection, a larger sample size would be difficult to recruit within the time frame. Additionally, this is a pilot RCT with the aim of exploring initial outcomes (in terms of measures, delivery and acceptance of the programme) with a view to conducting a larger scale trial in the future. Results from this pilot trial will give researchers initial information regarding acceptability and delivery of the programme with parents of children aged 3-8 years and should be sufficient to explore initial outcomes in terms of encouragement in the use of positive parental strategies that would inform a power calculation for a larger definitive study.

### **Randomisation**

Once all of the data for individual parents have been collected at baseline, parents will be randomised to either the intervention or a wait-list control condition on a 2:1 ratio. This allows for the evaluation of a larger intervention sample whilst also reducing the number of parents waiting for the intervention. This design is favoured for research in this field (Hutchings et al., 2007). A control condition was favoured over an alternative treatment condition as the researchers wanted to ensure that all participants received access to the intervention. The randomisation will be stratified according to child age (3-5 and 6-8 years old) and gender (male and female) using the online software 'sealed envelope'. The centre



administrative assistant will undertake the randomisation process, which will require entering the participant identification number, child age and child gender. The software will then generate the decision on whether the participant has been allocated to the intervention (group 1) or control (group 2) condition. Parents will receive a letter from the administrator informing them of their group allocation and intervention parents will receive the link to the website and their log in details with this letter. Control parents will be informed that they will receive their log in details upon completion of the second home visit (post-intervention data).

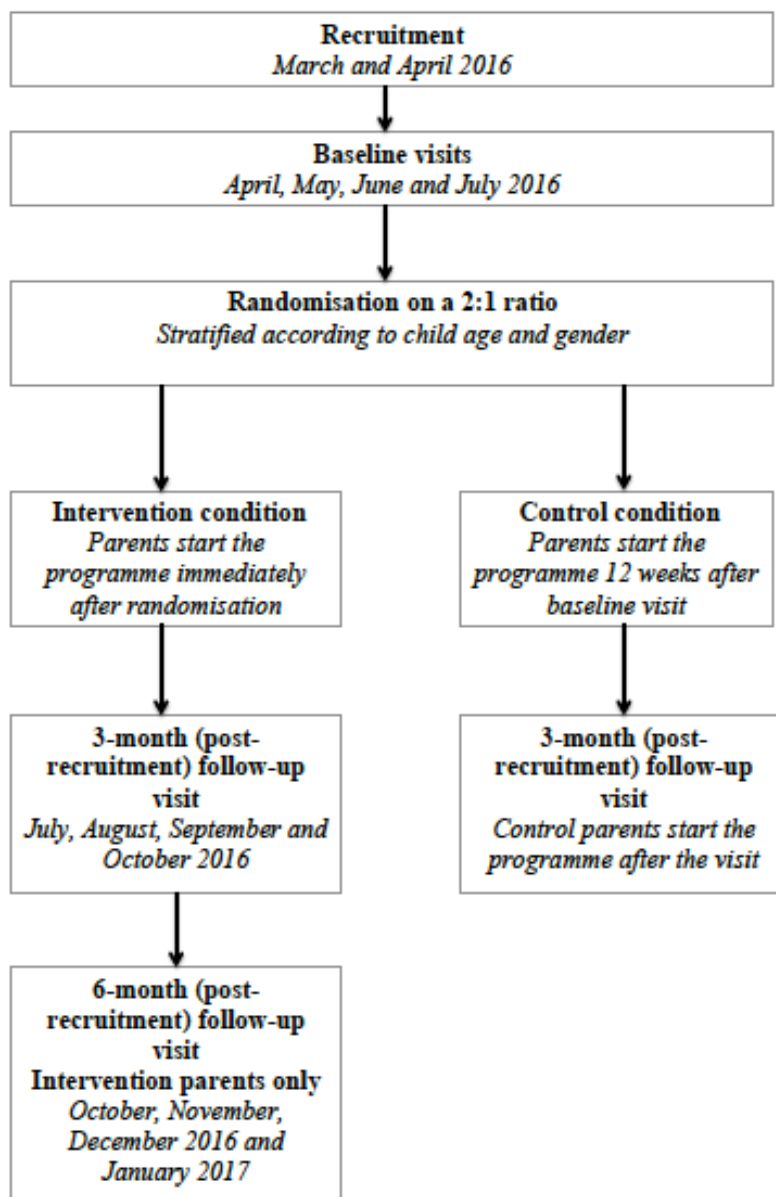


Figure 7:1. Participant flow chart

## **Blinding**

Baseline measures will be completed prior to randomisation and parents will be asked (during home visits) not to reveal their group allocation to researchers in order, as far as possible, to keep the researchers blind to parent group allocation. However, some parents may reveal their allocation during the first follow-up home visit. In this instance, researchers will make a record of this. Due to the design of the study, it will not be possible to keep the researchers blind to group allocation at the six-month follow-up stage as they will only involve intervention parents. However, the key measures are parent report questionnaires and the frequency based behavioural observation that incorporates inter-rater reliability. If high levels of unmasking occur, a variable will be added to the analysis to control for this.

## **Statistical Analysis**

Baseline characteristics for all parents and children will be analysed and checked for differences (if any) between the intervention and wait-list control conditions. Any differences will be recorded and accounted for in the analysis. ANCOVA will be the main analysis method used to compare the intervention and wait-list control conditions. Any missing data will be treated using multiple imputation, a relatively flexible, general-purpose approach to dealing with missing data (Sterne et al., 2009).

## **Discussion**

This trial will provide information on the effectiveness of an online parenting programme, an intervention designed to increase positive parenting for parents of children aged 3-8 years. The effects of the intervention on child behaviour, parenting behaviour, parental mental health and parental sense of competence will also be assessed. It is hypothesised that the online programme will encourage parents to use positive parenting

strategies, including spending more time with their child and reinforcing positive child behaviour. Additionally, it is hypothesised that the online programme will improve a range of outcomes including self-reported parenting practices, parental mental health, parental confidence and child behaviour.

This project is timely when considering the current situation with regards to rising numbers of children displaying behaviour problems (NICE, 2013), challenges faced by all parents and the known impact of parenting style on the establishment and maintenance child behaviour problems (Hutchings et al., 2012; Gardner et al., 2010; Hutchings, 2013). This programme could potentially be useful to parents who would like to receive additional support, but who are not living in targeted areas (such as Flying Start areas in Wales) where higher levels of parenting support are provided. A preventative universal programme available to all parents could potentially allow health care professionals more time and resources to target clinical (or at-risk) populations and also encourage parents to use well established positive parenting strategies to prevent child behaviour problems from forming. A universal preventative programme such as this could be useful in encouraging positive parenting practices for all parents and reduce the number of families seeking advice for whom no service currently exists (Lingley-Pottie & McGrath, 2007).

### **Ethics and dissemination**

The trial has received ethical approval from the NHS Betsi Cadwaladr University Health Board Ethics Committee (REC) and the School of Psychology, Bangor University REC (15/WA/0463). Publication of all outcomes will be in peer-reviewed journals and conference presentations.

Parents recruited to the trial will be notified of the results by means of a letter, and researchers will verbally present the findings to healthcare professionals who helped with

recruitment. If the trial suggests that there are significant benefits, this would inform a bid for funding for a larger definitive RCT with the goal that the intervention could subsequently be made available to parents in general as a preventative programme.

### **Abbreviations**

NICE: The National Institute for Health and Care Excellence; ONS: Office for National Statistics, ANCOVA; Analysis of Covariance; REC: Research Ethics Committee

### **Author's contributions**

DAO: designing of the online programme, manuscript writing, gaining ethical approval, data collection, data analysis, critical revision and final approval of manuscript. NG: critical revision and final approval of manuscript. JH: author of 'The Little Parent Handbook', critical revision and final approval of manuscript.

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## **Chapter 8**

# **An evaluation of the COPING parent online universal programme: A pilot randomised controlled trial (submitted)**

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Societal changes have always presented parents with new challenges in bringing up children but the rate of change has accelerated and parents today have to deal with many situations that are very different from their own childhood experience, particularly in terms of challenges arising from the availability of the internet. The internet also can be a source of information and many parents access the internet for parenting support and advice. Whilst much is known about patterns of parenting that support children's positive development and a lot of research has demonstrated the effectiveness of parenting programmes to support parents of high challenge children, there is relatively little universally available evidence-based information on parenting.

This chapter describes the development and evaluation of the COPING parent (COnfident Parent INternet Guide) online universal programme that presents evidence informed parenting principles to support parents in establishing positive relationships with children, promoting children's well-being and giving them tools to address common challenges.

### **Parental challenges**

Recent lifestyle changes that impact on parent-child relations, parenting style and child behaviour include the availability of televisions (now in most children's bedrooms), tablets, computers and play stations that have resulted in children spending more time watching more television, playing video games and surfing the internet (Vandewater, Bickham & Lee, 2006) some of which can expose them to inappropriate content. More time spent on the internet is associated with less time spent communicating with other people, and increased depression and loneliness (Gentile & Walsh, 2002). For children, more time spent watching television results in less time spent on more developmentally beneficial activities, such as creative play (Vandewater, Bickham & Lee, 2010). A survey of 830 mothers reported

that their children spent more time indoors watching television and playing videos games, and less time playing outside than they had done (Clements, 2004), with 70% of the mothers having played outside as children compared with only 31% of their children (Clements, 2004) reducing opportunities for children to learn communication skills, social competence, problem solving and creative thinking (Clements, 2004).

Other recent lifestyle changes that can pose challenges for families include increasing rates of divorce, parental separation and/or single parenthood, all associated with higher rates of parenting difficulties (Clarke-Stewart et al., 2000). Even when there are two parents, increased economic uncertainty results in many children spending less time with parents and more time in child-care (Belsky et al., 2007), which can also compromise parent-child relations. Belsky (2001) concluded that more than 20 hours per week of alternative care posed risks for infant—parent relationships and for psychological and behavioural adjustment during the toddler, preschool, and early primary-school years (Belsky, 2001). Employment can also affect parenting as short-term fluctuations in levels of daily work stress are associated with day-to-day changes in parenting behaviours and can result in mothers becoming withdrawn (Repetti & Wood, 1977). Poor parent-child relationships can contribute to disruptive child behaviour, putting additional strain on individuals and families and in the longer term on child mental health services (Koerting et al., 2013).

### **Importance of parenting**

Positive parenting remains key to ensuring good child outcomes (DeGarmo, Patterson & Forgatch, 2004; Gardner et al., 2006; Hutchings et al., 2007; Barlow et al., 2011). Most children, particularly young children, spend a great deal of time with their parents (Hutchings, 2013), and good parenting is essential in the prevention of child mental health problems and the promotion of child health and well-being (Ulfsdotter et al., 2014). Children

learn desirable (or undesirable) behaviour through direct experience or by observing the behaviour of others in their environment (Bandura, 1977; Patterson, 1982; Hutchings, 2013), and treatment studies have shown that increasing positive parental behaviour reduces challenging child behaviour (Gardner et al., 2010).

Numerous randomised controlled trials (RCTs) of interventions targeting parents of children with clinical levels of challenging behaviour have demonstrated the benefits of teaching structured parenting principles (Gardner et al., 2006; Hutchings et al., 2007; McGilloway et al., 2012). These interventions generally teach relationship building, play, positive reinforcement and emotional regulation through discussion, training in observation skills and rehearsal of skills (Furlong et al., 2013). These trials have demonstrated the potential of such programmes to improve the mental health and well-being of both parents and children (Vostanis et al., 2006; Sanders, 2008; Hutchings et al., 2012).

### **Universal parenting provision**

Although effective as treatment interventions, there is relatively little evidence that such programmes are useful to non-clinical populations (Sanders, Turner & Markie-Dadds, 2002). This leaves many parents without access to potentially good quality information and advice when faced with everyday parenting challenges and many children display emotional regulation problems among families for whom services are not available (Bayer et al., 2007). Bayer and colleagues (2007) found that more than a third of infants attending routine universal primary care services from advantaged backgrounds were at risk of developing mental health problems due to living with family stressors such as parental depression, anxiety and social isolation, highlighting the importance of providing parenting support to all parents.



Universal parenting programmes have the potential to prevent future mental health problems and promote positive child wellbeing and development (Bayer et al., 2007), a major public health priority (Koerting et al., 2013). The advantages of offering parenting support universally (to all parents) includes (1) providing support for parents whose children do not have problems but who are concerned to parent their children in ways that provide them with the best outcomes, (2) facilitating access to evidence-based information for parents who are facing common everyday parenting challenges, but not currently in receipt of services, (3) impacting on societal norms by promoting positive parenting more widely, and (4) encouraging positive child development.

### **Public health approach**

As a public health approach to supporting parents, the web offers an alternative/additional mode of advice and can potentially be an efficient, accessible and convenient method to reach a large number of parents (Copeland & Martin, 2004). A small number of web-based parenting interventions, based on the principles of the social learning theory (Bandura, 1977) have demonstrated positive outcomes for both parents and children (Enebrink et al., 2012; Sanders et al., 2012). These web-based interventions target parents of children up to the age of 12 years and mode of delivery include written text, video examples of positive parenting, illustrations, summary sheets and the expectation that parents will practise the skills outlined in the programmes at home. Enebrink and colleagues (2012) found that parents randomised to the intervention group reported significantly less use of harsh and inconsistent discipline and significantly more positive praise and incentives at follow-up compared with controls, and results were maintained at 6-month follow-up. Although the findings have suggested benefits, more research is needed.

The Triple-P positive parenting programme is also based on the principles of the social learning theory (Bandura, 1977) and includes a universal public health approach to parenting (Markie-Dadds & Sanders, 2006). The programme has been extensively researched as a group-based intervention, and web-based delivery has now been developed and positive outcomes for both parents and children have been found for both modes of delivery (Zubrick et al., 2005; Markie-Dadds & Sanders, 2006; Prinz et al., 2009; Sanders et al., 2012). Sanders and colleagues (2008) investigated whether providing self-directed and web-based support for parents of children aged 2-9 years enhanced the effects of viewing a reality television series based on the Triple-P programme. They concluded that parents in both conditions reported significant reductions in their children's disruptive behaviour and in self reported dysfunctional parenting practices, but effects were greater for parents in the web-based group as shown by the Eyberg Child Behaviour Inventory (Eyberg & Robinson, 1983) and two of the three parenting indicators (Arnold et al., 1993).

### **Internet as an information source**

Despite these early indications of possible benefits of providing web-based support, access remains limited. Many parents now access the web daily for support and advice on a variety of topics including mental health, weight-loss and exercise (Wantland et al., 2004), and the parenting website 'mumsnet', the UK's busiest social network for parents, receives almost seven million visits every month (Easy Space, 2013). In 2008, a yahoo search using the keyword 'parenting' found around 270,000,000 web sites (Fetsch et al., 2000), suggesting that the internet may be one of the fastest growing resources for modern-day parents. Although parents may find useful information, it is important to consider the validity of the information provided. Most online advice and information lacks evidence, relying instead on

parental suggestions and past experiences shared through discussion boards, which can be ineffective or even potentially damaging (Wald, Dube & Anthony, 2007).

The COPING parent online universal programme is based on the content of ‘The Little Parent Handbook’ (Hutchings, 2013). It summarises key parenting skills from many years of research on effective parenting programmes (Hutchings et al., 2002; Hutchings et al., 2007; Williams & Hutchings, submitted 2017) and introduces evidence-based behavioural principles (Bandura, 1977; Patterson, 1982; Cooper, Heron & Heward, 2007) that are associated with good child outcomes and have also contributed to positive outcomes in clinical trials (Hutchings et al., 2007; Gardner et al., 2006). The programme introduces strategies to strengthen parent-child relationships and encourage positive child behaviour, primarily through positive reinforcement (Hutchings, 2013).

### **Aims and objectives**

The aim of the current study was to evaluate the COPING parent programme for parents of children aged 3-8 years who wanted to learn more about positive parenting. A pilot randomised controlled trial (RCT) was conducted to evaluate the effectiveness of the programme in increasing the use of positive parenting skills. The main objective was to determine whether the programme led to increases in positive parenting skills as determined by a behavioural observation of parent-child interaction. Secondary objectives were to explore whether there were changes in parent reported child behaviour and self-reported parenting skills, parental mental health and sense of competence.

### **Hypothesis**

The online COPING parent programme would lead to significant increases in observed positive parenting strategies (DPICS: Eyberg & Robinson, 1981).

## **Methods**

### **Participants**

Participants were recruited by referral through health visitors and school nurses, recruitment posters distributed to local primary schools and nurseries or by other referral sources (these included a Barnardo's project worker, an educational psychologist and a behavioural practitioner). Inclusion criteria were having a child aged between 3-8 years, wanting to learn more about positive parenting, having access to the internet via a tablet, PC or laptop and having a good understanding of English. In total, sixty-seven parents expressed an interest in participating in the study with 56 (83.6%) consenting to take part.

### **Randomisation**

On completion of baseline measures, the 56 parents were randomly allocated to either the intervention or three-month wait-list control condition, on a 2:1 ratio, 38 were randomised to the intervention and 18 to the control group. The centre administrator undertook the randomisation using the online software 'sealed envelope' ([www.sealedenvelope.com](http://www.sealedenvelope.com)) in order to ensure that data collectors remained blind to group allocation.

### **Measures**

Measures were collected for all participants at baseline and three-months post-baseline, and for intervention parents only at six-month follow-up.

### **Demographic information**

A questionnaire derived from the 'Personal Development and Health Questionnaire' (Hutchings, 1996) was used to collect baseline family demographics. It included information on marital status, employment status, child age, parent age at birth of first child, whether the

child had any diagnosed difficulties, whether parents had previously attended parenting courses prior to the trial, what device parents used to access the internet and internet use (e.g. how many times per day do you access the internet?).

### **Primary Outcome Measure**

*Dyadic Parent-Child Interaction Coding System* (DPICS; Eyberg & Robinson, 1981)

The primary outcome measure used the DPICS behavioural observation of parent-child interaction coding eight DPICS categories. The DPICS coding system was specifically designed to assess the quality of parent-child interaction (Robinson & Eyberg, 1981) and has been used in many trials at the centre and internationally (Hutchings et al., 2007; Hutchings et al., 2017; Eames et al., 2010; Williams & Hutchings, submitted 2017). The eight categories that were coded were four positive parental behaviours (direct command, labelled & unlabelled praise and descriptive commenting/verbal labelling) and four negative parental behaviours (comprising indirect command, questions, critical statement and negative command) categories. For a detailed description of categories refer to the coding manual (see appendix T). The DPICS has demonstrated high inter-rater reliability for parent and child behaviours (Robinson & Eyberg, 1981).

### **Secondary Objective Measures**

i. *The Eyberg Child Behaviour Inventory* (ECBI; Eyberg & Robinson, 1983)

The ECBI measures the frequency and intensity of behavioural problems in children aged 2-16 years and was chosen as a baseline measure for assessing child behaviour and the extent of child conduct problems. This 36-item inventory is completed by the parent and has two problem sub-scales, (1) intensity and (2) problem. Responses for the intensity sub-scale are on a 7-point scale ranging from 1 (never) to 7 (always). An example item is, '*refuses to*

*obey until threatened with punishment*'. The problem sub-scale requires the parent to state yes or no to the question *'is this a problem for you'*. A total score for the intensity is calculated by summing all of the answers, and for the problem sub-scale by counting all of the 'yes' responses. There is evidence for the reliability and validity of the ECBI for use with adolescents and young children across the full range for which it was designed (Eyberg & Robinson, 1983).

ii. *The Arnold O'Leary parenting scale* (Arnold et al., 1993)

The Arnold O'Leary parenting scale was used to measure parenting practices. It has been used in a number of previous studies at the centre and internationally (Hutchings et al., 2007; Bywater et al., 2011; Williams & Hutchings, submitted 2017; Gardner et al., 2006; Sanders, Baker & Turner, 2012). This 30-item parent report inventory has three sub-scales measuring parental behaviours that can indicate the extent of use of three problematic parenting strategies: laxness, over-reactivity and verbosity. Responses are recorded on a 7-point Likert scale with two alternative responses to a particular parental situation, e.g. *'Before I do something about a problem...'* the response to the left is *'I give my child several reminders or warnings'* and the response to the right is *'I use one reminder or warning'*. The parenting scale has been shown to exhibit good internal validity and test-retest reliability in addition to demonstrating significant correlations with observational measures of child problem behaviour (Arnold et al., 1993).

iii. *The Parent Sense of Competence* (PSoC; Johnson & Mash, 1981)

The PSoC is a parent self-report measure of parental confidence. This is a 17-item scale, measuring competence on two separate dimensions: satisfaction and efficacy. The satisfaction questions measure parental anxiety, motivation and frustration e.g. *'sometimes I feel like I am not getting anything done'* and the efficacy questions measure competence, capability levels and problem-solving skills e.g. *'I meet my own personal expectations for*

*expertise in caring for my child*’ in relation to parenting. Items are rated on a five-point Likert scale ranging from strongly agree to strongly disagree. There is evidence to show that the satisfaction and efficacy scales from the questionnaire assess distinct aspects of parenting self-esteem (Ohan, Leung & Johnson, 2000).

iv. *The General Health Questionnaire* (GHQ; Goldberg, 1978)

The GHQ is a self-report measure of parental mental health. This is a 30-item screening questionnaire and each item requires the parent to select one of four responses in order to assess psychiatric symptoms including social dysfunction, sleeping patterns and depression. The responses include ‘*better than usual*’, ‘*same as usual*’, ‘*less than usual*’ and ‘*much less than usual*’ to questions such as ‘*been feeling hopeful about your own future?*’ and ‘*been feeling unhappy or depressed?*’ Reliability coefficients have ranged from 0.78 to 0.95 in various studies (Jackson, 2007).

## **Procedures**

### **Recruitment**

Three sources were used i) health visitors and school nurses ( $n=19$ ) approached families on their caseloads, ii) leaflets were distributed to local primary schools and nurseries ( $n=25$ ) iii) an educational psychologist, a Barnardo’s family project worker and a behaviour practitioner approached families whom they thought might have an interest in participating.

Health-visiting/school nursing service managers were approached to ask permission for their staff to circulate recruitment posters to parents of children aged 3-8 on their caseloads. The managers agreed, and a member of the research team met with health visitors and school nurses to explain the project and distribute recruitment posters, information sheets and parent note of interest forms. Health visitors and school nurses were asked to discuss the project with parents and give them the detailed information sheet. If, after discussing the

project, a parent had an interest in the study, the health visitor/school nurse asked them to fill out a parent note of interest form that was then forwarded to the research team.

Local schools and nurseries were contacted for permission to send recruitment flyers to be distributed among parents whose child/children attended the school or nursery. Contact details of the research team were on the posters so that interested parents could contact them directly for further information. A member of the research team then arranged a home-visit to (1) discuss the research study further and answer questions and (2) to obtain informed consent. Once consent had been obtained, parents were asked to complete baseline measures.

### **Data Collection**

Home visits were conducted with each parent and child to complete baseline and three-month follow-up measures. Additional home visits were conducted for the six-month follow-up measures for intervention parents only. All measures were completed during one visit lasting approximately one hour (30 minutes for completing the questionnaires and 30 minutes for the observation). Parents were asked not to reveal their group allocation to data collectors during the home visits at the three-month follow-up in order to ensure they remained blind, however contamination occurred in eight (14.3%) of the follow-up visits.

### **Parent-Child Observations**

Observations were conducted in either English (75%) or Welsh (25%) depending on parental preference. Baseline and three-month follow-up observations were live coded by one of two trained coders who were blind to participant group allocation. The secondary coder had previously been trained in the use of several coding systems including the Dyadic Parent-child Interaction Coding System (DPICS; Eyberg & Robinson, 1981) and the primary coder had previously been trained in the use of the selected DPICS categories (positive parenting



categories: labelled & unlabelled praise, direct commands and descriptive commenting/verbal labelling & negative parenting categories: indirect commands, questions, critical statement and negative command). Videos were coded by the two coders together until reliability levels of 80% agreement for each category were achieved. For the six-month follow-up observations, a third coder was trained until reliability levels of 80% were met for each category.

The selected DPICS categories were combined for the main analysis, as some categories were low in frequency and could not be normalised. Labelled and unlabelled praise were combined to 'praise' and critical statement and negative command were combined to 'negative parenting'. The descriptive commenting/ verbal labelling category could not be normalised using the square root transformation therefore this category was excluded. The number of categories was therefore reduced from eight to five and now consists of direct command, praise, indirect command, questions and negative parenting.

Each parent-child dyad was observed for 30 minutes at all three-time points. Inter-rater reliability was examined for a minimum of 20% of observations at all three-time points (baseline = 21.4%; 3-month follow-up = 22.2%; 6-month follow-up 20%). Overall intra-class correlation coefficients for the original eight categories were: Direct command ICC = .960; Unlabelled praise ICC = .986; Labelled praise ICC = .988; Verbal labelling ICC = .994; Indirect command ICC = .988; Questions ICC = .994; Critical statement ICC = .990; Negative command ICC = .954. The intra-class correlation coefficients for the combined categories were as follows: Direct command ICC = .960; Praise ICC = .988; Indirect command ICC = .988; Questions ICC = .994; Negative parenting ICC = .989.

## **Intervention**

### **Origins of 'The Little Parent Handbook'**

Hutchings and colleagues (Hutchings et al., 2002; Lane & Hutchings, 2002; Hutchings, Lane & Kelly, 2004) demonstrated positive outcomes, including improved parenting and reductions in child problem behaviour, from trials involving teaching behavioural skills to parents of both clinically referred and pre-school prevention populations of children with challenging behaviour. Significant improvements were found for intervention families on measures of child behaviour, parenting practices and maternal mental health (Hutchings et al., 2002; Lane & Hutchings, 2002). As part of these trials intervention parents were provided with help sheets, summarising the evidence-based behavioural principles on which the interventions were based. These were subsequently published as 'The Little Parent Handbook' (Hutchings, 2013) allowing for the wider dissemination of evidence-based parenting practices. The content was transferred to the web as the COPING parent web-based universal programme.

### **COPING parent universal programme**

The COPING parent programme introduces evidence-based behavioural principles and consisted of ten chapters, eight content and two revision chapters. Parents are asked to log in and complete one chapter each week. Each chapter contains evidence-based principles to read through, video examples of positive parenting to watch, questions to answer based on the videos and multiple-choice quizzes. Intervention topics are:

- xi. Spending special time with your child through play
- xii. Encouraging good behaviour through praising
- xiii. Encouraging good behaviour through rewarding
- xiv. How to get better at giving instructions [part 1]
- xv. How to get better at giving instructions [part 2]
- xvi. Revision [of chapters 1-5]

- xvii. Ignoring problem behaviour
- xviii. Teaching your child new behaviours
- xix. How to develop your child's language skills
- xx. Revision [of chapters 1-9]

In addition to completing one chapter each week, parents are encouraged to practise the skills outlined in the programme at home with their child and each chapter concludes with a suggested activity for the week ahead, for example, '*spend 10 minutes engaging in child-led play once every day with your child this week*'. Parents are asked to record online how many times they spent playing with their child during the previous week and depending on their response, receive online feedback either congratulating them for making time for play or reminding them of the importance of play. Parents also receive online feedback with their end of chapter quiz score. For a more detailed description of the intervention components see Owen, Griffith & Hutchings (2017).

### **LifeGuide online behaviour change software**

The programme was created using the LifeGuide software that was developed at the University of Southampton as a cost-efficient set of tools to deliver and evaluate online behaviour change interventions (Hare et al., 2009). LifeGuide software can deliver behavioural advice and also be programmed to employ behavioural principles as part of programme delivery (Hare et al., 2009; Yardley et al., 2009). In the creation of the COPING parent programme, LifeGuide allowed researchers to use behavioural principles both in programme delivery (feedback, text message prompts, video examples, etc.) and in providing the programme content (The Little Parent Handbook).

### **Data Analysis**

All data analyses were undertaken using SPSS version 22 (IBM SPSS Statistics). Exploratory data analyses were conducted to assess normality and for a thorough exploration of baseline differences. Scores for parental mental health (as measured by the GHQ), observed verbal labelling, labelled praise, critical statement and negative command were positively skewed, and therefore normalised using a square root transformation. Data from the observed verbal labelling could not be normalised using this technique and was therefore excluded from the main analyses.

### **Missing Data**

All variables were checked for missing data. At baseline, low levels of missing data were reported and there were no missing items for the demographic questionnaire. All missing items were pro-rated according to the rules stipulated in the measure manual (e.g. ECBI manual specifies that more than five missing values on a given questionnaire make it invalid. Three 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 was a high level of complete cases missing (35%) and low levels of individual items missing. Individual missing items were pro-rated as described above.

### **Main Analysis**

The main analyses consisted of ANCOVA models. The dependent variables were the observational outcomes at the three-month follow-up with condition as the independent variable. In all analyses baseline scores were entered as covariates. A complete case analysis (for all participants who remained in the study regardless of whether they logged into the programme) was conducted as well as a per protocol analysis (for all those in the intervention condition who completed at least one chapter of the programme). ANCOVA models were

computed using SPSS 22.0 and Cohen's *d* effect sizes are reported (small effect = 0.2, medium effect = 0.5, large effect = 0.8; Cohen, 1988). Confidence intervals were examined to assess the difference between baseline and six-month observational outcomes, and three-month and six-month observational outcomes for intervention parents only.

### **Exploratory analyses**

The exploratory analyses also consisted of ANCOVA models. The dependent variables were the exploratory outcomes at the three-month follow-up with condition as the independent variable. In all analyses baseline scores were entered as covariates. A complete case analysis (for all participants who remained in the study regardless of whether they logged into the programme) was conducted as well as a per protocol analysis (for all those in the intervention condition who completed at least one chapter of the programme). ANCOVA models were computed using SPSS 22.0 and Cohen's *d* effect sizes are reported (small effect = 0.2, medium effect = 0.5, large effect = 0.8; Cohen, 1988). Confidence intervals were examined to assess the difference between baseline and six-month exploratory outcomes, and three-month and six-month outcomes for intervention parents only. We also conducted paired samples t-tests to explore any changes in outcomes for parents scoring either above or below the clinical cut off for the ECBI sub-scales and GHQ. We also explored changes in parenting in relation to the ECBI cut-off scores.

### **Baseline characteristics**

We examined differences in demographics and baseline scores for both observational and exploratory measures for three referral sub-groups; health visitor/school nurse, recruitment poster or other to see if there were any significant differences between parents and their avenue of referral to the trial. A one way-ANOVA with post-hoc exploratory

analyses was conducted to explore whether there were any significant differences between participants in the different sub-groups.

## Results

### Participant demographics

Demographic characteristics for participating parents are presented in table 8:1. Nineteen families (33.9%) were recruited by health visitors and school nurses, twenty-one (37.5%) by recruitment posters and sixteen (28.6%) via other referral sources. The mean age of the children was 57.38 months ( $SD=19.12$ ) with over 70% being male. All but one of the primary carers were female, with 66% first language English speaking, 25% first language Welsh speaking and 9% other first language. Over 80% of the sample were employed and over 85% either married or in a relationship. Sixteen (28.6%) parents had previously attended a parenting course prior to completing baseline questionnaires (15 attended an ‘Incredible Years’ parenting group and one completed the ‘Enhancing Parenting Skills 2014 Programme’ with a health visitor). There were no significant differences between intervention and control families in terms of demographic characteristics at baseline (see table 8:1).

Table 8:1

Participant baseline characteristics

Family characteristics	All ( <i>N</i> =56)	Intervention ( <i>n</i> =38)	Control ( <i>n</i> =18)	<i>p</i>
Child gender, male: <i>n</i> (%)	40 (71.43)	27 (71.05)	13 (72.22)	.928
Child age, months: <i>M</i> ( <i>SD</i> )	57.38 (19.12)	58.79 (19.33)	54.39 (18.84)	.426
Parent gender, female: <i>n</i> (%)	55 (98.21)	37 (97.37)	18 (100.0)	.487
Parent age, years: <i>M</i> ( <i>SD</i> )	33.59 (6.67)	34.13 (7.07)	32.44 (5.75)	.382

Parent age at birth of first child, years, <i>M (SD)</i>	26.16 (5.97)	26.30 (6.53)	25.89 (4.76)	.814
Post 16 education: <i>n (%)</i>	42 (75.0)	27 (71.05)	15 (83.33)	.322
Married or in a relationship: <i>n (%)</i>	46 (82.14)	30 (78.95)	16 (88.89)	.364
Employment: <i>n (%)</i>	50 (89.29)	35 (92.11)	15 (83.33)	.322
Large family: <i>n (%)</i>	15 (26.79)	12 (31.58)	3 (16.67)	.239
Teenage parent: <i>n (%)</i>	8 (14.29)	5 (13.16)	3 (16.67)	.756
Attended a parenting course <i>n (%)</i>	16 (28.57)	11 (28.95)	5 (22.78)	.928

Baseline scores for the main outcome measure and exploratory measures and, where relevant, the proportion of parents scoring above the clinical cut-off, are displayed in table 8:2. There were no significant differences between intervention and control parents on any of these measures at baseline ( $p > .05$ ). Over 40% of children scored above the cut-off on the ECBI intensity scale and over 45% scored above the cut-off on the ECBI problem scale. Over 40% of parents scored above the clinical cut off on the GHQ. Comparison of the scores for the parenting scale sub-scales with the mean non-clinical group scores from Arnold et al. (1993) showed that the mean sample scores were more problematic than Arnold et al.'s (1993) sample of parents of non-clinic children on all three sub-scales. A one-sample t-test indicated significant differences between the parenting scale sub-scales mean scores and the non-clinical group mean scores ( $p < .01$ ).

Table 8:2

Baseline descriptive statistics ( $N=56$ ; intervention  $n=38$ , control  $n=18$ )

Baseline observational scores	Intervention Median (range)	Above CO <i>n (%)</i>	Control Median (range)	Above CO <i>n (%)</i>
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Observed Direct Command	5.00 (2-20)	/	5.00 (1-12)	/
Observed Praise	9.00 (1-21)	/	8.00 (1-29)	/
Observed Indirect Command	34.00 (7-98)	/	18.00 (5-79)	/
Observed Questions	74.00 (22-192)	/	74.00 (3-141)	/
Observed Negative Parenting	10.00 (1-39)	/	9.00 (0-26)	/
<b>Baseline scores (CO)</b>	<b>Median</b>	<b>Above CO</b>	<b>Median</b>	<b>Above CO</b>
	<b>(range)</b>	<b>n (%)</b>	<b>(range)</b>	<b>n (%)</b>
ECBI Intensity (131)	130.76 (30.2)	16 (42.1)	140.33 (29.7)	9 (50.0)
ECBI Problem (15)	13.11 (7.7)	17 (44.7)	13.06 (8.5)	10 (55.6)
GHQ	2.00 (0-23)	19 (50)	1.00 (0-13)	6 (33)
PSoC Total	58.32 (7.19)	/	58.22 (6.23)	/
PSoC Efficacy	24.16 (3.67)	/	23.50 (3.20)	/
PSoC Satisfaction	29.76 (4.96)	/	30.28 (4.87)	/
<b>Baseline parenting scores</b>	<b>M (SD)</b>	<b>Arnold M</b>	<b>M (SD)</b>	<b>Arnold M</b>
PS Laxness	2.95 (0.84)	2.40	3.22 (0.89)	2.40
PS Over-reactivity	2.84 (0.71)	2.40	2.76 (0.74)	2.40
PS Verbosity	3.73 (0.70)	3.10	3.89 (0.55)	3.10
PS Total	3.15 (0.56)	2.60	3.21 (0.41)	2.60

*Note:* CO – cut-off; Arnold M – mean score for a sample of parents of non-clinic children; ECBI – Eyberg Child Behaviour Inventory; PS – Parenting Scale; PSoC – Parent Sense of Competence; GHQ – General Health Questionnaire

### Programme engagement

Twenty-five parents (65%) randomised to the intervention group provided data at both baseline and three-month follow-up. Of these twenty-five, seventeen parents (68%) completed at least one chapter of the programme and eight (32%) did not engage with the programme at all. Parents who did not engage with the programme at all demonstrated a slightly higher baseline ECBI problem sub-scale ( $p=.416$ ) and dysfunctional parenting ( $p=.278$ ), but these differences were not significant (see table 8:3). However, non-engaged parents demonstrated higher baseline mental health problems as measured by the GHQ and this was significant ( $p=.028$ ).



Table 8:3

Baseline engagement scores for intervention parents (intervention  $N=25$ ; engaged parents  $n=17$ , unengaged parents  $n=8$ )

Baseline scores	Intervention ( $N=25$ )  $M$ ( $SD$ )	Engaged ( $n=17$ )  $M$ ( $SD$ )	Unengaged ( $n=8$ )  $M$ ( $SD$ )	$p$
ECBI Intensity (131)	131.16 (33.16)	131.35 (31.07)	131.00 (39.54)	.981
ECBI Problem (15)	12.32 (7.94)	11.41 (6.57)	14.25 (10.55)	.416
PS Total	3.27 (0.54)	3.19 (0.53)	3.44 (0.54)	.278
PSoC Total	57.12 (6.80)	56.59 (6.60)	58.25 (7.55)	.580
	<b>Median (range)</b>	<b>Median (range)</b>	<b>Median (range)</b>	
GHQ	2.00 (0-23)	1.00 (0-19)	10.50 (0-23)	.028*

*Note:* Eyberg Child Behaviour Inventory; PS – Parenting Scale; PSoC – Parent Sense of Competence; GHQ – General Health Questionnaire; Engaged – completed at least one chapter; Unengaged- did not complete any of the programme; \* Significant ( $p<.05$ )

### Study Attrition

Twenty parents (35.7%) were lost to the three-month follow-up, 13 from the intervention condition and seven from the control. For the 13 intervention parents, one withdrew without giving a reason, one was moving house, one was too busy with work commitments, one was waiting for an ASD assessment for her child and one was a foster carer who reported having increased child commitments, the remaining eight could not be contacted. For the seven control parents lost to follow-up, two could not be contacted at follow-up, one reported improvements in child behaviour, one had a child who was unwell,

one was experiencing a difficult pregnancy, one reported increased work commitments and one parent was hospitalised.

Of the twenty parents lost to the three-month follow-up, eight (40%) were recruited by health visitors and school nurses (5 intervention and 3 control), three (15%) recruited through recruitment posters, (all three were randomly allocated to intervention) and nine (45%) recruited by other referral (3 intervention and 6 control). Of the thirteen intervention parents lost at follow-up, one parent had completed four chapters, three had completed one chapter and the remaining nine (69.2%) parents had not completed any. Independent t-tests and chi-square analyses were conducted to examine whether there were differences between those lost to follow-up and those seen at follow-up. There were no significant differences in baseline outcome and exploratory measures. However, there was a significant difference between (1) parent age when leaving school ( $p = .045$ ) and (2) parent age at birth of first child ( $p = .002$ ) between parents seen at follow-up and parents lost at follow-up. Parents who were lost at 3-month follow-up both left school earlier and had children younger.

### **LifeGuide Usage Data**

Of the thirty-eight parents randomised to the intervention condition, seventeen (44.7%) accessed the programme on a laptop, nineteen (50%) on a tablet, and two on a PC (5.3%). LifeGuide usage data provided information on the number of completed chapters and the time spent on each chapter. Of the thirty-eight parents randomised to the intervention condition, seventeen (44.7%) either did not log on or did not complete the first chapter, nine (23.7%) completed the first chapter, three (7.9%) completed two chapters, six (15.8%) completed between 3-9 chapters and three (7.9%) completed the entire programme. The mean level of chapter completion was two ( $M=2.03$ ;  $SD=3.10$ ) and the average time spent on each chapter was 23.9 minutes. Six parents (24%) reported the same issue with the LifeGuide

software, which meant that they could not progress with the programme. Each time they logged in, the programme would take them back to the beginning instead of to the next chapter, which they were currently on.

## **Effect of the COPING parent programme on outcomes**

### **Complete Case Analyses**

For the primary outcome, there was a significant difference between intervention and waitlist control conditions (see Table 8:4) with parents in the intervention condition demonstrating a significant reduction in observed indirect commands ( $F(1, 33) = 6.36, p = .017$ ) with a medium effect size ( $d = 0.59$ ). There were no other significant differences on the primary measure, however the praise category showed a large effect size for intervention over control participants ( $d = 0.82$ ). There were no significant differences on any of the exploratory measures (see Table 8:4).

### **Per-Protocol Analyses**

For the primary outcome, there was a significant difference between intervention and waitlist control conditions (see Table 8:5) with parents in the intervention condition demonstrating a significant reduction in observed indirect command ( $F(1, 25) = 5.56, p = .026, d = 0.56$ ) and a significant increase in observed praise ( $F(1, 25) = 4.71, p = .040, d = 1.38$ ). Of the five observed behavioural categories, praise demonstrated a large effect size change, three demonstrated medium effect size changes (reduction in indirect commands, questions and negative parenting) and direct command a small change. There were no significant differences on any of the exploratory measures (see Table 8:5), however the ECBI problem sub-scale ( $d = 0.67$ ) demonstrated medium intervention effect size.

### **Paired samples t-test analyses**

At 6-month follow-up, two comparisons were conducted for the intervention group only, one between baseline and six-month follow-up and one between three and six-month follow-up (Table 8:6). In the first comparison, intervention parents showed significant improvements in observed praise, observed indirect command and reductions in observed negative parenting from baseline to six-month follow-up. Analysis on the exploratory outcomes also showed significant improvements in favour of the intervention parents on both ECBI sub-scales and all three sub-scales of the parenting scale. No significant improvements were found on parent sense of competence measures and observed direct commands and questions.

In the second comparison, there were no significant improvements found on the observational categories, however the observed praise category was approaching significance ( $p=.054$ ). For the exploratory outcomes, significant improvements were found on ECBI problem sub-scale and the laxness sub-category of the parenting scale (see Table 8:6).

Table 8:4

Complete case results adjusted for baseline scores

Observational outcomes	Intervention		Control		<i>F</i>	<i>p</i>	<i>d</i>
	Baseline ( <i>n</i> =38)	Follow-up ( <i>n</i> =25)	Baseline ( <i>n</i> =18)	Follow-up ( <i>n</i> =11)			
	<i>Median (range)</i>	<i>Median (range)</i>	<i>Median (range)</i>	<i>Median (range)</i>			
Observed Direct Command	5.00 (2-20)	3.00 (0-15)	5.00 (0-12)	2.00 (0-16)	0.36	.551	0.33
Observed Praise	9.00 (1-21)	13.00 (0-48)	8.00 (1-29)	5.00 (0-50)	2.19	.148	0.82
Observed Indirect Command	34.00 (7-98)	20.00 (4-64)	18.00 (5-79)	27.00 (18-90)	6.36	.017*	0.59
Observed Questions	74.00 (22-192)	58.00 (9-136)	74.00 (3-141)	38.00 (8-109)	0.43	.517	0.23
Observed Negative Parenting	10.00 (1-39)	3.00 (0-30)	9.00 (0-26)	6.00 (0-29)	0.69	.411	0.32
<b>Exploratory outcomes</b>							
GHQ	2.00 (0-23)	2.00 (0-29)	1.00 (0-13)	1.00 (0-11)	0.52	.476	0.39
	<b>M (<i>SD</i>)</b>	<b>M (<i>SD</i>)</b>	<b>M (<i>SD</i>)</b>	<b>M (<i>SD</i>)</b>			
ECBI Intensity (131)	130.76 (30.20)	118.64 (31.01)	140.33 (29.70)	124.73 (33.39)	0.13	.726	0.20
ECBI Problem (15)	13.11 (7.74)	9.20 (8.62)	13.06 (8.50)	13.36 (9.56)	0.85	.364	0.51
PS Total	3.16 (0.56)	2.99 (0.65)	3.22 (0.41)	2.95 (0.48)	0.08	.784	0.08
PS Laxness	2.95 (0.84)	2.79 (0.92)	3.22 (0.89)	2.60 (0.50)	0.21	.650	0.22
PS Over-reactivity	2.84 (0.71)	2.69 (0.76)	2.76 (0.74)	2.82 (0.95)	1.20	.282	0.18
PS Verbosity	3.73 (0.70)	3.57 (0.94)	3.89 (0.55)	3.58 (0.61)	0.01	.923	0.02
PSoC Total	58.32 (7.19)	58.80 (6.31)	58.22 (6.23)	59.00 (6.59)	0.04	.837	0.03

*Note:* ECBI-Eyberg Child Behaviour Inventory; PS – Parenting Scale; PSoC – Parent Sense of Competence; GHQ – General Health Questionnaire; \* Significant ( $p < .05$ )

Table 8:5

Per protocol results adjusted for baseline scores

Observational outcomes	Intervention		Control		<i>F</i>	<i>p</i>	<i>d</i>
	Baseline ( <i>n</i> =25)	Follow-up ( <i>n</i> =17)	Baseline ( <i>n</i> =18)	Follow-up ( <i>n</i> =11)			
	<i>Median (range)</i>	<i>Median (range)</i>	<i>Median (range)</i>	<i>Median (range)</i>			
Observed Direct Command	4.00 (2-10)	3.00 (0-15)	5.00 (0-12)	2.00 (0-16)	0.45	.507	0.28
Observed Praise	9.00 (2-21)	15.00 (5-48)	8.00 (1-29)	5.00 (0-50)	5.56	.026*	1.38
Observed Indirect Command	34.00 (7-98)	21.00 (4-65)	18.00 (5-79)	27.00 (18-90)	4.71	.040*	0.56
Observed Questions	87.00 (26-192)	71.00 (25-136)	74.00 (3-141)	38.00 (8-109)	2.10	.160	0.49
Observed Negative Parenting	8.00 (1-39)	3.00 (0-22)	9.00 (0-26)	6.00 (0-29)	1.20	.282	0.54
<b>Exploratory outcomes</b>							
GHQ	1.00 (0-19)	0.00 (0-13)	1.00 (0-13)	1.00 (0-11)	0.02	.889	0.07
	<b>M (<i>SD</i>)</b>	<b>M (<i>SD</i>)</b>	<b>M (<i>SD</i>)</b>	<b>M (<i>SD</i>)</b>			
ECBI Intensity (131)	131.16 (33.16)	118.71 (30.51)	140.33 (29.70)	124.73 (33.39)	0.01	.756	0.20
ECBI Problem (15)	12.32 (7.94)	8.29 (7.74)	13.06 (8.50)	13.36 (9.56)	0.75	.393	0.62
PS Total	3.27 (0.54)	2.85 (0.62)	3.22 (0.41)	2.95 (0.48)	0.35	.562	0.20
PS Laxness	3.08 (0.86)	2.72 (0.83)	3.22 (0.89)	2.60 (0.50)	0.13	.724	0.14
PS Over-reactivity	3.00 (0.55)	2.52 (0.64)	2.76 (0.74)	2.82 (0.95)	0.10	.753	0.43
PS Verbosity	3.85 (0.68)	3.37 (1.02)	3.89 (0.55)	3.58 (0.61)	2.10	.169	0.34
PSoC Total	57.12 (6.80)	60.59 (6.06)	58.22 (6.23)	59.00 (6.59)	1.26	.272	0.24

*Note:* ECBI – Eyberg Child Behaviour Inventory; PS – Parenting Scale; PSoC – Parent Sense of Competence; GHQ – General Health Questionnaire; \* Significant ( $p < .05$ )

Table 8:6

Short-term maintenance effects for all outcomes measures for intervention group only

<b>Observational outcomes</b>	<b>Baseline</b>	<b>3-month f-up</b>	<b>6-month f-up</b>	<b>Bl-6-month</b>	<b>3-month – 6-month</b>
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<b>Mean difference</b>	<b>Mean difference</b>
	<i>(n=38)</i>	<i>(n=25)</i>	<i>(n=20)</i>	<b>(95% CI)</b>	<b>(95% CI)</b>
Observed Direct Command	5.00 (2-20)	3.00 (0-15)	5.00 (0-19)	0.04 (-0.71, 0.79)	-0.32 (-0.98, 0.32)
Observed Praise	9.00 (1-21)	13.00 (0-48)	18.00 (0-41)	-1.41* (-2.08, 0.74)	-0.55 (-1.11, 0.01)
Observed Indirect Command	34.00 (7-98)	20.00 (4-65)	28.00 (4-37)	1.54* (0.68, 2.41)	-0.07 (-0.69, 0.55)
Observed Questions	74.00 (22-192)	58.00 (9-136)	64.00 (7-136)	0.81 (-0.30, 1.91)	0.27 (-0.48, 1.03)
Observed Negative Parenting	10.00 (1-39)	3.00 (0-30)	3.00 (1-9)	1.09* (0.50, 1.69)	-0.04 (-0.60, 0.52)
<b>Exploratory outcomes</b>					
GHQ	2.00 (0-23)	2.00 (0-29)	0.00 (0-23)	0.62 (-0.19, 1.43)	0.27 (-0.39, 0.92)
	<b>M (SD)</b>	<b>M (SD)</b>	<b>M (SD)</b>		
ECBI Intensity (131)	130.76 (30.20)	118.64 (31.01)	115.45 (31.44)	13.70* (5.25, 22.15)	2.70 (-5.68, 11.08)
ECBI Problem (15)	13.11 (7.74)	9.20 (8.62)	6.80 (8.15)	5.20* (2.45, 7.95)	2.25* (0.37, 4.13)
PS Total	3.15 (0.56)	2.99 (0.65)	2.79 (0.55)	0.46* (0.21, 0.70)	0.15 (-0.05, 0.35)
PS Laxness	2.95 (0.84)	2.79 (0.92)	2.61 (0.76)	0.47* (0.18, 0.77)	0.18 (-0.04, 0.40)
PS Over-reactivity	2.84 (0.71)	2.69 (0.76)	2.45 (0.56)	0.55* (0.13, 0.97)	0.27 (-0.09, 0.63)
PS Verbosity	3.73 (0.70)	3.57 (0.94)	3.24 (0.88)	0.56* (0.26, 0.86)	-0.57* (-1.04, -0.01)
PSoC Total	58.32 (7.19)	58.80 (6.31)	61.05 (7.16)	-3.80 (-8.32, 0.72)	-1.85 (-4.53, 0.83)

*Note:* ECBI – Eyberg Child Behaviour Inventory; PS – Parenting Scale; PSoC – Parent Sense of Competence; GHQ – General Health Questionnaire; \* Significant ( $p < .05$ ); CI-Confidence Interval

### Participant recruitment sub-groups analysis

Of the fifty-six parents ( $N=56$ ) recruited to the trial, nineteen families (33.9%) were recruited by health visitors and school nurses, twenty-one (37.5%) by recruitment posters and sixteen (28.6%) via other referral. There were no significant differences between the three sub-groups in terms of participant demographics. In terms of baseline scores, post hoc analysis for the observational measures identified significant differences between health visitor sub-group and poster sub-group ( $p=.040$ ) and poster and other sub-groups ( $p=0.24$ ) on observational direct command category (see Table 8:7). There was also a significant difference on the negative parenting category between the health visitor and poster sub-groups ( $p=.004$ ) and poster and other sub-groups ( $p=.001$ ).

In terms of baseline scores, post hoc analyses for the exploratory measures identified significant differences between the health visitor sub-group and poster sub-group on the ECBI intensity sub-scale ( $p=.012$ ), ECBI problem sub-scale ( $p=.024$ ) and on the GHQ ( $p=.037$ ). A significant difference was also found between the poster sub-group and other sub-group for the ECBI intensity sub-scale ( $p=.043$ ) (see Table 8:7) with both health visitor and other referral sources showing mean ECBI scores that were well above the clinical cut-off and the self-referral participants being within the normal range.

Table 8:7

Baseline characteristics for the three recruitment sub-groups (health visitor  $n=19$ , poster  $n=21$ , other  $n=16$ )

Observational scores	Health visitor	Poster	Other
	<i>Median</i>	<i>Median</i>	<i>Median</i>
	<i>(range)</i>	<i>(range)</i>	<i>(range)</i>



Observed Direct Command	6.00 (0-20)	4.00 (0-9)	6.00 (0-37)
Observed Praise	10.00 (1-34)	9.00 (1-29)	9.00 (2-13)
Observed Indirect Command	37.00 (6-20)	36.00 (5-79)	44.00 (7-98)
Observed Questions	74.00 (3-146)	83.00 (3-181)	69.00 (15-192)
Observed Negative Parenting	14.00 (0-39)	6.00 (0-20)	17.00 (4-35)
<b>Exploratory scores</b>			
GHQ	8.00 (0-23)	1.00 (0-18)	3.00 (0-19)
	<b>M (SD)</b>	<b>M (SD)</b>	<b>M (SD)</b>
ECBI Intensity (131)	143.84 (31.8)	120.19 (26.3)	139.87 (27.7)
ECBI Problem (15)	15.89 (8.6)	10.24 (5.8)	13.50 (8.6)
PS Total	3.25 (0.46)	3.12 (0.57)	3.18 (0.50)
PSOC Total	57.68 (7.34)	58.95 (6.30)	58.13 (7.27)

*Note:* Eyberg Child Behaviour Inventory; PS – Parenting Scale; PSOC – Parent Sense of Competence; GHQ – General Health Questionnaire; Health visitor – recruited by health visitor or school nurse; Poster – self-referral from parents; Other – referral from an educational psychologist, behaviour practitioner and Barnardo’s project worker.

### Clinical cut-off analysis

Of the twenty-five ( $n=25$ ) parents randomised to the intervention condition, thirteen (52%) scored above the clinical cut-off for both intensity and problem sub-scales on the ECBI, and twelve (48%) scored below. Mean scores at baseline and three-month follow-up are displayed in table 8:8. Paired samples t-test indicated a significant reduction in ECBI intensity score for parents scoring above the clinical cut-off ( $p=.004$ ) and a significant reduction in ECBI problem scores for parents scoring below the clinical cut-off ( $p=.043$ ). For the GHQ, ten parents scored above the cut-off and fifteen below; no significant changes were found on this measure.

Parenting scale scores were also examined in relation to ECBI clinical cut-offs, and analysis found a significant reduction in verbosity score ( $p=.011$ ) for parents of children scoring above the clinical cut-off for ECBI intensity sub-scale and a significant reduction in over-reactivity score ( $p=.037$ ) for parents of children scoring below for the ECBI problem

sub-scale. A significant reduction was also found in total parenting score ( $p=.043$ ) for parents of children scoring above the clinical cut-off for the ECBI intensity scores (see Table 8:8).

Table 8:8

Cut-off analysis scores for parents in the intervention group scoring above ( $n=13$ ) or below ( $n=12$ ) the clinical cut-off the ECBI intensity and problem sub-scales and GHQ

Exploratory Outcomes	Above CO ( $n=13$ )		Below CO ( $n=12$ )		Mean difference (95% CI)	
	Baseline	Follow-up	Baseline	Follow-up	Above CO	Below CO
	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>	<i>M (SD)</i>		
ECBI Intensity (131)	156.75 (22.35)	136.50 (30.24)	107.69 (22.13)	102.15 (21.71)	20.25** (8.13,32.37)	5.54 (-2.91, 13.99)
ECBI Problem (15)	19.00 (5.69)	14.58 (9.48)	6.15 (3.26)	4.23 (3.22)	4.42 (-0.65, 9.48)	1.92* (0.07, 3.78)
<b>Intensity cut-off</b>						
PS Total	3.28 (0.46)	2.90 (0.64)	3.25 (0.62)	3.06 (0.68)	0.38* (0.01, 0.75)	0.19 (-0.06, 0.44)
PS Laxness	3.17 (0.87)	2.71 (0.76)	3.00 (0.88)	2.85 (1.07)	0.45 (-0.04, 0.94)	0.15 (-0.11, 0.41)
PS Verbosity	3.88 (0.73)	3.39 (0.82)	3.82 (0.66)	3.73 (1.04)	0.48 (-0.12, 1.09)	0.09 (-0.35, 0.55)
PS Over-reactivity	2.92 (0.41)	2.63 (0.89)	3.07 (0.67)	2.75 (0.65)	0.29 (-0.09, 0.68)	0.32 (-0.04, 0.69)
<b>Problem cut-off</b>						
PS Total	3.34 (0.46)	3.04 (0.68)	3.20 (0.61)	2.94 (0.65)	0.31 (-0.04, 0.66)	0.26 (-0.02, 0.54)
PS Laxness	3.26 (0.88)	2.90 (0.93)	2.92 (0.84)	2.69 (0.93)	0.36 (-0.09, 0.81)	0.23 (-0.12, 0.57)
PS Verbosity	4.06 (0.45)	3.58 (0.79)	3.66 (0.81)	3.55 (1.09)	0.48* (0.13, 0.82)	0.11 (-0.54, 0.76)
PS Over-reactivity	2.92 (0.40)	2.68 (0.90)	3.07 (0.67)	2.70 (0.64)	0.24 (-0.16, 0.64)	0.37* (0.03, 0.71)
<b>Outcomes</b>						
	<i>Median (range)</i>	<i>Median (range)</i>	<i>Median (range)</i>	<i>Median (range)</i>		
GHQ	11.5 (4-23)	5.00 (0-29)	0.00 (0-3)	1.00 (0-11)	-0.41 (-1.15, 0.33)	1.06 (-0.43, 2.55)

*Note:* ECBI – Eyberg Child Behaviour Inventory; PS – Parenting Scale; PSoC – Parent Sense of Competence; GHQ – General Health Questionnaire

\* Significant ( $p < .05$ ); \*\* Significant ( $p < .01$ ); CI-Confidence Intervals, CO-clinical cut-off

### **Participant feedback**

At three-month follow-up, after collection of self-report and observational data, parents were asked whether they had been allocated to the intervention or control condition. Intervention families were asked to complete a short feedback form and control families were given their log in details for the programme. Of the seventeen ( $n=17$ ) parents who engaged with the programme, thirteen ( $n=13$ ) provided feedback (the rest felt they had not completed enough chapters to provide feedback). Two questions involved parents selecting either yes or no to the following questions; (1) did you find the programme useful? and (2) would you recommend the programme to other parents of children aged 3-8 years? All parents reported that they found the programme useful and that they would recommend the programme to other parents of children aged 3-8 years.

The remainder of the feedback form gave parents the opportunity to comment on what they liked/would like to see improved next time with room for additional comments. The comments were mostly positive with the majority of parents ( $n=10$ ) reporting (1) liking the video examples of positive parenting, (2) finding the summary page at the beginning of each chapter useful and (3) liking the convenience as the programme (could be completed at home in their own time). A minority of parents ( $n=3$ ) reported that the programme could be improved by eliminating software issues.

### **Discussion**

Despite the increasing challenges presented by societal changes on parent-child relations and child behaviour (Silvern & Williamson, 1987; Patterson, 1982; Vandewater, Bickham & Lee, 2006), positive parenting remains key to ensuring good outcomes for children (Gardner et al., 2006; Hutchings et al., 2007). Structured programmes that teach key parenting principles are an effective way of reducing problematic child behaviour (Furlong et

al., 2013) and increasing positive parenting (Hutchings et al., 2007), however, most of the available parenting programmes are delivered by services and reach fewer families (Sanders, 2008) and target either clinically referred children or those at high risk of poor outcomes (Hutchings et al., 2007). This programme, however, targets a universal population by incorporating web-based delivery to make access more flexible and convenient for parents, enabling the programme to be reached by more parents who have an interest in learning about positive parenting strategies to help them manage common everyday parenting challenges.

This trial examined the effectiveness of the COPING parent online universal programme for parents of children aged 3-8 years in a pilot RCT comparing intervention and control conditions. Fifty-six parents were recruited and randomly allocated on a 2:1 ratio to intervention or three-month wait-list control conditions. Parents recruited to the trial were generally affluent with majority of parents either married or in a relationship, well educated and in employment. Previous evaluations of universal parenting programmes have also recruited parents from similar demographical backgrounds (Hiscock et al., 2008; Zubrick et al., 2005). The primary outcome was observed parent-child interaction, and exploratory outcomes included parent-report child behaviour, and self-report parenting skills, parental mental health and sense of competence.

Baseline scores indicated that over 40% of children scored above the clinical cut off for the ECBI intensity sub-scale (>131), over 45% scored above the clinical cut-off for the ECBI problem sub-scale (>15) and over 40% of parents scored above the clinical cut-off for symptoms of mental health (>4). Additionally, scores from the parenting scale (Arnold et al., 1993) demonstrated that parents were displaying problematic levels of parenting. Although this sample was fairly affluent and not typical of parenting intervention populations (Scott et al., 2001; Gardner et al., 2006; Hutchings et al., 2007), many still demonstrated problematic levels of child behaviour, parenting skills and mental health and these were primarily the

families recruited from the health visitors and other professionals as opposed to the self-referred parents. The mean ECBI intensity sub-scale score at baseline for the intervention condition was 130.76 and 13.11 for the problem sub-scale. These are similar to scores reported by Markie-Dadds and Sanders (2006) who evaluated the Triple-P parenting programme for parents of children at-risk of developing conduct disorder and reported a mean ECBI intensity score of 126.67 and 15.71 for problem sub-scale (Markie-Dadds & Sanders, 2006).

Although this was a universal programme intended for all parents and not necessarily those experiencing problems, families with significant child behaviour, parenting and mental health challenges were recruited. Patterson and colleagues (2002) collected family demographics and questionnaires in order to investigate the extent to which interest in attending parenting programmes was determined by factors such as socioeconomic status, education levels and presence of child behaviour problems. Results demonstrated that interest in attending a parenting programme was influenced by child behaviour problems (Patterson et al., 2002), suggesting that there is a rationale for offering universal parenting programmes to all parents.

The main analysis showed significant reductions in observed indirect command (complete case and per-protocol) and significant increases in observed praise (per-protocol only) with medium-large effect sizes. There were also reductions in child problem behaviour on the problem sub-scale (complete case and per-protocol) for intervention families and although these results were not significant they showed medium effect sizes and were in the right direction. Significant intervention improvements were also found for child behaviour, parenting style, observed indirect command, observed praise and observed negative parenting at six-months. There were however, significant differences between parents recruited by health visitors/school nurses and parents who self-referred (poster recruitment) on the ECBI

intensity sub-scale ( $p=0.12$ ), ECBI problem sub-scale ( $p=.024$ ) and on the GHQ ( $p=.043$ ), showing that parents recruited to this trial by health care professionals displayed higher levels of child problem behaviour and more symptoms of poor mental health than parents who self-referred. The analysis also demonstrated significant differences between parents recruited by health visitors/school nurses and parents who self-referred (poster recruitment) on observed direct command ( $p=.040$ ) and negative parenting ( $p=.004$ ) categories. The difference between self-referrals and the other sub-group on observed direct command ( $p=.024$ ) and negative parenting ( $p=.001$ ) were also highly significant concluding that self-referred parents were demonstrating less observed negative parenting at baseline and giving less direct commands.

Significant differences were found between parents who engaged with the intervention and those who did not in terms of mental health symptoms as measured by the GHQ ( $p=.031$ ), suggesting that parents who did not engage at all with the programme were experiencing more mental health problems compared with parents who engaged. Wilson and colleagues (2011) found depression scores for mothers of 13-month old infants acted as a powerful predictor of service need; this suggests that a stand-alone web-based programme may not be sufficient for parents who are experiencing greater levels of mental health difficulties.

Overall attrition rates were high (35%) and high-drop out rates have been associated with web-based interventions in general (Kelders et al., 2012) so the attrition rate for this study appears to be consistent with that reported in other studies (Enebrink et al., 2012; Chacko et al., 2016). In this sample, there were significant differences between parents seen at follow-up and those lost at follow-up on two demographic variables; parental age leaving school ( $p=.045$ ) and parent age at birth of first child ( $p=.002$ ). Parents lost at follow-up were therefore more likely to have a lower level of education and be younger parents. Online interventions are unlikely to be suitable for all families, especially parents who are reporting



inadequate parental responses to their children's challenging behaviour (Calam et al., 2008), suggesting that measures need to be taken in future to attempt to keep parents in web-based interventions and/or more targeted interventions offered to this population. This consideration is an important one as the high levels of problems reported by this universal sample was unexpected.

Engagement with the programme was extremely variable with 44.7% of parents either not logging in at all or not completing the first chapter and only 7.9% of parents completing the entire programme within the time frame. Although completion rates were poor, engagement has been problematic in other web-based parenting interventions (Breitenstein et al., 2014). A total of 95% of parents completed session 1 of a Triple-P online parenting programme but only 47% completed all eight sessions (Sanders, Baker & Turner, 2012), and only half (50.3%) of parents watched all six episodes of '*driving mum and dad mad*', and as the weeks progressed fewer parents accessed the website to download resources (Sanders et al., 2008). The engagement rates in this trial were poorer than those reported in Triple-P and that could have been due to the lack of prompting, as parents in the Triple-P intervention received weekly prompts to remind and encourage them to watch the TV series (Sanders et al., 2008). Poor engagement could have also been due to the lack of social peer support parents received during the programme, as there were no opportunities for parents to contact each other and share their experiences. A web-based parenting programme promoting social-emotional development in infants had both an information-sharing bulletin board for parents and weekly coach calls, and reported high engagement rates with 16/19 parents completing all 11 sessions (Baggett et al., 2010).

Although the intervention was programmed to send reminder texts to parents (letting them know when the next session was available and then again if they had failed to log into the programme), for technical reasons this did not happen. A systematic review of the use of

prompts in health promotion interventions found that 11 of 19 articles reviewed reported positive findings regarding the use of periodic prompts (Neff & Fry, 2009) so poor engagement could have been due to the lack of prompts. Additionally, 24% of parents reported experiencing issues with the software that prevented them from progressing with the programme (i.e. they had completed one session, but upon logging back in, the intervention would take them back to the beginning instead of taking them to the next chapter that they were meant to access). This meant that some parents had not completed the programme at the three-month follow-up stage, and although contact details of an administrator were provided, not all parents reported their difficulties.

This universal programme was successful in encouraging positive parental practices; significantly increasing observed praise and decreasing indirect commands for those parents who accessed the programme, therefore demonstrating improvements in the positive parenting behaviours that promote healthy child development (Bayer et al., 2007). Universal parenting programmes can address the growing need for all parents to access evidence-based parenting advice. Patterson and colleagues (2002) found that 57.8% of parents they surveyed reported that they would be interested in attending a parenting course in the future, suggesting that there is an interest. Although targeted services are important for families experiencing clinical levels of problems, and this is highlighted with the increased levels of mental health symptoms for parents who did not engage, it is important to provide parents in general access to skills-based programmes so that they can have the opportunity to improve their parenting skills and encourage positive child behaviour, healthy development and well being.

### **Strengths & limitations**

The main strengths of this trial were firstly, the use of a RCT design in a ‘real world’ setting with data collectors who were blind to participant allocation. Secondly, independent observations of child and parent behaviour were collected with 20% of all observations double-coded with excellent interclass correlations achieved (in addition to parental reports of mental health, child behaviour, and parenting skills). Thirdly, parents could engage with the programme at home at a convenient time eliminating many of the traditional treatment barriers. Intervention parents who completed a feedback form reported high satisfaction with the programme and would recommend it to other parents. Finally, this programme was intended as a universal programme therefore parents in general who had an interest in positive parenting were eligible to participate, providing parental support more widely.

This study has a number of limitations. Firstly, the sample size was very small with only 56 families consenting to take part, however due to funding and time constraints a larger sample would have been difficult to recruit. Secondly, the attrition rate at follow-up was high with 35% of families lost to follow-up (20 complete cases). Thirdly, the number of parents in the intervention condition not engaging with the programme was high (44.7%) and six parents (24%) reported issues with the software. Fourthly, service data was not collected at the beginning of the trial; therefore, it is unknown what other services parents were in receipt of during the trial. Finally, this intervention was internet based only without any additional support with parents required to log in each week and engage with the programme. This may have resulted in some parents not fully engaging and therefore loss of follow-up data.

### **Conclusion**

This online universal programme was designed to be available to all parents and introduced positive parenting strategies to strengthen parent-child relationships and

encourage positive child behaviour. Parents recruited to this trial were fairly affluent with the majority married or in a relationship, well educated and in employment, however high levels of problems were reported, strongly suggesting the need for universal parenting provision for all parents. However, despite reporting challenges, engagement with the programme was poor. This could possibly be improved with prompting and by addressing software challenges (by ensuring that all parents access the correct chapter in the correct sequence and not be taken back to the beginning). Attrition rates were also problematic with 35% complete cases missing at the 3-month follow-up. Despite these challenges, results were promising. The per-protocol analysis found significant differences in observed indirect command and observed praise between intervention and control conditions at 3-month follow-up with medium to large effect sizes. A future trial would need to pay close attention to programme engagement and attrition.

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## **Chapter 9**

### **General Discussion**

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## **Thesis outline and objectives**

The main objective of this thesis was to develop and evaluate the COPING parent online universal programme, for parents of children aged 3-8 years with an interest in learning more about positive parenting skills. The first study described modern-day parental challenges, which all parents face when parenting children, and their potential effects on parent-child relationships and child behaviour. The second study described the design and formulation of the online programme using the LifeGuide software. The third study evaluated user feedback from a feasibility trial and the fourth and final study reported on main outcomes of a pilot randomised controlled trial with intervention and wait-list control conditions in terms of parenting skills (as measured by a behavioural observation). Secondary measures explored parent-reported child behaviour, and self-reported parenting skills, parental mental health and parental confidence. The following section provides a summary of the findings from each of these four studies.

## **Thesis findings**

### **Study one – Parental challenges**

Societal changes have always presented new challenges for parents and impacted on parent-child relations, child behaviour and parenting style. However, the pace of change has accelerated, and recent changes such as children spending increasing amounts of time watching television, surfing on the internet and/or playing video games present new challenges for parents and can put children at-risk of poor outcomes (Silvern & Williamson, 1987; Vandewater, Bickham & Lee, 2006). Apart from the direct risks associated with spending a lot of time in front of the TV, playing video games or accessing inappropriate internet content, these activities also have other effects in terms of less time spent in physical activities (Reilly et al., 2005), and children spending less time in the company of adults and more in their own rooms. There are also

environmental factors, which can put children at-risk of poor outcomes, and these include poverty, divorce or relationship breakdown, young and/or single parenthood and parental mental health (Clarke-Stewart et al., 2000; Lipman et al., 2002; Elgar et al., 2004).

Despite the greater risks presented by disadvantaging and societal factors in child outcomes, good quality parenting remains key to ensuring good outcomes for children and many interventions targeting positive parenting strategies, by teaching core social learning theory principles (Bandura, 1977; Patterson, 1982), have demonstrated their effectiveness in promoting children's social and emotional competence (Hutchings et al., 2007; Gardner et al., 2006; Gardner et al., 2010; Sanders, Baker & Turner, 2012). Gardner and colleagues found that teaching parents positive parenting skills, based on the principles of the social learning theory led to positive changes in child conduct problems. This was despite recruiting a socially disadvantaged population with a high proportion of conducted disordered boys with lone-parents displaying signs of depression (Gardner et al., 2006). Similarly, early work by Patterson and colleagues with families of both young children and young adolescents with behavioural problems concluded that effects of contextual variables such as social disadvantage and family circumstances on childhood outcomes largely impact parenting practices rather than child behaviour directly (Patterson, Forgatch, Yoerger & Stoolmiller, 1998), and it is the quality of parenting that largely explains child behaviour. The universal literature review (chapter 2) further supports and provides further evidence for the importance of good quality parenting in ensuring good child outcomes. These trials based, predominantly, on the same positive parenting principles as targeted/preventive programmes have shown promise, despite targeting a range of outcomes and recruiting quite varied samples of parents including parents reporting children with clinical levels of problems (Zubrick et al., 2005; Sanders et al., 2008; Reedtz et al., 2011).

## **Study two – Development of the COPING parent online universal programme**

LifeGuide is a tool for the delivery of web-based behaviour change interventions, and has been used particularly in the field of public health and illness management (LifeGuide Community Website, 2015). To date there has only been limited use of the LifeGuide software, with a small number of exploratory pilot trials and RCTs being conducted. To date interventions using the LifeGuide software have been public health interventions targeting behaviours such as weight loss, hand washing, smoking cessation and childhood eczema management. The trials reviewed demonstrated their potential in achieving desired behaviour change outcomes (Little et al., 2015; Little et al., 2016) and used behaviour principles in their delivery (i.e. feedback, online quiz, e-mail prompts). However, the majority of the studies included in the review were pilot/feasibility studies with the aim of gaining user feedback in order to make necessary modifications before larger trial evaluations. This highlighted an advantageous feature of LifeGuide - allowing researchers to continue to modify interventions based on feasibility/pilot studies and colleague feedback, allowing interventions to be continuously improved and tested (Joseph et al., 2009; Yardley et al., 2009).

The COPING parent online universal programme was created using the LifeGuide software and allowed the researcher to employ behavioural principles both in programme content (positive parenting strategies skills i.e. relationship building, play, positive reinforcement, language development) and delivery (audio, video, text message prompting, multiple-choice quizzes, homework activities and online feedback). The positive parenting content of the programme has been evaluated both in treatment and prevention trials demonstrating positive parent and child outcomes (Hutchings et al., 2002; Hutchings, Lane & Kelly, 2004; Williams & Hutchings, submitted 2017), however the evaluation of such content with a universal population remains limited (Sanders, 2008). More research is needed to establish the effectiveness of



universal programmes specifically on increasing positive parenting, child and parental well-being and child development.

### **Study three - An evaluation of the online universal programme COPING parent: A feasibility study**

This feasibility study was undertaken at the end of 2015 to highlight any technical issues and suggest modifications prior to a more rigorous evaluation. Twenty participants ( $n=20$ ) were recruited, by word of mouth and/or through recruitment posters displayed in two local nurseries, and asked to complete one chapter of the programme each week and provide feedback to inform a future evaluation. Thirteen ( $n=13$ ) feedback forms were returned in the given time frame and led to programme modifications. These were adaptations to enable the programme to be accessed by tablet users, an option to look back over previously completed chapters, and the inclusion of more video examples of positive parenting. These modifications were made in early 2016. The key finding, however, from this study was the need to target programme engagement as 90% of participants completed chapter one but only 15% completed all ten chapters. As a result, text message prompting was added to the programme. Some web-based parenting programmes (reviewed in chapter 3) have incorporated prompting strategies such as telephone calls and text messages and demonstrated higher retention rates (Taylor et al., 2008; Sanders et al., 2008; Baggett et al., 2010; Enebrink et al., 2012).

Conducting a feasibility study proved useful in terms of programme modifications and lessons were learned. For example, in future, it may be useful to recruit the target population of parents of children aged 3-8 years as opposed to colleagues and people with an interest in the work of the centre (as some were not parents), as this would determine whether the programme is acceptable to the intended audience (Bowen et al., 2009). Also, next time all components of the

intervention must be completed before conducting a feasibility trial, to ensure that all aspects of the programme are thoroughly tested to avoid problems occurring during the main trial (i.e. text message prompting error). Although text prompting was added after the feasibility study, an additional feasibility should have been carried out in order to ensure that this component was working (although rigorous testing occurred, the intervention with the text message component was not trialled after it had been uploaded to the live server). Finally, responses on the Likert scale did not prompt any significant changes and may have been subjected to participant self-report bias, therefore, qualitative semi-structured interviews or focus groups may provide more reliable responses for informing future evaluations.

#### **Study four - An evaluation of the online universal programme COPING parent: A pilot randomised controlled trial**

The aim of the study was to evaluate the COPING parent online universal programme for parents of children aged 3-8 years who had an interest in learning more about positive parenting. A pilot randomised controlled trial (RCT) was conducted to evaluate the effectiveness of the programme in increasing the use of positive parenting strategies. The main objective was to determine whether the programme led to increases in positive parenting strategies as determined by a behavioural observation of parent-child interaction. The hypothesis was the online parenting programme will lead to significant increases in observed positive parenting strategies (DPICS: Eyberg & Robinson, 1981). Secondary objectives were to explore the characteristics of the sample that enrolled and whether there were any changes in parent reported child behaviour, and self-reported parenting skills, parental mental health and sense of competence.

Fifty-six parents were randomised on a 2:1 ratio to intervention or wait-list control conditions and the primary outcome was an observation of parent-child interaction. Results for the

main analysis showed a significant reduction in observed indirect commands for parents in the intervention condition ( $F(1, 33) = 6.36, p = .017$ ) with a medium effect size ( $d = 0.59$ ) compared with controls. Results for the per-protocol analysis demonstrated a significant difference between intervention and waitlist control conditions with parents in the intervention condition demonstrating a significant reduction in observed indirect commands ( $F(1, 25) = 5.56, p = .026, d = 0.56$ ) and a significant increase in observed praise ( $F(1, 25) = 4.71, p = .040, d = 1.38$ ). All five observed behavioural categories showed effect sizes in favour of the intervention condition, praise demonstrated a large effect size change, indirect commands, questions and negative parenting demonstrated medium effect size changes and direct command a small change.

The outcomes are promising considering that only a small sample of parents were recruited and low engagement rates reported. Parents who did not engage with the programme were demonstrating slightly higher baseline ECBI problem sub-scale and dysfunctional parenting, but these differences were not significant. Non-engaged parents also demonstrated higher baseline mental health problems as measured by the GHQ and this was significant ( $p = .031$ ). Poor engagement rates and significant differences in symptoms of mental health between parents who did and did not engage highlight the important issue of the type of intervention needed. Targeted and preventive interventions continue to be important for some families and have specific problem reduction goals (i.e. reduce problematic child behaviour and dysfunctional parenting) whereas universal programmes vary considerably and can address a number of goals (i.e. increasing positive parenting skills, well-being and child development) meaning that they may not be suitable for everyone. For example, universal programmes can target symptoms of maternal mental health or promote positive parenting skills, parental confidence, self-efficacy and child development (Sanders et al., 2008; Zubrick et al., 2005; Ulfsdotter et al., 2014; Hutchings et al., 2017).

However, this programme was successful in increasing positive parenting practices for parents who accessed the programme and these initial positive findings warrant further study.

Although this was designed as a universal programme intended for all parents, not necessarily those experiencing problems, families reporting significant child behaviour, parenting and mental health challenges were recruited. This suggests either that web-based programmes could be used as treatment interventions (although this is addressing a different rationale) or that there is a shortage of service provision. Other universal parenting trials have also reported similar demographics (Zubrick et al., 2005; Hiscock et al., 2008; Ulfsdotter et al., 2014).

Many lessons were learned during the trial. Firstly, we did not recruit the intended number of parents, and attention needs to be paid in future to recruitment methods. In addition to distributing posters to schools and nurseries, posters could be distributed in GP surgeries, dentist, family planning clinics, hospital waiting rooms, children's play centres, play groups etc., as although we had three main sources of recruitment methods, 37.5% were self-referrals. Health visitors in Gwynedd and Anglesey and professionals who were in contact with the centre recruited the remaining parents. A future trial could also consider asking health visitors from across a larger geographical area to approach parents on their caseloads in order to obtain a bigger sample. Although our funding was limited and therefore only able to recruit local parents, a future trial, with sufficient funding could recruit parents from a wider geographical area in order to obtain a bigger sample. Secondly, unexpected software challenges may have contributed to the poor engagement rates due to parents not receiving weekly prompts to engage with the programme and some not being able to progress with the weekly chapters. A future trial will need to ensure that all components of the programme are working before the main trial either by requesting further consultation from members of the LifeGuide team or by using an alternative software which requires less complex programming (i.e. MoodleCloud). Lastly, in order to inform future

development of universal programmes, it would have been useful to ask parents why they signed up to the study. Despite these challenges, the results are promising and warrant further investigation.

### **Present research: Strengths**

This thesis reports on the first RCT of the COPING parent online universal programme with intervention and wait-list control conditions in real-world settings, and positive outcomes were demonstrated which contribute to the universal parenting literature. Parents were randomised on a 2:1 ratio (intervention to control) and those randomised to the intervention condition started the programme immediately, therefore reducing the number of families waiting for support. In order to improve the social and emotional development and well-being of all children, evidence-based content must be universally available (Sanders, 2008). The universal programme literature review (chapter 2) concluded that early universal trials targeting a range of outcomes (including universal goals and problem reduction goals) and recruiting quite varied samples of parents, including parents reporting children with clinical levels of problems, have shown promise. The inclusion of varied rationales is a strength of universal provision; however, more research is needed to establish the effectiveness of universal programmes specifically on increasing positive parenting, child and parental well-being and child development. This trial contributes to the literature in terms of generating some evidence for one particular universal programme, which led to a significant increase in positive parenting skills for parents who engaged as measured by a behavioural observation.

Parents who completed at least one chapter of the programme were giving significantly fewer indirect commands and significantly more praise compared with controls. All five observed

behavioural categories showed effect sizes in favour of the intervention condition, praise demonstrated a large effect size change, indirect commands, questions and negative parenting demonstrated medium effect size changes and direct command a small change. There were no significant differences on any of the exploratory measures, however the ECBI problem sub-scale ( $d = 0.67$ ) demonstrated medium intervention effect size. A larger definitive trial now needs to be conducted to further examine the effectiveness of the programme in achieving benefits for parents who do or do not demonstrate problematic levels of parenting or have children with or without significant problems.

This trial used a range of validated measures including parent-report of child behaviour (ECBI; Eyberg & Robinson 1981), and self-report parenting skills (Parenting Scale, Arnold et al., 1993), parental mental health (General Health Questionnaire, Goldberg, 1978), parental competence (PSoC; Johnston & Mash, 1981) in addition to an observation of parent-child interaction (DPICS; Robinson & Eyberg, 1981). Independent observations of child and parent behaviour were collected for the sample at baseline and follow-up with 20% of all observations (baseline and follow-up) double-coded for reliability and achieving excellent interclass correlations (above 0.9 for all categories). The trial was conducted in a 'real world' setting with the use of data collectors who were blind to group allocation.

### **Present research: Limitations**

This study had a small sample size, with only 56 families consenting to take part. Due to time and funding restrictions associated with a PhD project and the programme taking longer to develop than anticipated, the recruitment phase was shortened to only four months. A future trial would need to expand the recruitment phase and explore other options of reaching more parents. For example, Hiscock and colleagues (2008) recruited over 600 parents of young children by

utilising maternity health services, child health services in addition to preschools and schools. They also used media by playing a promotional video at local supermarkets and placing advertisements in the local press and on websites (Hiscock et al., 2008). Additionally, Sanders and colleagues (2012) recruited over 500 parents by including features in national and local newspapers, local news programmes, and sending out e-mails with internet links to the programme. Although these larger trials were not conducted in rural areas (such as ours), four months was a very short period of time to recruit parents and other methods such as media should be considered for the future. However, the purpose of the pilot RCT was to see whether a larger definitive trial was justified, and inform a power calculation.

The number of parents who were recruited and provided baseline information in the intervention condition not engaging with the programme was high (44.7%) and six parents (24%) reported issues with the software. A future trial will need to pay close attention to programme engagement and evaluate whether behavioural strategies, such as telephone calls, e-mail or text reminders, to target engagement would be effective in retention. Software issues were unexpected, as an initial feasibility study did not highlight such challenges. However, time restrictions meant that only a small feasibility study could be conducted, a larger feasibility study might have highlighted more issues before the main trial. Nevertheless, a future trial will need to eliminate current software issues or use an alternative (the programme has been transferred to an alternative software – MoodleCloud).

Many of the universal programmes that demonstrated positive outcomes were short in length, for example Reedtz and colleagues (2011) evaluated a shortened version (six sessions) of the IY programme and found moderate to large effects for strengthening positive parenting in favour of the intervention. Similarly, Hutchings and colleagues (submitted) found significant improvements at 6-month follow-up in three observed parent verbal behaviours (academic

coaching, encouragement/praise and socio-emotion coaching) for intervention parents who attended a four-session school readiness programme compared with controls. A 10-session programme may be too long, as only 23% of parents randomised to the intervention condition completed six or more of the ten chapters. A future trial could explore the option of evaluating a shortened version the programme.

Due to funding and time restrictions of a PhD project, 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 similar to the work of Hutchings and colleagues (2017); therefore, a future trial may need to consider 12-month follow-up.

Service data was not collected at the beginning of the trial; therefore, it is unknown what other services (or online resources) parents were in receipt of during the trial and this could have influenced the outcomes. This data would also have been a useful measure of current available services for parents in Wales, especially for parents who were reporting significant challenges.

The implementation of a programme can have significant effects on outcomes (Furlong et al., 2013) therefore monitoring whether the programme was delivered as intended is important. Parenting programmes delivered in groups can address fidelity of implementation by various measurements including training accreditation, experience of running previous groups, completion of peer and self-evaluation, parent satisfaction questionnaires, completion of specific checklists at the end of each group, supervision to evaluate progress, viewing video tapes with an accredited trainer and certification (Gardner et al., 2006; Hutchings et al., 2007). For online delivery, some of these measures are irrelevant i.e. experience of running previous groups, however others are appropriate. Mihalic and colleagues (2002) described four categories related to implementation fidelity, and each category will be discussed in terms of their relation to this web-based programme.



*Adherence (use of manual, monitoring of content delivery, appropriate staff training, delivered to appropriate population):* this programme was delivered online to the appropriate population (parents of children aged 3-8 years), therefore use of manual and appropriate staff training components are irrelevant. In terms of monitoring content delivery, the LifeGuide software allowed us to explore individual usage i.e. time spent on each chapter, time spent on each page and total time spent logged in. However, we were unable to explore using this method whether parents were actively engaging with the material and therefore engaging with the content of the programme during this time. Parents could have logged on and clicked through the chapter, but not engage with the material, or they could have opened a different tab and spend the time doing other things. The software would still measure the time spent logged on, but not necessarily time spent engaging with the material. Parents completed multiple-choice quizzes at the end of each chapter, but a further limitation of the software meant that the correct answer was always the last one, and it may be possible that parents noticed this and clicked on the last option without reviewing the material. A future trial would need to incorporate software features that will overcome these limitations and allow for the measurement of content delivery. For example, Baggett and colleagues (2010) devised the Infant-Net programme in a way that allowed administrative staff to monitor and track each participant's activities and responses during self-directed learning activities and check-in questions. This information was then relayed to coaches who used the information to shape their contact time with the parent. This method allows for the measurement of content delivery by asking parents to give online responses to certain activities and check-in questions relating to programme content and through telephone discussions with a coach. However, for the purpose of this study, researchers were keen to explore whether a stand-alone web-based universal programme was sufficient in increasing positive parenting skills.

Exposure (*number of sessions delivered, session length and frequency*): this programme was delivered online therefore researchers were able to measure the number of sessions delivered, session length and frequency through the LifeGuide software. However, the same issue arises in terms of not knowing whether parents used the time online to engage with the programme content. A future trial is needed with alternative software to answer this question.

Quality of delivery (*monitoring of delivery*): online delivery results in parents receiving the same content. Unlike traditional group-based programmes, online formats are structured and consistent in their presentation, thus helping to ensure accuracy and completeness of program content presentation and avoiding implementation fidelity problems that often arise due to lack of adherence to protocol (Baggett et al., 2010).

Participant responsiveness (*engagement*): programme engagement was extremely varied. Of the twenty-five participants randomised to the intervention condition who provided follow-up data, 68% completed at least one chapter and 32% did not engage with the programme at all. Study attrition was also high and of the twenty parents randomised to the intervention who were lost at follow-up, 65% had not logged into the programme. A future trial would need to incorporate measures to promote engagement for example prompting/reminders such as e-mail, text or telephone call from a coach. Other web-based trials incorporating the use of coaches reported better engagement rates (Taylor et al., 2008; Baggett et al., 2010). Enebrink and colleagues (2012) asked parents to complete online daily diaries where they reported what techniques they had been implementing at home with their child with additional room for comments about what had worked well and what was challenging, they then received online feedback. Although this programme provided online feedback in response to time spent engaging in child-led play, this may not have been sufficient on its own to encourage weekly engagement. Although software limitations did not allow for the measurement of receipt of content (or whether

parents had fully understood the content), online delivery can overcome some fidelity challenges by ensuring participants receive the same content in the same format and by monitoring individual usage. A future trial can overcome some of the challenges faced by utilising different software and incorporating other components into the programme i.e. daily diaries, check-in questions and additional coach support.

The primary outcome measure was a behavioural observation. Parents were asked during home observations to interact with their child for 30-minutes whilst a researcher(s) coded various behavioural categories. Parents and children were asked to choose an activity they would normally engage in, so that researchers could capture ‘normal’ interactions. However, this could have led to parents choosing an activity they felt most comfortable doing and would result in them being viewed more favourably during the observation (social desirability bias). This could have resulted in a less reliable measure of certain behaviours; however, pre-and post-measures were collected. A future trial could introduce a more structured observation by asking parents to engage in more than one task i.e. a sample of different types of everyday situations. This would allow the observation of a range of parental behaviours in both comfortable and more challenging settings to see whether the parenting skills were learned and generalised. For example, Gardner and colleagues (2006) included varying degrees of task demand and parental attention during their observations, including child watching a video for 5 minutes, then asked to switch it off, parent and child play with farm set for 10 minutes and then child has to tidy up and put the toys away. These various scenarios aimed to capture both positive and negative parenting that were the focus of the intervention (Gardner et al., 2006).

Ignoring problematic child behaviour can be a difficult skill for parents to acquire, and it is possible that a web-based programme with video examples of parents demonstrating the skill may not be sufficient to train this skill successfully for all parents. However, it is currently unknown

whether some parents acquired this skill or not and whether a stand-alone web-based programme can successfully teach this skill. Programme components that have been consistently associated with larger effects include increasing positive parent–child interactions, emotional communication skills, teaching parents to use time out, parenting consistency, and skills practice. Programme components consistently associated with smaller effects included teaching parents’ problem solving; teaching parents to promote children’s cognitive, academic, or social skills; and providing other, additional services. The results have implications for selection and strengthening of existing parent training programs (Kaminsky et al., 2008). A future trial is needed to directly measure this particular component of the programme. Options include therapist involvement (i.e. parental role-plays, skills practice and discussion) similar to Taylor and colleagues’ study (2008) and organising structured observations to capture opportunities for parents to use the skill (Gardner et al., 2006).

### **Future directions**

The present research demonstrated that the COPING parent online universal programme is effective in promoting positive parenting skills for parents of children aged 3-8 years recruited from a general population. This adds to the limited universal literature on the effectiveness of universal programmes in increasing positive parenting skills, however, further research is required in order to corroborate the findings of this initial evaluation. A larger, definitive trial is needed, with a longer-term follow-up, to confirm the effectiveness of the COPING parent programme in improving positive parenting practices in a universal population. Close attention should be paid to the limitations discussed above - recruitment, retention, engagement and software challenges.

Funding is currently being sought for a trial to evaluate the programme with and without additional therapist support in an attempt to target programme engagement, particularly to explore the effect for those families reporting challenges with child behaviour, as previous web-based studies which have incorporated additional support or ‘coaches’ have reported better engagement rates (Taylor et al., 2008; Baggett et al., 2010).

### **Final conclusions**

Evidence-based parenting interventions, based on social learning theory principles, have been shown to be effective in reducing problematic child behaviour and dysfunctional parenting (Hutchings et al., 2007; Furlong et al., 2013). Examples of these evidence-based and NICE recommended (NICE, 2013) programmes are the *Incredible Years*<sup>®</sup> (Webster-Stratton, 1998), *Parent Management Training* (Forgatch, Patterson & DeGarmo, 2006) and *The Triple-P* (Sanders, 2008). These interventions however mainly target children already displaying clinical levels of child behaviour problems or families considered at-risk of poor outcomes (Gardner et al., 2006; Hutchings et al., 2007), resulting in some families not having access to evidence-based support. There is less evidence for the effectiveness of such programmes for non-clinical populations, (Sanders, Turner & Markie-Dadds, 2002; Sanders, 2008).

Challenges experienced in raising children are common (Sherr et al., 2014), and the positive results from targeted parenting programmes (Sanders, 2008) may benefit a broader group of parents as in order to improve the social and emotional development and well-being of all children, parents must be given an opportunity to access evidence-based content that is associated with optimal child development. Universal programmes could prove beneficial in terms of achieving good parent and child outcomes. However, this field is in its infancy and more

randomised controlled trial evidence is needed of programmes with shared universal goals. Specifically, more research is needed to establish the effectiveness of universal programmes on promoting positive parenting skills and child development.

This was the first evaluation of the COPING parent programme for all parents of children aged 3-8 years with an interest in learning more about positive parenting strategies. Findings from the main trial were promising with significant reductions found in observed indirect commands and significant increases in praise for parents who engaged with the programme as measured by a behavioural observation of parent-child interaction. These findings suggest that an online universal programme can significantly increase the positive parenting skills that are associated with good child outcomes for some parents.

This thesis has been a significant undertaking and with hindsight I would have paid closer attention to recruitment and programme engagement. The creation of the programme using the LifeGuide software took longer than anticipated, and time and funding constraints of a PhD meant that the recruitment phase was reduced to only four months. More time could have allowed us to recruit more families and increase the sample size. Additionally, programme engagement was extremely variable with some families not engaging with the programme at all. Although our feasibility study highlighted the need for regular prompting, due to technical issues, text messages were not sent to parents during the main trial. This was disappointing as prompting may have led to increased programme engagement, however a future trial will need to incorporate prompting in order to validate this. Despite the challenges discussed, there have been many positives from the project and I have had the opportunity to further develop my research skills and contribute to the scientific literature. Evaluating the COPING parent programme has allowed me to recognise the importance of providing all parents with the opportunity to learn new skills in order to ensure that every child has the opportunity to achieve positive outcomes.

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## Appendices

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## **Appendix A**

### **Theoretical underpinnings of evidence-based**

Evaluation of the COPING parent programme

# parenting programmes

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## **Learning theory**

According to Skinner's (1938) operant learning theory, behaviour is established by a learned association between the behaviour and its consequence (reward or punishment), and changes in direct consequences can change behaviour. Skinner introduced the term



Evaluation of the COPING parent programme

‘reinforcement’ meaning a behaviour, which is reinforced tends to be repeated and strengthened and behaviour that is not reinforced is weakened (Skinner, 1938; Cooper, Heron & Heward, 2007). There are two kinds of reinforcement, positive and negative (Cooper et al., 2007). Positive reinforcement strengthens behaviour by providing a consequence that an individual finds rewarding. For example, if a parent gave a child a sticker for sharing toys and the child found the sticker rewarding, the behaviour of sharing toys would be strengthened and the child would be more likely to replicate this behaviour again in the future. Negative reinforcement also strengthens behaviour, but by removing aversive or unpleasant stimuli, and it is the removal that the individual finds rewarding. For example, a child has a tantrum because he doesn’t want to eat his dinner; therefore, mum removes it. The removal of the meal contingent on the tantrum is reinforcing and therefore increases the probability that the child will have another tantrum the next time he is expected to eat a meal he doesn’t want. For young children in particular, parents are often the individuals who reinforce certain behaviours (Hutchings, 2013) and therefore effective interventions aim to teach parents to be positive role models and reinforce/strengthen more desirable alternative behaviours (Furlong et al., 2013). There is less emphasis on punishment as this only tells the child what not to do, it does not guide them towards more desirable behaviour (McLeod, 2007).

### **Social Learning Theory**

Social learning theory was initially proposed by Albert Bandura (1977) and is derived from the notion that observing other people’s behaviour and their consequences can shape our own behaviour. New patterns of behaviour can be acquired through reinforcement of behaviour or

Evaluation of the COPING parent programme

direct experiences or by observing and copying the behaviour of others. The human capacity for observational learning enables individuals to increase their behavioural repertoires “without having to build up the patterns gradually by tedious trial and error” (Bandura, 1977). Bandura used the term ‘modelling’ to explain how individuals can learn specific behaviours and replicate them. According to the theory, children can be prompted to behave by merely observing the behaviour of others in their environment, making them models and if that behaviour is reinforced, the child is more likely to repeat the behaviour (Bandura, 1977). A social model can be a parent, sibling, friend or a teacher and is usually a prominent figure in a child’s life (Hutchings, 2013). This provides an explanation for both positive and problematic child behaviours (Bandura, Ross & Ross, 1963). Poor parental modelling can lead to child problem behaviour being strengthened and this, in part, forms the basis of problematic parent-child interactions referred to as the coercion theory (Patterson, 1982).

### **Coercion Theory**

Coercion theory was developed following years of work conducted by Gerald Patterson and colleagues (1982), and the main assumption is that child behaviour problems are maintained primarily through social learning process in the environment, more often within the immediate family. Patterson describes ‘coercive family process’ as a cycle of negative coercive interactions between parents and their children in which parents act as inappropriate models and also reinforce similar negative behaviours in their children (Patterson, 1982). For example, if a parent attempts to get their child’s attention but the child is non-compliant, in order to get the child’s attention a parent may raise their voice, which could strengthen the parent behaviour if the child responds. This also models aggressive behaviour making it more likely that the child will act this way

Evaluation of the COPING parent programme towards the parent when they want parental attention. Parents and the children then become caught in a coercive interaction cycle (Patterson, 1982).

This pattern of reinforcement of parental behaviour is a demonstration of both positive and negative reinforcement; the behaviour is reinforced by the removal of an aversive stimulus, the problem behaviour (negative) and by the addition of attention (positive). However sometimes the parent is reinforced and sometimes the child, and this intermittent reinforcement pattern further strengthens deviant parent and child behaviours and is the basis of coercion theory (Patterson, 1982) that is a key factor in establishing and maintaining problematic child behaviour (Patterson, DeBaryshe & Ramsey, 1990). In order to break the coercive cycle, parents need to learn to be consistent in responding to problematic child behaviours and to teach and reinforce more appropriate behaviours (Mallott & Trojan, 2008). “The pioneering work of Patterson and colleagues showed that parents had a causal role in maintaining antisocial behaviour by giving it attention and in extinguishing desirable behaviour by ignoring it” (Scott et al., 2001).

When considering these theoretical underpinnings, it can be concluded that parents have a substantial influence over their children’s behaviour. This has resulted in the shift in treatment for childhood conduct problems from therapy for the child to providing support for the parent (Nock & Kazdin, 2005). Interventions now focus on supporting effective parenting in order to teach children more desirable behaviours (Markie-Dadds & Sanders, 2006; Hutchings et al., 2007; Gardner et al., 2010).

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## **Appendix B**

## **LifeGuide application to upload to server**

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### Application for uploading interventions to the LifeGuide Live server

**Please use this form when you wish to upload your final intervention onto the live server.**

*Please answer **all** of the following questions:*

#### Part 1: Researcher details

1. Full name: Dawn Adele Owen
2. Contact email address: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)
3. Name of institution: School of Psychology, Bangor University

Institution/organisation address:  
Centre for Evidence Based Early Intervention  
Ground Floor  
Nantlle Building  
Bangor University  
Bangor  
LL57 2PZ

1. Career stage: Undergraduate ☐ **Postgraduate (PhD student)** Researcher ☐  
Post-doc ☐ Lecturer ☐ Reader ☐ Professor ☐ Other ☐ Please specify
2. Do you have any previous experience in creating websites? Please provide brief details.  
I have no previous experience of creating websites but I have been receiving consultation from a member of the LifeGuide team (Miss Stephanie Hughes) with my intervention. I have also previously uploaded an intervention to the live server for my pilot study in October 2015, which is currently on-going.
3. Where did you hear about LifeGuide? A colleague attended one of the LG workshops.

#### Part 2: Details of your interventions

4. What is the name of your intervention?  
RCT: The Little Parent Handbook Online Programme
5. Please give details of the topic of your intervention:

The intervention is for parents of children aged 3-8 who would like to learn more about positive parenting. The intervention covers core behavioural principles and aims to encourage parents to use positive strategies in order to encourage positive child

Evaluation of the COPING parent programme  
behaviour and reduce parent-child conflict. Parents will be asked to read (or listen) to the  
content, watch video examples of positive parenting and complete a multiple-choice quiz.  
Parents will also be sent weekly text reminders.

6. Has ethical approval been granted for your intervention research?

☐

No, I do not have ethical approval

☐

Yes, I have ethical approval (from school of psychology Bangor University)

7. What is the estimated size of your sample? We are intending to recruit 60 parents for the  
trial. We will randomise on a 2:1 ratio (40 to intervention and 20 to the 3 month wait-list  
control).

8. Please estimate the maximum number of people who you anticipate to be using the  
intervention at any given time. Maximum of 40 at one given time (as 40 will be  
randomised to the intervention group), but doubt they will be accessing the programme at  
the same time.

9. How many videos are used in your intervention? 39 (no video is longer than 1 minute).

10. Are you sending text messages in your intervention?

☐

Yes

☐

No

If yes, have you tested each of your text messages by copying and pasting the text message  
content from the LifeGuide logic onto the Web sending service provided by PageOne? Please  
refer to the wiki on the LifeGuide community website for details on how to do this.

☐  
☐

Yes (Miss Stephanie Hughes from LG worked on the text messages)

No

11. What is your estimated number of pages? Approximately **370** pages

12. What is the file size of your intervention? **428 MB**

### Part 3:

13. What date would you like your intervention to go live? We will try our utmost to meet your  
requirements; we would appreciate one week's notice **Thursday, March 10th, 2016**

14. What date will your study finish? **1<sup>st</sup> of July 2017**

**Once your intervention is live, it's very difficult (and in many circumstances impossible) to  
change it without breaking it. For this reason you need to check that a data export gives  
you all the things you want exported, and that the logic is all working thoroughly.**

15. Is your intervention free from errors? (Errors appear in the 'Problems' area of the authoring tool and/or you may see a red warning appear immediately after you upload your intervention to the LifeGuide Community Website). Errors may affect your intervention and cause problems for our server, which could impact other interventions, so must be fixed prior to going live.

☐ Yes

☐ No

16. Have you deleted interventions from the LifeGuide Community Server?

☐ Yes

☐ No

17. Have you tested your intervention thoroughly and confirmed that the data that you get out of it is in the format that you want?

☐ Yes

☐ No

18. When your study has finished, do you agree to download your data and remove your intervention from the LifeGuide Live server?

☐ Yes

☐ No

Please return your completed form to [LifeGuide@soton.ac.uk](mailto:LifeGuide@soton.ac.uk)

Once your application has been approved, we will contact you with instructions detailing how to proceed with putting your intervention on one of our live servers.

N.B. Interventions uploaded to the LifeGuide servers can be seen by the LifeGuide team.

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# **Appendix C**

## **LifeGuide description document**

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This document describes the LifeGuide software and its key features with regards to the development of web-based behaviour change interventions. The LifeGuide software was developed at the University of Southampton by Professor Lucy Yardley and Computer Scientist Dr Mark Weal, and is sponsored by the Economic and Social Research Council.

### **LifeGuide Community Website**

The community website is the home of LifeGuide. It includes demonstration interventions to explain how to create interventions, it hosts the LifeGuide forum which allows individuals to communicate with each other and share their knowledge and experiences, and it allows researchers to upload and their interventions for testing purposes. Researchers can sign up to the community website for free and download the authoring tool to start creating their interventions. The LifeGuide software is constantly being updated and improved, and a step-by-step manual has been produced to help individuals to learn how to use the software, which is available on the website.



Welcome to the LifeGuide community, Dawn Owen . Logout

Home New Intervention Folder

show latest message only

**Friday, July 15, 2016 by Admin - Judith Joseph** hide

Due to a scheduled network outage at the University of Southampton, the LifeGuide live server and Community Website will be unavailable between approximately 14:00 and 18:00 on Saturday 30th July 2016, and there may be further occasional disruptions on Sunday 31st July. Participants may not be able to access interventions during this time and any emails or text messages that are due to be sent out, may be delayed. We recommend informing study coordinators of this network outage and creating an out-of-office reply for any study email accounts. Participants may contact during this time. We apologise for any inconvenience this may cause. The LifeGuide team.

**Thursday, December 17, 2015 by Admin - Judith Joseph** hide

The University of Southampton will be closed for Christmas from 24th December 2015 - 3rd January 2016. We regret that we will be unable to reply to LifeGuide emails during this time and hope this does not cause any inconvenience. We wish you a Merry Christmas and a Happy New Year! From the LifeGuide team.

**Tuesday, December 16, 2014 by Admin - Judith Joseph** hide

We have recently made changes to the "Essential Guide to LifeGuide Intervention Development". We recommend that you refer to this document on a regular basis when creating your intervention as it is a key document that details important points to consider when developing an online intervention. It is updated regularly, is full of useful advice and tips, and can be downloaded from our wiki homepage: [http://wiki.lifeguideonline.org/wiki/Main\\_Page](http://wiki.lifeguideonline.org/wiki/Main_Page) We have also added a new section to the wiki called 'Wiki Updates', which details new information about the LifeGuide authoring tool, including new functions, bugs and workarounds. The LifeGuide Team.

**Wednesday, December 10, 2014 by Admin - Judith Joseph** hide

Upcoming LifeGuide workshops on "Developing digital behaviour change interventions using LifeGuide and the

## LifeGuide Software

LifeGuide is an online intervention package co-designed by a Health Psychologist and a Computer Scientist (Yang et al., 2009) at the University of Southampton. The aim of LifeGuide is to develop, evaluate and disseminate a set of tools that will allow researchers to flexibly create and modify two fundamental components of behaviour change, (1) providing tailored advice to users, and (2) supporting users' sustained behaviour change (Hare et al., 2009). This software package enables scientists to develop, create, share and analyse data collected as part of a behaviour change intervention in order to evaluate, and, where necessary, to further modify and improve the intervention (Hare et al., 2009). The software has proved to be of interest to a number of behaviour change scientists due to it being flexible in nature, low in cost, easy to use and easy to modify the intervention at different stages of the design process (Joseph et al., 2009). This allows researchers to continue to improve interventions based on feasibility studies and colleague feedback (Yardley et al., 2009). Perhaps the most appealing feature is that the software is freely available to researchers with limited funds, especially early-career researchers.

The LifeGuide software package includes a number of components that aim to make web-based interventions more engaging to users. These include tailored feedback based on individual

responses, e-mail and text reminder prompts, uploading of audio and video files and multiple-choice quizzes (Yang et al., 2009), all of which are behavioural strategies. Researchers can set up individual user accounts that allow participants to log in and out of interventions that have multiple sessions, enabling them to engage with the intervention at a time (and place) most convenient for them (Yang et al., 2009). This also allows participants to engage with the intervention numerous times.

The software generates scores for questionnaire items and tracks individual usage on pages (Williams, Yardley & Wills, 2009). This allows researchers to track and analyse individual usage on each intervention page, as data from LifeGuide is transferrable to statistical analysis software such as SPSS and Microsoft Excel (Yardley et al., 2009). This feature is especially useful considering the high attrition rates often associated with web-based interventions, as it allows researchers to investigate which pages users spent most time on, and which pages were re-visited the most, enabling them to see which aspects of the intervention were most engaging for users and to modify as necessary. In order to track individual user progress, researchers must firstly set up an account and then upload their intervention to the live server once permission has been obtained from the LifeGuide team (see appendix B).



## Welcome to LifeGuide

The **LifeGuide project** aims to build a suite of **tools** that enable **researchers and therapists** to **create, deploy and evaluate** internet-based behavioural interventions.

This website allows interventions created in the **LifeGuide authoring tool** to be deployed on the web. Researchers can use this site to manage their deployed interventions and view data about the participants.

## Want to try out a LifeGuide-powered intervention?

Select one of the public interventions from the list below.

- **IBD study: concerns about medicine**
- **timeone**
- **one**
- **two**
- **timetwo**
- **three**
- **timethree**
- **Thinking Better, Eating Better**
- **Thinking Better, Eating Better2**
- **REFRESH-V1 trial test**

## Want to manage or deploy your own interventions?

Login or create an account here!

**Register**

or Login:

Username:

Password:

Remember me: ☐

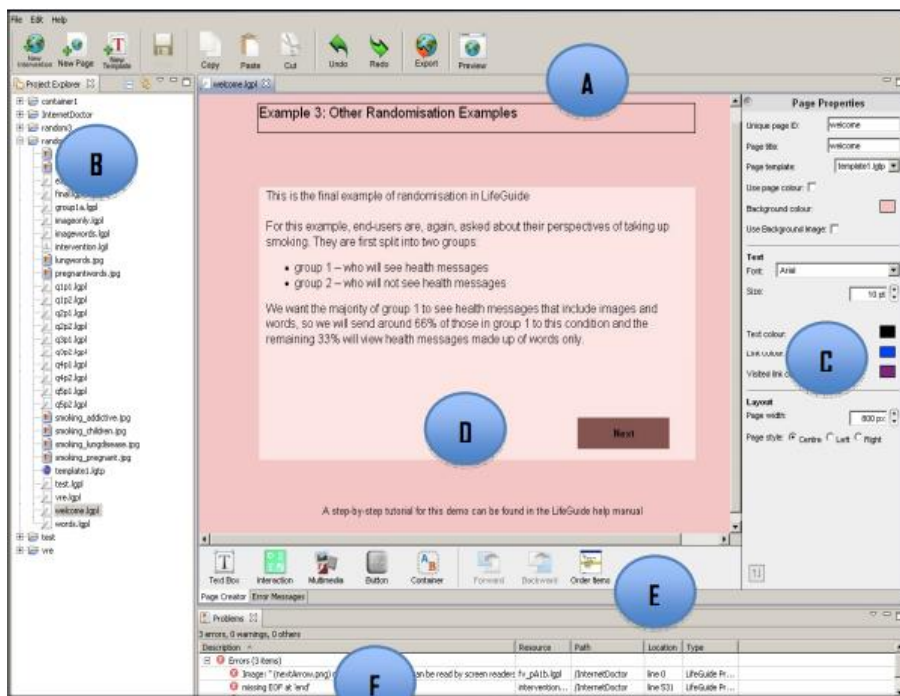
**Submit**

[Forgot Password?](#)

LifeGuide is funded by the Economic and Social Research Council through the National Centre for e-Social Science  
© 2017 University of Southampton

## How to create intervention pages in LifeGuide

The LifeGuide authoring tool allows researchers to select different user-friendly components for the design of their intervention.



The letter A identifies the main option bar, which allows researchers to select basic functions such as creating new interventions, new intervention pages and page templates (Williams, Joseph & Yardley, 2010). The page template option allows researchers to select a template for all of the intervention pages, which prevents researchers from having to modify individual pages. The copy and paste option is a fairly new time saving addition to the software following colleague feedback, as the LifeGuide team are keen to continue to develop the software further (Osmond et al., 2009).

Perhaps the most valuable feature of the main option bar is the preview function, which allows researchers to preview their intervention in a new tab in different web browsers allowing them to see the intervention, as the participant would view it. This will allow participants to view intervention pages that have been fully developed and tested. For example, the preview button avoids pages having grammatical errors or objects being misplaced, as the researcher can check in the preview mode before making the intervention live to participants.

The letter B represents the project explorer feature that includes everything that has been created using the authoring tool including the intervention file, the individual intervention pages and the logic file. This feature allows researchers to select individual pages and modify them if necessary. The properties menu (letter C) allows researchers to change the properties of the intervention pages. The process of setting up the intervention is time consuming and taken up in designing, including editing the background, naming individual intervention pages, selecting page templates, changing font sizes and colour and modifying the page length (Williams, Joseph & Yardley, 2010).

The letter D represents the page author, and this feature allows the researcher to see the intervention page that is currently being created, allowing users to drag and drop objects, such as text boxes and images, and change the layout of the page. The page can then be viewed in the

Evaluation of the COPING parent programme preview mode to ensure that the researcher is happy with the overall appearance of the page (Williams, Joseph & Yardley, 2010). The insert panel (letter E) is located directly under the page author, and this allows researchers to select which objects to include in their intervention pages. Features include, text boxes, images, audio and video files, buttons and containers (useful for delivering feedback to individual users). In order to upload images, video and audio files, the files must be saved in the LifeGuide workspace, which is downloaded with the LifeGuide software and is automatically saved onto the computers hard drive.

The problem message area is represented by the letter F and this enables researchers to continuously monitor error levels and make modifications; allowing the resolution of errors before attempting to test the whole intervention. This reduces the possibility of participants experiencing major errors when they access the intervention. Participants experiencing errors must be avoided to maintain a level of professionalism and to prevent the user from disengaging. The tool also identifies whether and where in the intervention there are any logic errors that will result in the intervention not working properly (Williams, Joseph & Yardley, 2010).

### **Writing the logic commands**

On completion of the intervention pages, the researcher is then required to write the logic commands that ensure that features of the intervention work. The logic commands are specific instructions and are extremely sensitive, and involve instructing the computer exactly what to do (Yang et al., 2009). An error in the logic for a multiple-choice quiz, for example, may result in the user being able to skip the quiz without answering any of the questions because the researcher has not written the logic to ensure that users must respond to the questions before moving onto the next page. Such an error could result in the loss of valuable data and users not receiving the intended feedback. Below is an example of logic commands for a weight loss intervention

Evaluation of the COPING parent programme  
instructing the intervention to show the pages in the correct order and to also show specific pages  
to specific users.

```
show page1
show page2
show page3
show page3.fruitvegnone if (page2.fruitveg = "veg1")
show page3.fruitvegome if (page2.fruitveg = "veg2")
show page3.fruitveglots if (page2.fruitveg = "veg3")
show page3.fatnone if (page2.fat = "fat1")
show page3.fatsome if (page2.fat = "fat2")
show page3.fatlots if (page2.fat = "fat3")
show page3.proteinnone if (page2.protein = "protein1")
```

There is a logic dictionary that explains which logic commands are responsible for which intervention feature. The logic dictionary can be downloaded from the LifeGuide Community website ([www.lifeguideonline.org](http://www.lifeguideonline.org)). An example of logic commands is '*check user exists*', a logic command that verifies whether an email address or username has already been registered with the intervention (Williams, Joseph & Yardley, 2010) or the command '*save*' which automatically saves all participant responses to questions. The logic commands can be complex to produce and very time-consuming. The commands are case sensitive and must be written in lower case letters and each new command must start on a new line. The LifeGuide team provide paid consultation to help researchers to write the logic commands for their interventions, at a rate of £53 per hour. Consultations must be agreed in advance of the intervention deadline (Williams, Joseph & Yardley, 2010). Stephanie Hughes provided consultation for the writing of the logic commands for the COPING parent online programme.

### **Why was the LifeGuide software chosen to create the intervention?**

The COPING parent programme was created using LifeGuide for a number of reasons. Firstly, the software can be programmed to deliver evidence-based behavioural advice (content of The Little Parent Handbook) and to employ behavioural principles (feedback, text message prompts, video examples etc.) within intervention delivery to make the intervention more

Evaluation of the COPING parent programme engaging to users. Secondly, the software was free to download and research students were allowed to upload their intervention to the live server for free (non-student researchers had to pay an uploading fee of £500). Thirdly, the software allowed for the continuous modification and testing of the programme based on user feedback, therefore allowing us to test one version in a small-scale feasibility study before further modification based on user feedback and evaluating it in another trial. This flexibility made the software attractive, as this was the first time the programme was being evaluated. Lastly, the software allows for the downloading of individual usage data (i.e. number of log ins, time spent on each page and the number of chapters completed), allowing for the exploration of usage.





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## **Appendix D**

### **Snapshots of the online programme**

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## The Little Parent Handbook




All pages will include an audio option if you prefer to have the text read out to you. Simply click on the white 'play' button. Note: this option will not work if you are using an iPad or tablet

This is what this online programme will look like ...

- The majority of the pages will contain important text
- The colour of the text will be dark grey, important key words will be in **purple** and some examples will be in **dark blue**
- Most of the information will be presented in bullet points



The majority of the pages will include colourful images to complement the text



Some pages will have a video - to watch simply click play. You can watch the video in full screen if you click on the little black box on the bottom right-hand side . To exit full screen click on the same box again

*If you are using an iPad or tablet, click on the link which will appear next to the video. A new window will appear. Once you have viewed the video, close the window and return back to the programme*

**Back**

The back button will take you back to the previous page

If you cannot see the information on the bottom of the page you will need to scroll down ...

**Next**

The next button will take you to the next page of the programme




## The Little Parent Handbook



Week 1

This weeks chapter will be about:

- Spending time with your child during play
- Giving your child attention during play
- 20 important rules when spending time with your child
- Examples of good play activities you can do together
- Summary, video clip & quiz

**Back**

**Next**



The Little Parent Handbook



## Week 1





The aim of this week is to build a **positive relationship** with your child through play


Back

*"You can do anything with children if only you play with them" - German Proverb*

Next



The Little Parent Handbook





## Week 1

### What does 'special time' mean?

- Special time involves spending **quality time** with your child away from everyday distractions
- **Child-led play** - allow your child to take control of the playing
- Playing an activity that your child has **chosen**
- **10 minutes** every day

Please watch the video of a parent and child enjoying their special time together



If you are viewing this programme on an iPad or tablet, please [click](#) here to view the video. The password is **parenting**

Back

To view video in full screen click on the black box on the right hand side of the video. To exit full screen and return to the page, press 'Esc' on your keyboard

Next



## The Little Parent Handbook



### Week 1

#### **Rule 9 - Ask your partner or a friend to watch you spending time with your child**

- Some parents find spending time with their child and commenting on their playing hard, and so sometimes it can help to have a familiar face there for support!
- If you ask your partner to watch, you could then watch them too and help each other get better
- If you ask your friend to watch, you could then watch your friend. It might be nice for your child to spend time with your friends also



Back

Next



## The Little Parent Handbook



### Week 1

#### **Rule 13 - Speak with excitement and sound cheerful when describing what your child is doing**

- Remember that you are acting like a TV reporter!
- Imagine how boring it would be if you were listening to a TV reporter who is speaking in a boring voice? Or listening to a sports reporter who doesn't get excited when somebody scores a goal?
- Your child will like this positive energy from you!
- It might feel a little awkward at first, but your child won't notice this and you will soon get used to it



Back

Next



## The Little Parent Handbook



### Week 1

You have just watched a video of a parent and child spending special time together. Please answer the 3 questions below by selecting either yes or no.

	Yes	No
Was the play child-led?	<input type="radio"/>	<input type="radio"/>
Did the parent comment like a TV reporter?	<input type="radio"/>	<input type="radio"/>
Did the parent use the child's name?	<input type="radio"/>	<input type="radio"/>

Back

Next



## The Little Parent Handbook

**Your score:**

**3 out of 3**

Back

Next



The Little Parent Handbook



### Week 1 Quiz

There are 6 questions and each question has 4 possible options - click on the option you think is correct.  
**Good luck!**

**Question 1 - Who should choose the playing activity?**



I don't know	You the parent should choose	A family friend	Your child should always choose
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Question 2 - When your child is playing, you should ...**


I don't know	Watch your favourite TV programme	Ask them lots of questions	Sit with them and comment on what they are doing
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Back

Next



The Little Parent Handbook



### Week 1 Quiz

**Well done for completing week 1 quiz**

17

**How did you do?**

**Excellent! You remembered this week's key points, keep up the good work.**

Back

Next

Try quiz again

See correct answers



# The Little Parent Handbook

## Week 1



### Top Tip

Spend 10 minutes with your child every day  
and follow the important rules when spending  
time with your child

Your child will enjoy it and you will too!

[Click on this link to download this week's  
summary sheet <br/>](#)

Back

Next

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## **Appendix E**

### **Feasibility study information sheet**

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## INFORMATION SHEET

### **Feasibility study of an online parenting programme based on 'The Little Parent Handbook'**

You are being invited to take part in a feasibility study at Bangor University. Before you make a decision, it is important that you understand why the research is being conducted and what it will involve.

A member of the research team will go through all of the information with you and answer any questions you may have. If you are unsure about a particular aspect of the study, please ask a member of the research team, they will be happy to answer any questions. Please take the time to read this information sheet carefully.

*Part 1* - describes the study fully and explains what will happen if you agree to take part.

*Part 2* - describes the conduct of the research study.

### **Part 1 –Details about the study**

#### ***What is the purpose of this research study?***

The purpose of this study is to assess the feasibility of a newly developed 10-week online parenting programme based on 'The Little Parent Handbook'. Participants will be asked to work through the online programme and then complete a feedback form. The responses you give will inform the research team of any changes which may need to be made before the programme is distributed on a wider scale. In particular, the research team would like to see if all of the interactive features of the programme are working.

#### ***Why have I been invited?***

Any parent of a child, aged between 3-8 years old, who feel as if they would benefit from additional support regarding parenting and would like to try a new online programme, are invited to participate in this feasibility study.

#### ***Do I have to take part?***

No, your participation is voluntary and you are free to withdraw at any time.

A member of the research team will explain the study fully so that you know all of the details before you decide if you would like to take part. If you would like to take part we will ask you to fill out a consent form.

#### ***What will happen if I take part?***

## Evaluation of the COPING parent programme

A member of the research team will discuss the project with you and give you the opportunity to ask any questions. If you agree to take part, the researcher will ask you to sign a consent form. Please **note** that participants must have access to the internet in order to participate in this online study.

The research team will provide you with a username and password for you to be able to log on to the online programme. The programme will last for the duration of 10 weeks. The programme has 10 weekly chapters and you will be asked to work through one each week. You must complete the chapter before moving on to the next one. Each chapter will have information, images and videos – there will also be an audio button if you would prefer the information to be read to you. At the end of each chapter there will be a short quiz to complete. Once you have completed the online programme, the research team will ask you to fill out a feedback form. In exchange for your time and participation, the researcher will be offering you a copy of ‘The Little Parent Handbook’ by Professor Judy Hutchings.

### ***What are the possible disadvantages or risks of taking part?***

There are no obvious risks in participating in this study.

### ***What are the possible benefits of taking part?***

You will learn new parenting skills, which could potentially help you to encourage good behaviour from your child and reduce problem behaviours.

### ***What happens when the research study stops?***

The research team will ask you fill out a feedback form – this will only take 10-15 minutes of your time.

### ***What if there is a problem?***

If you have any technical problems with the online programme, please contact Dawn Owen. Her contact details will be given to you at the beginning of the study.

Any complaint regarding the way you have been treated during the study or any possible harm you might suffer will be addressed. There is more detailed information regarding this point in part 2 of this document.

### ***Who do I contact for further information?***

If you would like further information regarding this project or have any questions please contact:

Dawn Owen - PhD Student  
Centre for Evidence Based Early Intervention  
Ground Floor  
Nantlle Building  
Normal Site  
Bangor University, Gwynedd, LL57 2PZ

E-mail: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

Tel: 01248 382 193 (or mobile: 07437441265)

**If, after reading part 1, you have an interest and would possibly like to take part in this study, please read part 2 for additional information before making a decision.**

## **Part 2 – Information you will need to know if you want to take part**

### ***What will happen if I start the study, but then decide that I don't want to carry on?***

Participation is voluntary and you are free to withdraw at any time, without penalty. We will deactivate your username and password.

### ***What if there is a problem?***

If you have a technical problem with the online programme and you wish to speak to a researcher, please contact Dawn Owen (01248 382 193, mobile: 07437441265) or e-mail [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk) and she will be happy to assist you.

If you are unhappy with the conduct of this research study and you wish to make a formal complaint, you should contact:

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

### ***Will my details be kept confidential?***

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

### ***What will happen to the results of this study?***

The feedback obtained from the study will be utilised to help the research team to modify the online programme before a wider-scale distribution.

### ***Who is organising and funding the research?***

The research is organised by Bangor University as part of a student's PhD. The research is funded by a Charity – *Children's Early Intervention Trust Charity*.

### ***Who has reviewed this study?***

Ethics Committee at the School of Psychology, Bangor University. Research proposal number: 2015-15506.

### ***I have a few more questions. Who do I need to call?***

If you have any further questions regarding this research study, they can be addressed to:

Name: Dawn Owen  
Centre for Evidence Based Early Intervention  
PhD Student, Bangor University  
Tel: 01248 382 193 (mobile; 07437441265)  
Email: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

Or

Name: Professor Judy Hutchings  
Centre for Evidence Based Early Intervention  
Professor of Clinical Psychology, Bangor University  
Tel: 01248 383 625  
Email: [j.hutchings@bangor.ac.uk](mailto:j.hutchings@bangor.ac.uk)

**If you decide to take part in this research study, you will be given this information sheet and a signed consent form to keep for your records.**

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

## TAFLEN GWYBODAETH

### **Astudiaeth dichonoldeb o raglen magu plant seiliedig ar 'The Little Parent Handbook'**

Rydych yn cael eich gwahodd i gymryd rhan mewn astudiaeth dichonoldeb yn Brifysgol Bangor. Cyn i chi wneud penderfyniad, mae hi'n bwysig eich bod yn deall pam mae'r astudiaeth yn cael ei gynnal a beth fydd hynny yn ymglymu.

Bydd aelod o'r tîm ymchwil yn trafod yr holl wybodaeth hefo chi ac yn ateb unrhyw gwestiwn. Os ydych yn ansicr o unrhyw beth, gofynnwch i aelod o'r tîm ymchwil os gwelwch yn dda, byddent yn hapus i ateb unrhyw gwestiwn. Cymerwch eich amser i ddarllen y daflen wybodaeth yma yn ofalus.

*Rhan 1* – disgrifiad llawn o'r astudiaeth ac esboniad o beth fydd yn digwydd os ydych yn cytuno i gymryd rhan.

*Rhan 2* – disgrifiad o gynnal yr ymchwil.

### **Rhan 1 – Manylion yr astudiaeth**

#### ***Beth yw pwrpas yr astudiaeth?***

Pwrpas yr astudiaeth yma yw asesu dichonoldeb rhaglen ar-lein ddatblygedig 10-wythnos sydd yn seiliedig ar 'The Little Parent Handbook'. Bydd gofyn i gyfranogwyr gwblhau'r rhaglen ar-lein ac yno cwblhau taflen adborth. Bydd eich atebion ar y daflen adborth yn cyfarwyddo'r tîm ymchwil o unrhyw newidiadau sydd angen eu gwneud i'r rhaglen cyn ei fod yn barod i gael ei dosbarthu ar raddfa mwy. Yn enwedig, bydd y tîm ymchwil eisiau gweld os ydy'r nodweddion rhyngweithiol yn gweithio yn gywir.

#### ***Pam rwyf wedi cael gwahoddiad?***

Mae yno wahodd i unrhyw riant o blant rhwng 3-8 oed i'r astudiaeth dichonoldeb yma sydd yn teimlo eu bod angen cefnogaeth ychwanegol ynglŷn â sgiliau magu plant a bysa hefyd yn hoffi trio rhaglen newydd ar-lein.

#### ***Oes rhaid i mi gymryd rhan?***

Na, mae eich cyfranogiad yn wirfoddol ac rydych yn rhydd i dynnu allan ar unrhyw bryd. Gwneith aelod o'r tîm ymchwil esbonio popeth ymlaen llaw i sicrhau eich bod yn gwybod yr holl fanylion cyn i chi wneud penderfyniad. Os hoffech gymryd rhan, byddwn yn gofyn i chi gwblhau taflen caniatâd.

#### ***Beth fydd yn digwydd os rwyf yn cymryd rhan?***

Bydd aelod o'r tîm ymchwil yn trafod y prosiect hefo chi ac yn rhoi'r cyfle i chi ofyn unrhyw gwestiwn. Os ydych yn cytuno i gymryd rhan, bydd aelod o'r tîm ymchwil yn gofyn i chi

lofnodi taflen caniatâd. Mae hi'n bwysig nodi bod cyfranogwyr yn gorfod cael mynediad i'r we ar gyfer cymryd rhan yn yr astudiaeth yma.

Bydd y tîm ymchwil yn darparu enw defnyddiwr a chyfrinair i chi er mwyn allu mewngofnodi i'r rhaglen ar-lein. Bydd y rhaglen yn para am gyfnod o 10 wythnos. Mae gan y rhaglen 10 bennod wythnosol a bydd gofyn i chi weithio drwy un bennod bob wythnos. Mae'n rhaid i chi gwblhau un bennod cyn mynd ymlaen i'r bennod nesaf. Bydd gan bob un bennod gwybodaeth, lluniau a fideo – bydd yno hefyd botwm clywedol os hoffech wrando ar y rhaglen. Ar ddiwedd bob pennod mae yno gwis byr i gwblhau. Ar ôl i chi gwblhau'r rhaglen, bydd y tîm ymchwil yn gofyn i chi lenwi taflen adborth. Fel diolch i chi am eich amser, bydd y tîm ymchwil yn cynnig copi o'r "The Little Parent Handbook" gan yr Athro Judy Hutchings.

***Beth yw'r anfanteision posibl neu risgiau o gymryd rhan?***

Does dim risg amlwg wrth gymryd rhan yn yr astudiaeth yma.

***Beth yw'r anfanteision posibl o gymryd rhan?***

Byddwch yn dysgu sgiliau magu plant newydd sydd gyda photensial i'ch helpu chi annog ymddygiad da gan eich plentyn a lleihau ymddygiadau problemus.

***Beth fydd yn digwydd ar ôl i'r astudiaeth orffen?***

Bydd y tîm ymchwil yno yn gofyn i chi gwblhau taflen adborth – gwneith hyn gymryd 10-15 munud o'ch amser yn unig.

***Beth os oes problem?***

Os ydych hefo unrhyw broblem dechnegol gyda'r rhaglen, yno cysylltwch â Dawn Owen. Bydd ei manylion cyswllt hi yn cael ei rhoi i chi ar ddechrau'r astudiaeth. Bydd unrhyw gwyn ynglŷn â'r ffordd rydych wedi cael eich trin yn ystod yr ymchwil neu unrhyw niwed i chi yn cael sylw. Mae yna fwy o wybodaeth ynglŷn a'r pwynt yma yn ddarn 2 o'r ddogfen hwn.

***Pwy allwn gysylltu hefo am ragor o wybodaeth?***

Os hoffech ragor o wybodaeth ynglŷn â'r astudiaeth yma neu hefo unrhyw gwestiwn, cysylltwch â:

Dawn Owen

Myfyrwraig PhD

E-bost: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

Ffôn: 01248 382 193 (neu ffôn symudol: 07437441265)

**Os yw'r wybodaeth yn Rhan 1 o ddiddordeb i chi, ag rydych yn ystyried cymryd rhan yn yr astudiaeth, darllenwch Ran 2 ar gyfer rhagor o wybodaeth cyn gwneud eich penderfyniad terfynol.**

**Rhan 2 – gwybodaeth yr ydych angen gwybod os ydych eisiau cymryd rhan**

***Beth fydd yn digwydd os nag ydw i eisiau parhau gyda'r ymchwil?***

Mae eich cyfraniad yn yr ymchwil yma yn wirfoddol ac rydych yn rhydd i dynnu allan ar unrhyw bryd heb gosb. Byddwn yn dinistrio eich enw defnyddiwr a chyfrinair.

***Beth os oes problem?***

Os oes gennych unrhyw broblem i'w wneud a'r rhaglen ar lein ac eisiau siarad gydag aelod o'r tîm ymchwil, cysylltwch â Dawn Owen (01248 382 193 neu ffôn symudol: 07437441265) neu e-bost [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk) a fydd hi yn hapus i helpu chi.

Os ydych yn anhapus gydag unrhyw ran o'r astudiaeth yma a chi eisiau gwneud cwyn ffurfiol, yna cysylltwch â:

Enw: Mr Hefin Francis,  
Rheolwr ysgol, Ysgol Seicoleg, Prifysgol Bangor,  
Ffôn: 01248 388339  
Ebost: [h.francis@bangor.ac.uk](mailto:h.francis@bangor.ac.uk)

***Bydd ein manylion yn cael eu cadw yn gyfrinachol?***

Mae ein gweithdrefnau ar gyfer trin, prosesu, storio a dinistrio data yn cydffurfio a deddf Diogelu data 1998.

***Beth fydd yn digwydd i ganlyniadau'r astudiaeth yma?***

Bydd yr holl adborth yn cael eu defnyddio i gynorthwyo'r tîm ymchwil gydag unrhyw addasiad i'r rhaglen cyn i'r rhaglen gael ei ddosbarthu eto.

***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 elusen – *Children's Early Intervention Trust Charity*.

***Pwy sydd wedi arolygu'r astudiaeth?***

Pwyllgor Moeseg yn yr Ysgol Seicoleg, Prifysgol Bangor. Rhif gynnig ymchwil: 2015- 15506.

***Mae gen i rhagor o gwestiynau i ofyn? Pwy allai ffonio?***

Os ydych hefo rhagor o gwestiynau ynglyn a'r ymchwil yma, dylwch gysylltu a:

Enw: Dawn Owen  
Canolfan Ymyrraeth Sail Tystiolaeth  
Myfyrwraig PhD, Brifysgol Bangor  
Ffôn: 01248 382 193 (neu ffôn symudol: 07437441265)  
E-bost: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

*Neu*

Enw: Professor Judy Hutchings  
Canolfan Ymyrraeth Sail Tystiolaeth  
Athro Seicoleg Clinigol, Brifysgol Bangor  
Ffôn: 01248 383 625  
E-bost: [j.hutchings@bangor.ac.uk](mailto:j.hutchings@bangor.ac.uk)

**Os ydych yn penderfynu cymryd rhan yn yr astudiaeth yma, byddech yn derbyn copi o'r daflen wybodaeth yma a ffurflen caniatâd llofnedig i'w gadw ar gyfer eich cofnodion.**

**Diolch yn fawr iawn am gymryd yr amser i ddarllen y daflen wybodaeth hon.**

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# **Appendix F**

## **Feasibility study consent form**

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SCHOOL OF PSYCHOLOGY



## PARENT CONSENT FORM

Title of the Project: Feasibility study of an online parenting programme based on 'The Little Parent Handbook'

Name of Researcher: \_\_\_\_\_

Please initial box

1. I confirm that I have read the information sheet dated..... for the above study. I have had the opportunity to consider the information provided and have had questions answered satisfactorily by the researcher. ☐
2. I understand that my participation is voluntary and I am free to withdraw anytime. ☐
3. I understand that I will need an internet connection in order to participate in this online study. ☐
4. I understand that the study will last for 10 weeks and I will have one week to complete each section of the online programme. ☐
5. I understand that I will be asked to fill out a feedback form at the end of the study. ☐
6. I agree to take part in the above study. ☐

Name of participant:

Date:

Signature:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name of person taking  
consent:

Date:

Signature:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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SCHOOL OF PSYCHOLOGY



### Ffurflen Caniatâd

Teitl y Prosiect: Astudiaeth dichonoldeb o raglen magu plant seiliedig ar 'The Little Parent Handbook'

Enw'r Ymchwilydd: \_\_\_\_\_

Llythrennwch y bocs plis

1. Rwyf yn cadarnhau fy mod wedi darllen y daflen wybodaeth, dyddiad ..... ar gyfer yr astudiaeth uchod. Rwyf hefyd wedi cael y cyfle i ystyried yr holl wybodaeth ac wedi cael atebion boddhaol gan yr ymchwilydd.

☐

2. Rwyf yn deall fod fy nghyfranogiad yn wirfoddol yn yr astudiaeth hon a rhwyf yn rhydd i dynnu allan unrhyw bryd.

☐

3. Rwyf yn deall fy mod angen cyswllt rhyngwrwyd ar gyfer cyfranogi yn yr astudiaeth ar-lein yma.

☐

4. Rwyf yn deall bod yr astudiaeth yn parhau am gyfnod o 10 wythnos a bydd gofyn i mi gwblhau un bennod bob wythnos.

☐

5. Rwyf yn deall bod gofyn i mi gwblhau taflen adborth ar ddiwedd yr ymchwil.

☐

6. Rwyf yn cytuno i gymryd rhan yn yr astudiaeth uchod.

☐

Enw Cyfranogwr:

Dyddiad:

Llofnod:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Enw person sydd yn cymryd caniatâd:

Dyddiad:

Llofnod:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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## **Appendix G**

### **Feasibility study programme details**

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## Feasibility Study – Programme Details

Title of the Project: Feasibility study of an online parenting programme based on ‘The Little Parent Handbook’

### **Instructions:**

In order to access the online parenting programme, you will need access to the internet. The link for the online programme is:

<https://LittleParentHandBook.lifeguidewebsites.org>



The log in page will appear.  
Click on the ‘**Login**’ button and type in your username and password. The log in page looks like this:



### **Log in details:**

Dawn will have already registered you for the programme so that you can log in and out. Please keep these details safe. Your username and password for the programme are:

Username: .....

Password: .....

### **Additional Information:**

If you log out accidentally, close the tab accidentally or lose an internet connection during the programme, don't worry. Open a new tab and start the process again (i.e. follow the link and access the log in page, enter log in details). The LifeGuide software has been programmed so that you can view the last page you were on; this prevents you from having to start the session again from the beginning.

You do not need to log out once you have finished the section, a page will appear asking you to close your browser (closing the browser will automatically log you out of the programme). You can log in and out of each section as you wish, you do not have to complete each section in one go. Each section should take approximately 45 minutes to complete. We ask you to complete one section each week. Please note that you will not be able to move on

to the next section until you have completed the current one. **Note:** there will be **5-day** gap between each of the chapters.

Remember that you need an **internet connection** to access the programme and so if the programme is running slowly, it may be your internet connection.

The programme will work on a PC or apple mac and/or laptop, if you are planning on using an iPad or a tablet please be aware that some of the features may not work properly (audio and/or video clips). This may be due to your device not having flash player. This also applies to mobile devices so please use a PC, apple mac or laptop if feasible.

Once you have completed the programme please contact Dawn (preferably via e-mail) and then she will send you the feedback form. Please could you share your thoughts and views about the programme, as this will help Dawn to make any modifications in the future. The aim is to complete the programme and the feedback form before the Christmas break (Friday, December 18<sup>th</sup> 2015 at the latest). *If you are unable to complete the programme by this date please let Dawn know.*

A 'cookie' message may appear during the programme. A cookie is a small file, which is saved on your computer, which allows us to remember some information about your use of the programme, for example how long you have taken to complete each section. LifeGuide uses cookies to keep you logged in and to identify your current session. The cookies do not make you identifiable, only your username and so you are still remaining anonymous. In order to use the programme, you will need to accept our cookies on your internet browser. If you block the cookies, the programme may not work properly.

### **Contact Details:**

If you encounter any issues during this feasibility study please contact Dawn and she will be happy to help you resolve them. Her details are below:

#### **Dawn Owen**

PhD Student – Centre for Evidence Based Early Intervention

E-mail: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk) or [pss447@bangor.ac.uk](mailto:pss447@bangor.ac.uk)

Phone: 01248 382 193

Thank you very much for participating in this feasibility study – your participation is appreciated. We hope you find the programme useful. Remember to get in touch once you have completed the online programme.

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## Astudiaeth Dichonoldeb – Manylion y Rhaglen

Teitl y Prosiect: Astudiaeth dichonoldeb o raglen magu plant seiliedig ar ‘The Little Parent Handbook’

### **Cyfarwyddiadau:**

Ar gyfer mynediad i'r rhaglen magu plant ar-lein mae angen i chi ymweld â'r wefan <http://www.lifeguideonline.org>. Bydd rhaid i chi glicio ar linc “The Little Parent Handbook”. Yno, wneith y tudalen mewngofnodi ymddangos a bydd gofyn i chi teipio fewn eich enw defnyddiwr a chyfrinair.



### **Manylion Mewngofnodi:**

Bydd Dawn wedi eich cofrestru chi ar gyfer y rhaglen yn barod fel eich bod yn gallu mewngofnodi fewn ag allan fel chi eisiau. Cadwch y manylion yma yn saff os gwelwch yn dda. Dyma eich enw defnyddiwr a chyfrinair ar gyfer y rhaglen:

Enw defnyddiwr: .....

Cyfrinair: .....

### **Manylion Ychwanegol:**

Os ydych yn logio allan yn ddamweiniol, yn cau tab yn ddamweiniol neu yn colli cyswllt y we, pheidiwch â phoeni. Agorwch dab newydd a dechrau'r broses eto o'r cychwyn (e.e. ymweld â gwefan LifeGuide, clicio ar y linc gywir, clicio ar y tudalen mewngofnodi, teipio eich manylion i mewn). Mae'r pecyn LifeGuide wedi'i raglennu fel eich bod yn mynd yn ôl i'r tudalen oeddech arno, mae hyn yn atal chi rhag gorfod cychwyn y sesiwn eto o'r cychwyn cyntaf.

Nid oes rhad i chi logio allan ar ôl gorffen y bennod, gwneith tudalen ymddangos yn gofyn i chi gau eich tab (wrth gau'r tab rydych yn cael eich logio allan o'r rhaglen yn awtomatig). Gallwch fewngofnodi fewn ag allan o'r rhaglen fel chi eisiau, nid oes rhaid cwblhau'r bennod ar y cyfan ar un adeg. Ni ddylai bennod gymryd mwy nag awr i gwblhau. Rydym yn gofyn i chi gwblhau un bennod bob wythnos. Ni fyddwch yn gallu symud ymlaen i'r bennod nesaf nes eich bod wedi cwblhau'r bennod cerrynt. Bydd **5 diwrnod** o frêc rhwng bob pennod. Modd bynnag, unwaith chi wedi cwblhau'r bennod, allwch edrych yn ôl ar y bennod honno fel chi eisiau.

Cofiwch fod angen cyswllt i'r we ar gyfer mynediad i'r rhaglen yma, felly os ydy'r rhaglen yn gweithio yn araf, efallai mai'r cyswllt we yw'r broblem. Efallai bydd neges 'cookies' yn ymddangos yn ystod y rhaglen. Ffeil bychan yw cookies sydd wedi ei safio ar eich cyfrifiadur ar gyfer gadael i ni wybod ychydig o wybodaeth ynglŷn â'ch defnydd o'r rhaglen, er enghraifft, faint o hir y cymerodd i chi gwblhau bob pennod. Nid yw'r cookies yn gwneud chi yn adnabyddadwy, gan ei fod yn defnyddio eich enw defnyddiwr felly rydych yn parhau i fod yn ddienw. Er mwyn defnyddio'r rhaglen mae gofyn i chi dderbyn y cookies ar eich porwr rhyngwyd. Os ydych yn blocio'r cookies, ni fydd y rhaglen yn gweithio yn gywir.

### **Manylion Cyswllt:**

Os rydych yn dod ar draws unrhyw broblem yn ystod yr astudiaeth yma, yno cysylltwch â Dawn. Mae ei manylion cyswllt hi isod:

### **Dawn Owen**

Myfyrwraig PhD – Canolfan Ymyrraeth Sail Tystiolaeth

E-bost: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk) neu [pss447@bangor.ac.uk](mailto:pss447@bangor.ac.uk)

Ffôn: 01248 382 193

Ffôn symudol: 07437441265

Diolch yn fawr i chi am gyfranogi yn yr astudiaeth dichonoldeb yma – rydym yn gwerthfawrogi eich cyfranogiad. Rydym yn gobeithio eich bod am ffeindio'r rhaglen yma i fod yn ddefnyddiol.

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## **Appendix H**

### **Feasibility study debrief form**

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## **Feasibility Study Debrief**

Title of Project: Feasibility study of an online parenting programme based on 'The Little Parent Handbook'

### **Purpose of the study:**

The main purpose of this feasibility study was to see whether the interactive features of the online programme were working effectively. For example, the interactive videos, the audio button, the multiple-choice quizzes, feedback messages etc. If any of the interactive features were not working properly, the researchers would be informed (via the feedback form) and the relevant changes would be made before the distribution a wider scale Randomised Controlled Trial early in 2016.

### **What did I have to do?**

We invited parents of children aged between 3-8 years of age who felt they would benefit from additional support regarding parenting and would like to try a new online parenting programme. We asked participants to complete the 10-week online programme, specifically completing one section every week. The programme included reading through information (or listening via the audio button), watching videos of parents interacting positively with their children and answering multiple-choice questions in order to receive feedback on performance. In order to compensate you for your time, we gave you a copy of 'The Little Parent Handbook' by Professor Judy Hutchings.

### **What happens next?**

The research team will now examine the feedback forms and make any necessary changes to the online programme before distributing it on a wider scale in a Randomised Controlled Trial in 2016. The feedback provided will also be included in a chapter in the final thesis.

If you would like to know more about the study, please contact;

Dawn Owen  
PhD student – Centre for Evidence Based Early Intervention  
E-mail: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)  
Phone: 01248 382 193  
Mobile: 07437441265

**Thank you once again for your participation in this Feasibility Study**

## **Astudiaeth Dichonoldeb – Taflen adrodd yn ôl**

Teitl y Prosiect: Astudiaeth dichonoldeb o raglen magu plant seiliedig ar ‘The Little Parent Handbook’

### **Pwrpas yr astudiaeth:**

Prif bwrpas yr astudiaeth dichonoldeb yma oedd gweld os oedd nodweddion rhyngweithiol y rhaglen ar-lein yn gweithio yn effeithiol. Er enghraifft, y fideos rhyngweithiol, y botwm clywedol, cwis dewis lluosog, negeseuon adborth a.y.b. Os oedd unrhyw agwedd o'r nodweddion rhyngweithiol ddim yn gweithio yn iawn, roedd y tîm ymchwil yn cael gwybod (wrth i chi gwblhau'r daflen feedback) ac yno yn gwneud y newidiadau perthnasol cyn i'r rhaglen cael ei ddosbarthu ar raddfa mwy yn 2016 mewn hap-brawf gyda rheolaeth (RCT).

### **Beth oedd rhaid i mi ei wneud?**

Roedd yno wahoddiad i unrhyw riant o blant rhwng 3-8 oed i'r astudiaeth dichonoldeb yma a oedd yn teimlo eu bod angen cefnogaeth ychwanegol ynglŷn â sgiliau magu plant a bysa hefyd yn hoffi trio rhaglen newydd ar-lein. Gofynnwyd i rieni gwblhau'r rhaglen 10-wythnos ar-lein, yn bennaf, i gwblhau un bennod bob wythnos. Roedd y rhaglen yn cynnwys darllen drwy wybodaeth (neu wrando gan ddefnyddio'r botwm clywedol), gwylio fideo o riant a phlentyn yn rhyngweithio yn bositif ac ateb cwestiynau ar gyfer derbyn adborth ynglŷn â pherfformiad. Ar gyfer digolledu chi am eich amser, roeddech yn cael cadw copi o'r 'The Little Parent Handbook' gan yr Athro Judy Hutchings.

### **Beth sydd yn digwydd nesaf?**

Bydd y tim ymchwil nawr yn edrych ar y ffurfleni adborth ac yno yn gwneud newidiadau perthnasol cyn i'r rhaglen cael ei ddosbarthu ar raddfa mwy yn 2016 mewn hap-brawf gyda rheolaeth (RCT). Bydd yr holl adborth yn cael eu cynnwys mewn pennod yn y thesis terfynnol.

Os hoffech ragor o wybodaeth ynglŷn â'r astudiaeth yma, cysylltwch â:

Dawn Owen  
Myfyrwraig PhD – Canolfan Ymyrraeth Sail Tystiolaeth  
E-bost: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)  
Ffôn: 01248 382 193  
Ffôn symudol: 07437441265

**Diolch i chi unwaith eto am eich cyfranogiad yn yr Astudiaeth Dichonoldeb yma.**

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# **Appendix I**

## **Feasibility study feedback form**

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COLEG GWYDDORAU IECHYD AC YMDDYGIAD  
COLLEGE OF HEALTH AND BEHAVIOURAL SCIENCES

YSGOL SEICOLEG  
SCHOOL OF PSYCHOLOGY



### **Feasibility Study Feedback Form**

The research team would appreciate your feedback and comments following your participation in the Feasibility Study of *'The Little Parent Handbook'* online parenting programme using the *LifeGuide software*. Any feedback you give will be greatly appreciated and will help the research team when it comes to developing the programme further in the future. Please rate your responses from 1 – 5 for each question by circling the number.

Did you complete all 10 weeks of the online programme? (Please circle your response)

Yes/No

If not, please give a reason (i.e. forgot, had no time, no internet connection etc.):

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1) The overall appearance of the online programme was engaging.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

2) The amount of text on each page was appropriate.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

3) Dividing the programme into weekly chapters made the material more manageable.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

## Evaluation of the COPING parent programme

4) I found the programme easy to navigate.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

5) All features of the programme were working (including the back & next buttons, the audio button, videos, feedback for quiz results)

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

*If you encountered a problem with any of the programme features please specify;*

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6) I found the video examples of positive parenting useful.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Additional comments on the videos:

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7) I found the audio button option useful (*If you did not use the audio button please leave this question blank*)

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

8) I found the quiz and the feedback messages at the end of each chapter useful.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

9) I was able to make time to engage with the chapters weekly.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

10) I felt the images supplemented the text well.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

11) The two summary chapters were useful in reminding me of the key points we had previously covered.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

12) I would recommend this programme to other parents of children aged 3-8 years.

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Please include any additional comment[s] you would like to make in regards to ‘The Little Parent Handbook’ online programme. Your feedback is valuable. (Please feel free to make any suggestions for how we could further improve the programme).

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**Thank you very much for taking your time to fill out this feedback form,  
Dawn & Judy**

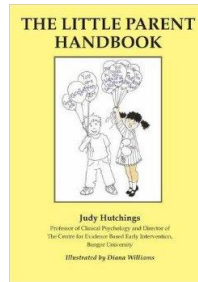
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## **Appendix J**

### **Feasibility study: Recruitment letter and poster**

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Dear \_\_\_\_\_,

I am a second year PhD student at the Centre for Evidence Based Early Intervention, Bangor University, and my project involves designing and evaluating a web-based parenting programme for parents of children aged 3-8 years who feel they would benefit from additional parenting support.

The web-based programme covers core, parenting tools and aims to teach parents how to encourage desirable behaviours from their child/children and how to effectively deal with problem behaviours. The focus of the programme is positive parenting with a strong emphasis on praise and reward. The online programme is adapted from 'The Little Parent Handbook' by Professor Judy Hutchings.

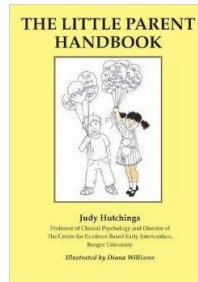
Professor Judy Hutchings and myself are looking for parents who feel they would benefit from additional support and would be interested in completing an online programme. The programme will last for 10 weeks, and parents will be asked to complete one chapter each week (each chapter will take no more than one hour to complete). We will then ask parents to complete a short feedback form in order to share their opinions and views of the programme.

Please could you be so kind as to distribute the attached poster to parents. My contact details are on the poster and so interested parents can contact myself directly.

Many thanks for your co-operation,

Kind regards,

Dawn Owen



Annwyl \_\_\_\_\_,

Rwyf yn fyfyrwraig PhD yn y Ganolfan Ymyrraeth ar Sail Tystiolaeth, Ysgol Seicoleg, Brifysgol Bangor. Mae fy mhrosiect yn ymglymu dylunio a gwerthuso rhaglen magu plant ar-lein ar gyfer rhieni gyda phlant 3-8 oed a buasai yn teimlo fel pe tai yn elw o dderbyn cefnogaeth magu plant ychwanegol.

Mae'r rhaglen yn cynnwys adnoddau magu plant pwysig ac yn dysgu rhieni sut i annog ymddygiad dymunol gan blant a sut i ddelio yn effeithiol gydag ymddygiadau problemus. Ffocws y rhaglen yw magu plant mewn ffordd bositif gyda phwyslais cryf ar gannmol a gwobrwyo. Mae'r rhaglen ar-lein yn seiliedig ar 'The Little Parent Handbook' gan yr Athro Judy Hutchings.

Rydym yn chwilio am rieni sydd yn teimlo fel pe tai yn elw o gefnogaeth ychwanegol a/neu eisiau dysgu mwy ynglŷn â magu plant, fysa hefyd gyda diddordeb mewn cwblhau rhaglen ar-lein. Bydd y rhaglen yn barau am 10 wythnos a bydd gofyn i rieni gwblhau un bennod bob wythnos (bydd un bennod yn cymryd dim mwy nag awr i'w gwblhau). Ar ôl cwblhau'r rhaglen byddwn yno yn gofyn i rieni gwblhau taflen adborth byr ar gyfer rhannu barn.

Os gwelwch yn dda a fedrwch fod mor garedig a dosbarthu'r poster wedi ei atodi i rieni. Mae fy manylion cyswllt i ar y poster felly fedrith rhieni a diddordeb cysylltu gyda fi yn bersonol.

Diolch yn fawr iawn am eich cydweithrediad,

Cofion gorau,

Dawn Owen



## The Little Parent Handbook Online Programme for Parents



- ✧ Would you like to enhance your parenting skills?
- ✧ Would you like to encourage good behaviour from your child?
- ✧ Would you like to learn more about evidence-based behavioural principles so as to better manage your child's behaviour?
- ✧ Would you like to try a newly developed online parenting programme, based on local work with parents over many years?



We are looking for parents of children aged between 3-8 years old who feel they would benefit from additional support regarding any aspect of their parenting to complete a 10 week online parenting programme, and then to share their views by completing a short feedback form.

If you would like further information please contact Dawn Owen at the Centre for Evidence Based Early intervention, Bangor University

[dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

Or

Phone: 01248 382 193  
Text: 07437441265



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**Appendix K**

**Trials paper SPIRIT checklist**

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## SPIRIT

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

Section/item	Item No	Description
<b>Administrative information</b>		
Title	1	Descriptive title identifying the study design, population, interventions, and, if applicable, trial acronym <b>(page 1)</b>
Trial registration	2a	Trial identifier and registry name. If not yet registered, name of intended registry <b>(page 2)</b>
	2b	All items from the World Health Organization Trial Registration Data Set <b>(not applicable)</b>
Protocol version	3	Date and version identifier <b>(page 1)</b>
Funding	4	Sources and types of financial, material, and other support <b>(page 1)</b>
Roles and responsibilities	5a	Names, affiliations, and roles of protocol contributors <b>(page 1)</b>
	5b	Name and contact information for the trial sponsor <b>(page 1)</b>
	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 <b>(page 21)</b>
	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) <b>(not applicable – all work carried out by the authors)</b>
<b>Introduction</b>		
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 <b>(pages 3 – 6)</b>
	6b	Explanation for choice of comparators <b>(page 17-19)</b>
Objectives	7	Specific objectives or hypotheses <b>(page 6)</b>

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) <b>(page 7)</b>
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**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 <b>(page 7)</b>
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) <b>(page 7)</b>
Interventions	11a	Interventions for each group with sufficient detail to allow replication, including how and when they will be administered <b>(pages 9–13)</b>
	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) <b>(no criteria for discontinuing treatment)</b>
	11c	Strategies to improve adherence to intervention protocols, and any procedures for monitoring adherence (eg, drug tablet return, laboratory tests) <b>Not applicable</b>
	11d	Relevant concomitant care and interventions that are permitted or prohibited during the trial <b>Not applicable</b>
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 <b>(pages 13-16)</b>
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) <b>(insert figure on page 18)</b>
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 <b>(page 17)</b>
Recruitment	15	Strategies for achieving adequate participant enrolment to reach target sample size <b>(pages 7-8)</b>

**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 <b>(pages 17-18)</b>
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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 <b>(pages 17-18)</b>
Implementation	16c	Who will generate the allocation sequence, who will enrol participants, and who will assign participants to interventions <b>(pages 17-18)</b>
Blinding (masking)	17a	Who will be blinded after assignment to interventions (eg, trial participants, care providers, outcome assessors, data analysts), and how <b>(pages 18-19)</b>
	17b	If blinded, circumstances under which unblinding is permissible, and procedure for revealing a participant's allocated intervention during the trial <b>(pages 18-19)</b>

#### **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 <b>(pages 16-17)</b>
	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 <b>(pages 16-17)</b>
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 <b>(pages 16-17)</b>
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 <b>(page 19)</b>
	20b	Methods for any additional analyses (eg, subgroup and adjusted analyses) <b>(page 19)</b>
	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) <b>(page 19)</b>

#### **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 <b>Not applicable</b>
	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 <b>Not applicable</b>

## Evaluation of the COPING parent programme

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 <b>Not applicable</b>
Auditing	23	Frequency and procedures for auditing trial conduct, if any, and whether the process will be independent from investigators and the sponsor <b>(process will not be independent from Bangor University)</b>

### Ethics and dissemination

Research ethics approval	24	Plans for seeking research ethics committee/institutional review board (REC/IRB) approval <b>(page 20)</b>
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) <b>(authors will contact relevant parties if any changes to protocol should occur)</b>
Consent or assent	26a	Who will obtain informed consent or assent from potential trial participants or authorised surrogates, and how (see Item 32) <b>(page 8)</b>
	26b	Additional consent provisions for collection and use of participant data and biological specimens in ancillary studies, if applicable <b>Not applicable</b>
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 <b>(all data will remain confidential before, during and after the trial)</b>
Declaration of interests	28	Financial and other competing interests for principal investigators for the overall trial and each study site <b>(page 21)</b>
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 <b>(only the authors will have access to the data)</b>
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 <b>Not applicable</b>
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 <b>(page 20)</b>
	31b	Authorship eligibility guidelines and any intended use of professional writers <b>Not applicable</b>
	31c	Plans, if any, for granting public access to the full protocol, participant-level dataset, and statistical code <b>No plans</b>

### Appendices

Informed consent materials	32	Model consent form and other related documentation given to participants and authorised surrogates <b>Uploaded with submission</b>
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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 <b>Not applicable</b>
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\*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.

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## **Appendix L**

### **NHS and R&D ethical approval letters**

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## **Panel Arolygu Mewnol Y&D - Canolog R&D Internal Review Panel**

Betsi Cadwaladr University Health Board  
Ysbyty Gwynedd Clinical Academic Office Bangor, Gwynedd  
LL57 2PW

Chairman/Cadeirydd – Dr Nefyn Williams PhD, FRCGP

Email: [rossela.roberts@wales.nhs.uk](mailto:rossela.roberts@wales.nhs.uk) [debra.slater@wales.nhs.uk](mailto:debra.slater@wales.nhs.uk) [sion.lewis@wales.nhs.uk](mailto:sion.lewis@wales.nhs.uk) Tel/Fax: 01248 384 877

25<sup>th</sup> January 2016

Miss Dawn Owen Bangor University  
Centre for Evidence Based Early Intervention Nantlle Building, Normal Site,  
Bangor University, Bangor, Gwynedd  
LL57 2PZ  
[dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

Dear Miss Dawn Owen

### **Re: Confirmation that R&D governance checks are complete / R&D approval granted**

**Study Title** An effectiveness study of an online parenting programme based on 'The Little Parent Handbook': A pilot randomised controlled trial

**IRAS reference** 192588

**REC reference** 15/WA/0463

The above research project was reviewed at the meeting of the BCUHB R&D Internal Review Panel

The Panel is satisfied with the scientific validity of the project, the risk assessment, the review of the NHS cost and resource implications and all other research management issues pertaining to the application.

**The Internal Review Panel is pleased to confirm that all governance checks are now complete and to grant approval to proceed at Betsi Cadwaladr University Health Board sites as described in the application.**

The documents reviewed and approved are listed below:

Document:	Version:	Date:
R&D Form	V5.2.0	02/12/2015
SSI Form	V5.2.0	10/12/2015
Protocol	V1	20/10/2015
Information sheet – Parent	V1	20/10/2015
Information sheet - Health Visitor	V1	20/10/2015
Consent Form – Parent	V1	20/10/2015
Parent “Note of Interest”	V1	20/10/2015
Letter – RCT Intervention	V1	20/10/2015
Letter – RCT Control	V1	20/10/2015
RCT Programme details	V1	20/10/2015
Poster – Parents	V1	20/10/2015
Poster – Recruitment/Schools	V1	20/10/2015
Questionnaire – Demographic		-
Questionnaire – ECBI (Eyberg Child Behaviour Inventory)		-
Questionnaire – Parent Sense of Competence		-
Questionnaire – General Health		-
Parenting Scale – Arnold & O’Leary		-
Observation Sheet	V1	20/10/2015
Summary CV: Dawn Owen		20/10/2015
Summary CV: Helen Owen		11/12/2015

All research conducted at the Betsi Cadwaladr University Health Board sites must comply with the Research Governance Framework for Health and Social Care in Wales (2009). An electronic link to this document is provided on the BCUHB R&D WebPages. Alternatively, you may obtain a paper copy of this document via the R&D Office.

Attached you will find a set of approval conditions outlining your responsibilities during the course of this research. Failure to comply with the approval conditions will result in the withdrawal of the approval to conduct this research in the Betsi Cadwaladr University Health Board.

If your study is adopted onto the NISCHR Clinical Research Portfolio (CRP), it will be a condition of this NHS research permission, that the Chief Investigator will be required to regularly upload recruitment data onto the portfolio database. To apply for adoption onto the NISCHR CRP, please go to: <http://www.wales.nhs.uk/sites3/page.cfm?orgid=580&pid=31979>. Once adopted, NISCHR CRP studies may be eligible for additional support through the NISCHR Clinical Research Centre. Further information can be found at: <http://www.wales.nhs.uk/sites3/page.cfm?orgid=580&pid=28571> and/or from your NHS R&D office colleagues.

To upload recruitment data, please follow this link:  
[http://www.crnc.nihr.ac.uk/about\\_us/processes/portfolio/p\\_recruitment](http://www.crnc.nihr.ac.uk/about_us/processes/portfolio/p_recruitment).

Uploading recruitment data will enable NISCHR to monitor research activity within NHS organizations, leading to NHS R&D allocations which are activity driven. Uploading of

recruitment data will be monitored by your colleagues in the R&D office. If you need any support in uploading this data, please contact [debra.slater@wales.nhs.uk](mailto:debra.slater@wales.nhs.uk) or [sion.lewis@wales.nhs.uk](mailto:sion.lewis@wales.nhs.uk)

If you would like further information on any other points covered by this letter please do not hesitate to contact me.

On behalf of the Panel, may I take this opportunity to wish you every success with your research. Yours sincerely,



Dr Nefyn  
Williams PhD,  
FRCGP Director  
of R&D  
Chairman Internal Review Panel

Copy Sponsor to: Mr Hefin Francis, School of Psychology Manager  
[h.francis@bangor.ac.uk](mailto:h.francis@bangor.ac.uk)

Academic Supervisor: Professor Judy Hutchings, School of Psychology,  
[j.hutchings@bangor.ac.uk](mailto:j.hutchings@bangor.ac.uk)



**Gwasanaeth Moeseg Ymchwil Research Ethics  
Service**



24 January 2016

Miss Dawn Adele  
Owen  
PhD student  
Bangor University  
Centre for Evidence Based Early  
Intervention Nantlle Building, Normal  
Site,  
Bangor University, Bangor,  
Gwynedd LL57 2PZ

[dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

Dear Miss Owen,

<b>Study title:</b>	<b>An effectiveness study of an online parenting programme based on 'The Little Parent Handbook': A pilot randomised controlled trial</b>
<b>REC reference:</b>	<b>15/WA/0463</b>
<b>Protocol number:</b>	<b>N/A</b>
<b>IRAS project ID:</b>	<b>192588</b>

Thank you for your letter of 12 January 2016, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered at the meeting of the Committee held on 21 January 2016. A list of the members who were present at the meeting is attached.

We plan to publish your research summary wording for the above study on the HRA website, together with your contact details. Publication will be no earlier than three months from the date of this opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to make a request to postpone publication, please contact the REC Manager, Dr Rossela Roberts, [rossela.roberts@wales.nhs.uk](mailto:rossela.roberts@wales.nhs.uk).

## **Confirmation of ethical opinion**

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

## **Conditions of the favourable opinion**

The REC favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements. Each NHS organisation must confirm through the signing of agreements and/or other documents that it has given permission for the research to proceed (except where explicitly specified otherwise).

Guidance on applying for NHS permission for research is available in the Integrated Research Application System, [www.hra.nhs.uk](http://www.hra.nhs.uk) or at <http://www.rdforum.nhs.uk>.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of management permissions from host organisations

### Registration of Clinical Trials

All clinical trials (defined as the first four categories on the IRAS filter page) must be registered on a publically accessible database within 6 weeks of recruitment of the first participant (for medical device studies, within the timeline determined by the current registration and publication trees).

There is no requirement to separately notify the REC but you should do so at the earliest opportunity e.g. when submitting an amendment. We will audit the registration details as part of the annual progress reporting process.

To ensure transparency in research, we strongly recommend that all research is registered but for non-clinical trials this is not currently mandatory.

If a sponsor wishes to contest the need for registration they should contact Catherine Blewett ([catherineblewett@nhs.net](mailto:catherineblewett@nhs.net)), the HRA does not, however, expect exceptions to be made.

Guidance on where to register is provided within IRAS.

**It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).**

### **Ethical review of research sites**

#### **NHS sites**

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

### **Approved documents**

The final list of documents reviewed and approved by the Committee is as follows:

<i>Document</i>	<i>Version</i>	<i>Date</i>
Copies of advertisement materials for research participants [Poster for parents]	1	20 October 2015
Copies of advertisement materials for research participants [School and nursery recruitment poster ]	1	20 October 2015
Covering letter on headed paper [Response to request for further information ]	1	12 January 2016
Letters of invitation to participant [RCT - intervention letter]	1	20 October 2015
Letters of invitation to participant [RCT - control letter]	1	20 October 2015
Non-validated questionnaire [Demographic questionnaire ]	1	20 October 2015
Other [RCT - Programme Details]	1	20 October 2015
Other [Observation sheet ]	1	20 October 2015
Other [Parent note of interest]	1	20 October 2015
Other [HV information sheet (Welsh)]	2	12 January 2016
Other [parent information sheet (Welsh)]	2	12 January 2016
Other [Parent consent form (Welsh)]	2	12 January 2016
Other [Study summary ]	2	12 January 2016
Participant consent form [Parent consent form ]	2	12 January 2016
Participant information sheet (PIS) [HV information sheet ]	2	12 January 2016
Participant information sheet (PIS) [Parent information sheet ]	2	12 January 2016
REC Application Form [REC_Form_02122015]		02 December 2015
Research protocol or project proposal [Research study protocol]	2	12 January 2016
Summary CV for Chief Investigator (CI) [Dawn Owen - CV]	1	20 October 2015
Summary CV for supervisor (student research) [Judy Hutchings - CV]	1	20 October 2015
Validated questionnaire [Arnold O'Leary parenting scale measure]		
Validated questionnaire [Eyberg measure ]		
Validated questionnaire [General health questionnaire]		
Validated questionnaire [Parenting sense of competence measure]		



## Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

## After ethical review

### Reporting requirements

The attached document "*After ethical review – guidance for researchers*" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports
- Notifying the end of the study

The HRA website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

## User Feedback

The Health Research Authority is continually striving to provide a high quality service to all applicants and sponsors. You are invited to give your view of the service you have received and the application procedure. If you wish to make your views known please use the feedback form available on the HRA website:  
<http://www.hra.nhs.uk/about-the-hra/governance/quality-assurance/>

## HRA Training

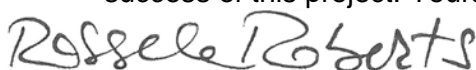
We are pleased to welcome researchers and R&D staff at our training days – see details at <http://www.hra.nhs.uk/hra-training/>

15/WA/0463

Please quote this number on all correspondence

With the Committee's best wishes for the

success of this project. Yours sincerely



PJ

**Dr Philip  
Wayman White,  
MBChB, FRCGP  
Chair**

E-mail: [rossela.roberts@wales.nhs.uk](mailto:rossela.roberts@wales.nhs.uk)

*Enclosures: List of names and professions of members who were present at the meeting  
and those who submitted written comments*

*“After ethical review – guidance for researchers”*

Copy to:      Sponsor:      Mr Hefin Francis  
School of Psychology  
Bangor University  
Brigantia Building, Penrallt Road  
Bangor, Gwynedd, LL57 2AS, [h.francis@bangor.ac.uk](mailto:h.francis@bangor.ac.uk)

Academic      Professor Judy Hutchings  
Supervisor:      Centre for Evidence Based Early Intervention  
School of Psychology, Nantlle Building, Normal Site  
Bangor, Gwynedd, LL57 2PZ,      [j.hutchings@bangor.ac.uk](mailto:j.hutchings@bangor.ac.uk)

R&D Office      Miss Debra Slater  
Betsi Cadwaladr University Health  
Board Clinical Academic Office  
Ysbyty Gwynedd Hospital Bangor, LL57 2PW,  
[debra.slater@wales.nhs.uk](mailto:debra.slater@wales.nhs.uk)

## **Wales Research Ethics Committee 5 Attendance at Committee meeting on 21 January 2016**

### **Committee Members**

<i>Name</i>	<i>Profession</i>	<i>Capacity</i>	<i>Present</i>
Dr Karen BE Addy	Clinical Psychologist	Expert	Yes
Dr Swapna Alexander	Consultant Physician	Expert	Yes
Mrs Kathryn Chester	Research Nurse	Expert	Yes
Ms Geraldine Jenson	Retired College Vice-Principal	Lay +	No
Mr Eliezer Lichtenstein	Student	Lay +	No

## Evaluation of the COPING parent programme

Dr Mark G Lord	Consultant Pathologist	Expert	Yes
Dr Pamela A Martin-Forbes	WCRW Research Officer	Expert	Yes
Dr Paul G Mullins	Reader, MRI Physicist	Lay +	No
Mr Vishwanath Puranik	Associate Specialist ENT Surgeon	Expert	Yes
Mrs Lynn C Roberts	Matron, Emergency Department	Expert	No
Dr Judith L Roberts	Research Officer	Expert	Yes
Mrs Rachel L Roberts-Jones	Student	Lay +	Yes
Dr Jason D Walker	Consultant Anaesthetist (Vice-Chairman)	Expert	Yes
Dr Philip W White	General Practitioner (Chairman)	Expert	Yes
Ms Sydna A Williams	Lecturer	Lay +	Yes

### In attendance

<i>Name</i>	<i>Position (or reason for attending)</i>
Dr Rossela Roberts	Clinical Governance Officer / RES Manager

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## **Appendix M**

### **Main trial recruitment poster**

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## The Little Parent Handbook Online Programme for Parents



- ✧ Would you like to learn more about effective parenting skills?
- ✧ Would you like to strengthen your relationship with your child and encourage good behaviour from your child?
- ✧ Would you like to learn more about behavioural principles so as to better manage your child's behaviour?
- ✧ Would you like to try a new online parenting programme, based on local work with parents over many years?



We are looking for parents of children aged between 3-8 years old who would like to learn more about positive parenting to complete a 10 week online parenting programme.

If you would like to know more about this programme, please contact Dawn Owen at Bangor University

e-mail: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk) or telephone 01248 382 193

Version 1 20-10-2015



## Rhaglen ar-lein i rieni yn seiliedig ar 'The Little Parent Handbook'



- ✧ Buasech yn hoffi dysgu mwy am sgiliau effeithiol magu plant?
- ✧ Buasech yn hoffi cryfhau eich perthynas hefo'ch plentyn ac annog ymddygiad da gan eich plentyn?
- ✧ Buasech yn hoffi dysgu mwy am egwyddorion ymddygiad ar gyfer gwell rheoli ymddygiad eich plentyn?
- ✧ Buasech yn hoffi trio rhaglen newydd ar-lein ar gyfer rhieni, yn seiliedig ar waith lleol gyda rhieni dros lawer o flynyddoedd?



Rydym yn chwilio am rieni sydd gyda phlant rhwng 3-8 oed a buasai yn hoffi dysgu mwy am fagu plant mewn ffordd bositif i gwblhau rhaglen 10-wythnos ar-lein.

Os hoffech mwy o fanylion am y rhaglen yma, cysylltwch gyda Dawn Owen ym Mhrifysgol Bangor:

E-bost: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk) neu ffonio 01248 382 193

Fersiwn 1 20-10-2015

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## **Appendix N**

### **Health visitor/school nurse information sheet**

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## HEALTH VISITOR & SCHOOL NURSE INFORMATION SHEET

### **Evaluation of an online parenting programme based on 'The Little Parent Handbook'**

You are being asked to help with a research study being undertaken at Bangor University. This leaflet explains the project and how you can help.

#### ***What is the purpose of this research study?***

The purpose of this study is to see whether parents find an online parenting programme, based on 'The Little Parent Handbook', helpful. This programme aims to provide parents with parenting tools that can strengthen parent-child relationships and encourage positive child behaviour. For this study, we are recruiting any parents that would like to learn more, it is not a targeted study. The only recruitment criteria are that the parent has a child aged 3-8 years and has access to the internet (preferably via a PC or a laptop, but the programme will work on an iPad/tablet. The programme will not however work on a smartphone). This study provides parents with online material over a ten-week period. The web programme is only currently available in English.

#### ***What we would like your help with***

We are asking you (health visitors and school nurses) to help us with recruitment because you are in regular contact with parents of pre-school children who might like to take part in the programme. These parents may also have older children within our age range.

#### ***What will happen if I would like to help?***

You will be invited to a meeting where you will have an opportunity to view the parent recruitment and programme materials. You will hand out recruitment posters to parents of children aged between 3-8 years to invite them to participate in the programme. If parents express interest in participating you will ask them to fill out a parent note of interest form to be sent to the Bangor University research office. You will then send it back to the research team (in a pre-paid envelope) who will contact the families to arrange a meeting to discuss the study further and obtain informed consent. A copy of the recruitment poster and expression of interest are attached. Parents will give formal consent to participate in the study after they have met with the researcher and had an opportunity to learn more about it.

#### ***How does the programme work?***

Once parents have given consent, a member of the research team will arrange to make another visit to see them and their child in three months time. These visits involve parents filling out questionnaires and also engaging in a play activity with their child that the researcher will observe to record how the child responds during the activity.

Parents who sign up for the study will be randomly allocated to one of two groups, and will either receive the programme immediately (intervention group) after the first research visit or be asked to wait for three months (control group) before they can access the programme. Parents will be told to which group they have been allocated to after the initial research visit has been completed. Parents will receive their log in details for the programme when it is time for them to access it.

1. **Intervention group parents** – researchers will visit parents three months after they begin the programme and again six months later.
2. **Control group parents** – researchers will only visit parents three months after the first visit. They will be given their log in details during this second visit.

Parents will have weekly access to the online material covering different core parenting skills. The programme is presented in a fun way and includes quizzes to check learning and videotaped examples of positive parenting to provide modelling of core parenting skills. The programme is delivered entirely on line although parents will receive weekly, automated text messages prompting them to access the next chapter. They will also receive automated feedback on their quiz results and on any recording, they make to say that they have practised the skills covered in the programme. They will also be encouraged to keep paper records of the activities they engage in with their child. There will be no contact between the programme developers and parents apart from the three scheduled visits. Throughout the programme parents will be encouraged to seek help through yourselves or their GPs if they are having challenges with their children's behaviour that are not being helped by the programme.

***What are the possible disadvantages or risks to families of taking part?***

There are no obvious risks to families in participating in this study. The programme is web-based and it will be the choice of the parent to continue to access it weekly or not.

***What are the possible benefits of taking part?***

Parents on your caseload could potentially learn skills that could help them to encourage positive behaviour from their child and reduce potential or actual problem behaviours.

***What happens when the research study stops?***

The research team will gather all information from parents and will also have access to the information regarding parents' access to the on-line programme, how much of it they access, their quiz results etc. These data will be used to answer the question as to whether the programme has increased parental knowledge of positive parenting techniques, increased positive parenting and/or reduced child problem behaviour. It will also be possible to explore for whom it works best. On completion of the study you and the participating parents will receive a summary of the research findings.

***Who is organising and funding the research?***

The research is part of a student PhD project. The research is part-funded by a former Bangor student and part-funded by the Charity – the *Children's Early Intervention Trust*.

***Who has reviewed this study?***

The study was reviewed by Bangor University (School of Psychology Research



Governance and Ethics Committee), as well as the NHS (Wales Research Ethics Committee 5, Bangor) and R&D Committee (BCUHB R&D Internal Review Panel)

***Ethical Considerations***

All data will be kept strictly confidential unless any child protection matter(s) arise. If child protection matters are disclosed to a researcher during the course of the study, the chief investigator will pass on the information to the academic supervisor. The academic supervisor is also a Clinical Psychologist and holds a contract with the NHS. She will then deal with the matter, as she deems appropriate.

***What if I would like further information?***

If you have any further questions regarding recruitment please contact Dawn Owen

Dawn Owen - PhD Student,  
Centre for Evidence Based Early Intervention, Ground Floor  
Nantlle Building , Normal Site, Bangor University, Gwynedd, LL57 2PZ  
E-mail: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)  
Tel: 01248 382193

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

## TAFLEN WYBODAETH YMWELWYR IECHYD A NYRS YSGOL

### **Dadansoddiad o raglen magu plant ar lein yn seiliedig ar 'The Little Parent Handbook'**

Mae gofyn i chi helpu gydag astudiaeth ymchwil sydd yn cael ei gynnal ym Mhrifysgol Bangor. Mae'r daflen yma yn esbonio'r prosiect a sut gallwch helpu.

#### ***Beth yw pwrpas yr astudiaeth?***

Pwrpas yr astudiaeth yw gweld os ydy rhieni yn gweld y rhaglen ar-lein, yn seiliedig ar 'The Little Parent Handbook', yn ddefnyddiol. Amcan y rhaglen yw darparu rhieni gyda strategaethau a wneith gryfhau perthynas rhiant a phlentyn ac annog ymddygiad positif plant. Ar gyfer yr astudiaeth hon, rydym yn rhoi gwadd i unrhyw riant a buasai yn hoffi dysgu mwy, nid yw yn astudiaeth targed. Mae gofyn i rieni fod gyda phlentyn rhwng 3-8 oed a gyda mynediad i'r we (ar PC neu laptop fysa gorau). Nid gwneith y rhaglen weithio ar ffôn symudol. Mae'r astudiaeth yn para am 10 wythnos ac ond ar gael drwy gyfrwng Saesneg ar hyn o bryd.

#### ***Sut hoffwn i chi helpu***

Rydym yn eich gwahodd chi (ymwelwyr yechyd a nyrs ysgol) i helpu ni recriwtio rhieni gan eich bod mewn cyswllt rheolaidd gyda rhieni sydd hefo plant ifanc, a hefyd, efallai bod gan y plant ifanc rydych yn gweithio hefo frodyr neu chwiorydd hyn.

#### ***Beth fydd yn digwydd os rydw i yn penderfynu cymryd rhan?***

Bydd gwahodd i chi gyfarfod a'r tîm ymchwil a chael y cyfle i weld y rhaglen ac i weld adnoddau'r rhaglen. Bydd gofyn i chi dosbarthu poster i recriwtio i rieni sydd gyda phlentyn rhwng 3-8 oed a'u gwahodd i neud y rhaglen. Os oes gan rieni diddordeb mewn cymryd rhan, byddwch yn gofyn iddynt lenwi ffurflen ac yno ei yrru yn ôl i'r swyddfa ymchwil yn brifysgol Bangor. Byddwch yn gyrru'r daflen (gyda gwybodaeth gyswllt y rhiant) yn ôl i'r tîm ymchwil, a byddant yno yn cysylltu â'r rhiant i drefnu adeg gyfleus i ymweld a thrafod ymhellach. Mae copi o'r poster a thaflen rhieni wedi eu hatodi. Bydd rhieni yn rhoi caniatâd ffurfiol ar ôl i aelod o'r tîm ymchwil eu hymweld ag yno wedi cael cyfle i ofyn cwestiynau.

#### ***Sut mae'r rhaglen yn gweithio?***

Ar ôl i rieni rhoi caniatâd, bydd aelod o'r tîm ymchwil yn trefnu i'w gweld nhw a'u plentyn dwy waith eto. Bydd yr ymweliadau yn cael eu hail adrodd ar ôl tri a chwe mis. Bydd gofyn i rieni cwblhau holiaduron a chwblhau gweithgaredd hefo'r plentyn fel gall yr ymchwilydd arsylwi sut mae'r plentyn yn ymateb yn ystod y gweithgaredd.

Bydd rhieni a fydd eisiau gwneud y rhaglen yn cael eu rhannu i un o ddau grŵp. Bydd un grŵp yn derbyn y rhaglen yn syth ar ôl yr ymweliad gan yr ymchwilydd (grŵp

ymyrraeth), a bydd y grŵp arall yn gorfod disgwyl tri mis (grŵp rheolydd) cyn cael mynediad i'r rhaglen. Bydd aelod o'r tîm ymchwil yn gadael i'r rhieni wybod pa grŵp maent ynddynt hwy ar ôl i'r ymweliadau i gyd cael eu cwblhau. Bydd rhieni yn cael eu manylion mewngofnodi pam mae yn amser iddynt fynedu a'r rhaglen.

1. **Rhieni grŵp ymyrraeth** – Bydd ymchwilydd yn ymweld â'r rhieni tri mis ar ôl iddynt gychwyn y rhaglen ac yno chwe mis wedyn hefyd.
2. **Rheini grŵp rheolydd** – Bydd ymchwilydd yn ymweld â'r rheini tri mis ar ôl yr ymweliad cyntaf yn unig. Bydd y rhieni yn cael eu manylion cyswllt i fynedu'r rhaglen yn ystod yr ymweliad yma.

Bydd gan rieni fynediad wythnosol i'r adnoddau a fydd yn cyfro sgiliau magu plant hanfodol. Mae'r rhaglen wedi ei gyflwyno mewn ffordd hwyl ac yn cynnwys cwis ar gyfer checio faint maent wedi ei ddysgu a hefyd enghreifftiau fideo o fagu plant positif ar gyfer allu modelu'r sgiliau i rieni. Mae'r rhaglen i gyd ar lein er fydd rhieni yn derbyn negeseuon testun i'w atgoffa i logio fewn i weithio drwy'r rhaglen. Byddant hefyd yn derbyn adborth ar lein ar ôl cwblhau'r cwis er mwyn iddynt allu gwybod lle i wella, a hefyd ar ôl recordio faint o weithiau roeddent wedi ymarfer y sgiliau hanfodol adref hefo'u plentyn. Bydd annog rhieni i gadw record ar bapur o'r gweithgareddau maent yn eu gwneud hefo'r plentyn. Bydd dim gyswllt rhwng datblygwyr y rhaglen a rhieni yn ystod yr astudiaeth oni bai am yr ymweliadau a fydd wedi eu trefnu. Yn ystod y rhaglen bydd annog rhieni i ofyn am gefnogaeth ganddo'ch chi neu ddoctor os ydyn yn cael trafferthion gydag ymddygiad eu plant sydd ddim yn cael eu targedu gan y rhaglen.

### ***Beth yw'r anfanteision neu risgiau posibl o gymryd rhan?***

Does yna ddim risgiau amlwg wrth gymryd rhan yn yr astudiaeth yma.

### ***Beth yw'r buddion posibl o gymryd rhan?***

Bydd rieni ar eich braint achosion chi yn dysgu sgiliau newydd fagu plant a fydd, o bosib, yn eu helpu i annog ymddygiad da gan eu plentyn a lleihau ymddygiadau trafferthus.

### ***Beth fydd yn digwydd ar ôl i'r ymchwil orffen?***

Bydd y tîm ymchwil yn hel y wybodaeth i gyd gan rieni yn ogystal â gwybodaeth ynglŷn â defnydd rhieni o'r rhaglen, er enghraifft faint o'r rhaglen mae rhieni wedi cwblhau, sgôr y cwis ac yn y blaen. Bydd y data yma yn cael eu defnyddio i ateb y cwestiwn a ydy'r rhaglen wedi cynyddu gwybodaeth rhieni o dechnegau magu plant positif, cynyddu magu plant positif ac/neu leihau ymddygiad problemus plant. Bydd hefyd yn gallu archwilio i bwy ddaru'r rhaglen weithio orau i. Ar ôl i'r astudiaeth orffen, bydd y rhieni a chi yn cael crynodeb o'r canlyniadau.

### ***Pwy sydd yn trefnu ag ariannu'r ymchwil?***

Mae'r ymchwil yn cael ei drefnu gan Brifysgol Bangor fel rhan o doethuriaeth myfyrwraig. Mae'r ymchwil yn cael ei ariannu gan elusen – *Children's Early Intervention Trust*.

### ***Pwy sydd wedi arolygu'r astudiaeth?***

Prifysgol Bangor (School of Psychology Research Governance and Ethics Committee), yn

ogystal â NHS (Wales Research Ethics Committee 5, Bangor) a R&D Committee (BCUHB R&D Internal Review Panel).

***Ystyrieth Mooeseg***

Bydd holl ddata yn cael ei gadw yn gyfrinachol nes bod unrhyw fater amddiffyn plant yn cael ei godi. Os ydy mater amddiffyn plant yn cael ei godi yn ystod yr ymchwil, bydd y prif ymchwiliwr yn ei basio ymlaen i'r goruchwyliwr academiaidd. Mae'r goruchwyliwr academiaidd hefyd yn Seicolegydd Clinigol a hefo cytundeb hefo'r Gwasanaeth Iechyd. Bydd hi yn delio hefo'r mater mewn ffordd mae hi yn meddwl sydd fwyaf addas.

***Mae gen i rhagor o gwestiynau i ofyn? Pwy allai ffonio?***

Os ydych hefo rhagor o gwestiynau ynglyn a'r ymchwil yma, dylwch gysylltu a:

Enw: Dawn Owen

Myfyrwraig PhD, Brifysgol Bangor

Ffôn: 01248 382 193

neu

e-bost: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

**Diolch yn fawr iawn am gymryd yr amser i ddarllen y daflen wybodaeth hon.**

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## **Appendix O**

### **Parent note of interest form**

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COLEG GWYDDORAU IECHYD AC YMDDYGIAD  
COLLEGE OF HEALTH AND BEHAVIOURAL SCIENCES

YSGOL SEICOLEG  
SCHOOL OF PSYCHOLOGY



**Evaluation of an online parenting programme based on 'The Little Parent Handbook'**

**PARENT NOTE OF INTEREST**

If you have discussed the research project with your health visitor or school nurse and would like to learn more about this new online programme, please complete and sign this form and hand it back to them. They will send this form to the research team at Bangor University who will then contact you in order to discuss the project further.

**Contact details:**

<b>First Name:</b>	
<b>Surname:</b>	
<b>Address:</b>	
<b>Postcode:</b>	
<b>Telephone (landline)</b>	
<b>Telephone (mobile)</b>	
<b>Preferred language:</b>	
<b>Best Time to Contact:</b>	

**I consent for my health visitor/ school nurse to forward my contact details to the research team at Bangor University.** I understand that I will be contacted by a member of the research team and provided with further information regarding the project. I will be given full details regarding the project and the opportunity to decide if I would like to participate.

Parent signature:	Date:
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**Dadansoddiad o raglen magu plant ar lein yn seiliedig ar 'The Little Parent Handbook'**

**NODYN O DDIDDORDEB I RIENI**

Os ydych wedi trafod y prosiect ymchwil gyda'ch ymwelydd ieched neu nysr ysgol ag eisiau dysgu rhagor ynglŷn â'r rhaglen ar lein newydd yma, cwblhewch a llofnodwch y ffurflen isod. Mi wnânt nhw wedyn basio eich manylion ymlaen i'r tîm ymchwil. Yna, mi wneith aelod o'r tîm ymchwil yn Brifysgol Bangor cysylltu â chi i drafod y prosiect ymhellach.

**Manylion cyswllt:**

<b>Enw Cyntaf:</b>	
<b>Cyfenw:</b>	
<b>Cyfeiriad:</b>	
<b>Côd post:</b>	
<b>Ffôn (cartref)</b>	
<b>Ffôn (symudol)</b>	
<b>Iaith Cyntaf:</b>	
<b>Amser Gorau i Gysylltu:</b>	

**Rwyf yn caniatáu i fy ymwelydd ieched/ nysr ysgol yrru fy manylion ymlaen i'r tîm ymchwil yn Brifysgol Bangor.** Rwyf yn deall y bydd aelod o dîm ymchwil yn cysylltu gyda fi ac yn rhoi rhagor o wybodaeth i mi ynglŷn â'r prosiect. Byddwn yn cael manylion llawn ynglŷn â'r prosiect ac yno yn cael y cyfle i benderfynu os bysw'n yn hoffi cymryd rhan neu beidio.

Llofnod rhiant:	Dyddiad:
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## **Appendix P**

### **Main trial: parent information sheet**

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## PARENT INFORMATION SHEET

### **Evaluation of an online parenting programme based on 'The Little Parent Handbook'**

You are being invited to take part in a research study at Bangor University. Before you make a decision, this information sheet will help you to understand why the research is being conducted and what it will involve on your part.

A member of the research team will go through all of the information with you and answer any questions you may have. If you are unsure about a particular aspect of the study, please ask the member of the research team, they will be happy to answer any questions.

Please take the time to read this information sheet carefully.

#### ***What is the purpose of this research study?***

The purpose of this study is to see whether parents find an online parenting programme, based on 'The Little Parent Handbook', helpful. This programme aims to provide parents with additional parenting tools that can help to encourage positive child behaviour and reduce the problem behaviours that most children have at some time. This study provides parents with online material over a ten-week period and is intended for parents of children aged between 3-8 years.

**Note:** You must have access to the internet preferably via a PC or a laptop to participate in this study. The programme will work on a tablet/iPad, but will not work on a mobile device.

#### ***Why have I been invited?***

Any parent of a child aged between 3-8 years of age who would be interested in learning more about parenting, in particular how to encourage positive child behaviour, are invited to participate in this study.

#### ***Do I have to take part?***

No. Your participation is voluntary and so you decide if you would like to take part. This study is independent and so participating in this study will not affect your access to other services.

A member of the research team will explain the study fully so that you know all of the details before you decide if you would like to take part. At that point, if you wish to take part, you will be asked to fill out a consent form.

You will be given a copy of the signed consent form to keep for your own records. You are free to withdraw from the research study at any time without having to give a reason. This will not affect your access to any health services.

#### ***What will happen if I consent to take part?***

Parents who sign up for the parenting programme, will join one of two groups who will either receive the programme immediately (intervention group) after the first research visit or be asked to wait for three months (control group) before they can access the programme. You will be told to which group you have been allocated after the initial research visit has been completed. You will receive your log in details for the programme when it is time for you to access it.

1. **Parents in the intervention group** – a researcher will visit you three months after you start the programme and again six months later. Intervention parents will be visited **three** times.
2. **Parents in the control group** – a researcher will visit you three months after the first visit. During this second visit, you will be given your log in details for the programme. Parents in the control group will be visited **twice**.

Once you have given consent, a member of the research team will ask you to complete questionnaires about you and your child. Questionnaire items include questions about child behaviour, general health and parenting. Some parents may find some questions on the questionnaire distressing or uncomfortable, please be assured that you can skip any question which you do not feel comfortable in answering. This will not affect your participation in the study. If you score highly on a particular questionnaire (within the clinical range), or indicate that you are at risk of serious harm, you will be advised by a Clinical Psychologist to seek help/support where appropriate through your local GP. The researcher will also ask you and your child to take part in an activity, such as playing a game or craft activities, so that she can watch and record how your child responds during these activities. Each visit will last about an hour. After the interviews, as a thank you for your time and effort, the researcher will give all participants a childrens book.

You will be provided with a link to the website and given a username and password so that you can log in to the online programme. The programme will last for 10 weeks. The programme has 10 chapters and you will be asked to work through one chapter each week (each chapter will take approximately 30 minutes to complete). The chapters focus on positive parenting. The programme does not allow you to move on from one chapter to the next one until the first one is completed; however, you do not have to complete each chapter in one sitting, you can log in and out as you wish. Each chapter has information, images and video examples of positive parenting. There is also an audio button that you can use if you would prefer the information to be read to you. At the end of each chapter there is a short quiz for you to complete and you are then encouraged to practise the skills learned with your child before moving on to the next chapter. There will be an opportunity for you to keep a paper record of the things that you do with your child, and also when you log on for the next chapter you will be able to record how many times you have played with your child. There will be a gap of 5 days before you can log on to complete the next chapter. This will give you time to complete the suggested practice activity with your child. If you log in in less than 5 days, you will be given the option to look back over the previous chapter again. Please keep any paper records that you make safe, as the research team would like to collect these from you at the end of the study.

A research team member will contact all parents again three months after the initial visit to arrange a further visit and you will be asked again to fill out the questionnaires and complete a play activity with your child. In exchange for your time and participation, the researcher will give you a children's book.

For intervention parents, the final visit will take place three months later (six months after the start of the programme). You will be given a copy of the 'Little Parent Handbook' after you have completed the programme and all three visits. The handbook covers the same content as the online programme so you can look back over the key principles again in the future. For control parents, the research team will send you a copy of 'The Little Parent Handbook' once you have completed the programme.

Taking part in this research trial to use the online programme is independent of any other services that you are receiving and has no effect on your future access to other services.

***What are the possible disadvantages or risks of taking part?***

There are no obvious risks in participating in this study. If you consent to take part in this study, you will be asked by a member of the research team to fill out questionnaires and complete a 30-minute observation in a home visit on three occasions. A researcher will only visit you with your permission at a time that is most convenient for you.

***What are the possible benefits of taking part?***

You will have an opportunity to learn new parenting skills that could help you to strengthen your relationship with your child and encourage their positive behaviour.

***What happens when the research study stops?***

The research team will collect all of the information and analyse it. They will use this information to decide whether the online programme based on 'The Little Parent Handbook' is useful to parents. You may also be asked for suggestions as to how it could be improved. After the trial is completed you will receive a summary of the research findings.

***What if there is a problem?***

If you have any technical problems with the online programme, you can contact an administrator at the research office at Bangor University:

E-mail: [natalie.williams@bangor.ac.uk](mailto:natalie.williams@bangor.ac.uk)

Phone: [01248 383 484](tel:01248383484)

Any complaint regarding the way you and your child have been treated during the study or any possible harm you or your child might suffer will be addressed.

***Who do I contact for further information?***

If you would like further information regarding this project or have any questions please contact:

Dawn Owen - PhD Student  
Centre for Evidence Based Early Intervention  
Ground Floor

Nantlle Building  
Normal Site  
Bangor University  
Gwynedd, LL57 2PZ  
E-mail: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)  
Tel: 01248 382 193

***What will happen if I start the study, but then decide that I don't want to carry on?***

If you decide to withdraw from the study, inform a member of the research team who will destroy all identifiable data forms. We will still use the data collected up until the withdrawal unless you ask us to remove the data completely.

***What if there is a problem?***

If you have a technical problem with the online programme and you wish to speak to a researcher, please contact the research team at Bangor University (details will be given to you at the start of the study). If you are unhappy with the conduct of this research study and you wish to make a formal complaint, you should contact:

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

***Will my details be kept confidential?***

Yes. All of the information collected about you and your child by the research team will remain strictly confidential and will be kept in a locked cabinet at the Centre for Evidence Based Early Intervention, Bangor University, unless any child protection matter(s) arise. If any matter(s) arise which may suggest concern for either yourself or your child's welfare, the research team will pass on the information to a Clinical Psychologist who would then deal with the matter accordingly.

Our procedures for handling, processing, storage and destruction of data are those required by the Data Protection Act 1998.

When the results of this study are reported, information from families will not be identifiable. The data will be published as group data only. 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 from this study will be written up in a PhD thesis and sent for publication in a scientific journal. At the end of the study, the research team will send a letter to all of the families that participated outlining the results of the study.

***Who is organising and funding the research?***

The research is organised by Bangor University as part of a student's PhD. The research is funded by a Charity – *Children's Early Intervention Trust*.

***Who has reviewed this study?***

The study was reviewed by Bangor University (School of Psychology Research Governance and Ethics Committee), as well as the NHS (Wales Research Ethics

Committee 5, Bangor) and R&D Committee (BCUHB R&D Internal Review Panel)

***I have a few more questions. Who do I need to call?***

If you have any further questions regarding this research study, they can be addressed to:

Name: Dawn Owen  
PhD Student, Bangor University  
Tel: 01248 382 193  
Email: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

Or

Name: Professor Judy Hutchings  
Professor of Clinical Psychology, Bangor University  
Tel: 01248 383 625  
Email: [j.hutchings@bangor.ac.uk](mailto:j.hutchings@bangor.ac.uk)

**If you decide to take part in this research study, you will be given this information sheet and a signed consent form to keep for your records.**

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

## TAFLEN WYBODAETH I RIENI

### **Dadansoddiad o raglen magu plant ar lein yn seiliedig ar 'The Little Parent Handbook'**

Rydych yn cael eich gwahodd i gymryd rhan mewn astudiaeth ymchwil yn Brifysgol Bangor. Cyn i chi wneud penderfyniad, mae hi'n bwysig eich bod yn deall pam mae'r astudiaeth yn cael ei gynnal a beth fydd yn ei olygu.

Bydd aelod o'r tîm ymchwil yn mynd drwy'r wybodaeth hefo chi ag yn ateb unrhyw gwestiynau fydd gennych. Os ydych yn ansicr ynglŷn ag unrhyw agwedd o'r ymchwil, gofynnwch i aelod o'r tîm ymchwil os gwelwch yn dda, byddant yn hapus i ateb unrhyw gwestiwn.

Cymerwch amser i ddarllen y wybodaeth yn ofalus.

#### ***Beth yw pwrpas yr astudiaeth?***

Pwrpas yr astudiaeth yw dadansoddi effeithiolrwydd rhaglen ar-lein sydd yn seiliedig ar 'The Little Parent Handbook'. Gwneith y rhaglen ar-lein yma eich dysgu chi sut i annog ymddygiad da gan eich plentyn a sut i leihau ymddygiad trafferthus. Mae'r astudiaeth yma yn rhaglen ar-lein sydd yn parhau am gyfnod o 8 wythnos. Bydd gofyn i rieni weithio drwy benodau wythnosol a gwyllo fideo o rieni a phlant yn rhyngweithio yn bositif. Bwriad yr astudiaeth yw dysgu strategaethau i chi ar gyfer sut i ymdopi gydag ymddygiadau problemus blant a hefyd strategaethau ar gyfer sut i annog ymddygiadau da gan eich plentyn.

#### ***Pam rydw i wedi cael fy ngwahodd?***

Roedd eich Ymwelwyr Iechyd wedi hysbysu'r ymchwil yma i chi. Cafoch eich cynghori i ddarllen y daflen wybodaeth a llenwi'r nodyn diddordeb rhieni a'i roi yn ôl i'r Ymwelwyr Iechyd os oedd ganddo'ch diddordeb. Gydag eich caniatâd chi, cafodd eich manylion cyswllt eu rhoi i'r tîm ymchwil yn Brifysgol Bangor. Mae gwahoddiad i unrhyw riant a buasai yn manteisio o gael cefnogaeth ychwanegol ynglŷn â sgiliau magu plant a delio gydag ymddygiad problemus plant.

#### ***Oes rhaid i mi gymryd rhan?***

Na. Mae eich cyfranogiad yn wirfoddol, felly chi sydd yn penderfynu os ydych eisiau cymryd rhan neu beidio. Mae'r astudiaeth yma yn annibynnol felly fydd cymryd rhan ddim yn effeithio'r gwasanaeth rydych yn derbyn gan eich Ymwelwyr Iechyd. Byddem yn egluro'r astudiaeth yn llawn ac yn mynd drwy'r wybodaeth hefo chi er mwyn sicrhau eich bod yn gwybod yr holl fanylion cyn gwneud penderfyniad. Os hoffech gymryd rhan, byddem yn gofyn i chi lenwi a llofnodi ffurflen caniatâd.

Byddech yn cael copi o'r daflen wybodaeth yma a'r ffurflen caniatâd wedi ei lofnodi i gadw ar gyfer eich cofnodion chi. Rydych yn rhydd i dynnu yn ôl o'r astudiaeth ymchwil ar unrhyw adeg ac nid oes angen rhoi esboniad. Bydd hyn ddim yn effeithio eich defnydd o wasanaethu iechyd eraill.

***Beth fydd yn digwydd os rydw i yn penderfynu cymryd rhan?***

Bydd rhieni a fydd yn cofrestru ar gyfer y rhaglen magu plant yn ymuno ac un o ddau grŵp a fydd un ai yn derbyn y rhaglen yn syth ar ôl yr ymweliad cyntaf (grŵp triniaeth) neu yn disgwyl tri mis cyn (grŵp rheolydd) y gallu cael mynediad i'r rhaglen. Byddwch yn cael cadarnhad o ba grŵp rydych ynddo ar ôl ymwelwyr cyntaf cael eu cwblhau. Byddwch yn derbyn eich manylion mewngofnodi pam mae hi'n amser i chi ei wneud.

1. Rhieni yn y grŵp triniaeth – Bydd ymchwilydd yn ymweld â chi tri mis ar ôl i gychwyn y rhaglen ac yno eto chwe mis wedyn. Bydd rhieni yn y grŵp triniaeth yn cael eu hymweld **tair** gwaith.
2. Rhieni yn y grŵp rheolydd – Bydd ymchwilydd yn ymweld â chi tri mis ar ôl yr ymweliad cyntaf. Yn ystod yr ymweliad yma bydd yr ymchwilydd yn rhoi eich manylion mewngofnodi i chi. Bydd rhieni yn y grŵp rheolydd yn cael eu hymweld **dwy** waith.

Bydd aelod o'r tîm ymchwil yn eich cysylltu i drefnu i ddod i'ch gweld chi ac eich plentyn ar amser sydd yn gyfleus i chi. Bydden yn trafod y prosiect hefo chi ac yn rhoi'r cyfle i chi ofyn unrhyw gwestiwn. Os ydych yn cytuno i gymryd rhan, bydd yr ymchwilydd yn gofyn i chi lofnodi ffurflen caniatâd.

Bydd yr ymchwilydd wedyn yn gofyn i chi gwblhau holiaduron amdanoch chi a'ch plentyn. Bydd y holiaduron yn cynnwys cwestiynau yn seiliedig ar ymddygiad eich plentyn, iechyd yn gyffredinol a magu plant. Byddai hefyd yn gofyn i chi a'ch plentyn gymryd rhan mewn gweithgaredd fel chwarae neu crefftau, er mwyn iddi arsylwi sut mae eich plentyn yn ymateb yn ystod y gweithgareddau yma. Bydd pob ymweliad yn parhau tuag awr. I ddiolch i chi am eich amser ac ymdrech wrth gwblhau'r holiaduron a'r gweithgaredd chwarae, bydd yr ymchwilydd yn cynnig llyfr darllen i'ch plentyn fel anhreg.

Byddwch yn cael eich darparu gyda linc i'r rhaglen ac yno yn derbyn eich manylion mewngofnodi fel eich bod yn gallu gwneud y rhaglen. Bydd y rhaglen yn para am 10 wythnos. Mae gan y rhaglen 10 bennod a bydd gofyn i chi weithio drwy un bennod bob wythnos (bydd un pennod yn cymryd tua hanner awr i'w gwblhau). Mae'r penodau yn canolbwyntio ar fagu plant mewn ffordd bositif. Nid yw'r rhaglen yn caniatáu chi i symud ymlaen i'r bennod nesaf nes eich bod wedi cwblhau'r un gyntaf, modd bynnag, nid oes gofyn i chi gwblhau'r bennod i gyd mewn un twrn, gallwch logio fewn ag allan fel chi eisiau. Mae gan bob pennod gwybodaeth, lluniau ac enghreifftiau fideo o fagu plant mewn ffordd bositif. Mae yno hefyd botwm clywedol gallwch ei defnyddio os hoffech wrando ar y wybodaeth. Ar ddiwedd pob pennod mae yno gwis byr i chi ei gwblhau, rydych hefyd yn cael eich annog i ymarfer y sgiliau gydag eich plentyn cyn symud ymlaen i'r bennod nesaf. Bydd yno gyfle i chi cadw cofnod ar bapur o'r pethau rydych wedi bod yn neud hefo'ch plentyn. Hefyd, pam rydych yn logio fewn i bennod

newydd, bydd gofyn i chi recordio faint o weithiau rydych wedi chwarae hefo'ch plentyn. Bydd oediad o 5 diwrnod cyn y gallwch logio fewn i'r bennod nesaf. Gwneith hyn rhoi digon o amser i chi gwblhau'r gweithgareddau adref hefo'ch plentyn. Os ydych yn logio fewn yn gynnar (cyn y 5 diwrnod), bydd dewis o edrych yn ôl ar y bennod ddiwethaf eto. Os gwelwch yn dda cadwch unrhyw record ar bapur yn saff, bydd y tîm ymchwil yn eu casglu ar ddiwedd yr astudiaeth.

Bydd aelod o'r tîm ymchwil yn cysylltu gyda chi eto mewn tri mis ar ôl yr ymweliad cyntaf i drefnu amser cyfleus i ddod i ymweld â chi eto a gofyn i chi gwblhau'r holiaduron a chwblhau gweithgaredd hefo'ch plentyn. I ddiolch i chi am gyfranogi, bydd yr ymchwilydd yn rhoi llyfr plentyn i chi.

I rieni yn y grŵp triniaeth, bydd yr ymweliad olaf yn cael ei gynnal tri mis wedyn (chwch mis ar ôl i chi gychwyn y rhaglen). Byddwn yn rhoi copi o'r 'The Little Parent Handbook' I chi ar ôl i chi gwblhau'r tri ymweliad. Mae'r llawlyfr yn cynnwys yr union wybodaeth a oedd yn y rhaglen ar-lein felly gallwch edrych yn ôl to yn y dyfodol. I rieni yn y grŵp rheolydd, bydd y tîm ymchwil yn gyrru copi i chi o'r 'The Little Parent Handbook' ar ôl i chi orffen y rhaglen.

Mae cymryd rhan yn y treial ymchwil yma yn annibynnol o unrhyw wasanaeth arall felly bydd yno ddim effaith ar eich mynediad dyfodol i wasanaethau eraill.

### ***Beth yw'r anfoneision neu risgiau posibl o gymryd rhan?***

Does yna ddim risgiau amlwg wrth gymryd rhan yn yr astudiaeth yma. Os ydych yn cytuno i gymryd rhan, byddem yn gofyn i chi lenwi holiaduron ag arsylwad o 30-munud mewn ymweliad cartref gydag aelod o'r tîm ymchwil. Hwn yw'r unig anghyfleuster. Bydd aelod o'r tîm ymchwil ond yn ymweld â chi gydag eich caniatâd ac ar amser sydd yn gyfleus i chi.

### ***Beth yw'r buddion posibl o gymryd rhan?***

Byddwch yn dysgu sgiliau newydd magu plant a fydd, o bosib, yn eich helpu chi i annog ymddygiad da gan eich plentyn a lleihau ymddygiadau trafferthus.

### ***Beth fydd yn digwydd ar ôl i'r ymchwil orffen?***

Bydd y tîm ymchwil yn hel y wybodaeth i gyd at ei gilydd ar gyfer ei ddadansoddi cyn penderfynu os yw'r rhaglen magu plant ar lein yn seiliedig ar 'The Little Parent Handbook' wedi bod yn ddefnyddiol i rieni. Byddwn hefyd yn gofyn i chi os oes ganddo'ch unrhyw awgrymiadau ar sut allwn wella'r rhaglen. Ar ôl i'r treial orffen, byddwch yn derbyn crynodeb o'r canlyniadau.

### ***Beth os oes problem?***

Os oes unrhyw broblem dechnegol gyda'r rhaglen ar lein, cysylltwch â gweinyddwr yn y tîm ymchwil yn Brifysgol Bangor:

E-bost: [natalie.williams@bangor.ac.uk](mailto:natalie.williams@bangor.ac.uk)

Bydd unrhyw gwyn ynglŷn â'r ffordd rydych chi a'ch plentyn wedi cael eich trin yn ystod yr astudiaeth neu unrhyw niwed posibl gallech chi neu eich plentyn ddioddef yn cael sylw.



***Pwy rydw i yn cysylltu hefo am ragor o wybodaeth?***

Os hoffech ragor o wybodaeth ynglŷn â'r prosiect yma neu os oes unrhyw gwestiwn, gallech gysylltu â:

Dawn Owen  
Myfyrwraig PhD Prifysgol Bangor  
E-bost: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)  
Ffôn: 01248 382 193

***Beth fydd yn digwydd os nag ydw i eisiau parhau gyda'r ymchwil?***

Os ydych yn tynnu yn ôl o'r ymchwil, byddem yn dinistrio'r holl ffurflenni gyda gwybodaeth adnabyddadwy os ydych yn dymuno. Byddem yn parhau i ddefnyddio'r data a chasglwyd hyd at y pwynt yma os nag ydych yn gofyn i ni i'w dileu.

***Beth os oes problem?***

Os oes gennych unrhyw broblem i'w wneud a'r rhaglen ar lein ac eisiau siarad gydag aelod o'r tîm ymchwil, cysylltwch â'r ganolfan Ymyrraeth Sail Tystiolaeth yn Brifysgol Bangor (bydd manylion yn cael eu rhoi i chi ar gychwyn y rhaglen). Os ydych yn anhapus gydag unrhyw ran o'r astudiaeth yma a chi eisiau gwneud cwyn ffurfiol, yna cysylltwch â:

Enw: Mr Hefin Francis,  
Rheolwr ysgol, ysgol seicoleg, Prifysgol Bangor,  
Ffôn: 01248 388339  
E-bost: [h.francis@bangor.ac.uk](mailto:h.francis@bangor.ac.uk)

***Bydd ein manylion yn cael eu cadw yn gyfrinachol?***

Bydd yr holl wybodaeth amdanoch chi a'ch plentyn yn aros yn gwbl gyfrinachol ag yn cael eu cadw mewn cwpwrdd cloi yn y ganolfan Ymyrraeth Gynnar ar sail tystiolaeth, Prifysgol Bangor. Mae ein gweithdrefnau ar gyfer trin, prosesu, storio a dinistrio data yn cydffurfio a deddf Diogelu data 1998.

Pan fydd y canlyniadau'r astudiaeth yma yn cael eu cyhoeddi, bydd gwybodaeth gan deuluoedd yn cael eu codio fel rhifau, yna nid yw teuluoedd yn ganfyddadwy. Byddwn yn sicrhau cyfrinachedd os nag oes unrhyw fryder am ddiogelwch eich plentyn.

***Beth fydd yn digwyddi i ganlyniadau'r astudiaeth yma?***

Bydd canlyniadau'r astudiaeth yma yn cael eu cyhoeddi. Pan mae'r canlyniadau yn cael eu cyhoeddi, bydd holl wybodaeth teulu yn cael eu hadrodd fel rhifau, ac nid enwau unigolion. Ar ddiwedd yr astudiaeth, bydd aelod o'r tîm astudiaeth yn gyrru llythyr i'r cyfranogwyr a wnaeth cymryd rhan er mwyn amlinellu'r casgliadau.

***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 elusen – *Children's Early Intervention Trust*.

***Pwy sydd wedi arolygu'r astudiaeth?***

Prifysgol Bangor (School of Psychology Research Governance and Ethics Committee), yn ogystal â NHS (Wales Research Ethics Committee 5, Bangor) a R&D Committee (BCUHB

R&D Internal Review Panel).

***Mae gen i rhagor o gwestiynau i ofyn? Pwy allai ffonio?***

Os ydych hefo rhagor o gwestiynau ynglyn a'r ymchwil yma, dylwch gysylltu a:

Dawn Owen  
Myfyrwraig PhD, Brifysgol Bangor  
Ffôn: 01248 382 193  
Ebost: [dawn.a.owen@bangor.ac.uk](mailto:dawn.a.owen@bangor.ac.uk)

*Neu*

Yr Athro Judy Hutchings  
Athro Seicoleg Clinigol, Brifysgol Bangor  
Ffôn: 01248 383 625  
Ebost: [j.hutchings@bangor.ac.uk](mailto:j.hutchings@bangor.ac.uk)

**Os ydych yn penderfynu cymryd rhan yn yr astudiaeth yma, byddech yn derbyn copi o'r daflen wybodaeth yma a ffurflen caniatâd llofnedig i'w gadw ar gyfer eich cofnodion.**

**Diolch yn fawr iawn am gymryd yr amser i ddarllen y daflen wybodaeth hon.**

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## **Appendix Q**

### **Main trial: parent consent form**

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COLEG GWYDDORAU IECHYD AC YMDDYGIAD  
COLLEGE OF HEALTH AND BEHAVIOURAL SCIENCES

YSGOL SEICOLEG  
SCHOOL OF PSYCHOLOGY



**Study Participant Identification Number:**

**PARENT CONSENT FORM**

Title of the Project: Evaluation of an online parenting programme based on 'The Little Parent Handbook'

Name of Researcher: \_\_\_\_\_

Please initial box

1. I confirm that I have read the information sheet dated..... for the above study. I have had the opportunity to consider the information provided and have had questions answered satisfactorily by the researcher. ☐
2. I understand that my participation in this research study is voluntary and that I am free to withdraw at any time without having to give an explanation, without my legal rights being affected. ☐
3. I understand that the researcher will ask me to fill out questionnaires. ☐
4. I understand that the researcher will undertake a 30-minute observation of myself interacting with my child. ☐
5. I understand that I will be asked to keep on-going weekly records about my child. ☐
6. I understand that I will need an internet connection and a PC or laptop in order to participate in this online study. ☐
7. I understand that the study will last for 10 weeks and I will have one week to complete each section of the online programme. ☐
8. 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 AND BEHAVIOURAL SCIENCES

YSGOL SEICOLEG  
SCHOOL OF PSYCHOLOGY



**Rhif Adnabod Cyfranogwr ar gyfer yr astudiaeth:**

**Ffurflen Caniatâd Rhieni**

Teitl y Prosiect: Dadansoddiad o raglen magu plant ar lein yn seiliedig ar 'The Little Parent Handbook'

Enw'r Ymchwilydd: \_\_\_\_\_

Llythrennwch y bocs plis

1. Rwyf yn cadarnhau fy mod wedi darllen y daflen wybodaeth, dyddiad .....  
ar gyfer yr astudiaeth uchod. Rwyf hefyd wedi cael y cyfle i ystyried yr holl  
wybodaeth ac wedi cael atebion boddhaol gan yr ymchwilydd. ☐
2. Rwyf yn deall fod fy nghyfranogiad yn wirfoddol yn yr astudiaeth hon a rhwyf yn  
rhydd i dynnu allan unrhyw bryd heb roi esboniad, ag heb gael unrhyw effaith ar  
fy hawliau cyfreithiol. ☐
3. Rwyf yn deall fod yr ymchwilydd yn mynd i ofyn i mi lenwi holiaduron. ☐
4. Rwyf yn deall fod yr ymchwilydd am fy arsylwi i yn rhyngweithio hefo fy  
mhlentyn am gyfnod o 30 munud. ☐
5. Rwyf yn deall y bydd gofyn arnaf i gadw cofnodion yn wythnosol am fy  
mhlentyn. ☐
6. Rwyf yn deall fy mod angen cyswllt rhyngrwyd ar gyfer cyfranogi yn yr  
astudiaeth ar-lein yma. ☐
7. Rwyf yn deall bod yr astudiaeth yn parhau am gyfnod o 10 wythnos a bydd gofyn  
i mi gwblhau rhannau o'r rhaglen bob wythnos. ☐
8. Rwyf yn cytuno i gymryd rhan yn yr astudiaeth uchod. ☐

Enw Cyfranogwr:

Dyddiad:

Llofnod:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Enw person sydd yn  
cymryd caniatâd:

Dyddiad:

Llofnod:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

---

## **Appendix R**

### **Demographics questionnaire**

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**Participant ID number:**

**Demographic Questionnaire**

**1. Background Information**

Parental D.O.B \_\_\_\_\_ Age \_\_\_\_\_ Gender: ☐ M ☐ F

Child D.O.B \_\_\_\_\_ Age \_\_\_\_\_ Gender: ☐ M ☐ F

Relationship to the child:

Biological parent ☐

Step-parent ☐

Adoptive parent ☐

Foster parent ☐

Partner's partner (living together) ☐

Other ☐ Please specify \_\_\_\_\_

How many children do you have? \_\_\_\_\_

How old are your children? \_\_\_\_\_

How old were you when you had your first child? \_\_\_\_\_

**2. Marital Status**

Are you currently?	Tick the box which applies to you
Single, never married	<input type="checkbox"/>
Married	<input type="checkbox"/>
Widowed	<input type="checkbox"/>
Separated	<input type="checkbox"/>
Divorced	<input type="checkbox"/>
In a relationship, but living apart	<input type="checkbox"/>

In a relationship and living together	
---------------------------------------	--

Partner's relationship to the child \_\_\_\_\_

<b>Employment Status:</b>	Mother	Father
Employed for wages		
Self-employed		
Out of work and looking for work		
Out of work but not currently looking for work		
A Student		
Military		
Retired		
Unable to work		

### 3. Housing and Income

What is your income mostly made up of?

	Mother	Father
State Benefits (e.g. job seeker's allowance/income support)		
Benefits that subsidise wages (e.g. tax credit)		
Maintenance payment for child/children		
Wages		
Other		
Decline to answer		

Which category best describes your total weekly income?

I.e. After paying bills, how much money do you have left over per week?

EXCLUDING housing cost, working tax credit and family credits, child maintenance, pensions or investments.

<b>One adult household</b>		<b>Two-adult household</b>	
£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	

Your housing situation:

Are you a:	
Social/ Council tenant	
Owned/ with a mortgage	
Housing association tenant	
Private tenant	
Other (please specify)	

How many bedrooms does your house have? \_\_\_\_\_

#### 4. Parent's Education

How old were you when you left school? \_\_\_\_\_

Did you receive any qualifications at school? \_\_\_\_\_

Did you receive any further education after you left school? (If so, please specify)

\_\_\_\_\_

#### 5. Parenting Courses

Have you ever been on a parenting course? Yes ☐ No ☐

If yes, please specify \_\_\_\_\_

#### 6. Internet use

How often do you use the internet? Tick the applicable box:

5+ times per day	
3-4 times per day	
Once per day	
3-4 times per week	
Once per week	
Never	

Which device do you normally use to access the internet? (i.e. mobile, laptop, iPad etc.)

\_\_\_\_\_

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**Appendix S**

**Arnold O’Leary Parenting Scale**

**&**

**Parent Sense of Competence Questionnaire**

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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 usual

--	--	--	--	--	--	--	--

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.

Participant ID: \_\_\_\_\_

Date: \_\_\_\_\_

**Parenting Sense of Competence**

This is a questionnaire about your attitudes and feelings that relate to parenting.

Please circle the answer that most closely resembles how you feel.

*There are no right or wrong answers.*

	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
The problems of taking care of a child are easy to solve once you know how your actions affect your child – an understanding I have acquired.	5	4	3	2	1
Even though being a parent can be rewarding, I am frustrated now while my child is at his/her present age.	5	4	3	2	1
I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated.	5	4	3	2	1
Being a parent is manageable, and any problems are easily solved.	5	4	3	2	1
Being a parent makes me tense and anxious.	5	4	3	2	1
I would make a fine model for a new mother/father to follow in order to learn what she/he would need to know in order to be a good parent.	5	4	3	2	1
I go to bed the same way that I wake up in the mornings: feeling like I have not achieved very much.	5	4	3	2	1
My mother/father was better prepared to be a good mother/father than I am.	5	4	3	2	1
A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one.	5	4	3	2	1
I meet my own personal expectations for expertise in caring for my child.	5	4	3	2	1
If anyone can find the answer to what is troubling my child, I am the one.	5	4	3	2	1
Sometimes I feel like I'm not getting anything done.	5	4	3	2	1

Considering how long I've been a mother/father, I feel thoroughly familiar with this role.	5	4	3	2	1
My talents and interests are in other areas – not being a parent	5	4	3	2	1
If being a mother/father of a child were only more interesting, I would be better motivated to do a better job as a parent.	5	4	3	2	1
I honestly believe I have all the skills necessary to be a good mother/father to my child.	5	4	3	2	1
Being a good mother/father is a reward in itself.	5	4	3	2	1



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## **Appendix T**

### **Observation sheet, IOA sheet & Coding Manual**

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LPHB study number:

Baseline/3 month/6 month

Coder initial: \_\_\_\_\_

A	D	Positive Parenting	Frequency
		Direct Command	
		Unlabelled Praise	
		Labelled Praise	
		Descriptive Commenting/ Verbal labelling	
A	D	Negative Parenting	Frequency
		Indirect command	
		Questions	
		Critical Statement	
		Negative Command	

A	D	Positive Parenting	Frequency
		Direct Command	
		Unlabelled Praise	
		Labelled Praise	
		Descriptive Commenting/ Verbal labelling	
A	D	Negative Parenting	Frequency
		Indirect command	
		Questions	
		Critical Statement	
		Negative Command	

LPHB study number: \_\_\_\_\_

Date: \_\_\_\_\_

IOA observation: Baseline/3 month/6 month

Coder 1 initial: \_\_\_\_\_

Coder 2 initial: \_\_\_\_\_

**Observation 1 (1-5 minutes)**

A =

D =

Total =

Reliability (%) =

**Observation 2 (5-10 minutes)**

A =

D =

Total =

Reliability (%) =

**Observation 3 (10-15 minutes)**

A =

D =

Total =

Reliability (%) =

**Observation 4 (15-20 minutes)**

A =

D =

Total =

Reliability (%) =

**Observation 5 (20-25 minutes)**

A =

D =

Total =

Reliability (%) =

**Observation 6 (25-30 minutes)**

A =

D =

Total =

Reliability (%) =

## Conducting Observations

### Home Visits Procedure

#### *Instructions to Researchers:*

- Develop a friendly relationship with parents and their child(ren) to ensure that they feel comfortable in your presence.
- Explain to parents the order of play for the visit at the beginning so that they know what to expect/know what is coming next.
- 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 observation.
- If 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 the observation is taking place, but will be more than happy to discuss anything once the observation has finished.
- It is important that all coders 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, but 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 (in this case the primary supervisor).
- Police checks for all coders will be made before they go out to visit families in addition to obtaining a research passport.

### Preparing materials for the Home Visit

#### *Remember to always put the following on the observation sheet:*

- Family ID/study number (i.e. Parent 1)
- Circle the correct time point for the visit (baseline; 3-month follow-up; 6-month follow-up)
- Coder initial

LPHB study number:  
Baseline/3 month/6 month

Coder initial: \_\_\_\_\_

A	D	Positive Parenting	Frequency
		Direct Command	
		Unlabelled Praise	
		Labelled Praise	
		Descriptive Commenting/ Verbal labelling	
A	D	Negative Parenting	Frequency
		Indirect command	
		Questions	
		Critical Statement	
		Negative Command	

- If it is a reliability visit, upon your return to the office you will need to fill in the IOA record sheet and record the observation statistics for each five-minute time point. Remember to fill out the information at the top of the page (coder(s) initial, date, study number). Using both coding sheets from the observation, fill out the IOA statistics for each time frame. Keep this record sheet in the participant's folder.

LPHB study number: \_\_\_\_\_

Date: \_\_\_\_\_

IOA observation: Baseline/3 month/6 month

Coder 1 initial: \_\_\_\_\_ Coder 2 initial: \_\_\_\_\_

**Observation 1 (1-5 minutes)**

A =

D =

Total =

Reliability (%) =

**Observation 2 (5-10 minutes)**

A =

D =

Total =

Reliability (%) =

**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). Also, you will need 2 copies if it is a reliability visit.
- Most importantly, you will need the folder with the questionnaires. Check that the folder has all of the content before leaving for the visit.

Each folder contains:

1. Information sheet
2. Consent form (2 copies, one for the parent to keep and one for you to keep)
3. Demographic questionnaire
4. Arnold & O'Leary parenting scale
5. Eyberg child behaviour inventory
6. General health questionnaire
7. Parenting sense of competence questionnaire
8. Observation sheet (2 copies if it is a reliability visit)
9. Children's book
10. Feedback form (for follow-up visits only)

Arriving and coding the observation:

- Plan to arrive on time for the home visit. If you are running late for any reason, call the parent to let them know that you are running late. Each visit will usually last around an hour.
- 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. Some parents will feel anxious about being observed, make them feel at ease and tell them that you are watching for how the child responds to the parent, this way the focus is taken away from the parent.
- Avoid parents reading to their children during the observation.
- 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 coded 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, pause the stop watch and resume upon their return.

Reliability Observations

- If a second researcher is present, they will need the same paperwork as the

primary coder i.e. they will also need observation sheets.

- 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.
- Sometimes, a parent may feel uncomfortable having two researchers in their home. Check with the parents at the beginning of the visit that it is okay for two of you to conduct the home visit; usually the parent will not have a problem with this. If, however a particular parent is feeling nervous/anxious and would rather have one coder, we must respect their wishes and one researcher will have to sit in the car for the remainder of the visit.

#### 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. Do 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 very much for their time. Talk to the children and thank them for letting you do your work. Give the child the book you have brought with you (gift for participation), usually children are very happy at receiving a book and this is a nice way to end the home visit. Let the parent know what the next stages are and when you will be in contact again (if at all).
- Remember to call the research office to let them know that the visit has finished and that you are on your way back to the office/home. The home visit measures and observation paperwork must be submitted to the research office as soon as possible. Remember to fill out the IOA record sheet and place it in the participant's folder if it was a reliability visit. If you are not going back to the office after the visit, remember to take a locked portable cabinet with you to keep the measures in (as they are strictly confidential) and keep this in the boot of your car until you return to the office. If possible, always return to the office after a visit to keep the folder in the locked cabinet. If you have conducted the

visit on your own, let the chief investigator know once you have been so that she can arrange for that parent to be randomised.

### 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 will be addressed by the group, and 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, but 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. An IOA record sheet will be filled out for each reliability visit and kept in the file.



**DPICS coding sections for this research study**

LPHB study number:

Baseline/3 month/6 month

Coder initial: \_\_\_\_\_

A	D	Positive Parenting	Frequency
		Direct Command	
		Unlabelled Praise	
		Labelled Praise	
		Descriptive Commenting/ Verbal labelling	
A	D	Negative Parenting	Frequency
		Indirect command	
		Questions	
		Critical Statement	
		Negative Command	

The parenting categories are divided into *positive parenting* and *negative parenting*. There are four sub-categories in each parenting category. For each occurrence during the observation, record it in the frequency column in the form of a tally. For this research study, the child is not being coded.

Below are the DPICS categories used for the purpose of this research study:

**Positive parenting category:**

1. Direct command
2. Unlabelled praise
3. Labeled praise
4. Descriptive commenting/verbal labeling

**Direct command**Definition

A direct command is a clearly stated order, demand or direction in declarative form. The statement must be sufficiently specific as to indicate the behaviour that is expected from the child.

### Examples

Let go	Put that block here
Please tie your shoes	Come here
Build a tower	Spit out the marble
Make on like this	Draw a horse
Sit down now	Get off the table
Clean up	Go to bed
Listen to me	Put your coat on
Give me the pen	Put your hands on your lap

### Guidelines

1. Direct commands generally begin with the imperative verb, but may be preceded by 'please', the child's name or 'you' i.e. 'Amy, put your coat on'.
2. Direct commands are sufficiently specific as to give the child enough information to at least begin the task. Vague comments are coded as indirect commands. For example, put your hand on your lap = direct command; be good = indirect command.
3. If the child is told to do a series of things in one sentence, only one direct command is coded, for example 'shut the door and come here' = 1 direct command
4. Commands strung together in the same sentence are coded as one, but separated by a pause of 2 seconds or more are coded as separate commands.
5. If the parent begins to give an indirect command but changes it so a direct command, code as direct command.
6. Direct commands are always positive commands (i.e. they tell the child what to do rather than what not to do. Telling a child what not to do is a negative command).
7. Occasionally, a parent will string both a direct command and an indirect command together without a pause. In such cases, code the first half of the statement.
8. Occasionally, a parent will string together a statement and a command together. In such cases, code direct command.
9. Commands directed to target child and siblings are coded (i.e. I want you guys to clean up now). \*If you are unsure whether it is a direct or indirect command code indirect command\*
10. A statement of what the child is expected to do, but which is directed to someone other than the child (e.g. to the other parent), is not coded even if the child hears it.
11. When spelling words are given by the parent and not read off a sheet or form a book, when the command includes the imperative verb "spell" code direct command.

## **Unlabelled praise**

### Definition

An unlabelled praise is a non-specific verbalisation that expresses a favourable judgment on an activity, product or attribute of the child.

### Examples

Great!	Nice/ that's nice
Excellent	Terrific
Thank you/ thanks	Good job
Cool	I love you
I'm proud of you	Correct
Fabulous	You're so funny
Brilliant	Awesome
That's better!	I like that

### Guidelines

1. A non-specific verbalisation that contains one or more positive evaluative words or phrases is an unlabelled praise i.e. great job or good work.
2. Unlabelled praise is non-specific and does not include a specific action, object or adjective (specific praise is labelled praise). For example, good = unlabelled praise; good singing = labelled praise.
3. A brief positive evaluative word or phrase that occurs before or after a statement or descriptive comment/encouragement is 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. For example, didn't we build a wonderful tower?
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. For example, that's perfect, that's beautiful you're so careful, that's very funny & that's special.
6. Unlabelled praise must include a clear verbal picture of positive evaluation.
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. For example, that's terrific, isn't it? I think that's beautiful, don't you?
8. A positive verbalisation that interprets the child's positive feeling state is a descriptive comment/encouragement, not an unlabelled praise. For example, 'you seem happy' is a descriptive comment.
9. A positive metaphor or endearment that refers to the child is an unlabelled praise. For example, 'you're my little helper' or 'here comes daddy's little princess'.
10. When praise is given in the child's presence but not directed to the child, code as unlabelled or labelled praise. Example, mother to father: 'Oliver was just great today!'. **When uncertain as to whether a verbalisation is labelled or unlabelled praise, code unlabelled praise**

## **Labelled praise**

### Definition

Labelled praise is any specific verbalisation that expresses a favourable judgment upon an activity, product or attribute of the child.

### Examples

That's a terrific house you made	You did a great job of building the tower
Your picture is very pretty	You have a wonderful imagination
That's an excellent way to figure out the solution	You're considerate to share your cookie with me
What pretty hair you have!	You're my little helper for making the bed
Thanks for putting that back on the shelf	Your story was well-organised
Your colouring is beautiful	You are building that tower nicely
The dog you drew is very pretty	I like the way you are helping me pick up the toys
I love the tea you made for me	I like the way you sit so quietly

### 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.
2. A labelled praise must contain an evaluative component, which is clearly positive. For example, it's great that you are trying so hard with the puzzle.
3. Specific statements of positive evaluation are labelled praises even if they are stated in question form. For example, you drew a lovely bouquet, didn't you?
4. Labelled praises, which reflect the child's statements or answer his questions are coded as labelled praise rather than reflection. For example, child = do you like my picture? Parent = yes, I do like your picture.
5. The positive evaluation component of a labelled praise may be a metaphor. For example, you're a sweetheart for sitting still.
6. A verbalisation which interprets the child's feelings is a descriptive comment/encouragement or statement rather than a labelled praise, i.e. you seem happy about the piece you fixed = descriptive comment.
7. When praise is given in the child's presence but not directed to the child, code as unlabelled or labelled praise. For example, mother to father = Liam drew me a beautiful picture today!
8. If the child asks for praise and the parent obliges, code as unlabelled or labelled praise and not as reflective statement.
9. Even when a parent follows an unlabelled praise with a statement that specifically points out what is positive, the praise is still unlabelled.

### **Note:**

<b>Unlabelled praise</b>	<b>Labelled praise</b>
Good job!	Good idea
Good work	Good choice
Good thinking	Good matching

## **Descriptive Comment**

### Definition

A descriptive comment is a statement or phrase that describes what the child is doing. Frequently there is a quality that sounds much like a radio announcer or someone who is describing an on-going activity. These comments express an interest in what the child is doing in the here and now. They are not about what the child may have done in the past or will be doing in the future.

### Examples

You're putting the cow in the barn	You're stacking up all of the blue ones
You've chosen a purple crayon	Now you're finishing the roof
The red block is going on top of the green block	You're flopping your arms
You're jumping off the third stair	Your head is down, your bottom is up and you look like you're about to do a somersault
You're scooping the sand with your shovel and making a big tall hill of sand	You're going to put the blocks away now
You've lined up all the cars ready for the car wash	You're pouring water on my face
You're folding all of the corners	You are tidying away the toys

### Guidelines

1. A descriptive comment gives an account of the child's on-going activity.
2. A descriptive comment may describe the child's body language or physical activity.
3. Descriptive comments are evaluatively neutral and contain no praise or criticism of the child's product, activity or feelings.
4. Descriptive comments are statements, which focus on the child as opposed to the parent or the child's toys.
5. Descriptive comments do not interpret but simply state facts.
6. Descriptive comments are free from implied orders, requests or commands.

**They follow a child's lead rather than lead the child.**

## Verbal labelling

### Definition

The verbal labelling category has been added to the DPICS manual for use with 1-3-year-old children. Labelling objects and items in the environment plays a key role in the child's development of language, and it is a strategy that many parents use extensively with toddlers.

This category refers to any attempts made by the parent to label objects/people/body parts/colours/ numbers etc., whilst **holding the child's attention**.

### Examples

Parent holding up a ball and saying 'ball'	Parent pointing to a yellow item and saying 'yellow'
Grandma walks in and parent says 'here's grandma'	Child points to a duck and mum says 'duck'

Child pointing to a train and parents says 'train'	Child touching a parent's cheek and parent says 'that's my cheek'
--	---

### Guidelines

1. If parent and child are looking at things together, and the parent points to various items while naming them, code VL for each separate naming incident.
2. If child points to an item, and parent names it, code VL. If the child repetitively points to the same or different objects and parent continues to name, code VL for each naming occurrence.
3. When parent names objects while handling them to child, code VL.
4. If a child asks 'what's that?' whilst pointing at an object and the parent names it, code VL.
5. If the child points to an item and attempt to verbalise its name (e.g. postman pat) and parent responds by reflecting (postman pat) then do not code VL as the child initiated the verbalisation spontaneously.
6. If the parent points to an object, or asks child to point to some object or body part, code verbal questioning and not VL. For example, parent points to a butterfly in a book and asks 'what's that?'
7. Code VL if parent is identifying colours, counting objects, using flash cards to name objects, and making noises associated with certain objects.

### For example:

Parent: this is blue (VL)

Parent: that's pink (VL)

Parent: counting out marbles, "one, two, three" (VL x3)

Parent: Holding up flash card "apple" (VL)

Parent: Doggie says "woof woof" (VL)

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### **Negative parenting category:**

1. Indirect command
2. Questions
3. Critical statement
4. Negative command

### **Indirect command**

#### Definition

An indirect command is an order, demand, or direction for a behavioural response that is implied, non-specific or stated in question form.

#### Examples

Put it here ok?	Why don't you hand me that block?
Look (without a point)	Listen
Come on	Will you do what I ask?
Are you going to clean up?	See?

Katie! (or any other name)	You need to trust me
May I have it now?	Please?
Watch	Gentle
Be quiet	Turn it off, okay?

### Guidelines

1. Interrogatives added to the end of a command make it an indirect command. For example, colour this one yellow, all right?
2. Commands stated in question form is coded as indirect commands. Note that an indirect command in this form requires a behavioural response from the child (a question does not require a behavioural response from a child).
3. A parental statement of feeling or preference is an indirect command when it implies an action to be completed by the child. For example, 'I would like you to comb your hair' or 'it would be nice if you picked up the lego'.
4. A statement that implies that an action is to be completed by the child in the immediate future is an indirect command. For example, 'you're going to do as I say' or 'let's use the green pieces' or 'now you're going to put all these away'.
5. Non-specific commands that do not clearly state the requested behaviour are indirect commands i.e. be careful, be good, be patient, be neat, be nice, watch out, settle down, be quiet, calm down, chill out etc.
6. If a non-specific command includes some direct command words, code indirect command. For example, 'I expect you to be quiet and you need to get ready'.  
\* Stating the child's name after you have given a direct command is an indirect command\*
7. Indirect commands are always positive commands (i.e. they tell what to do rather than what not to do – telling a child not to do something is a negative command).
8. Occasionally, a parent will string together both a direct command and an indirect command together without a pause. In such cases, code the first half of the statement. For example, 'we'll put the blocks away and then you will go to bed' – code the first half only and so this is an indirect command.
9. Commands directed to target child and siblings are coded.
10. 'Remember to ...' commands are indirect commands.

## **Question**

### Definition

A question is a comment expressed in question form. It gives an account of the objects or people in the situation or the activity occurring during the interaction. This question follows a child's activity rather than attempting to lead it.

### Examples

Wasn't that fun?	Isn't that a pretty doll?
Know what?	Do you want to use these blocks for the bridge?
How do you spell your name?	What is 10 minus 7?

What does the dog say?	I wonder what that is?
Should I be the policeman?	How about this one?
Which toy do you want to play with?	How do you feel?
What?	Why?
This is a red one, isn't it?	The red one?

#### Guidelines

1. The phrase must be in question form.
2. Some questions are differentiated from statements only by tone of voice (i.e. voice rises rather than falls at the end of a sentence).
3. When a question is attached to the end of a statement, it is always coded as a question.
4. When asking a question, the response is verbal and not behavioural.
5. Questions that refer to the child's feelings, opinions or preferences are coded as questions.
6. Questions contain some content, whereas an acknowledgement is free of content (a question asks for some information, whereas a reflective question does not).

**When uncertain as to whether a verbalisation is an indirect command or question, code as question.**

### **Critical statement**

#### Definition

A critical statement is a verbalisation that finds fault with the activities, products or attributes of the child.

**No is a critical statement except for when the parent is answering a question**

#### Examples

You're being naughty	That's a rubbish picture
You are ugly	I'm getting tired of you
That's awful	You have put that in the wrong place
That's stupid	I don't like your attitude
You're so careless	Ops (in a judgmental way)
Sshhh!	You messed that up!
You're careless	You're lazy
You are in a foul mood today	I don't like your picture

#### 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. A critical statement always refers to an activity, product or attribute of the child.
2. A statement that negatively evaluates or finds fault with objects in the environment or the activities or products of others is a statement (i.e. that truck is too small or this doll is broken).
3. A comment that corrects the child, by pointing out what is wrong is a critical statement, for example, 'that's not how you put it together'.



4. A statement of disapproval is a critical statement, for example, 'that's not very funny' or 'I don't like it when you throw things'.
5. Obvious parental sarcasm that refers to an activity, product or attribute of the child is coded as critical statement.
6. Parental threats or predictions that describe the potential negative consequences of the child's behaviour are coded as critical statements. For example, 'you better get started now or else' or 'if you don't put your shoes on you might get cut'.
7. Parent smart talk is a critical statement.
8. 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, parent says to researcher, 'you are seeing him at his worst today'.

## 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.

### Examples

Stop!	Absolutely not
Don't put that in the toy box	Don't stand on the furniture
I told you not to write on the wall	We are not going to throw things
I don't want you to do that again	Don't hit Helen
Don't throw her on the floor	No hitting
No swearing	Leave it alone
Stop running around the room	Don't be cheeky

### Guidelines

1. When a parent specifies what the child may not do followed by what he may do, or vice versa, in the same sentence, code as negative command and an indirect command. For example, 'you may not throw that (negative command), but you may eat that' (indirect command).
2. Remember 'no' (except for answering a question) is a critical statement and not a negative command.

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## **Appendix U**

### **Trial allocation letters (intervention & control)**

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COLEG GWYDDORAU IECHYD AC YMDDYGIAD  
COLLEGE OF HEALTH AND BEHAVIOURAL SCIENCES

YSGOL SEICOLEG  
SCHOOL OF PSYCHOLOGY



[DATE]

**Information on group allocation for parents taking part in the research study to establish the effectiveness of an online parenting programme based on 'The Little Parent Handbook'**

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 complete the 10-week online parenting programme. This means you can start the programme right way (a link to the website and your log in details have been included with this letter – please keep these safe).

With regards to the research, we would like to visit you again in three and six months time, to run through the questionnaires and observation again. We will contact you at that time to arrange another convenient time to visit you.

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 online programme. Your willingness to help is invaluable and will, we hope, lead to this programme being more widely available for families throughout Wales. We hope you find the programme useful.

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 AND BEHAVIOURAL SCIENCES

YSGOL SEICOLEG  
SCHOOL OF PSYCHOLOGY

[DYDDIAD]



**Gwybodaeth am ddyraniad grŵp ar gyfer rhieni sy'n cymryd rhan yn yr astudiaeth ar effeithiolrwydd rhaglen ar-lein yn seiliedig ar 'The Little Parent Handbook'**

Annwyl Riant,

Hoffwn adael i chi wybod eich bod chi a'ch plentyn wedi cael eich dewis ar hap i ymuno â'r grŵp **CYNTAF** o rieni i gwblhau rhaglen magu plant 10 wythnos ar-lein. Mae hyn yn golygu eich bod yn cael cychwyn y rhaglen yn syth (mae linc i'r wefan ac eich manylion mewn cofnodi wedi eu cynnwys hefo'r llythyr yma – cadwch y rhain yn saff os gwelwch yn dda),

O ran y gwaith ymchwil, hoffwn i ymweld â chi eto mewn tri mis a chwe mis i gwblhau'r holiaduron a'r arsylwad eto. Bydd y tîm ymchwil yn cysylltu gyda chi yn agosach at yr amser i drefnu amser cyfleus i ymweld.

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. Rydym yn gobeithio gwnewch weld y rhaglen yn ddefnyddiol.

Os oes gennych unrhyw gwestiynau, mae croeso i chi gysylltu â mi ar 01248 383625.

Dymuniadau gorau,

Judy Hutchings  
Goruchwylwraig Ymchwil

COLEG GWYDDORAU IECHYD AC YMDDYGIAD  
COLLEGE OF HEALTH AND BEHAVIOURAL SCIENCES

YSGOL SEICOLEG  
SCHOOL OF PSYCHOLOGY



[DATE]

**Information on group allocation for parents taking part in the research study to establish the effectiveness of an online parenting programme based on 'The Little Parent Handbook'**

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 complete the 10-week online parenting programme. This means you can start the programme in three months time.

With regards to the research, we would like to visit you again in three months time to run through the questionnaires and observation again. We will contact you at that time to arrange another convenient time to visit you. We will, during this visit, give you the link to the programme and your log in details.

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 online 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 AND BEHAVIOURAL SCIENCES

YSGOL SEICOLEG  
SCHOOL OF PSYCHOLOGY



[DYDDIAD]

**Gwybodaeth am ddyraniad grŵp ar gyfer rhieni sy'n cymryd rhan yn yr astudiaeth ar effeithiolrwydd rhaglen ar-lein yn seiliedig ar 'The Little Parent Handbook'**

Annwyl Riant,

Hoffwn adael i chi wybod eich bod chi a'ch plentyn wedi cael eich dewis ar hap i ymuno â'r grŵp **AIL** o rieni i gwblhau rhaglen magu plant 10 wythnos ar-lein. Mae hyn yn golygu eich bod yn cael cychwyn y rhaglen mewn tri mis.

O ran y gwaith ymchwil, hoffwn i ymweld â chi eto mewn tri mis i gwblhau'r holiaduron a'r arsylwad eto. Bydd y tîm ymchwil yn cysylltu gyda chi yn agosach at yr amser i drefnu amser cyfleus i ymweld. Yn ystod yr ymweliad yma, byddwch yn cael y linc i'r rhaglen ac eich manylion mewngofnodi.

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

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## **Appendix V**

### **Programme details document**

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## **'The Little Parent Handbook' Online Programme Details**

### **Instructions:**

In order to access the online parenting programme, you will firstly need to have access to the internet. It is best to view this programme on a PC or laptop, so if you can please do. However, you can view the programme on an iPad or tablet, but not on a smartphone. Please type in the link for the online programme exactly how it is here: <https://parentprogramme.lifeguidewebsites.org>



The log in page will appear. Click on the **'Login'** button and type in your username and password. The log in page looks like this:



### **Log in details:**

Your username and password for the programme are:

Username: .....

Password: .....

**Important:** Please keep your username and password and the link for the programme safe. You could write them down in a diary or a notebook in case you misplace this piece of paper. New usernames and passwords cannot be issued.

### **Additional Information:**

If you log out accidentally, close the tab accidentally or lose an internet connection during the programme, don't worry. Open a new tab and start the process again (i.e. follow the link and access the log in page, enter log in details). The programme will automatically take you to the last page you were on; this prevents you from having to start the session again from the beginning.

You do not need to log out once you have finished the section, a page will appear asking you to close your browser (closing the browser will automatically log you out of the programme). You can log in and out of each section as you wish, you do not have to complete each section in one go. Each section should take approximately **30 minutes** to complete. We ask you to complete one section each week. Please note that you will not be able to move on to the next section until you have completed the current one.

**Note:** there will be **5-day** gap between each of the chapters, this is to give you some time to practice the skills outlined in the programme at home with your child. However, if you log in early, you will be able to look back over previously completed chapters. Remember that you need an **internet connection** to access the programme and so if the programme is running slowly, it may be your internet connection. There is also an option to receive text message reminders if you would like to help keep you on track (if you do not want to receive text messages just click 'next' on the page).

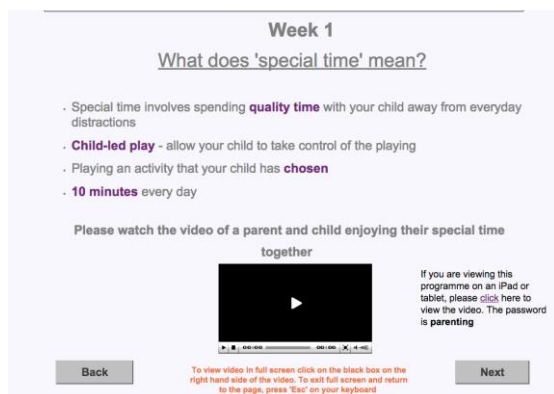


A 'cookie' message may appear during the programme. A cookie is a small file, which is saved on your computer, which allows us to remember some information about your use of the programme, for example how long you have taken to complete each section. Our programme uses cookies to keep you logged in and to identify your current session. The cookies do not make you identifiable, only your username and so you are still remaining anonymous. In order to use the programme, you will need to accept our cookies on your internet browser. If you block the cookies, the programme may not work properly.

### **Videos:**

If you are viewing the programme on a PC or laptop, just click play on the video. You can make the videos full screen but remember to check the volume on your computer first. If you are viewing the programme on an iPad or tablet, you will have to click on a **link** to view the videos (the link will be next to the video box) and enter the **password** (the password will be next to the link in bold font). The video will open in a new window – once you have viewed the video close the window and continue with the programme.

**Note:** You will only be able to use the 'audio button' if you are using a PC or laptop.



If you are viewing the programme on an iPad/tablet, you will need to click on the link to view the video. Click on the word '[here](#)'. A new window will open. Type in the password and then the video will appear. Once you have viewed the video, close the window and return to the programme.

### **Contact Details:**

If you encounter any issues with the programme during this study please contact Miss Natalie Williams, administrator at the Centre for Evidence Based Early Intervention, Bangor University, and she will be happy to help you resolve them.

**E-mail:** [natalie.williams@bangor.ac.uk](mailto:natalie.williams@bangor.ac.uk) or **phone** 01248 383 484

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## **Appendix W**

### **Main trial feedback form**

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### **Participant Feedback Form**

Firstly, a big **THANK YOU** for taking part in our research project.

Secondly, the research team at Bangor University would really appreciate your comments following your use of the online parenting programme.

Any feedback you give will be anonymous and will be considered for potential future use of the programme. Your feedback is extremely valuable to the research team at Bangor University and we appreciate you taking the time to complete this form.



1. Did you find the programme useful? (*Please circle yes/no*).    **YES**    **NO**

2. Which chapter[s] did you find the most useful? (*Please tick the box/boxes that apply*)

- Building a positive relationship between you and your child ☐
- Praising your child's good behaviour ☐
- Rewarding your child's good behaviour ☐
- How to get better at giving instructions ☐
- How to get better at giving instructions ☐
- Summary of weeks 1-6 ☐
- Ignoring problem behaviour ☐
- Teaching your child new behaviours ☐
- How to develop your child's language ☐
- Summary of weeks 1-9 ☐

3. Would you recommend the programme to other parents of children aged 3-8?  
(*Please circle yes/no*).    **YES**    **NO**

4. What did you like best about the programme?  
(*Please be as specific as possible*)

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5. What did you like least about the programme/ what would you like to change?  
(Please be as specific as possible)

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*Any additional comments:*

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*Thank you very much for your participation in this research study – it is much appreciated.*

*Once the results have been analysed, you will be sent a letter through the post outlining the outcome of the project.*

*Thank you,*

*Dawn Owen & Professor Judy Hutchings*