Low-intensity topic-specific group parenting programmes

Enhancing intervention outcomes

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Abstract

Low-intensity parenting programmes play a key role in a public health approach to parenting support and are designed to be a cost-effective intervention for child conduct problems. Several studies that have evaluated a single topic-specific Triple P–Positive Parenting Program Discussion Group, an example of a low-intensity parenting programme, have found promising results for improving child and parent outcomes among parents with young children. This thesis aimed to examine ways to enhance the intervention outcomes of low-intensity topic-specific parenting groups for parents with young children.

In study one, the effects of generalisation promotion strategies, such as teaching multiple exemplars, were examined. As a single training exemplar may not be sufficient for parents to effectively generalise parenting skills, multiple exemplars may assist parents to flexibly apply skills across a range of behaviours and settings leading to greater change in child behaviour, parenting practices, and parenting self-efficacy. This study also sought to extend the literature by examining the effects of low-intensity parenting groups with parents of primary school aged children using topics relevant to this development phase and investigating outcomes for mothers and fathers separately. A two arm randomised control trial design was used to compare the two conditions (single exemplar vs. multiple exemplar). Participants were 75 mothers and 58 fathers with a 5-8 year old child displaying at least a mild level of conduct problems. They represented 78 families: 66 two-parent families and 12 single parent families. Among two-parent families, there were 55 mother-father pairs, nine mothers who participated alone, and two fathers who participated alone. The majority of the single parent families were mothers (n = 11). Self-report measures of child behaviour, parenting practices, parenting self-efficacy, parent's perceptions of their parenting role experience, parental mental health, inter-parental conflict, partner support, and partner relationship satisfaction were completed by parents at pre-intervention, post-intervention, and 6-month follow-up. Satisfaction with each intervention condition and the individual sessions was also examined. Low-intensity topic-specific parenting groups led to improvements on a range of child and parent outcomes for both mothers and fathers of primary school aged children. Receiving multiple exemplars resulted in more robust change in mother- and father-rated child behaviour, mothers' parenting practices, and mothers' behavioural parenting self-efficacy at post-intervention. For mothers in the multiple exemplar condition, superior improvements in child behaviour, parenting practices, and behavioural parenting self-efficacy were maintained at 6-month follow-up. Greater improvements in mothers' setting parenting self-efficacy, mental health, and perceptions of partner support were also found at 6-month follow-up among the multiple exemplar condition.

The second study in this thesis added to the literature on low-intensity parenting programmes by exploring whether addressing parental mental health, in addition to parenting, was beneficial for parents with young children. As poor parental mental health is linked with child conduct problems, negative parenting practices, and can negatively impact the effects of parenting programmes for families, simultaneously addressing parental mental health when delivering low-intensity parenting programmes may be advantageous. A mixed-method quasi-experimental evaluation of a combined low-intensity parenting and mental health programme was conducted. Thirteen families with a 3-8 year old child took part in the study. Self-report symptoms of anxiety, depression, and stress and ineffective parenting practices were obtained at pre-intervention, mid-intervention, post-intervention, and 3-month follow-up. Parents also completed self-report measures of child behaviour, parenting self-efficacy, parent's perceptions of their parenting role experience, family relationships, and positive mental health at pre-intervention, post-intervention, and 3-month follow-up. Post-intervention semi-structured interviews were conducted with 12 parents and explored parents' experiences of taking part in the programme, their perceived impact of the programme, and their implementation of strategies. The combined intervention produced promising changes in parenting practices and parental mental health. Parents perceived some positive impacts after attending the programme and generally the combined programme was acceptable to participating parents.

Collectively, the findings from the two studies suggest that low-intensity topic-specific group parenting programmes have positive effects for young children and parents. Delivering multiple exemplars leads to added benefits and addressing parental mental health simultaneously has positive effects for families.

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List of Abbreviations

ANCOVA: Univariate Analysis of Covariance

ANOVA: Univariate Analysis of Variance

CAPES: Child Adjustment and Parent Efficacy Scale

CBT: Cognitive behavioural therapy

CF: Consent Form

CONSORT: Consolidated Standards of Reporting Trials

CSO: Chief Scientist Office

CSQ: Client Satisfaction Questionnaire

DASS-21: Depression Anxiety Stress Scales 21

DGSQ: Discussion Group Satisfaction Questionnaire

DSM-5: Diagnostic and Statistical Manual of Mental Disorders (5th ed.)

ECBI: Eyberg Child Behavior Inventory

FBQ: Family Background Questionnaire

GGC: Greater Glasgow and Clyde

GP: General Practitioner

ITT: Intention-To-Treat

MANCOVA: Multivariate Analysis of Covariance

MAR: Missing at Random

MCAR: Missing Completely at Random

MI: Multiple Imputation

MNAR: Missing Not at Random

MRC: Medical Research Council

NHS: National Health Service

PAFAS: Parenting and Family Adjustment Scale

PDR: Parent Daily Report Checklist

PES: Parenting Experience Survey

PIS: Participant Information Sheet

PPC: Parent Problem Checklist

PS: Parenting Scale

PTC: Parenting Tasks Checklist

RCI: Reliable Change Index

RCT: Randomised Control Trial

REC: Research Ethics Committee

RQI: Relationship Quality Index

R&D: Research & Development

SDQ: Strengths and Difficulties Questionnaire

SWEMWBS: Short Warwick-Edinburgh Mental Well-being Scale

U21: Universitas 21

UK: United Kingdom

US: United States

Chapter 1. Introduction

1.1 Overview of Thesis

This thesis was completed as part of a Universitas 21 (U21) Joint PhD. The U21 Joint PhD involves studying and conducting research at two universities during candidature. Undertaking a U21 Joint PhD offers several benefits for the PhD researcher including joint supervision across two high quality research institutions, access to the training and facilities at both institutions, and enhances research and employment opportunities through international networking. For the current PhD thesis, the University of Auckland was my primary institution and where I spent two-thirds of my PhD studies, and the University of Glasgow was my secondary institute where I spent the remaining third of my studies. The arrangement for my U21 Joint PhD was to conduct an evaluation of the Triple P Discussion Groups in each setting.

The overall aim of this thesis was to examine ways to enhance the intervention outcomes of low-intensity group parenting programmes. Two key approaches to enhancing outcomes were investigated. In study one, the effects of generalisation promotion strategies which aimed to enhance generalisation of parenting skills were examined by experimentally controlling the number of parenting exemplars parents received. In study two, the benefits of simultaneously addressing parental mental health in addition to parenting practices were explored.

This thesis builds on the current research on low-intensity group parenting programmes by conducting two separate but interlinked studies. The aim of study one was to examine the effects of single exemplar training in comparison to multiple exemplar training of low-intensity topic-specific parenting groups. It was expected that receiving a broader range of exemplars should assist parents to apply parenting skills flexibly and that skills would generalise to a more diverse range of parenting concerns. The study used a randomised control trial (RCT) design to examine the effects of the two conditions for parents with a 5-8 year old child screened in on the basis of their child's conduct problems. Study two aimed to explore the effects of attending a low-intensity group based parenting programme combined with a low-intensity group based cognitive behavioural intervention for common mental health problems among parents with 3-8 year old children.

The thesis is structured as follows. Chapter 2 provides a review of the literature that informed this thesis. It begins by discussing the definition, measurement, and risk factors for child conduct problems. The chapter then describes interventions for conduct problems and illustrates the rationale and evidence for low-intensity parenting programmes. The review of

the literature then demonstrates why it is important to promote generalisation and address parental mental health when delivering low-intensity topic-specific parenting groups. The chapter ends with a summary of the relevant literature and outlines the aims and hypotheses of the current research. Given that the U21 Joint PhD involved conducting research in both New Zealand and the United Kingdom (UK), and the parenting programme used in the current thesis is designed for parents with 3-8 year old children, the literature review mainly focused on research with samples in this age range and where relevant, research conducted in these two geographical locations. Chapter 3, Chapter 4, and Chapter 5 detail the method, results, and discussion of the findings respectively for study one. The method, results, and discussion for study two are described in Chapter 6, Chapter 7, and Chapter 8 respectively. The final chapter integrates and discusses the findings from both studies.

Together the two studies in this thesis addressed gaps in the literature on low-intensity parenting programmes by examining if teaching multiple exemplars of low-intensity topic-specific parenting groups enhances intervention outcomes and exploring whether combining low-intensity programmes addressing parenting and parental mental health are beneficial for parents with young children. Study one also added to the literature on the effectiveness of the Triple P Discussion Groups by evaluating the groups with parents of primary school aged children specifically addressing issues relevant to this developmental phase and investigating intervention outcomes for mothers and fathers separately.

Chapter 2. Literature review

2.1 Overview of Chapter

Parents play a key role in their children's lives. Parenting is inextricably linked with children's development and behaviour and ineffective parenting and poor discipline practices have been linked with more negative outcomes for children (e.g., Parkes & Wight, 2011; Stormshak, Bierman, McMahon, Lengua, & Conduct Problems Prevention Research Group, 2000). Of great concern is the high prevalence of subclinical levels of conduct problems displayed by young children (e.g., Australian Institute of Family Studies, 2011; Bradshaw & Tipping, 2010). Costs associated with child conduct problems include stress and concern for the young child, their caregivers, and those around them (Advisory Group on Conduct Problems, 2009; Baker & Heller, 1996), poorer short- and long-term academic, peer, health, and behavioural outcomes (e.g., Campbell, Spieker, Burchinal, & Poe, 2006; Fergusson, Horwood, & Ridder, 2005; Knoester, 2003; Lynskey & Fergusson, 1995) and demands on public services (Advisory Group on Conduct Problems, 2009; Scott, Knapp, Henderson, & Maughan, 2001). Coupled with this, survey data indicates a high prevalence of ineffective parenting practices among parents of young children (e.g., Ministry of Health, 2008; Waylen, Stallard, & Stewart-Brown, 2008) highlighting a high level of need for intervention.

Parenting programmes based on social learning and behavioural theories have been recommended as the best approach to intervention for children with conduct problems (Advisory Group on Conduct Problems, 2009; Eyberg, Nelson, & Boggs, 2008; National Institute for Health and Clinical Excellence, 2013) and are effective in improving outcomes for parents and children (e.g., Dretzke et al., 2009; Furlong et al., 2012). Although there appears to be a high proportion of families who would benefit from a parenting programme, participation is low (Sanders, Markie-Dadds, Rinaldis, Firman, & Baig, 2007; Taylor & Biglan, 1998). To achieve greater participation in parenting programmes and improve outcomes for children at the whole-of-population level, a population health approach is required (Sanders & Kirby, 2014; Sanders, Kirby, Tellegen, & Day, 2014). A population approach includes the delivery of low-intensity parenting programmes for parents of children displaying mild to moderate levels of problems (Sanders, 2008; Sanders & Murphy-Brennan, 2010). Low-intensity programmes have the potential to reach a greater number of individuals at a lower cost and may prevent the development of more serious problems (Sanders, 2008; Sanders & Murphy-Brennan, 2010). They also play a role in destigmatising participation in parenting programmes (Sanders & Murphy-Brennan, 2010). Therefore research needs to further investigate ways to enhance the intervention outcomes of low-intensity parenting

programmes to ultimately reduce the prevalence of child conduct problems and off-set negative outcomes.

This chapter begins by discussing definitions and approaches to measuring child conduct problems and describes the definitions that will be used in this thesis. Next, to highlight the importance of undertaking this research, the prevalence of conduct problems among young children, the outcomes associated with these early behaviour problems, and the risk factors associated with the development and maintenance of child conduct problems are discussed. The parenting experiences of parents with young children displaying behaviour problems are then presented. In section 2.3, the review discusses interventions for parents with young children displaying conduct problems and presents the rationale for low-intensity parenting programmes. The research evidence for low-intensity parenting programmes is then reviewed with a particular focus on the Triple P Discussion Groups, an example of a topic-specific low-intensity group parenting programme which is used in the current thesis. Limitations of the previous research evaluating the Triple P Discussion Groups are discussed focusing on the generality of low-intensity parenting programmes, the lack of research with parents of primary school aged children, and the lack of father inclusion in such programmes.

In section 2.4 two additional risk factors associated with child conduct problems, poor parental mental health and parenting stress, are discussed. First, interventions for common mental health problems are presented and the rationale and effectiveness of cognitive behavioural therapy based low-intensity interventions addressing mental health problems are reviewed. The impact of addressing parental mental health on child behaviour problems is then considered and an argument is made for combined support that targets both parenting practices and common mental health problems as a way of enhancing outcomes of low-intensity parenting programmes. The review ends by providing a summary of the literature discussed and describing the aims and hypothesis for the two studies in this thesis.

2.2 Conduct Problems

2.2.1 Definition of Conduct Problems

The term *conduct problems* does not refer to one particular disorder or clinical diagnosis (Sanders, Gooley, & Nicholson, 2000) rather, conduct problems describe a pattern of acting out behaviours (McMahon, Wells, & Kotler, 2006). The Advisory Group on Conduct Problems (2009) defines conduct problems as "a spectrum of antisocial, aggressive, dishonest, delinquent, defiant and disruptive behaviours" (p. 13). Conduct problems range in frequency

from developmentally inappropriate levels of complaining, non-compliance, defiance, tantrums, impulsivity, destructiveness, verbal and physical aggression, to more severe problems such as delinquency and criminal behaviour (Campbell, 2006; Gardner & Shaw, 2008; Liu, 2004; Sanders et al., 2000). Thus conduct problems can encompass the terms disruptive behaviour, externalising behaviour, under-controlled behaviour, antisocial behaviour, difficult behaviour, and challenging behaviour (Advisory Group on Conduct Problems, 2009; Campbell, 2006; Sanders et al., 2000). In the current thesis, the term conduct problems is used to refer to broad patterns of difficult, disruptive and externalising behaviours, with a focus on mild to moderate levels of conduct problems.

2.2.2 Approaches to Measurement of Conduct Problems

A key area of debate is whether childhood problems should be conceived and measured categorically or dimensionally (Coghill & Sonuga-Barke, 2012; Jensen, Hoagwood, & Zitner, 2006). The categorical approach, which draws on a medical model, classifies disorders as being either present or absent (Jensen et al., 2006). In this approach, individuals with disorders are seen as qualitatively different from individuals in the population who display subclinical levels of these behaviours (Coghill & Sonuga-Barke, 2012). The two most commonly used systems of classifying disorders are the Diagnostic and Statistical Manual of Mental Disorders (5th ed., DSM-5, American Psychiatric Association, 2013) and the International Statistical Classification of Diseases and Related Health Problems 10th Revision (World Health Organization, 2005). These classification systems describe the required criteria to achieve a diagnosis for each disorder. For example, the DSM-5 (American Psychiatric Association, 2013) classifies conduct problems into a series of related clinical diagnoses of Oppositional Defiant Disorder and Conduct Disorder (Advisory Group on Conduct Problems, 2009). Such diagnoses apply to children with severe conduct problems which lead to clinically significant impairment.

There are several disadvantages to using a categorical approach to conceptualise and measure conduct problems. First, such approaches assume that conduct problems have a categorical form (Moffitt & Scott, 2008). Second, inconsistency in diagnostic decisions between informants may occur (Hudziak, Achenbach, Althoff, & Pine, 2007). Third, by categorising disorders as present or absent, detail about the severity and dysfunction of problems is lost (Hudziak et al., 2007; Moffitt & Scott, 2008) and individuals who are close to but do not meet diagnostic criteria are seen to be very different from those who do meet criteria for a diagnosis, rather than being viewed as similar (Altman & Royston, 2006). These individuals who are close to but do not meet clinical criteria may miss out on potential

intervention and support (Coghill & Sonuga-Barke, 2012). Concerns have also been raised about the inappropriateness of diagnosing young children due to stigmatisation (Moffitt & Scott, 2008) and to the rapid developmental change that occurs during young childhood (Gardner & Shaw, 2008). There is also difficulty in distinguishing between typical and atypical behaviours during this period, as what may be developmentally appropriate at one age may be considered to be problematic at another (Gardner & Shaw, 2008; Hudziak et al., 2007).

The second main approach to the conceptualisation and measurement of problems is the dimensional approach, which is arguably more appropriate for young children. Dimensional approaches view problems as a reflection of difficulties at the more severe end of a continuum (Coghill & Sonuga-Barke, 2012; Jensen et al., 2006). Children displaying conduct problems are not viewed as being qualitatively different from normal functioning but differ in terms of their level of behavioural difficulties. This approach to measurement captures the range of problems on a continuum and can be used to identify children with mild to moderate levels of conduct problems who would likely benefit from intervention but may not meet diagnostic criterion. Several rating scales have been developed to measure conduct problems dimensionally. Commonly used scales include the Eyberg Child Behavior Inventory (ECBI, Eyberg & Pincus, 1999), the Child Behaviour Checklist (Achenbach, 1991), and the Strengths and Difficulties Questionnaire (SDQ, Goodman, 1997). All of these measures ask respondents to rate the frequency of behaviours using a Likert scale and normative scoring bands by child age, child gender, and respondent are available for these measures. A clinical cut-off point can also be applied to categorise children on a yes-no basis (Hudziak et al., 2007). The dimensional approach to the conceptualisation and measurement of conduct problems is used in the current thesis.

2.2.3 Prevalence of Conduct Problems Displayed by Young Children

Based on research conducted in developed Western countries, conduct problems are the most common type of problem displayed by young children (Gardner & Shaw, 2008; National Institute for Health and Clinical Excellence, 2013) and constitute a substantial proportion of referrals to health and social care services (National Institute for Health and Clinical Excellence, 2013). A large amount of research has been conducted to determine the prevalence of conduct problems. Estimates of the rates of conduct problems displayed by young children vary greatly depending on the criteria used (Moffitt & Scott, 2008) and the age of children. In literature presented below on the prevalence of conduct problems displayed by young children, there is a focus on conduct problems that are mild to moderate in severity and

from geographic regions where the studies in this thesis were undertaken (Australasia and United Kingdom [UK]).

In Sanders et al. (2007) 3,388 parents in Australia were surveyed about the occurrence and severity of conduct problems shown by their 2-12 year old child. Between 12.5% and 23% of parents reported that their child displayed the following behaviours often or very often: loses temper, argues with adults, denies or refuses to cooperate with adults, deliberately annoys others. Angry and resentful behaviour was reportedly displayed often or very often by 4.5% of the children. When parents reported on the severity of their child's difficult behaviour, 41% of parents reported it was not at all difficult, 35% reported the behaviour was only slightly difficult, and 19% stated their child's behaviour was moderately difficult. The remaining 5% of parents reported very or extremely difficult child behaviours.

More recent findings from the Growing Up in Australia study (Australian Institute of Family Studies, 2011) showed that a high proportion of mothers rated that their young child displayed conduct problems often. The SDQ was completed by a nationally representative sample of approximately 3,740 mothers with a 4-5 year old. A substantial proportion of mothers (between 3.3% and 11.0%) reported that the following behaviours were 'certainly' true of their child: temper tantrums, being argumentative, disobedience, and restless or overactive behaviour. Fighting with children often was reported by mothers to be 'certainly' true of 1.6% of children.

Among primary school aged children, the prevalence of conduct problems is also high. Research from England using data from the Avon Longitudinal Study of Parents and Children found that 21.8% of a broadly representative sample of 4,739 6-8 year old children displayed conduct problems in the borderline or abnormal range on the SDQ as rated by mothers (Parkes et al., 2014). When children meeting the borderline and abnormal criteria are separated out, a high proportion of children display problematic but subclinical levels of conduct problems (Bradshaw & Tipping, 2010; Elberling, Linneberg, Olsen, Goodman, & Skovgaard, 2010). For example, findings from the Growing Up in Scotland study that were weighted to be representative of the population, indicated that at primary school entry 15% of children displayed borderline conduct problems measured by parent-rated SDQ (Bradshaw & Tipping, 2010).

There is less research measuring the prevalence of conduct problems longitudinally. It is important to examine conduct problems longitudinally to determine whether children who display conduct problems during the preschool years continue to have conduct problems at primary school age. Research conducted across a number of developed Western countries

suggests that even though a substantial proportion of preschool children grow out of conduct problems, approximately 50-60% of children who displayed disruptive behaviour problems during the preschool years continue to show problems at primary school age (for a review see Campbell, Shaw, & Gilliom, 2000 or Gardner & Shaw, 2008). For example, in a study conducted in the United States (US) of 284 boys from low-income families, Shaw, Gilliom, Ingoldsby and Nagin (2003) found that 60% of boys who displayed high levels of disruptive behaviour problems when they were 2 years old, continued to display disruptive behaviour problems at age 6. In the Growing Up in Scotland study, 4.3% of the children displayed persistent conduct problems in the abnormal range of the SDQ at ages 3, 4 and 5 and 22.5% displayed conduct problems at one but not all of these time points (Wilson et al., 2012a).

In summary, findings from the reviewed literature demonstrate a considerable proportion of young children display mild to moderate levels of conduct problems at some point in time. Research also demonstrates that a substantial proportion of children whose conduct problems originated in early childhood continue to display conduct problems during the primary school years. The high prevalence of conduct problems displayed by young children indicates the substantial need for intervention.

2.2.4 Outcomes of Childhood Conduct Problems

A range of negative outcomes have been reported for young children displaying moderate to high levels of conduct problems which also provides a strong rationale for intervention. Longitudinal studies conducted in New Zealand, the UK, the US, and Finland found that negative outcomes during late childhood and adolescence include poorer academic, employment, peer, health, and behavioural outcomes (e.g., Campbell et al., 2006; Fergusson & Horwood, 1998; Fergusson, Boden, & Horwood, 2009; Lynskey & Fergusson, 1995; McLeod & Kaiser, 2004; Parkes et al., 2014; Sourander et al., 2006; Woodward & Fergusson, 1999). For example, using data from the NICHD Study of Early Child Care and Youth Development in the US, Campbell et al. (2006) found that children who displayed a stable but moderate level of aggression between ages 2 and 9 years had more problems with academic achievement, peers, externalising behaviours, impulse control, and internalising symptoms at age 9 when compared to children who displayed very low levels of aggression. Another study by McLeod and Kaiser (2004) examined the outcomes of externalising behaviours among 424 children in the US using data from the National Longitudinal Surveys of Youth. They found that higher levels of externalising behaviour problems displayed at ages 6-8 years were associated with a lower likelihood of gaining a high school qualification and subsequent college enrolment. While the Christchurch Health and Development study found that New

Zealand children who displayed higher levels of conduct problems at age 8 reported greater use of alcohol, illicit drugs, and tobacco smoking at age 15 when compared with children who displayed low levels of conduct problems (Lynskey & Fergusson, 1995). Another study based in England using data from the Avon Longitudinal Study of Parents and Children found that children with conduct problems in the borderline or abnormal range at ages 6-8 years were associated with an increased risk of early sexual behaviour at ages 13 and 15 (Parkes et al., 2014). The same pattern was found when conduct problems were analysed using continuous scores.

Longitudinal research from New Zealand, the UK, and the US shows that child conduct problems have also been associated with negative outcomes during adulthood (Fergusson et al., 2009; Knoester, 2003; Kretschmer et al., 2014; Woodward, Fergusson, & Horwood, 2002). For example, using data from the Marital Instability Over the Life Course Study, Knoester (2003) compared the outcomes for US children who sometimes displayed externalising problems during childhood with outcomes for children who did not display externalising behaviour. Children who sometimes displayed externalising behaviour reported lower psychological wellbeing, lower partner relationship quality, and poorer relationships with their own parents during adulthood.

There are also substantial financial costs of conduct problems displayed by young children. Scott et al. (2001) reported the public services costs (e.g. education, benefits relationships, health services, justice system) of childhood conduct problems among a sample of children in the UK. Children were grouped into three categories based on their antisocial behaviour at age 10: no conduct problems (n = 65), those with conduct problems (n = 61), and those with a conduct disorder (n = 16). The costs to the public services used by age 28 for children with conduct problems who did not meet the criteria for conduct disorders were approximately three times greater than the costs of providing services for individuals without conduct problems. For all groups of individuals, crime accounted for the greatest costs.

2.2.5 Risk Factors for Conduct Problems

The developmental psychopathology framework is useful for understanding factors associated with the development and maintenance of child conduct problems (Cicchetti, 2006). In particular, the processes that either contribute to (risk factors), or protect against (protective factors) the development of problems are examined. When considering risk and protective factors, it is also important to keep in mind the transactional relationship between the child and their environment. Sameroff's (2009) transactional model of development emphasises the bidirectional influence between the child and their environment. The child is viewed as an

active participant and development is seen as a product of complex, dynamic interactions between the child and their environment over time. Environmental influences are not viewed as static but are seen to interact with each other.

A large amount of research has examined the factors associated with the development and maintenance of conduct problems displayed by young children. In New Zealand and Scotland, a range of individual and demographic variables have been identified as risk factors such as being of male gender (Fergusson & Horwood, 1998; Woodward et al., 2002), familial disadvantage (e.g., household income; Wilson et al., 2012a; Woodward et al., 2002), and social disadvantage, such as single parenthood and poorer living standards (Wilson et al., 2012a; Woodward et al., 2002). However, familial variables appear to be more closely related to behavioural difficulties than individual or demographic variables (e.g., Parkes & Wight, 2011). The key focus of this thesis is on low-intensity programmes for parents of young children displaying conduct problems that target modifiable risk factors, such as parenting and discipline practices, parental mental health, and parenting stress. Therefore the review of risk factors will focus on these areas.

There is a strong and consistent link between ineffective parenting and poor discipline practices and child conduct problems; parents who use more ineffective and harsh parenting practices are more likely to have a young child who displays behaviour problems (e.g., Bradshaw & Tipping, 2010; Brenner & Fox, 1998; Parkes & Wight, 2011; Stormshak et al., 2000; Wilson et al., 2012a; Woodward et al., 2002). For example, in a sample of parents of 631 young children in the US, Stormshak et al. (2000) reported that punitive parenting practices were associated with higher levels of oppositional, aggressive, and hyperactive behaviour. Parkes and Wight (2011) used mother-reported data from the Growing Up in Scotland study and found that low parenting skills (a composite measure of low parental warmth, low parental involvement, poor supervision of child, less rules, more parent-child conflict, and high home chaos) among parents of almost 5 year old children was associated with having a child with mild to severe behaviour problems. In particular, high levels of conflict in the parent-child relationship were strongly associated with early child behavioural problems. Similarly, using data from the Growing Up in Scotland study, Wilson et al. (2012a) found that 3-5 year old children displaying conduct problems were more likely to have a parent who believed that smacking was an effective and sometimes necessary form of discipline.

As Sameroff's (2009) transactional model of development theorised, interactions between a child and their environment are bidirectional in nature. It should be acknowledged

that there is not a simple linear causation from poor parenting and discipline practices to child conduct problems. The relationship between poor parenting and discipline practices and child conduct problems appears reciprocal and coercive processes between parents and their children play a key role in the initial development and the maintenance of behaviour problems. In his model of coercive processes, Patterson (1982) suggested that parents and children mutually coerce each other into behaving aversively or avoiding the other's aversive behaviour. As a result, this coercive pattern of parent-child interaction continues as both the child's and parent's behaviour is reinforced. There is a large amount of empirical research that supports this coercive processes model (e.g., Burke, Pardini, & Loeber, 2008; Parkes & Wight, 2011).

Other familial risk factors that have been linked with child conduct problems are poor parental mental health and parenting stress (Duncombe, Havighurst, Holland, & Frankling, 2012; Hall, Rayens, & Peden, 2008; Solem, Christophersen, & Martinussen, 2011; van der Molen, Hipwell, Vermeiren, & Loeber, 2011). For example, a study conducted by Duncombe et al. (2012) in a sample of 373 5-9 year old children in Australia, found that poor parental mental health (symptoms of depression, anxiety and stress) predicted parent-rated child disruptive behaviour. Other researchers, drawing on findings from across a number of studies, have stated that parental depression is one of the most consistent risk factors for child disruptive behaviour disorders (Weissman et al., 2006) perhaps due to the stressful environment children may be exposed to in the presence of parental psychological distress (Wickramaratne et al., 2011) and negative impacts of parental psychological distress on parenting practices.

Therefore, of great concern is the high prevalence of parents with mental health problems. Findings from the Growing Up in Scotland study demonstrated that approximately 12-16% of mothers with young children experienced mental health problems at any one time (Marryat & Martin, 2010). When compared with children of mothers without mental health problems, children of mothers with mental health problems were more likely to have poorer behavioural, emotional, and peer outcomes. Findings from the Growing up in Australia study (Australian Institute of Family Studies, 2012) demonstrated that between 11-13% of mothers and 9-10% of fathers with preschool aged children reported moderate to high levels of psychological distress. Among parents with primary school aged children, the prevalence was 12-17% of mothers and 10-12% of fathers. In the earlier mentioned Australian study by Sanders et al. (2007) they found that approximately 20% of a community sample of parents with children aged 2-12 years reported being stressed and about 5% of parents were depressed. Parents with a child displaying disruptive behaviour problems reported having a more stressful

and depressing parenting experience. As with the relationship between parenting practices and child conduct problems, the relationship between poor parental mental health and parenting stress and child behaviour problems appears reciprocal (Gross, Shaw, Moilanen, Dishion, & Wilson, 2008; Gross, Shaw, Burwell, & Nagin, 2009; Neece, Green, & Baker, 2012). For instance, when Neece et al. (2012) examined the relationship between parenting stress and children's behaviour problems from ages 3 to 9 years in a US sample of 237 children, they found that parenting stress and child behaviour problems were both antecedents and consequences of one another, having a mutually escalating effect over time.

A useful model for understanding the interaction between parenting risk factors, parental mental health, and child outcomes is provided by Belsky's (1984) process model of the determinants of parenting. Belsky's (1984) model identifies a range of influences on parenting suggesting that parenting is directly influenced by the parent, the child, and the broader social context in which the parent-child relationship exists. The impact of the parent, the child, and the broader social context are not considered to be equally influential and Belsky suggested that personal psychological resources are one of the most influential determinants of parenting. In Belsky's view, parents' personal psychological resources have a direct effect on parental functioning and indirect effects on other sources of influence, such as work and partner relationships.

In support of Belsky's (1984) process model of the determinants of parenting, not only are parental mental health and parenting stress associated with child behaviour problems, they are also associated with less optimal parenting and discipline practices and poorer parent-child interactions (e.g., Australian Institute of Family Studies, 2012; Kelley & Jennings, 2003; Lovejoy, 1991; Lovejoy, Graczyk, O'Hare, & Neuman, 2000; Parkes & Wight, 2011; Tarullo, DeMulder, Martinez, & Radke-Yarrow, 1994). Goodman and Gotlib (1999) state that poorer parent-child interactions seen as a result of parental psychological distress are one mechanism for the transmission of risk for child psychopathology. Previous research has shown that poor parental mental health is associated with a parent-child interaction style characterised by more negative parental behaviour and more negative interactions with pre-schoolers (Kelley & Jennings, 2003; Lovejoy, 1991), and more critical interactions and less engagement with school aged children (Tarullo et al., 1994). Findings from the Growing Up in Australia study (Australian Institute of Family Studies, 2012) demonstrated that mothers and fathers of 4-9 year olds with moderate to high levels of psychological distress reported higher levels of hostile and irritable parenting and lower levels of parental warmth when compared to parents without mental health problems. In addition, a meta-analytic review of 46 observational studies examining the relationship between poor maternal mental health and parenting by

Lovejoy et al. (2000) found that maternal psychological difficulties were associated with negative coercive maternal behaviour and disengagement from the child. Other research from Australia has found that parents with personal adjustment problems report less parenting confidence (Sanders et al., 2007). McKee, Harvey, Danforth, Ulaszek, and Friedman (2004) suggest the link between poor parental mental health and less optimal parenting may be because parents with poor mental health may have more difficulty being positive in their interactions with their children and carrying out effective parenting practices. Therefore, less optimal parenting styles may also be indirect outcomes of having less ability and using poorer strategies to cope with stress, including stress related to dealing with their child's disruptive behaviour problems (McKee et al., 2004).

2.2.6 Parenting a Child With Conduct Problems

It is not surprising that caring for a child displaying conduct problems can lead to feelings of stress, distress, and failure for the parent. Research has shown that parents of children with conduct problems report greater parenting stress and more negative life impacts (Baker & Heller, 1996; Donenberg & Baker, 1993). For example, Baker and Heller (1996) examined the parenting experiences of 52 US families with young children displaying externalising behaviour problems in comparison to non-problem children. Children were classified into three groups depending on the severity of their externalising problems (controls, moderate externalising problems, or high externalising problems). For parents with children displaying both moderate and high levels of externalising problems, greater child-related stress and impact was reported when compared to parents of control children. Mothers of children with moderate or high levels of behaviour problems reported a need for support.

In addition, parents of children with conduct problems report more parenting hassles and less favourable parenting practices (e.g., Creasey & Reese, 1996; Nicholson, Fox, & Johnson, 2005). In their study of 60 intact families with primary school aged children in the US, Creasey and Reese (1996) found that child behaviour problems were linked with greater parenting hassles for mothers and fathers. Furthermore, parenting and non-parenting hassles were associated with poorer maternal and paternal mental health.

Of great concern is the high prevalence of ineffective parenting practices used to manage child behaviour problems. In the Australian Sanders et al. (2007) study, the majority of parents (70.8%) reported that they were likely or very likely to shout or become angry at their child when they misbehaved. Approximately, 43% of parents reported they were likely or very likely to give their child a single smack on the hand, and 7.7% of parents reported they were likely or very likely to smack their child more than once or with an object when their

child misbehaved. Similarly, reports from the New Zealand Health Survey also show a high prevalence of ineffective parenting practices (Ministry of Health, 2008). The representative sample consisted of 12,488 adults (aged over 14 years) and included parents/caregivers of 4,921 children aged between birth and 14 years. In the previous four weeks, 10.4% of primary caregivers reported using physical punishment with their child when they misbehaved and approximately 40% had yelled at their children when they misbehaved. Another study conducted by Waylen et al. (2008) used data from the English Avon Longitudinal Study of Parents and Children to examine parenting practices used with children aged 18 months to 4 years. They reported that a substantial proportion of parents reported high levels of hitting and shouting (30.0%).

2.3 Intervention for Child Conduct Problems

A number of interventions have been developed to treat children displaying conduct problems which differ in their approach to intervention and theoretical basis. Parenting programmes that are based on social learning and behavioural theories are an effective intervention for young children with conduct problems (Barlow & Stewart-Brown, 2000; Carr, 2009; Dretzke et al., 2009; Furlong et al., 2012; Piquero, Farrington, Welsh, Tremblay, & Jennings, 2009) and have been recommended as the treatment of choice for this population (Advisory Group on Conduct Problems, 2009; Eyberg et al., 2008; National Institute for Health and Clinical Excellence, 2013). Such programmes have been found to improve parenting practices and substantially reduce disruptive child behaviour (Carr, 2009; Dretzke et al., 2009; Furlong et al., 2012; Piquero et al., 2009).

Scott (2008) identified the key features of parenting programmes based on social learning and behavioural theories. Scott suggested that effective parenting programmes based on these theories had the following components in common: a theoretical basis for the programme that is explicit and informed by extensive empirical research, the inclusion of specific topics and strategies delivered in a set order, and perceiving parenting as a skill set which is used in the parent-child relationship. Furthermore, Scott (2008) stated that during these programmes parental self-reliance is promoted.

Parenting programmes based on social learning and behavioural theories aim to change children's behaviour by intervening through the parents rather than the whole family or the child (Prinz & Jones, 2003). The central concept is that children's behaviour is directly and indirectly shaped by their experiences and a key focus of these programmes is the day-to-day

parent-child interactions (Scott, 2008). Parent-child interactions are conceived as bidirectional in nature (Sanders & Kirby, 2014) and coercive processes are thought to play a central role (Patterson, 1982). As previously discussed Patterson (1982) suggested that parents and children mutually coerce each other into behaving aversively or avoiding the other's aversive behaviour. As a result, this coercive pattern of parent-child interaction continues as both the child's and parent's behaviour is reinforced.

Historically, parenting programmes based on social learning and behavioural theories aimed to change coercive parent-child interactions and reduce child conduct problems by changing aspects of the environment that may be contributing to or maintaining difficult behaviour through reinforcement and conditioning (Morawska & Sanders, 2006; Scott, 2008). The targets of intervention have since been expanded to include cognitive processes that may influence parental behaviour (e.g., attributions) and positive parenting strategies to promote child development outcomes (Scott, 2008). Risk factors associated with the development and maintenance of child behaviour problems are targeted (e.g., ineffective parenting and poor discipline practices) and protective familial factors are promoted (Sanders, Markie-Dadds, & Turner, 2003).

During parenting programmes based on social learning and behavioural theories, active skills training is used to teach parents strategies for encouraging appropriate child behaviour and strengthening the parent-child relationship, in addition to strategies for managing difficult child behaviours (Prinz & Jones, 2003; Sanders, 2012; Taylor & Biglan, 1998). These strategies aim to improve parenting knowledge and skills, increase parents' confidence in day-to-day parenting tasks, improve the quality of the parent-child relationship, teach alternatives to coercive or ineffective parenting practices, and in turn increase positive and prosocial child behaviours and decrease disruptive child behaviours (Carr, 2009; Piquero et al., 2009; Sanders et al., 2003). They typically use a variety of methods to develop parenting skills. These methods include didactic presentation of material, modelling and video modelling of effective parenting skills, behavioural rehearsal, goal setting to facilitate implementation of skills, homework activities, and reading materials to facilitate generalisation and implementation of strategies (Prinz & Jones, 2003).

2.3.1 The Triple P–Positive Parenting Program

One example of a parenting programme that is based on social learning and behavioural theories is the Triple P–Positive Parenting Program. Triple P is a system of parenting programmes for parents with children aged between birth and 16 years (Sanders, 2012). The Triple P system draws on a large and varied research base, including social

learning models, but also on social information processing models (e.g., that highlight the role of parental attributions), research on child and family behavioural therapy and applied behaviour analysis (e.g., behaviour change strategies), developmental research on day-to-day parenting (e.g., Hart & Risley, 1995) and developmental psychopathology identifying specific risk factors associated with poorer child outcomes (Sanders, 2012). In addition, Triple P draws on ecological and public health frameworks (e.g., Farquhar et al., 1985) to structure the system of programmes into a population health approach to intervention (Sanders, 2012). Triple P uses this theoretical and empirical research base to teach five key principles of positive parenting (Sanders, 2012).

The first principle of the Triple P programmes is providing a safe and engaging environment which involves making sure children are safe and supervised to provide opportunities for play and exploration. The second principle, providing a positive learning environment, involves responding positively to interactions initiated by their child (e.g., attention, requests for assistance) using strategies such as incidental teaching and problem solving. It is likely that these first two principles are correlated. Thirdly, the programme teaches assertive discipline strategies which are alternatives to ineffective and coercive practices, such as giving clear, calm instructions and delivering logical consequences. Having realistic expectations is the fourth key principle referring to parents' expectations and beliefs about their child and their child's behaviour as well as expectations and beliefs about themselves as parents. Expectations are likely to differ depending on the families' culture and context. The final principle taught is looking after one's own wellbeing as a parent (e.g., taking time out for yourself as a parent, improving resourcefulness).

Another key feature of the Triple P system is its self-regulatory framework (Sanders, 2012). In Triple P programmes, parents are encouraged to solve their own problems, attribute changes in child behaviour to their own or their child's efforts, and use self-management skills to monitor their own behaviour, their child's behaviours, and set goals for change.

Triple P also recognises that parents have differing needs and preferences for the intensity of programme they may require and uses a multilevel system of support (Sanders, 2012). This multilevel system draws on the concept of minimal sufficiency, meaning that the minimal amount of intervention for sufficient change is provided thus reducing unnecessary costs to services and maximising efficiency. There are five levels of intervention that vary in their intensity (see Appendix A for a detailed description of the Triple P multilevel system of support). The system ranges from level 1 Triple P, which is an information-based programme delivered through media and aimed at the entire population, to level 5 programmes, which are

intensive multisession programmes targeted at parents with children displaying more severe conduct problems where there is concurrent family dysfunction. To facilitate practitioner and participant flexibility, programmes are offered in a variety of formats, including group, individual, and self-directed programmes.

In the current thesis, the Triple P Discussion Groups are used, which are an example of a low-intensity topic-specific group parenting programme. The Triple P Discussion Groups are a level 3 Triple P intervention (Sanders, 2012). Level 3 Triple P programmes are low-intensity interventions designed to be administered by primary care professionals within an educational or health care setting. During level 3 Triple P programmes, parents receive behaviourally-orientated parenting information. Unlike level 2 Triple P interventions that are also low in intensity, parents who participate in a level 3 programme also receive active skills training targeted at discrete child behavioural problems that parents have identified as posing some difficulties for them to manage. The Triple P Discussion Groups are a recent addition to the Triple P system of programmes.

2.3.2 The Rationale for Low-Intensity Parenting Programmes

Typically, parenting programmes have been offered as an intensive group or individual intervention (Sanders & Murphy-Brennan, 2010). One major challenge is that the benefits of parenting programmes are limited at the population level as few parents access such programmes (Sanders et al., 2007; Sanders, Haslam, Calam, Southwell, & Stallman, 2011; Taylor & Biglan, 1998). There is evidence to suggest that many parents would benefit from attending a parenting programme even though few parents access parenting support (Ministry of Health, 2008; Sanders et al., 2007; Waylen et al., 2008). It has been argued that a population health approach to parenting needs to be adopted to reduce the prevalence of child conduct problems in the population (Sanders & Kirby, 2014; Sanders et al., 2014).

A population health approach to parenting support highlights the need to target parents at the whole-of-population level to reduce the overall prevalence of child conduct problems (Sanders et al., 2014). In a population approach, both universal and targeted interventions are used. Such an approach may help overcome some barriers to participation in parenting programmes (Prinz & Sanders, 2007). It is likely that one reason for low participation in parenting programmes is that available programmes are not meeting the needs or preferences of all parents. For some families, an intensive programme may be required; however in other families a long-term intervention may not be feasible nor needed (Dishion & Stormshak, 2007a; Sanders et al., 2005). For parents with a child with mild to moderate problems a low-intensity programme may be minimally sufficient and may prevent the development of more

serious problems (Sanders, 2008; Sanders & Murphy-Brennan, 2010). Offering low-intensity interventions alongside more intensive programmes allows for more intensive interventions to be delivered to parents with a child displaying more severe levels of difficulties and to high-risk families (Sanders & Murphy-Brennan, 2010). As a consequence, low-intensity parenting programmes have been developed to increase the range of options for parenting support.

Another possible reason for low participation in parenting programmes is perceived stigma. There is a need to normalise and destigmatise participation in parenting programmes (Sanders & Murphy-Brennan, 2010) and low-intensity programmes play a key role in this process. Sanders and Murphy-Brennan (2010) state that offering a range of low-intensity interventions to the entire population as part of the population health approach to improving parenting helps normalise participation in parenting programmes. In addition, by increasing the reach and range of parenting programmes and delivering interventions in easy to access contexts, such as community settings, participation in parenting programmes may become less stigmatised.

Dishion and Stormshak (2007a) suggest that low-intensity parenting programmes can be defined in different ways and can range from single session programmes to several sessions of topic-focused intervention. Bennett-Levy, Richards and Farrand (2010) described low-intensity interventions as programmes that require a low usage of practitioner time or usage of time in a cost-effective way. Other researchers (e.g., Brown, Elliott, & Butler, 2006) have described low-intensity interventions as being low contact, high volume programmes. This means that these programmes only take a small amount of practitioner time, but a large amount of material is presented. Typically, low-intensity parenting programmes address between one and a few particular child problems or parenting strategies (Dishion & Stormshak, 2007a).

2.3.3 Evidence for Low-Intensity Parenting Programmes

2.3.3.1 Individually-administered low-intensity parenting programmes

Several studies have examined the effects of low-intensity programmes delivered individually to parents with young children (e.g., Boyle et al., 2010; Crisante, 2003; de Graaf, 2009; Dishion et al., 2008; Kjøbli & Ogden, 2012; Shaw, Dishion, Supplee, Gardner, & Arnds, 2006; Sommers-Flanagan, 2007; Spijkers, Jansen, & Reijneveld, 2013; Turner & Sanders, 2006). One example of an individually-administered low-intensity parenting programme is Primary Care Triple P. Primary Care Triple P consists of three to four 20-30 minute sessions delivered individually to parents to address discrete child behaviours that are of concern (Sanders, 2012). During the first session the presenting problem is assessed.

Session 2 focuses on identifying causes for their child's behaviour problem and developing a parenting plan which may entail teaching specific parenting strategies. Between sessions 2 and 3 parents are asked to implement the parenting plan and during session 3 progress is monitored and any problems with implementation are discussed. In the final session, progress is reviewed, any other implementation issues are addressed, and suggestions for maintenance of behaviour change are given. Several studies in Australia, the Netherlands, and the US have evaluated Primary Care Triple P with parents of 2-11 year old children and reported positive results and high levels of satisfaction with the intervention (Boyle et al., 2010; Crisante, 2003; de Graaf, 2009; Spijkers et al., 2013; Turner & Sanders, 2006). Individually-administered Primary Care Triple P has been shown to reduce child problem behaviours, dysfunctional parenting practices, parenting stress, and improve parental mental health, satisfaction with the parenting role, and partner relationship satisfaction (Boyle et al., 2010; Crisante, 2003; de Graaf, 2009; Spijkers et al., 2013; Turner & Sanders, 2006). Boyle et al. (2010) also examined the generalisation effects across settings with US parents of 3-7 year old children. Decreases in disruptive child behaviour were seen in both target and generalisation settings at post-intervention and these effects were maintained at follow-up (4-8 weeks).

Other research in the Netherlands has found that families with a young child (mean age = 6.2 years) who receive individually-administered Primary Care Triple P report better outcomes for ineffective parenting practices and parenting competence than parents in a care as usual condition (de Graaf, 2009). Primary Care Triple P also appears to produce positive outcomes among 9-11 year olds who display subclinical levels of psychosocial problems. Spijkers et al. (2013) found that Primary Care Triple P led to decreases in disruptive child behaviours, child psychosocial problems, and parenting stress in a sample of 67 Dutch families. However, when compared to the care as usual condition, Primary Care Triple P was superior for measures of child conduct problems only.

Research from the US evaluating other individually-administered low-intensity parenting programmes targeting disruptive child behaviours (e.g., the Family Check-Up) have found positive effects for positive behaviour support and parental involvement in addition to decreases in child conduct problems and destructive behaviour (Dishion et al., 2008; Shaw et al., 2006). In addition, Kjøbli and Ogden (2012) found that a brief version of the Parent Management Training, the Oregon Model, led to improvements in positive parenting practices, higher child social competence, less disruptive child behaviour, and fewer internalising problems when compared to regular services among a sample of 216 parents of Norwegian children aged 3-12 years old who displayed externalising problems. There is also evidence that individually-administered low-intensity parenting programmes may improve children's

behaviour at school. For example, Axelrad et al. (2009) examined the post-intervention effects of a brief parenting intervention for 31 US parents with a 2-6.5 year old child with disruptive behaviour problems and found that after intervention both parents and teachers reported a reduction in disruptive behaviour problems.

2.3.3.2 Group based low-intensity parenting programmes

Although individually-administered low-intensity programmes appear to lead to positive outcomes for parents and children, given that low-intensity programmes aim to use practitioner time in a cost-effective way (Bennett-Levy et al., 2010) group based programmes are an important alternative. Group based low-intensity programmes have been found to be more cost-effective than individually-administered programmes (Cunningham, Bremner, & Boyle, 1995) as they reach a larger number of people at one time increasing the impact on a population level. Group based programmes may offer additional benefits over individually-administered programmes such as informal social support and the opportunity to seek comfort and have problems with their children normalised by meeting other parents experiencing similar difficulties (Barlow & Stewart-Brown, 2001). Low-intensity parenting programmes delivered in a group format also appear to be a popular choice for parents (Metzler, Sanders, Rusby, & Crowley, 2012). For example, Metzler et al. (2012) asked how interested US parents with a 3 to 6 year old would be in receiving parenting information through nine different delivery methods. They found that a high proportion of parents whose children did and did not display elevated levels of conduct problems were 'quite' or 'very' interested in attending a one-time group based parenting workshop. A one-time parenting workshop was less favoured over self-directed delivery methods (TV programme, online, and written material). The lowest proportion of parents were interested in receiving parenting information through home visits and individual consultations with a therapist.

Low-intensity group based parenting programmes that target a range of child behaviours have demonstrated promising outcomes. For example, Bradley et al. (2003) evaluated a low-intensity group based parenting programme delivered in community settings to 198 Canadian parents with a 3-4 year old child displaying difficult behaviours. Bradley et al. (2003) randomly allocated blocks of parents to an intervention (n = 89) or a waitlist control condition (n = 109). The intervention used in Bradley et al. (2003) consisted of three weekly two-hour group sessions and a booster session was conducted 4 weeks after the 3rd group session. During the programme, video-modelling of behavioural parenting strategies were presented and use of strategies was discussed. After attending the programme, parents in the intervention group reported significantly less dysfunctional parenting practices and less

hostility than parents in the waitlist control group. They also reported that their child displayed significantly less overall child behaviour problems, less hyperactive/distractive behaviours, and perceived their child to be less difficult and more compliant in temperament. Most main intervention effects were maintained at 1-year follow-up.

Research evaluating low-intensity group based parenting programmes which are topic-specific also produce positive effects (e.g., Anesko & O'Leary, 1982). Anesko and O'Leary (1982) evaluated a low-intensity group parenting programme that taught behavioural techniques to manage problems with homework (e.g., refuses to do homework, whines or complains, is easily distracted or easily frustrated while completing homework) among 13 parents with young children (mean age 8 years) in the US. The children were matched in pairs and randomly allocated to either an intervention or a waitlist control condition. The programme consisted of three 1.5 hour weekly group sessions which involved group discussion, modelling, behavioural rehearsal, and homework tasks. Overall, a high satisfaction with the programme was reported by participants. At post-intervention, parents in the intervention group reported a reduction in target child behaviours (e.g., homework difficulties). This effect was maintained at 6-month follow-up. A post-intervention effect was also found for parents disapproving comments.

In summary, there is some evidence that individually-administered low-intensity parenting programmes are effective for improving disruptive child behaviours, internalising child problems, parenting practices, parental mental health, satisfaction with the parenting role, partner relationship satisfaction and for reducing parenting stress (Axelrad et al., 2009; Boyle et al., 2010; Crisante, 2003; de Graaf, 2009; Dishion et al., 2008; Kjøbli & Ogden, 2012; Shaw et al., 2006; Spijkers et al., 2013; Turner & Sanders, 2006). Although there is less research looking at the effectiveness of low-intensity parenting programmes that are delivered in a group format, findings from Bradley et al. (2003) and Anesko and O'Leary (1982) suggest that both topic-specific programmes and group based low-intensity programmes that target a range of challenging child behaviours have promising effects for parents and children.

2.3.3.3 The Triple P Discussion Groups

The Triple P Discussion Groups are the intervention used in the current thesis. They are two-hour low-intensity parenting groups for parents looking for specific advice about common child behaviour or developmental issues (Morawska, Haslam, Milne, & Sanders, 2010), such as disobedience, fighting and aggression, bedtime problems. During the group session, parents watch video modelling of behaviour management strategies, complete a variety of exercises, and receive assistance in developing a plan to prevent and effectively

manage difficult child behaviours related to a specific topic. A group workbook is given to attendees to reinforce material presented in the session. In addition, parents are given the opportunity to practice some of the skills taught in session.

Five randomised controlled trials (RCTs) have evaluated the efficacy of attending a single exemplar of a two hour parenting group. The first of these trials conducted in Australia by Joachim, Sanders and Turner (2010) examined the effectiveness of a Triple P Discussion Group that provided advice about dealing with disruptive behaviour on shopping trips. The authors examined the effects of attending the group (n = 26) in comparison to a waitlist control (n = 20) with a sample of 46 parents (96% mothers) who reported concerns about their 2 to 6 year old's behaviour on shopping trips. Questionnaire measures of child behaviour problems, problematic shopping trips, ineffective parenting practices (e.g., laxness, which measured permissive parenting practices; overreactivity, which measures displays of anger, meanness, and irritability in parenting; and verbosity, which taps into lengthy verbal responses and a reliance on talking) (Arnold, O'Leary, Wolff, & Acker, 1993), behavioural and setting parenting self-efficacy, inter-parental conflict, and parental mental health were completed by parents prior to receiving the intervention and approximately 4 weeks later, after the intervention group had completed the group session. Parents in the intervention group also completed a 6-month follow-up questionnaire. During the discussion group, specific skills for preventing disruptive behaviour problems on shopping trips and advice on managing misbehaviour in the supermarket were taught. Parents in the intervention group reported high levels of satisfaction with the intervention.

Joachim et al. (2010) found that after attending the low-intensity parenting group, parents in the intervention condition reported significantly fewer child behaviour problems (medium to large effects sizes; d = 0.75 and 0.92), fewer problematic shopping trips (from 100.0% of the sample reporting problematic shopping trips to 34.8%), and lower levels of ineffective parenting practices (medium effect; d = 0.72) at post-intervention, when compared to parents in the waitlist control condition. Additionally, parents in the intervention group reported significantly greater behavioural and setting parenting self-efficacy (both large effects; d = 1.07 and 1.26 respectively) than parents in the waitlist control group at post-intervention. No group differences were found on reports of parental mental health or inter-parental conflict, which may be due to floor effects as low levels of depression, anxiety, and stress symptoms and inter-parental conflict were reported at pre-intervention. Alternatively, it may be that low-intensity topic-specific parenting group have limited effects on these areas. Almost all intervention effects were maintained at 6-month follow-up, except the short-term effects on dysfunctional parenting practices were not maintained (p = .057). However, the

mean scores on the dysfunctional parenting measure at post-intervention (M = 2.64) and follow-up (M = 2.69) indicated very little change over this time period. As 6-month follow-up data were not available for the waitlist control group, it is unknown to what extent long-term effects were due to attending the programme.

Another study in Australia conducted by Morawska et al. (2010) examined the effects of the Dealing with Disobedience Triple P Discussion Group when delivered in combination with telephone support with a sample of 67 parents (66 mothers) of a 2-5 year old child. A two arm RCT was used to evaluate the programme (intervention vs. waitlist control; n = 33 and 34 respectively). Parents completed questionnaire measures of child conduct problems, ineffective parenting practices, behavioural and setting parenting self-efficacy, parent-child attachment, and parenting experiences and support at pre- and post-intervention. In addition, only parents in the intervention condition completed questionnaire measures at 6-month follow-up. The intervention delivered by Morawska et al. (2010) taught positive parenting strategies for preventing and managing child disobedience. In the two weeks following the group session, two individual telephone consultations were conducted with each parent to assist with implementation of strategies. High overall satisfaction with the delivered intervention was reported.

At post-intervention, when compared to the waitlist control group, parents in the intervention group reported fewer disruptive child behavioural problems (large effect sizes; d = 1.17 and 1.07), that dysfunctional parenting decreased (medium effects; d's ranged from 0.51 to 0.60), that behavioural parenting self-efficacy increased (large effect; d = 1.00), and that partner relationships improved (small effect; d = 0.16) (Morawska et al., 2010). Improvements in disruptive child behaviour and dysfunctional parenting were reliably and clinically significant. No group differences were found for measures of setting parenting self-efficacy, perceptions of parent-child attachment, or parenting experiences. The authors suggested that the lack of group difference on measures of parent-child attachment and parenting self-efficacy across settings may be due to ceiling effects. Alternatively, the lack of findings in setting parenting self-efficacy may be because the intervention delivered did not specifically address dealing with difficult behaviour across a range of settings and generalisation of parenting skills and associated parenting self-efficacy may not have occurred. At 6-month follow-up all main intervention effects were maintained, however, 6-month follow-up was not available for those allocated to the waitlist control condition.

Dittman, Farruggia, Keown and Sanders (2015) built on the previous research evaluating the Dealing with Disobedience Triple P Discussion Group (Morawska et al., 2010)

by examining the effects of the two hour group when delivered without telephone support. The sample consisted of 85 parents (94% mothers) with a 3-5 year old child and was drawn from two countries, Australia and New Zealand. To take part, parents had to express concerns about their child's disobedient or non-compliant behaviour. An RCT design evaluating the effects of attending the group (n = 45) in comparison to a waitlist control (n = 40) was used. Questionnaire measures of child behaviour, ineffective parenting practices, parenting self-efficacy, parental mental health, inter-parental conflict, and partner relationship satisfaction at pre- and post-intervention were completed by parents. Parents allocated to the intervention condition also completed questionnaire measures at 6-month follow-up.

Dittman et al. (2015) found that parents in the intervention group reported significantly less disruptive child behaviours (d = 0.86) and ineffective parenting practices (*d's* ranged from 0.52 to 0.69) than those in the waitlist control group at post-intervention. When compared to parents in the waitlist control condition, parents in the intervention condition reported greater movement out of the clinical range for child disruptive behaviours and ineffective parenting practices. Significant improvements in parenting self-efficacy in managing a range of difficult child behaviours and managing difficult behaviours in a range of settings were reported for the intervention parents when compared to the waitlist control (effects were small to medium in size). No intervention effects were found for measures of parental mental health, inter-parental conflict, and partner relationship quality at post-intervention. Satisfaction with the intervention was moderate. At 6-month follow-up, the effects found at post-intervention for child behaviour, parenting practices, and parenting self-efficacy were maintained. Furthermore, a significant reduction in poor parental mental health and inter-parental conflict by 6-month follow-up was found. Effects for partner relationship satisfaction were not found by 6-month follow-up; the authors suggest this is likely due to floor effects for this measure.

Mejia, Calam and Sanders (2015) further added to the evidence on the Dealing with Disobedience Triple P Discussion Group by evaluating the effects in a low-resource context. Participants were 108 parents (n = 93 mothers) with a child aged 3-12 years (mean age = 8.49 years) in Panama. A high proportion of the sample reported low levels of education and low monthly family income. A randomised control trial design was used to compare the effects of the unadapted intervention (n = 54) in comparison to a no intervention control (n = 54). Questionnaire measures of child behaviour, ineffective parenting practices, and parental mental health were obtained from parents at pre-intervention, post-intervention, and 3- and 6-month follow-up. To take part, parents needed to report elevated child behaviour problems (scores above the mean level) at pre-intervention on the ECBI Intensity subscale (Eyberg & Pincus, 1999) resulting in a sample of parents with children displaying at least a mild level of

difficult behaviour. Results showed that when compared to parents in the no intervention control condition, parents in the intervention condition reported a reduction in the number and intensity of disruptive child behaviour over time. Effect sizes for change in child behaviour were small to medium at post-intervention and 3-month follow-up, and medium to large in size at 6-month follow-up. Furthermore, small to medium effects for poor parental mental health and ineffective parenting practices were also found for parents in the intervention condition.

A fifth RCT examining the efficacy of a Triple P Discussion Group on mealtime misbehaviour was conducted by Morawska, Adamson, Hinchliffe and Adams (2014). The sample from Australia consisted of 86 parents (86% mothers) who were looking for advice about their 2-5 year old child's eating and/or mealtime difficulties. Parents were randomly allocated to attend the intervention immediately or to a waitlist control condition. Parents completed questionnaires that measured mealtime misbehaviour, parenting confidence with managing mealtime misbehaviour, parenting strategies used to manage mealtime misbehaviour, parent and partner cognitions regarding mealtime misbehaviour, the child's mealtime experience, the amount of food eaten, and eating speed at pre- and post-intervention. In addition, measures of child behavioural and emotional adjustment, parenting self-efficacy for dealing with a range of difficult child behaviours, and parenting practices in general were also obtained at pre- and post-intervention. Parents allocated to the intervention condition also completed questionnaire measures at 6-month follow-up.

The intervention, Hassle Free Mealtimes Triple P, focused on children's problem eating and mealtime behaviour. It aimed to improve parenting practices and parental cognitions that impacted on child mealtime behaviours. The intervention taught positive parenting strategies in relation to mealtime behaviour to promote consistent discipline and child cooperation. Morawska et al. (2014) reported that at post-intervention parents who had received the intervention reported their child displayed less frequent mealtime misbehaviours, had better mealtime experiences, and increased food intake when compared with parents in the waitlist condition (medium to large effects). Furthermore, parents in the intervention group reported increased confidence in managing mealtime misbehaviour, reduced ineffective parenting strategies to manage mealtime difficulties, had less negative cognitions related to mealtimes, and greater parenting self-efficacy in general than parents in the waitlist condition at post-intervention (Cohen's *d* ranged from 0.73 to 1.03). The improvements reported between pre- and post-intervention were generally reliable and maintained at 6-month follow-up, although 6-month follow-up was not available for those allocated to the waitlist control condition. No effects were found at post-intervention for eating speed, the number of mealtime

misbehaviours, and partner cognitions. There was also a lack of change in child adjustment and behaviour in general and general parenting practices. Morawska et al. (2014) noted that the intervention appeared to produce positive effects for child mealtime difficulties, however, the generalisation effects of the programme on parenting practices and child behaviour in general were limited. They suggested, that given the importance of generalisation of behaviour change, future research should examine ways to facilitate generalisation.

In summary, the research evaluating the Triple P Discussion Groups with parents of preschool aged children in Australia and New Zealand has demonstrated promising findings for reducing child behaviour problems and ineffective parenting practices at post-intervention (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010; Morawska et al., 2014). In Dittman et al. (2015), Joachim et al. (2010), and Morawska et al. (2010) short-term effects for child behaviour problems were maintained at 6-month follow-up. Morawska et al. (2014) also reported that child misbehaviour during mealtimes (the intervention topic) was maintained. The one study evaluating the Dealing with Disobedience Triple P Discussion Groups among parents with older children (3-12 years) in Panama also found promising findings for reducing child behaviour problems (Mejia et al., 2015). For changes in parenting practices, only Dittman et al. (2015) and Morawska et al. (2010) reported maintenance of improvements and Mejia et al. (2015) found a medium effect for parenting practices at 6-month follow-up. Inconsistent findings have also been reported for parenting self-efficacy. For example, Dittman et al. (2015) and Joachim et al. (2010) found that parenting self-efficacy across settings increased after attending a Triple P Discussion Group, whereas, Morawska et al. (2010) did not find any effects for this outcome measure. In addition, there were no effects on general parenting practices and child adjustment and behaviour in general after attending the Hassle Free Mealtimes Triple P Discussion Group (Morawska et al., 2014). Taken together, these mixed findings for parenting self-efficacy and the lack of effects in Morawska et al. (2014) may be because the exemplars delivered did not specifically address dealing with a range of difficult behaviour across a range of settings and generalisation of parenting skills and associated parenting self-efficacy may not have occurred. The generalisation effects of attending a single exemplar of a low-intensity topic-specific parenting group may be limited.

Previous research has also reported a lack of intervention effects of the Triple P Discussion Groups for measures of parents' experiences of their parenting role (Morawska et al., 2010) and partner relationship satisfaction (Dittman et al., 2015). It is unknown whether this is due to ceiling or floor effects or whether the intervention has limited effects on these areas. Mixed findings have been reported for parental mental health and inter-parental conflict; Joachim et al. (2010) reported a lack of effect in these areas, whereas Mejia et al. (2015)

reported a reduction in parental mental health over time and Dittman et al. (2015) reported a significant reduction in poor parental mental health and inter-parental conflict at 6-month follow-up. Mejia et al. (2015) was the only study who obtained follow-up measures for the control condition and a medium effect for parental mental health was found at 6-month follow-up. For the other studies (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010; Morawska et al., 2014), the absence of 6-month follow-up data means that it cannot be determined whether follow-up effects were attributable to the delivered intervention or whether these effects would have been demonstrated by the control group if a longer waitlist period was used and parallel follow-up measures were obtained.

Another limitation with the previous evaluations of the Triple P Discussion Groups is that for four of the RCTs interested parents were screened into the studies on the basis that parents reported concerns about the specific behaviour that was being addressed (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010; Morawska et al., 2014). For example, in the Morawska et al. (2014) evaluation of the Hassle Free Mealtimes Triple P Discussion Group the sample consisted of parents who were concerned or looking for advice about their child's eating and/or mealtime difficulties. As the resulting samples had predominately mild levels of child behaviour problems and few family risk factors, this may have partly accounted for the lack of intervention effects on some measures. However, Morawska et al. (2010) found that although families in their sample were recruited on the basis of parental concerns about their child's disobedience, on average clinically elevated disruptive child behaviours were reported by parents at pre-intervention. For these families, the intervention was still effective in reducing disruptive child behaviour problems. A key aim of low-intensity programmes is to use the minimum amount of intervention to achieve maximum benefit (Bennett-Levy et al., 2010) and this provides support for a minimally sufficient level of intervention for parents with children displaying moderate to high levels of conduct problems. Mejia et al. (2015) was the only study who screened and accepted participants based on an elevated score of child behaviour problems and they found that a Triple P Discussion Group was effective in reducing disruptive child behaviour among their sample. Additional trials are needed to further test the minimally sufficient level of intervention required when families are screened into studies on the basis of an elevated level of child conduct problems using a cut-off score.

Another issue to consider is the transferability of the findings, particularly to other cultures and low-resource or economically deprived contexts. As there is a clear and consistent link between socioeconomic disadvantage and social problems, such as poorer education, mental health problems, and social immobility (for a review see Rowlingson, 2011), research needs to examine the effects of parenting interventions in a variety of contexts. Little is known

about the extent to which parents in more deprived contexts, potentially with poorer education and literacy levels, would benefit from a low-intensity topic-specific parenting group. The one study that evaluated the effects of a Triple P Discussion Group in a low-resource context found promising outcomes for children and parents (Mejia et al., 2015). Whereas, the samples in the other four RCTs were primarily drawn from Queensland, Australia and all of the studies (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010; Morawska et al., 2014) reported that a high proportion of parents had a university level education. More research is needed to further examine whether the extent of the findings from these trials would transfer to different contexts and cultures, especially where there are high levels of deprivation and income inequality (e.g., Glasgow, UK).

There are also strengths and weaknesses with the use of waiting list control trial designs to examine the effects of an intervention. The key benefit of waiting list control trials is that all participants receive the intervention. For example, in Joachim et al. (2010), participants allocated to the waiting list control condition were offered the intervention after post-intervention outcomes were completed. However, this type of design does therefore not allow for long-term effects of an intervention to be examined in relation to an active comparison condition (Wilson et al., 2012b). Furthermore, Wilson et al. (2012b) stated that waiting list control trials are more likely to produce between group differences than trials that use an active control as a comparison condition. Taken together, this highlights the need for further research to use alternative designs to a waiting list control trial to strengthen the evidence for low-intensity topic-specific parenting groups.

2.3.4 Enhancing Intervention Outcomes of Low-Intensity Parenting Programmes by Promoting Generalisation

One limit to the benefit of a low-intensity parenting programme, particularly one that targets a specific behaviour or topic, is the lack of generality of the intervention. A low-intensity parenting programme that is topic-specific and teaches parents skills to manage specific forms of misbehaviour (e.g., problem eating and mealtime difficulties) may not be sufficient for parents to generalise parenting skills to manage other difficult child behaviours (e.g., defiance, aggression) or difficult behaviours in a range of settings.

In 1968, Baer, Wolfe and Risley described seven dimensions crucial for successful behaviour change. Generality was one dimension they identified. Baer et al. (1968) stated that if behaviour change displayed generality, the change is durable over time, appears in a range of environments, or extends to a variety of related behaviours; thus the transfer of training effects occurs. Stokes and Baer (1977) stated that the demonstration of maintenance of

behaviour change and generalisation across settings and behaviours was essential for an intervention to be effective. Given that parenting programmes aim to change child behaviour through targeting parenting skills (Sanders & James, 1983), the generalisation of parenting skills is essential. Further investigation on the generalisation of parenting skills resulting from practitioner-controlled training processes is required (Sanders & James, 1983).

Stokes and Baer (1977) stated that the 'train and hope' technique (hope that generalisation will occur but not actively programme for it) was the most frequently used method of encouraging generalisation. However, it has long been accepted that generalisation of behaviour does not occur automatically and there is a need to actively programme for generalisation of skills (Baer et al., 1968; Sanders & Glynn, 1981). Stokes and Baer (1977) suggested a range of practitioner-controlled strategies to increase the likelihood of generalisation. They identified eight additional techniques to the 'train and hope' method to actively programme for generalisation.

One of these identified strategies to promote the occurrence of generalisation is teaching sufficient exemplars; which is the focus of this thesis. This strategy aims to enhance parents' ability to apply parenting skills effectively to a range of exemplars. It incorporates elements of other generalisation promotion strategies, such as training loosely (when teaching is not restricted to specific examples and responses to maximise transfer of skills, Stokes & Baer, 1977) to enable parents to flexibly apply behaviour management principles and parenting skills across a range of behaviours and settings. Thus, teaching multiple exemplars is likely to lead to a more broad robust change in child behaviour which is assumed to be a result of the skills parents have learnt to apply and lead to increased parenting self-efficacy. Stokes and Baer (1977) noted that teaching a sufficient number of exemplars involves providing enough examples so that behaviour change will generalise. The teaching of one exemplar may result only in change of the exemplar taught, but no generalisation to other behaviours or settings (Stokes & Baer, 1977). However, teaching a second or third exemplar is a technique that may facilitate generalisation of parenting skills. Generalisation may be promoted by training a small number of exemplars, rather than training responses to all behaviours and settings. An important point raised by Stokes and Baer (1977) is finding the optimal amount of diversity of exemplars. They suggested that exemplars need to be diverse to allow for maximum generalisation, but that too much diversity of exemplars and insufficient exemplars of related behaviours may limit the benefits of the intervention.

Teaching of a sufficient number of exemplars could easily be applied to low-intensity topic-specific parenting programmes, such as the Triple P Discussion Groups. A Triple P

Discussion Group that illustrates behaviour management principles and parenting skills using a specific child behaviour could be considered as a single training exemplar. Multiple Triple P Discussion Groups would therefore result in multiple exemplar training, where core parenting skills are applied to a series of exemplars. Although this strategy aims to promote the generalisation of parenting skills to a range of behaviours and settings, attending multiple exemplars of the Triple P Discussion Groups also leads to increased practitioner contact time. Parents would have greater opportunity to understand and process information and discuss strategies with other attendees in the group sessions. The increased intervention time cannot be disaggregated from multiple exemplar training. Furthermore, when delivering multiple exemplars the trade-off between potential benefits of additional exemplars, the costs of the intervention, and the feasibility within a population health approach to parenting support needs to be considered. Increasing the number of exemplars adds to the costs of delivering interventions and requires more time from parents. Parents' needs and preferences for parenting support would likely influence the uptake of multiple exemplar training.

The effects of generalisation promotion strategies are important, but have rarely been investigated using low-intensity parenting programmes. One exception is a study by Boyle et al. (2010) who examined the generalisation effects across settings of a low-intensity individually administered level 3 Triple P programme using an intra-subject repeated measures design. The sample consisted of 10 children from nine families who resided in two US cities. Children whose parents received the intervention were between 3 and 7 years old with conduct problems. To be included in the study, parents had to express concerns about their child's behaviour at home. Generalisation was examined by measuring behavioural change of a non-target subject (e.g., sibling), and/or measuring behaviour of the target child in a non-target setting. For example, in one family the training setting was playtime and cleaning up in the living room and the generalisation setting was preparation for community outings and was measured in the kitchen, yard, and garage.

The intervention, individually-administered Primary Care Triple P, consisted of four 20-30 minute face-to-face sessions addressing child behaviours that were of concern to the parents (Boyle et al., 2010). In session one, the presenting problem was assessed and session two focused on identifying causes for their child's behaviour problem and developing a parenting plan. During session three, the parenting plan was reviewed and refined and obstacles to implementation were problem-solved. Any additional or new behaviour problems were also addressed. In the final session, progress was reviewed, any other implementation issues were addressed, and suggestions for maintenance of behaviour change were given. For those families whose children did not show changes in target and generalisation settings,

booster sessions were offered. At post-intervention Boyle et al. (2010) found significant decreases on observational measures of disruptive child behaviour in both the target (e.g., dinnertime, bedtime) and the generalisation settings (e.g., playtime and clean up, bath time). Families were also observed at 4- to 8-weeks follow-up and changes seen in children's behaviour at post-intervention were maintained. The authors suggested that generalisation of skills was a result of specific generalisation enhancement strategies included in the parenting intervention. For example, throughout the programme parents were prompted to think about using parenting strategies in a range of situations. It may also be that generalisation of skills occurred in non-target settings as additional or new behaviour problems were addressed, advice for maintaining changes was discussed, issues with implementation were addressed, and booster sessions were offered. All of these strategies may have helped facilitate generalisation.

While Boyle et al. (2010) found generalisation effects for an individually administered low-intensity parenting programme, evidence for the generalisation effects of low-intensity group based programmes, such as the Triple P Discussion Groups, is limited. Among research evaluating the Triple P Discussion Groups, findings for parenting self-efficacy as assessed across multiple child behaviours and settings have been inconsistent between the Dittman et al. (2015), Joachim et al. (2010), and Morawska et al. (2010) studies. Furthermore, the lack of effects on general parenting practices and child adjustment and behaviour after intervention for meal-time misbehaviour in Morawska et al. (2014) may be because the interventions did not specifically address dealing with a variety of different difficult behaviours across a range of settings. Therefore, generalisation of parenting skills and associated parenting self-efficacy may not have occurred. Additionally, it may be that one exemplar is not sufficient for parenting skills to generalise and that, to enhance the intervention outcomes of low-intensity group based parenting programmes, generalisation promotion strategies such as teaching a sufficient numbers of exemplars may be required.

There is also evidence to suggest that parents are more likely to generalise parenting skills resulting in superior intervention outcomes after receiving a programme that combines teaching general concepts of behaviour management in addition to focusing on specific target behaviours. For example, Glogower and Sloop (1976) compared two types of group based parenting programmes and evaluated the effects on parent-child interaction and parents' ability to generalise information to different situations. Eight mothers in the US participated in the study, with four mothers receiving a combination intervention and four mothers receiving the specific-focus intervention. Mothers in the combination group received a 10 session intervention that included teaching general concepts of behaviour management in addition to

focusing on specific target behaviours chosen by the parents as behaviours to modify. Mothers in the specific-focus group received a 10 session intervention that focused on dealing with specific target behaviours. Results from the study indicated that the mothers in the combination group had superior outcomes immediately after intervention and at 5-month follow up when compared to mothers in the specific-focus group. Generalisation of parents' knowledge and skills of applying behaviour management techniques to a range of behaviours were measured through written responses to a series of behaviour vignettes. Mothers in the combination group showed a significant improvement over mothers in the specific-focus group at post-intervention, indicating that mothers in the combination group were able to generalise skills by adapting and applying general concepts and knowledge about specific problem behaviours to a greater number of behaviours and settings. At 5-month follow up, mothers in the combination group maintained intervention effects, but no significant group differences were found in parents' ability to generalise parenting skills. In addition, mothers in the combination group only improved on the parent-child interaction measure (by showing an increase in interaction and praise and a reduction in commands), which was accompanied by more compliance and independent play from the child. Therefore, when teaching multiple exemplars, teaching more general concepts (e.g., positive parenting in general) alongside focusing on specific behaviours may produce superior outcomes.

In summary, the effects of strategies to promote generalisation of the low-intensity parenting programmes are understudied. Morawska et al. (2014) suggested that given the importance of generalisation of behaviour change, future research should examine effective ways to facilitate generalisation. It is unknown whether intervention outcomes of the Triple P Discussion Groups may be enhanced by using multiple topic-specific exemplars in addition to teaching more general positive parenting strategies. However, based on generalisation theory (Stokes & Baer, 1977) and the results of Boyle et al. (2010) and Glogower and Sloop (1976), superior short-term intervention outcomes resulting from the generalisation promotion strategies seem likely. It is also important to keep in mind factors that could be related to parents' ability to successfully generalise parenting skills. Being able to generalise parenting skills relies on parents having the capacity and ability to problem-solve, self-regulate, and self-monitor their behaviour.

2.3.5 Sampling Issues

In order to gain a better understanding of the effectiveness of the Triple P Discussion Groups on parent and child outcomes, there are a number of important sampling issues to consider. These consist of extending the age range beyond parents of preschool children to

conducting further investigations with parents of primary school age children and taking steps to engage fathers and to examine programme effects separately for mothers and fathers.

2.3.5.1 Parents of primary school aged children

To date, the majority of the Triple P Discussion Groups that have been subjected to randomised control trials have included parents with children aged between the ages of 2 and 6 years old (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010; Morawska et al., 2014). One exception is Mejia et al. (2015) whose sample consisted of parents with 3-12 year old children. Therefore, there is less evidence on the effects of such programmes for parents of primary school aged children. Middle childhood (ages 5-12 years) is a distinct period of life characterised by major transitions in human development (Collins, Madsen, & Susman-Stillman, 2002). Changes include the development of cognition and learning abilities, physical maturity, relationships with others, and exposure to a range of new settings and opportunities occur. For example, during middle childhood children's cognition changes from being concrete in nature to involving more systematic and abstract reasoning and children spend less time solely with parents and more time in the company and influence of peers and non-familial adults. As a result of these developments, there are normative changes in the nature of interactions between parents and children during middle childhood, such as a reduction in the frequency of parent-child interactions, the kinds of interactions, and transformations in the significance of these interactions (Collins et al., 2002). There is also a shift in typical discipline practices used by parents between early and middle childhood from distraction and discipline strategies to gain compliance to increasing use of reasoning and denial of privileges. The increased cognitive capacities of children during this period may mean that parents need to provide more detailed explanations to gain compliance than required previously.

Nonetheless, during middle childhood typical parenting practices do not change substantially and effective parenting involves being responsive to the child's needs and having age-appropriate expectations (Collins et al., 2002). The two key changes in parenting tasks relate to an increase in children's regulation of their own behaviour and an increase in interactions with others (e.g., non-familial adults, peers). For parents, the increasing number of influences on their children's development may result in changes in parental monitoring and create new challenges around promoting positive development (e.g., getting along with peers at school).

Throughout this period of childhood due to increasing child self-regulation abilities, parents generally expect their children to become more independent and to assume more responsibility, such as contributing to household tasks and chores (Collins et al., 2002). There

is also a gradual shift from parental regulation to the child regulating their own behaviour. Problems in self-regulation may lead to problems with compliance or managing strong negative emotional responses. Furthermore, children develop a more comprehensive self-concept during this period and parents may begin to face challenges around negative self-concept and negative self-talk in their children.

Sanders et al. (2003) state that parenting programmes should be timed developmentally to enhance the impact of the programme. Consequently, teaching parents to help their children manage negative self-talk and solve problems may have less impact during early childhood than middle childhood due to the different cognitive abilities of children in these age groups. Therefore, the effects of low-intensity group based parenting programmes that address topics relevant for parents with primary school aged children (e.g., disobedience, fighting and aggression, problems contributing to household chores, and enhancing child self-esteem) need to be examined.

2.3.5.2 The inclusion of fathers in parenting programmes and evaluation of programmes

A key research gap in the area of parenting programmes is the low participation rates of fathers in interventions and evaluations (Bagner & Eyberg, 2003; Panter-Brick et al., 2014; Tiano & McNeil, 2005). There are several key reasons why it is important to include fathers. Fathers play an important part in their children's lives and influence many aspects of their development, such as their behavioural, social, and academic adjustment (for a review see Lamb & Lewis, 2010). Fathers may also experience frustration when dealing with child behaviour problems (Fabiano, 2007) and may not have effective strategies for managing challenging behaviours (Phares, Rojas, Thurston, & Hankinson, 2010). Furthermore, inter-parental disagreement over child rearing has also been linked to problematic child behaviour (Dadds & Powell, 1991). By including both mothers and fathers in interventions parents have the opportunity to align their parenting behaviours (Phares et al., 2010) and coparenting can be emphasised (Panter-Brick et al., 2014). This is likely to produce superior outcomes as parents may be more likely to support each other with the implementation of discipline strategies and respond to problems in similar ways (Phares et al., 2010; Tiano & McNeil, 2005).

In addition, fathers are often omitted from the evaluation of parenting programmes. It is important to include fathers in evaluations as fathers' perceptions of the nature and severity of conduct problems displayed by their children may differ to the perceptions of mothers (Phares et al., 2010), and the effectiveness of the programme may vary for mothers and fathers. In the meta-analysis of Triple P programmes by Sanders et al. (2014) of the 16,099

families included in the 101 studies, only 2,645 fathers participated. The included studies were conducted in 13 different countries, although the majority were based in Australia. For most of the studies included in the meta-analysis, mother and father data were not analysed separately. Of the 27 studies that reported data separately for fathers, the results showed that fathers reported significant improvements in child social, emotional, and behavioural outcomes, parenting practices, parenting satisfaction and self-efficacy, and in their parental relationship. Effects were small to medium in size. However, given that the majority of the studies included in the Sanders et al. (2014) meta-analysis were high in intensity, it is unknown what effects low-intensity programmes have for fathers. In the previously reviewed studies evaluating the Triple P Discussion Groups (Dittman et al., 2015; Joachim et al., 2010; Mejia et al., 2015; Morawska et al., 2010; Morawska et al., 2014) the majority of the participants were mothers (percentages ranged from 86-99) and programme effects were not examined for mothers and fathers separately. Therefore, the effects for fathers of participating in a Triple P Discussion Group are unknown. It has been recommended that attempts to engage fathers in studies should be made and that the effects for fathers should be reported separately to mothers (Panter-Brick et al., 2014; Sanders et al., 2014).

2.4 The Issue of Poor Parental Mental Health

As discussed previously in section 2.2.5, two key risk factors associated with child conduct problems are poor parental mental health and parenting stress. The high prevalence of mental health problems among parents and the impacts of such problems on children (Australian Institute of Family Studies, 2012; Marryat & Martin, 2010) necessitate interventions that target common mental health problems such as depressive, anxiety and stress disorders (National Institute for Health and Clinical Excellence, 2011). Among parents of young children in Scotland a prevalence of 12-16% has been found (Marryat & Martin, 2010). In Australia, findings from the Growing up in Australia study demonstrated that between 11-13% of mothers and 9-10% of fathers with preschool aged children reported moderate to high levels of psychological distress (Australian Institute of Family Studies, 2012). Among parents with primary school aged children, the prevalence was 12-17% of mothers and 10-12% of fathers (Australian Institute of Family Studies, 2012). Worryingly, only a small proportion of individuals with common mental health problems are referred to mental health services, leaving a large proportion who are either untreated or accessing support through their general practitioners (Brown, Cochrane, & Cardone, 1999).

As with programmes targeting parenting, there is also a range of interventions for common mental health problems that differ in their theoretical base and approach to intervention. The two main approaches to treatment of common mental health problems are pharmacological and psychological (National Institute for Health and Clinical Excellence, 2011), though there are a range of psychological interventions available. Cognitive behavioural therapy (CBT) is one psychological approach to treating common mental health problems. CBT has been recommended as the main approach to intervention (Fenn & Byrne, 2013; National Institute for Health and Clinical Excellence, 2011) and has demonstrated effectiveness for a range of mental health problems (Beck, 2011). As there appears to be a high level of unmet need for treating common mental health problems, it has been recognised that services need to offer low-intensity interventions alongside more intensive support to address problems with access (White, 2010b) and have a meaningful impact on the population (Brown et al., 1999).

Low-intensity group based cognitive behavioural interventions for common mental health problems have been developed (e.g., Brown, Cochrane, & Hancox, 2000; Brown, Elliott, Boardman, Ferns, & Morrison, 2004; White, 2010b). These interventions are designed to be used as a part of a multilevel system of support (White, 2010b). One example of a low-intensity group cognitive behavioural intervention for common mental health problems is Stress Control (White, 2010a). Stress Control was developed by White in 1984 and aims to promote mental health and wellbeing on a community-wide basis. The central focus of Stress Control is to teach cognitive behavioural therapy techniques (e.g., behavioural experiences, thought challenges, relaxation, breathing exercises) to help individuals cope with anxiety, depression, panic, poor sleep and/or low self-confidence. Through these techniques distress is relieved by the development of more adaptive thoughts and behaviours (Fenn & Byrne, 2013).

Stress Control is didactic in nature and while completing the programme individuals are taught to problem-solve with the aim of encouraging individuals to become their own therapists and prevent relapse (White, 2010a). This is done by guiding individuals to understand their maladaptive thoughts and behaviours and teaching them skills for changing these maladaptive patterns (Fenn & Byrne, 2013). Research evaluating Stress Control in the UK has reported positive results including reducing depression, anxiety, and distress, and improving coping and psychological wellbeing (Kellett, Newman, Matthews, & Swift, 2004; Kellett, Clarke, & Matthews, 2007; White, 2010a). For example, Kellett et al. (2007) evaluated Stress Control with adults and found significant reductions in depression, reductions in general symptom severity and distress, and improvements in general psychological wellbeing following the intervention. Approximately 50% of participants demonstrated

clinically significant improvements in depression and about one-quarter in symptom severity and distress. Furthermore, Stress Control appears acceptable to participants. White (2010a) found that when individuals were asked if they would have preferred individual therapy or Stress Control only 3% reported they would have preferred individual therapy and 66% reported they preferred Stress Control.

Research from the UK has also suggested that by advertising these interventions as targeting 'stress' or 'self-confidence' they may be less stigmatising and attract more individuals with common mental health problems. For example, Watkins et al. (2000) investigated the effects of two low-intensity cognitive behaviour interventions for stress and depression. They found that enquiries about the two programmes on stress and depression did not differ in number, but only 28% of those who enquired about the depression intervention actually attended the session, whereas 61% of those who enquired about the stress intervention attended. They suggested that calling the intervention a 'depression' workshop may have been stigmatising and discouraged participation, particularly for individuals with lower levels of depression who may see themselves as stressed. Similarly, Brown et al. (2004) found that by advertising interventions targeting depression as promoting self-confidence, programme uptake was higher.

There is also evidence to suggest that reductions in parental mental health problems are associated with improvements in child behaviour problems. For example, Weissman et al. (2006) reported on the effects of remission in maternal depression on child behavioural problems. The sample was recruited from seven regions across the US and consisted of depressed mothers with children aged 7-17 years. A substantial proportion (22%) of the children in the study had a disruptive behaviour disorder. The aim of the study was to treat depression to remission using a stepped care approach by offering five levels of sequential intervention options. When mothers did not respond to lower intervention levels they stepped up to more intensive levels of intervention. Of the 114 mothers who completed 3-month follow-up, 33% had met remission criteria. For mothers whose depression had remitted, their children showed a decrease in the rates of disruptive behaviour disorders (from 18% to 12%), whereas children whose mothers did not remit, there was an increase in the rates of disruptive behaviour disorders (from 20% to 24%). Greater maternal response to the intervention for depression was associated with a larger decrease in disruptive behaviours.

Even though treating mental health problems appeared to result in improvements in children's disruptive behaviours, in Weissman et al. (2006) a substantial number of mothers did not remit and for those mothers there was an increase in their child's disruptive behaviour

problems. Their child's continued behaviour problems may have contributed to their mental health problems for these mothers. It may be that a key source of stress, anxiety and depression is their child's behaviour problems and by not addressing parenting or teaching parents' effective child management strategies, remission of mental health problems may be less likely to occur. McKee et al. (2004) suggested that concurrently teaching parents child behaviour management techniques would assist parents to cope with distress in more helpful ways. Another important point to consider is causality. Weissman et al. (2006) note that the study design was unable to demonstrate causality and it is possible that improvements in children's behaviours may have led to improvements in mothers' mental health. On the other hand improvements in parental mental health may result in better implementation of parenting skills which may in turn lead to improvements in child behaviour (van Loon, Granic, & Engels, 2011).

From the perspective of parenting programmes, there is also a need to address parental mental health. Gerdes, Haack and Schneider (2012) suggest that parental functioning is particularly important as parents are responsible for implementing parenting strategies and modifying children's behaviour. There are elements of parenting programmes based on social learning and behavioural theories that could have an impact on parental mental health, parenting stress, and parental wellbeing. During such programmes, parents may obtain a greater awareness of their own problems with anger or aggression and the triggers that may result in a negative parenting response (van Loon et al., 2011). Furthermore, symptoms of depression and stress, particularly symptoms related to the parenting role, may be reduced by promoting the development of effective parenting practices (Sanders et al., 2003). Research has found that parenting programmes can have a small to moderate effect on parental mental health (Barlow, Smailagic, Huband, Roloff, & Bennett, 2014; Furlong et al., 2012; Nowak & Heinrichs, 2008; Sanders et al., 2014). For example, the Barlow et al. (2014) meta-analysis examined the effects of group based parenting programmes, which drew on a variety of theoretical underpinnings, on parental mental health among 48 RCTs. The RCTs came from 10 different countries, but the majority of studies were conducted in the US, Australia, and Canada. Barlow et al. (2014) found significant short-term improvements for depression, anxiety, stress, anger, guilt, and confidence.

However, mixed evidence has been found for the long-term intervention effects on parental mental health. In the Barlow et al. (2014) meta-analysis, intervention effects on parental mental health outcomes were not significant at one year follow-up. This lack of significant intervention effects at follow-up may be due to the small number of studies that reported follow-up data included in the meta-analysis. In contrast to Barlow et al. (2014), the

earlier mentioned meta-analysis of Triple P programmes by Sanders et al. (2014) found a moderate effect for parental adjustment at long-term follow-up for 45 studies. It is possible that one reason for these conflicting findings may be due to differences in measurement across the studies or the sample sizes of studies included in these meta-analyses. Furthermore, most of the studies included in these meta-analyses evaluated parenting programmes that were high in intensity. When delivering low-intensity parenting interventions it may be that parental mental health needs to be specifically targeted in addition to parenting practices to achieve lasting benefits.

Parental mental health status also appears to influence the intervention outcomes of parenting programmes. Reyno and McGrath (2006) found in their meta-analysis that poor parental mental health predicted poorer intervention outcomes for children following parenting programmes for child conduct problems. Another study by van Loon et al. (2011) found that a group based parenting programme delivered in combination with a child cognitive behavioural therapy programme was less effective with children of depressed mothers when compared with children of mothers without depression. Children with depressed mothers did improve in terms of their level of behaviour problems however they remained above the borderline cut-off at post-intervention, whereas children of non-depressed mothers fell below the cut-off. Other research from the US has demonstrated that parents with lower levels of parenting stress prior to intervention had children who showed greater improvements following intervention (Kazdin & Wassell, 1998), and that greater therapeutic change was predicted by lower levels of parental psychopathology and parenting stress (Kazdin & Wassell, 2000).

For low-intensity parenting programmes, parental mental health also appears to have an influence on intervention outcomes. Kjøbli, Nærde, Bjørnebekk, and Askeland (2013) examined the influence of maternal mental distress on child outcomes following a low-intensity individually administered parenting programme. The study was a RCT of a brief version of the Parent Management Training, the Oregon Model. Participants were 216 parents with 3-12 year old children displaying conduct problems in Norway. The intervention consisted of 3-5 hours of individual support and was tailored to address child behaviours that were of concern for each family. Kjøbli et al. (2013) found that maternal mental distress, measured by the Symptom Checklist-5, predicted poorer intervention outcomes for children. They suggested that by including additional support to target mental health, low-intensity parenting programmes could be made more beneficial for parents with psychological distress. In support of this possibility, Duncan, Coatsworth, and Greenberg (2009) argue that parents with poor mental health may not have the psychological resources to use parenting strategies taught during parenting programmes. Their ability to acquire effective behaviour management

techniques and positive parenting skills can be disrupted by parental dysfunction and stressful life events (Webster-Stratton & Hammond, 1990). Thus, by teaching techniques aimed to promote parental wellbeing, programme effects on parenting and child outcomes may be improved (Duncan et al., 2009).

To summarise, there is a high prevalence of poor mental health among parents with young children (Australian Institute of Family Studies, 2012; Marryat & Martin, 2010; Sanders et al., 2007) and poor parental mental health and parenting stress are risk factors for child conduct problems and less effective parenting and discipline practices (e.g., Australian Institute of Family Studies, 2012; Duncombe et al., 2012; Lovejoy et al., 2000). Given the high number of individuals with common mental health problems who did not get the support they require (Brown et al., 1999), low-intensity programmes targeting common mental health problems have been developed to meet this need. One example of a low-intensity cognitive and behavioural intervention for common mental health problems is Stress Control, which has been found to be effective in reducing mental health problems and improving psychological wellbeing (Kellett et al., 2004; Kellett et al., 2007; White, 2010a). Treating parental mental health appears to have some benefits for children's conduct problems (Weissman et al., 2006), however, a substantial number of parents do not report improvements in their child's behaviour problems. Their child's continued problems may be a key source of stress for the parent.

Although parenting programmes have been found to reduce poor parental mental health and parenting stress (e.g., Barlow et al., 2014; Furlong et al., 2012; Nowak & Heinrichs, 2008; Sanders et al., 2014), evidence for the long-term effects of parenting programmes on parental mental health is mixed (Barlow et al., 2014; Sanders et al., 2014). Moreover, little research has examined the effects of low-intensity group parenting programmes on parental mental health. Previous research also suggests that parents with mental health problems do not benefit as much from parenting programmes when compared to parents without mental health problems (e.g., Kazdin & Wassell, 1998; Reyno & McGrath, 2006). This differential intervention effect for parents with mental health problems has also been found in research evaluating low-intensity parenting programmes (e.g., Kjøbli et al., 2013). Given the links between parent mental health and parenting, there appears to be a need to target both of these areas simultaneously, particularly when delivering interventions that are low in intensity.

2.4.1 Enhancing Intervention Outcomes of Low-Intensity Parenting Programmes by Addressing Parental Mental Health

As described in the section above, as there are links between parenting practices and parental mental health, there is a need to address both of these areas simultaneously. Sanders et al. (2003) suggested that interventions that target mental health problems can complement parenting programmes. One example of a combined programme is Enhanced Triple P (Sanders, 2012). Enhanced Triple P is a level 5 high-intensity intervention that aims to address conduct problems displayed by children of parents with family dysfunction, such as poor parental mental health or high inter-parental conflict (Sanders, 2012). In addition to support for parenting, parents are taught mood management skills, stress-coping skills, and partner support skills depending on their family's individual needs. There is some evidence that combining parenting programmes with cognitive behaviour therapy to enhance parental mental health has effects on parenting practices, parental mental health, and children's behaviour, and may produce superior outcomes to parenting support alone (e.g., Sanders, Markie-Dadds, Tully, & Bor, 2000; Sanders & McFarland, 2000). Gavita and Joyce (2008) conducted a review of RCTs that examined the effects of group based combined programmes that simultaneously addressed parenting and parental distress. Five studies were included in the review of combined programmes for parents of 2-8 year olds; four of which were conducted in Australia and evaluated Enhanced Triple P. Gavita and Joyce (2008) reported that combined programmes were effective at producing improvements in parenting practices and child conduct problems. There was evidence that combined programmes appeared to produce slightly superior outcomes than standard parenting programmes for measures of parenting practices, parental distress, and child conduct problems. At follow-up, improvements in child behaviour were maintained, but combined programmes were no longer superior to a standard parenting intervention. However, there were still more favourable outcomes for combined programmes over standard intervention for parenting practices and parental distress at follow-up.

Other studies have reported mixed findings for the effects of combined programmes on parental mental health. One of the RCTs conducted in Australia which compared Enhanced Triple P to parenting support alone and a waitlist control, found no differences between conditions for maternal or paternal mental health outcomes at post-intervention (Sanders et al., 2000). The authors suggested that this may be because the standard intervention that targeted only parenting could be powerful enough to lead to changes in parental mental health and wellbeing. In contrast, another study conducted by Sanders and McFarland (2000) did find effects for combined intervention on parental mental health outcomes. Sanders and McFarland

(2000) examined the effects of receiving a parenting programme versus receiving a combined parenting and mental health intervention. The sample consisted of 47 families in Australia with a mother with major depression and at least one 3-9 year old with a disruptive behaviour disorder. Even though mothers in both conditions reported improvements in depressive symptoms, fewer automatic maladaptive thoughts, less child problem behaviours, and greater support and competence with their parenting, mothers who received the combined programme reported greater effects on maternal depression than those who received the parenting support only programme. More mothers in the combined programme (72%) had moved into the nonclinical range for depression at 6-month follow-up than mothers who received parenting support only (35%).

In comparison to the combined high-intensity interventions discussed, fewer low-intensity combined interventions have been developed. A study by Gardner et al. (2009) found that, in a US sample, poor parental mental health did not impact on the intervention outcomes of a low-intensity parenting programme for children and the programme was equally beneficial for children of distressed and non-distressed mothers. The Family Check-Up which was used in Gardner et al. (2009) is a brief three session intervention and aims to target family management skills and motivation to change (Dishion & Stormshak, 2007b; Dishion et al., 2008). Although their low-intensity parenting intervention did not specifically aim to enhance mental health, the Family Check-Up is flexible in its delivery and the support provided is tailored to meet other risk factors, such as mental health problems or co-parenting problems. Kjøbli et al. (2013) suggested that it may be the flexibility of the Family Check-Up to address other family risk factors that is accountable for the lack of differential effects for poor parental mental health in Gardner et al. (2009).

These findings, coupled with the links between parental mental health, child outcomes, and parenting practices suggest that one way to achieve the maximum benefits from low-intensity group parenting programmes is to deliver them in combination with support targeting other risk factors such as parental mental health problems. However, it is unknown whether a combination of a low-intensity group based parenting programme, such as the Triple P Discussion Groups, and a low-intensity group cognitive behavioural intervention for common mental health problems is effective in improving parenting practices, parental mental health, and children's behaviour. Previous literature has demonstrated that low-intensity group parenting programmes can be effective for improving negative parenting practices and child disruptive behaviours (e.g., Morawska et al., 2010), and that low-intensity cognitive behavioural interventions for common mental health problems are effective for reducing depression, anxiety, and distress, and improving coping and psychological wellbeing (e.g.,

Kellett et al., 2004; Kellett et al., 2007). In addition, addressing parental mental health when delivering a low-intensity parenting programme may eliminate differential intervention effects for children's behaviour that have previously been found for parents experiencing psychological distress (Kjøbli et al., 2013). Therefore, a combined approach that targets both parenting and mental health is likely to be effective in improving parenting practices, parental mental health, and children's behaviour.

2.5 Summary of the Literature and Aims and Hypotheses of the Current Research

The preceding review of the literature discussed the nature and prevalence of child conduct problems. The outcomes of these behaviour problems, the risk factors associated with the development and maintenance of child conduct problems, and the parenting experiences of parents with young children displaying behaviour problems were described. The review then outlined interventions for parents with young children displaying conduct problems and presented the rationale for low-intensity parenting programmes. The evidence for low-intensity parenting programmes was then described with a particular focus on the Triple P Discussion Groups, an example of a topic-specific, low-intensity group parenting programme, which were used in the current thesis. Limitations of the previous research evaluating the Triple P Discussion Groups were discussed focusing on the strategies to promote generalisation of parenting skills when delivering low-intensity parenting programmes, the lack of research with parents of primary school aged children, and the lack of father inclusion in research evaluating such programmes.

The literature review then discussed two additional risk factors associated with child conduct problems; poor parental mental health and parenting stress. First, interventions for common mental health problems were discussed and the rationale and effectiveness of cognitive behavioural therapy based low-intensity interventions addressing mental health problems was presented. The impact of addressing parental mental health on child behaviour problems was then considered and the review argued for combined support that targets both parenting practices and common mental health problems as a way of enhancing outcomes of low-intensity parenting programmes.

As outlined in the literature review, there is a high prevalence of child conduct problems among young children in developed Western countries (e.g., Australian Institute of Family Studies, 2011; Bradshaw & Tipping, 2010; Sanders et al., 2007). Early conduct

problems are associated with negative outcomes during late childhood, adolescence, and adulthood (e.g., Campbell et al., 2006; Fergusson & Horwood, 1998; Fergusson et al., 2005; Knoester, 2003; McLeod & Kaiser, 2004) and less positive parenting experiences (e.g., Baker & Heller, 1996). This indicates the importance of addressing conduct problems displayed by young children and suggests there is a high level of need for intervention. As parenting is inextricably linked with children's development and behaviour, parenting programmes based on social learning and behavioural theories have been recommended for the prevention and intervention of child conduct problems (e.g., Advisory Group on Conduct Problems, 2009; Dretzke et al., 2009; Eyberg et al., 2008; Furlong et al., 2012; National Institute for Health and Clinical Excellence, 2013). One major challenge is that the benefits of parenting programmes are limited as few parents access such programmes (Sanders et al., 2007; Taylor & Biglan, 1998). It has been argued that a population health approach to parenting support is required to ensure that available programmes are meeting the needs and preferences of all parents (e.g., Sanders & Kirby, 2014; Sanders et al., 2014). A population health approach to parenting support involves the delivery of low-intensity programmes.

Low-intensity interventions are programmes that require a low usage of practitioner time or usage of time in a cost-effective way (Bennett-Levy et al., 2010). They can range from single to several sessions that are topic-focused (Dishion & Stormshak, 2007a) and are designed for parents with children with mild to moderate problems (Sanders & Murphy-Brennan, 2010). Low-intensity parenting programmes appear to produce beneficial outcomes for parents and children (e.g., Boyle et al., 2010; Kjøbli & Ogden, 2012; Turner & Sanders, 2006). Group based low-intensity topic-specific parenting programmes, such as the Triple P Discussion Groups, have promising intervention outcomes for parents and preschool aged children (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010; Morawska et al., 2014) and parents with 3-12 year old children in a low-resource context (Mejia et al., 2015). Furthermore, high levels of satisfaction with the Triple P Discussion Groups have been reported. These RCTs have found that attending a single exemplar of a Triple P Discussion Group led to improvements in child behaviour problems and parenting practices (Dittman et al., 2015; Joachim et al., 2010; Mejia et al., 2015; Morawska et al., 2010; Morawska et al., 2014), in comparison to a waitlist control. Effects of participating in a Triple P Discussion Group have also been found for target child behaviours (Joachim et al., 2010; Morawska et al., 2014), parenting self-efficacy (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2014), and partner relationships (Morawska et al., 2010).

Several studies found no effects for the Triple P Discussion Groups on measures of parental mental health, inter-parental conflict, and parenting experiences at post-intervention

(Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010) which may have been due to floor/ceiling effects. An exception was that Mejia et al. (2015) found a reduction in parental mental health problems over time with small effects reported at post-intervention and medium effects at 6-month follow-up. Furthermore, Dittman et al. (2015) found that by 6-month follow-up, significant reductions in parental mental health problems and inter-parental conflict had occurred following attending a Triple P Discussion Group. It is possible that such programmes would lead to improvements in these domains, as previous research has found that parents with a child displaying difficult behaviour are more likely to report having a stressful or depressing parenting experience (Sanders et al., 2007). Therefore, reducing child conduct problems may lead to improvements in parental mental health and parenting experiences. It may be that effects on these areas are delayed or that exposure to multiple parenting exemplars through participation in a series of Triple P Discussion Groups is required. Training in multiple exemplars may be likely to lead to more robust changes at multiple levels of the family system, such as parental mental health and inter-parental conflict, than narrowly focused single exemplar training. Furthermore, given that most of the previous research evaluating the Triple P Discussion Groups did not screen parents into studies on the basis of the level of their child's conduct problems, it is unlikely that parents would have reported high levels of other familial risk factors (e.g., high levels of psychological distress and inter-parental conflict) which may have accounted for the lack of effects. When parents are recruited on the basis of elevated child behaviour problems in a low-resource context, reductions in parental mental health problems were found (Mejia et al., 2015). More research is needed to test the minimally sufficient level of intervention required when families are screened into studies on the basis of an elevated level of child conduct problems using a cut-off score on a standardised measure.

The effects of the Triple P Discussion Groups are mixed for several other measures (e.g., child behaviour in general, parenting practices in general, parenting self-efficacy across settings) and these findings suggest that the generalisation of parenting skills after attending a Triple P Discussion Groups may be limited and need to be examined in more detail (Morawska et al., 2010; Morawska et al., 2014). Further investigation needs to examine whether strategies that aim to enhance generalisation, such as multiple exemplar training, results in superior intervention outcomes when compared to single exemplar training. Based on generalisation theory, teaching multiple exemplars in comparison to teaching a single exemplar is likely to enhance generalisation by fostering parents' ability to apply parenting skills flexibly to a range of behaviours and settings, resulting in greater improvement in child behaviour. Furthermore, the findings from Boyle et al. (2010) indicate that the effects of an

individually-administered low-intensity Triple P programme addressing behaviours of concern to parents, can be seen in both target and generalisation settings. The findings from Glogower and Sloop's (1976) study suggested that in addition to teaching multiple exemplars, teaching more general concepts may facilitate generalisation.

There are also gaps in the literature about the effects of the Triple P Discussion Groups for parents with primary school aged children. In addition, there is paucity of research on the effects of such programmes for fathers. The current thesis addressed these gaps by examining the effects of the Triple P Discussion Groups with parents of primary school aged children screened in on the basis of their conduct problems using a cut-off score. Among two-parent families, both mothers and fathers were encouraged to take part in the evaluation and intervention process and the effects of the intervention were examined separately for mothers and fathers.

Other key risk factors associated with child conduct problems are poor parental mental health and parenting stress (e.g., Duncombe et al., 2012; Solem et al., 2011). Poor parental mental health and parenting stress are also associated with less optimal parenting and discipline practices (e.g., Australian Institute of Family Studies, 2012; Lovejoy et al., 2000). Of great concern is the high prevalence of common mental health problems among parents with young children (e.g., Australian Institute of Family Studies, 2012; Marryat & Martin, 2010; Sanders et al., 2007). There is evidence to suggest that parenting programmes have differential effects for children of parents with poor mental health (e.g., Kjøbli et al., 2013; Reyno & McGrath, 2006) highlighting the need to address parental mental health when delivering parenting support. Previous research evaluating combined interventions that target parenting practices and parental mental health simultaneously among parents of children with behaviour problems have generally reported positive effects for both parenting and mental health outcomes (e.g., Gavita & Joyce, 2008; Sanders et al., 2000; Sanders & McFarland, 2000). However, these evaluations have typically used high-intensity interventions. There is little known about the effects on parenting, parental mental health, and child outcomes for combined interventions that are low in intensity.

2.5.1 Aims and Hypotheses of the Thesis

This thesis aimed to add to the current literature on low-intensity topic-specific group parenting programmes by conducting two separate but interlinked studies. Study one based in Auckland, New Zealand examined the effects of single exemplar training of a two-hour topic-specific parenting group in comparison to multiple exemplar training consisting of four two-hour topic-specific parenting groups. The study used a RCT design and examined the effects

of the two conditions for parents with a 5-8 year old child screened in on the basis of their child's conduct problems. It was hypothesised that mothers in both conditions would report significant reductions in child conduct problems and ineffective parenting practices as well as greater parenting self-efficacy. Mothers allocated to the multiple exemplar condition were expected to report significantly greater change in child behaviour, parenting practices, and parenting self-efficacy than those in the single exemplar condition as a result of the generalisation promotion strategies, which aimed to enable parents to apply parenting skills more flexibly, incorporated in multiple exemplar training. For mothers, intervention effects for child behaviour, parenting practices, and parenting self-efficacy expected at post-intervention were hypothesised to be maintained at 6-month follow-up and it was expected that a high level of satisfaction with the interventions would be reported.

As there is paucity of research on the effects of low-intensity group parenting programmes for fathers, study one also aimed to explore the effects of the two conditions on father-reported child conduct problems, fathers' parenting practices, and fathers' parenting self-efficacy. In addition, the study investigated the effects of single exemplar training in comparison to multiple exemplar training on measures of parenting experiences, parental mental health, inter-parental conflict, and partner relationship satisfaction for mothers and fathers. It may be that parents allocated to the multiple exemplar condition are more likely to report significant changes in parenting experiences, parental mental health, inter-parental conflict, and partner relationship satisfaction. This was expected as greater exposure to exemplars is likely to lead to greater improvements in parenting and child behaviour, which in turn could lead to improved mental health, more positive parenting experiences, greater partner relationship satisfaction, and greater consistency between parents. Furthermore, training in multiple exemplars may be more likely to lead to robust changes at multiple levels of the family system than narrowly focused single exemplar training.

The second study in this thesis was based in Glasgow, UK and aimed to explore the effects of a combined low-intensity group based parenting programme with a low-intensity group based cognitive behaviour intervention for common mental health problems among parents with 3-8 year old children. The effects of the combined programme were evaluated by examining change in parenting practices, parental mental health, child behaviour, parenting self-efficacy, family relationships, and positive mental health at pre-, mid- and post-intervention. The maintenance of intervention effects were examined at 3-month follow-up. The effects of the combined programmes were explored using both quantitative and qualitative methods and aimed to answer the following research questions:

1. Does the combined low-intensity parenting programme and a low-intensity cognitive behaviour intervention for common mental health problems change parenting practices and parental mental health?
2. Does the combined programme change disruptive child behaviour, parenting experiences, family relationships, parenting self-efficacy, positive mental health, and among two-parent families, partner support?
3. What are parents' perceptions of the combined programme?
4. What are parents' perceived impacts of the combined programme?
5. What factors affect parents' implementation of strategies?

Study One: Enhancing Intervention Outcomes of Low-Intensity Parenting Groups for Parents of Primary School Aged Children Through Generalisation Promotion Strategies

Chapter 3. Method

3.1 Overview of Chapter

This chapter describes the method for the study one conducted as part of this Universitas 21 (U21) Joint PhD. Study one based in Auckland, New Zealand examined the effects of single exemplar training of a two-hour topic-specific parenting group in comparison to multiple exemplar training consisting of four two-hour topic-specific parenting groups. Described below are details about registration of the trial (section 3.2), how participants were recruited and a description of participating families (section 3.3), the measures used in the study (section 3.4), the study design (section 3.5), and the study procedure (section 3.6). The chapter ends by describing the data analysis methods (section 3.7) used in this study.

3.2 Trial Registration

The trial was registered on the Australian New Zealand Clinical Trials Registry (ref: ACTRN12613000100796) and specified the study protocol and outcome measures. Ethical approval for the study is detailed in section 3.6.1.

3.3 Participants

3.3.1 Recruitment

The study took place in Auckland in 2011-2012 and 2014-2015. Auckland is New Zealand's largest city (Statistics New Zealand, 2014d) and has a population of just over 1.4 million people according to 2013 Census data (Statistics New Zealand, 2013). To obtain a community sample a self-referral route for enrolment was used in the current study. Advertising material (see Appendix B for an example) describing the study was developed and disseminated to the local communities in Central Auckland (2011 and 2014 cohorts) and West Auckland (2011 cohort). A variety of recruitment methods were used to recruit participants and requests for assistance to advertise the study were sent out between August and September

2011 and again between February and April 2014. The advertising materials were disseminated in Central and West Auckland through six main methods: 1) local primary schools, 2) two press releases disseminated through the University of Auckland on the 19th September 2011 and the 8th April 2014, 3) local newspapers and online news websites, 4) other public, community, and non-profit organisations (e.g., libraries, Girl Guiding New Zealand Association), 5) general practitioner (GP) clinics in the local community, and 6) social media. The advertisement encouraged parents with a 5-8 year old child who was showing some difficulties with their behaviour who were interested in attending a free brief discussion group based parenting programme to self-refer to take part.

Several pathways were set up to enable interested parents to self-refer. Interested parents could email to express interest and an email contact was supplied on advertising material and in the press releases. Alternatively, parents could express interest by phoning a local phone number and a voicemail was set up so parents could leave a message if there was no answer. In addition, for recruitment in 2014 a cellphone number for parents to text or call to express interest was also supplied. Upon contact, parents were informed of the study protocol and if interested and eligible, informed consent was obtained and pre-intervention measures were administered.

3.3.2 Eligibility Criteria

There were several criteria families were required to meet to participate in the study. To participate in the study, participants must: 1) have a child between the ages of 5 and 8 years old (rationale: the content delivered in the Triple P Discussion Groups is relevant for parents with children between the ages of 5 and 8 years); 2) report elevated scores (greater than or equal to 45) on an abbreviated 15 item version of the Eyberg Child Behavior Inventory (ECBI) Intensity subscale (Eyberg & Pincus, 1999) (rationale: a cut-off score was used to obtain a sample with elevated levels of child conduct problems to test the minimally sufficient level of intervention required and maximise the likelihood of obtaining an intervention effect, see Appendix C). The abbreviated 15 item version of the ECBI Intensity subscale was used instead of the full ECBI Intensity subscale to reduce burden on potential participants, some of whom would not meet the eligibility criteria. The abbreviated 15 item version of the ECBI has previously been used to screen families into randomised control trials of parenting programmes and was effective in obtaining samples of families with children displaying elevated conduct problems (Frank, Keown, & Sanders, 2015; Sanders, Dittman, Farruggia, & Keown, 2014); 3) be able to attend the group sessions held in Epsom in Central Auckland or Titirangi in West Auckland; and 4) be able to read a newspaper without assistance (rationale:

the written materials used in the Triple P Discussion Groups are not suitable for parents who cannot read a newspaper without assistance).

The cut-off of greater than or equal to 45 was calculated from Metzler, Sanders, Rusby and Crowley's (2012) study who reported mean ECBI Intensity screener scores for samples of nonclinical and clinical children. This cut-off score was determined by adding one standard deviation to the mean score for non-clinical children; M = 37.40, SD = 7.93. Metzler et al. (2012) reported that that ECBI screener was highly correlated with full version ECBI Intensity scores, r = .94, and had a Cronbach alpha of .91.

Potential participants were excluded from the study if: 1) the target child had a developmental or intellectual disability or other significant health impairment (rationale: the Triple P Discussion Groups are designed for children displaying difficult behaviour who are otherwise normally developing, therefore the intervention provided as part of this research would not have been appropriate for parents of these children. A modified version of Triple P, Stepping Stones Triple P, has been specifically designed to meet the unique needs of parents who have children with a developmental, intellectual or health disability); 2) the target child was having regular contact with a health professional for behavioural problems or the parent was receiving support elsewhere for the target child's behaviour problems (rationale: if children or parents were receiving support from another service for the child's behavioural problems, then it will be difficult to disentangle potential benefits gained from the provided programme and those gained by external support); and 3) the parent was seeing a mental health professional for emotional or psychological problems (rationale: as measures of emotional or psychological problems were obtained from parents as part of the study, if parents were receiving support from another service for emotional or psychological problems, then it will be difficult to disentangle any potential benefits gained from the provided programme and those gained by external support).

It is important to note that this information was obtained during the screening interview and families were excluded at this point. Families who were interested in taking part but did not meet the eligibility criteria were offered referral information for alternative services. There is a possibility that participants sought support for their child's behaviour or their own emotional or psychological problems from other services whilst participating in the study or in the follow-up period. At post-intervention, four mothers and five fathers from nine different families reported that they had sought further support for their child's behaviour or their family. Three mothers had sought informal support from a school or friend and the other mother had sought counselling but had not yet attended. Two fathers reported that they had

sought counselling, one father had received support for his child from a speech and language therapist, another reported informal support from a friend, and one other father sought support from print materials. At 6-month follow-up 13 mothers and 9 fathers reported that they had sought further support for their child's behaviour or their family since the completion of post-intervention measures. For mothers, support included counselling and therapy, parenting programmes, informal support from a school, friend, or family member, Child and Adolescent Mental Health Services, government services (e.g., Child, Youth, and Family), and other specialist services (e.g., occupational therapist). Two mothers reported that they were in the process of seeking counselling but had not yet attended any sessions and three mothers reported that they sought support from multiple sources. Among fathers, additional support for their child's behaviour or their family included: counselling and therapy, informal support through school, and other specialist services (e.g., services for specific learning disabilities, osteopath). Two fathers reported seeking support from more than one source.

3.3.3 Power Analysis

The ECBI Intensity Total was used to determine the sample size for the current study. Previous research (Joachim et al., 2010; Morawska et al., 2010) was used to estimate the expected mean and standard deviation at pre-intervention (the average of the two studies was: M = 134.00, SD = 22.00). These studies reported that the effect size for disruptive child behaviour following a single Triple P Discussion Group was medium (Joachim et al., 2010) to large (Morawska et al., 2010). Therefore, for a medium difference in effect sizes (d = 0.5, Cohen, 1992) at post-intervention between the two conditions, assuming a standard deviation of 22 (thus an estimated 11-point difference in ECBI Intensity Total scores) 64 families per condition would be required to achieve power of 80% at an alpha of .05. Taking into account 20% attrition, a total sample size of N = 154 was calculated, 77 per condition.

3.3.4 Enrolment and Attrition

Figure 3.1 displays the flow of participants through each stage of the study. Between August and October in 2011 and Feburary and May 2014 parents from 129 families expressed interest in taking part in the study. Of those 129 parents, 111 (86.0%) parents were still interested in participating in the study after being fully informed about the study protocol. The 18 parents who were no longer interested in participating discontinued at this point for the following reasons: did not think the support offered was the type of support they needed (n = 6), timing and dates of sessions unsuitable (n = 6), they were unable to make time commitment (n = 2), wanted immediate support (n = 1), or an unknown reason (n = 3). Of the 111 parents

who were still interested in participating in the study after being fully informed of the research protocol, 89 (80.2%) meet eligibility criteria and were enrolled in the study.

For the 89 eligible families scores on the abbreviated 15 item version of the ECBI Intensity ranged from 45 to 85 (M = 62.36, SD = 9.45, α = .73). As part of the screening interview parents were also asked where they had heard about the study to get an idea of which recruitment strategies were most successful. The majority of 89 eligible parents reported that they had learnt about the study through their primary school via a flyer or the school newsletter (76.4%, n = 68). The remainder of the parents reported learning about the study from the following sources: local newspapers (15.7%, n = 14), word of mouth (3.4%, n = 3), online advertising (2.2%, n = 2), a parenting magazine (1.1%, n = 1), and an advertisement at a library (1.1%, n = 1).

The 22 parents who did not meet the eligbility criteria were excluded for the following reasons: did not report a score of greater than or equal to 45 on the abbreviated 15 item version of the ECBI, indicating their child's behaviour problems were not in the mild or above range (n = 13), the target child was not in the 5-8 year age range (n = 2), the parent was in regular contact with a mental health professional for their own emotional or psychological problems (n = 3), the target child was in regular contact with a health professional for behavioural problems (n = 2), the parent and child were in regular contact with a health professional for the child's behavioural problems (n = 1), and the target child had a developmental or intellectual disability or other significant health impairment (n = 1). These families were offered referral information for alternative services. Parents from 78 of the 89 families (87.6%) who met eligbility criteria completed pre-intervention measures and were randomised. Scores on the ECBI screener were strongly correlated with full version ECBI Intensity scores at pre-intervention (r = .54, p = .000). Details on the completion of post-intervention and follow-up measures are displayed in Figure 3.1.

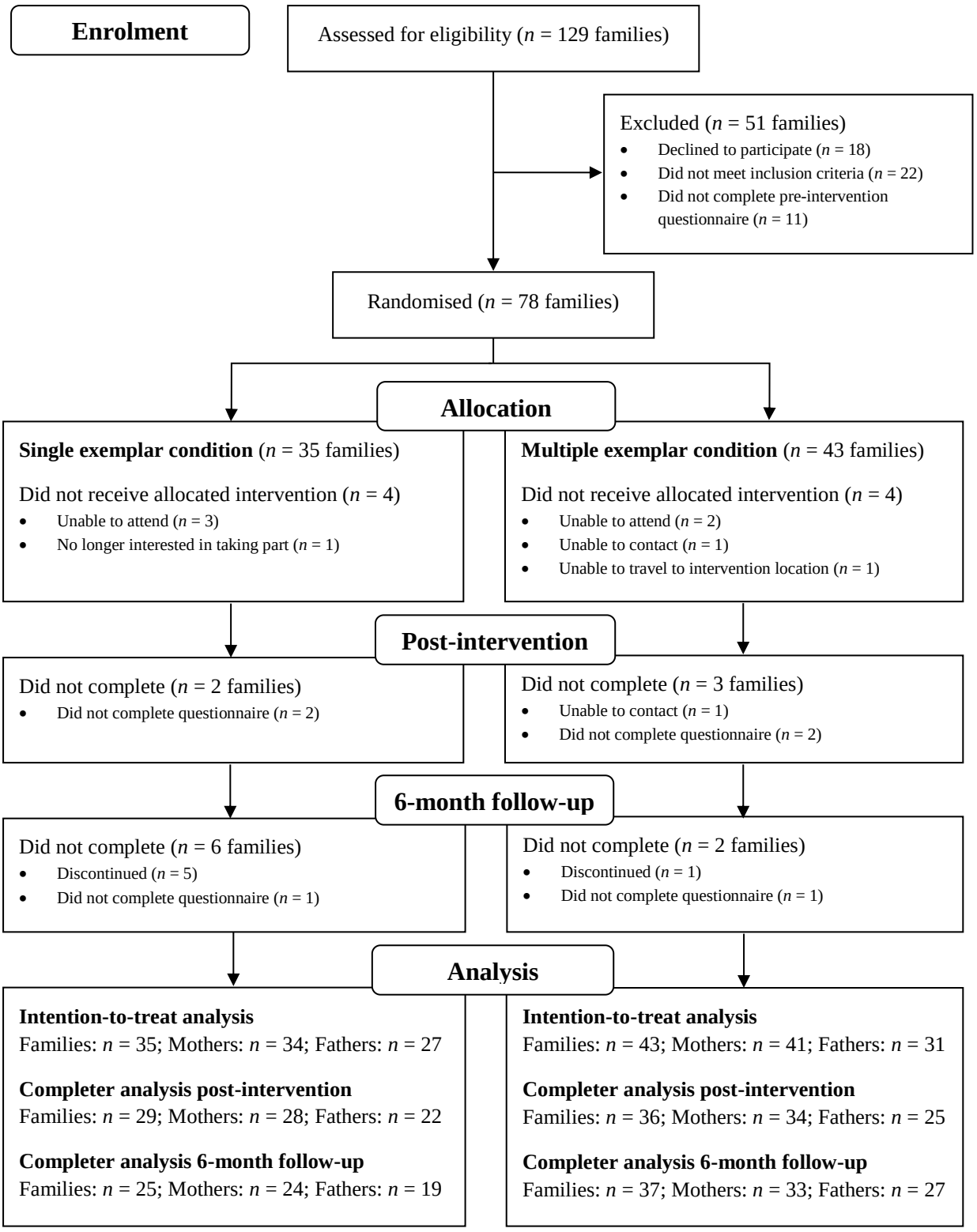

Figure 3.1 Flow of Participants Through Each Stage of the Study and Reasons for Discontinuation

3.3.5 Description of Participants

Table 3.1 displays the demographic details of the participating families by condition and for the whole sample. Participants were 75 mothers and 58 fathers from 78 families with a 5-8 year old child (mean age = 6.33 years, *SD* = 1.03). There were 55 mother-father pairs from the same family, 20 mothers participated alone (nine of which were from two-parent families), and 3 fathers participated alone (two of which were from two-parent families). Approximately two-thirds (*n* = 50) of the target children were male and the majority (71.8%, *n* = 56) of children were described as being New Zealand European/New Zealander. A substantial proportion of the sample (19.2%, *n* = 15) described their child's ethnicity as an ethnic group other than New Zealand European/New Zealander, Māori, Pacific Islander, or Asian. This included those identifying as British and European and those with more than one ethnicity. The majority of these participants reported dual or multiple ethnicities (e.g., New Zealand European and Asian, New Zealand European, Māori, and Pacific Islander). In the current sample, there was a much higher proportion of participants identifying as New Zealand European when compared to the proportion of individuals identifying as European/New Zealander in the Auckland region (60.4%, Statistics New Zealand, 2014a).

The majority of families in the sample were two-parent families (84.6%, *n* = 66) with 57 families (73.1%) consisting of the original parents and nine reporting they were step-parent families (11.5%). Most of the single parent families were mothers (*n* = 11). The proportion of single parent families in the current study (15.4%) was substantially lower than the proportion of single parent families among families with children in the Auckland region (28.4%, Statistics New Zealand, 2014b). A high proportion (61.5%) of the families reported that their total family income was greater than $70-75,000 per annum. In the Auckland region, the median family income is $78,600 per annum (Statistics New Zealand, 2014c).

Table 3.2 presents demographic information for the parents who took part in the study. The 75 mothers were all the biological or adoptive parent of the target child. Six fathers were step-parents and the remaining 52 were the biological or adoptive father. On average, mothers were 38 years old (*SD* = 4.85) and fathers were 40 years old (*SD* = 5.21). The proportion of mothers and fathers in the current sample with a university degree (56.8% and 49.1% respectively) was approximately twice that of individuals in the Auckland region (24.7%). All fathers, except one, and about two-thirds of mothers were in paid employment. On average mothers worked 30 hours per week and fathers worked approximately 40 hours per week.

Table 3.1 Demographic Details of Participating Families

Variable	**Single exemplar** (*N* = 35)		**Multiple exemplar** (*N* = 43)		**Total** (*N* = 78)	
	n	%	*n*	%	*N*	%
Child gender						
Male	23	65.7	27	62.8	50	64.1
Female	12	34.3	16	37.2	28	35.9
Child ethnicity						
New Zealand European/New Zealander	28	80.0	28	65.1	56	71.8
Māori	1	2.9	0	0.0	1	1.3
Pacific Islander	1	2.9	1	2.3	2	2.6
Asian	1	2.9	3	7.0	4	5.1
Other	4	11.4	11	25.6	15	19.2
Type of family						
Two-parent biological or adoptive	26	74.3	31	72.1	57	73.1
Two-parent step family	2	5.7	7	16.3	9	11.5
Single parent family	7	20.0	5	11.6	12	15.4
Marital status						
Married	22	62.9	29	67.4	51	65.4
Defacto	6	17.1	9	20.9	15	19.2
Divorced	0	0.0	1	2.3	1	1.3
Separated	6	17.7	3	7.0	9	11.5
Single	1	2.9	1	2.3	2	2.6
Total family income						
< $30,000	3	8.6	5	11.6	8	10.3
$30,001-$50,000	5	14.3	6	14.0	11	14.1
$50,000-$70-75,000	2	5.7	7	16.3	9	11.5
> $70-75,000	25	71.4	23	53.5	48	61.5
Don’t know	0	0.0	2	4.7	2	2.6

Table 3.2 Demographic Details of Participating Parents

Variable	**Single exemplar** (Mothers: *N* = 34; Fathers: *N* = 27)		**Multiple exemplar** (Mothers: *N* = 41; Fathers: *N* = 31)		**Total** (Mothers: *N* = 75; Fathers: *N* = 58)	
	n	%	*n*	%	*N*	%
Mother relationship to child						
Biological or adoptive parent	34	100.0	41	100.0	75	100.0
Father relationship to child						
Biological or adoptive parent	26	96.3	26	83.9	52	89.7
Step-parent	1	3.7	5	16.1	6	10.3
Mother highest level of education*						
Year 13 or less	4	12.1	8	19.5	12	16.2
Polytechnic Qualification	6	18.2	11	26.8	17	23.0
Trade/apprenticeship	2	6.1	1	2.4	3	4.0
University degree	21	63.6	21	51.2	42	56.8
Father highest level of education*						
Year 13 or less	5	19.2	7	22.6	12	21.1
Polytechnic Qualification	5	19.2	6	19.4	11	19.3
Trade/apprenticeship	4	15.4	2	6.5	6	10.5
University degree	12	44.4	16	51.6	28	49.1
Mother in paid employment	22	64.7	25	61.0	47	62.7
Father in paid employment	26	96.3	31	100.0	57	98.3
	M	*SD*	*M*	*SD*	*M*	*SD*
Mother age	38.41	4.66	37.52	5.03	37.93	4.85
Father age	40.22	4.55	39.55	5.77	39.86	5.21
Mothers hours in paid employment[a]	30.19	13.22	30.34	13.91	30.28	13.43
Fathers hours in paid employment[b]	43.17	8.74	41.71	7.33	42.31	7.87

Note. *Data were missing for one mother and one father, valid % reported.
[a]*n* = 18 for single exemplar condition, *n* = 22 for multiple exemplar condition.
[b]*n* = 18 for single exemplar condition, *n* = 26 for multiple exemplar condition.

3.4 Measures

Table 3.3 describes the measures used in the study, their rationale, and their administration time points, and further details about each measure are described below. Regardless of whether both parents attended the intervention, in two-parent families both parents were asked to complete the measures. This was done to obtain a measurement of the outcomes of the intervention from multiple sources. A copy of all measures can be found in Appendix D.

3.4.1 Outcome Measures

3.4.1.1 Child behaviour measures

The Eyberg Child Behavior Inventory (ECBI, Eyberg & Pincus, 1999) is a 36 item questionnaire that measures parents' perceptions about their child's disruptive behaviour and was the primary outcome measure for the study. The ECBI consists of two subscales, the Intensity and Problem subscales. The Intensity subscale measures the frequency of each problem behaviour using a 7 point scale ranging from 1 (*never*) to 7 (*always*). Scores on the 36 items are summed to produce an ECBI Intensity Total score, which ranges from 36-252. The Problem subscale asks parents to rate whether each behaviour is currently a problem for them using a yes-no format. Scores are also summed to produce an ECBI Problem Total score which ranges from 0-36. ECBI Intensity Total scores equal to or greater than 131 and ECBI Problem Total scores equal to or greater than 15 indicate clinically elevated disruptive behaviour problems. Cronbach alphas for the ECBI Intensity and ECBI Problem subscales have demonstrated high internal consistency (.95 and .94 respectively) and the questionnaire has good test-retest reliability (Eyberg & Pincus, 1999). In the current study, high internal consistency was also demonstrated. For mothers α's ranged from .89 to .93 for the ECBI Intensity subscale and .79 to .91 for the ECBI Problem subscale for the three time points. For fathers α's ranged from .89 to .92 for the ECBI Intensity subscale and .87 to .89 for the ECBI Problem subscale.

The Strengths and Difficulties Questionnaire (SDQ, Goodman, 1997) was used to measure parents' perceptions of their child's psychosocial problems. The SDQ is a 25 item questionnaire that asks respondents to rate how true each behaviour is for their child. Five items are used to tap into five different domains: conduct problems, hyperactivity, emotional problems, peer problems, and prosocial behaviour. Items are rated on a 3 point scale ranging from 0 (*not true*) to 2 (*certainly true*). Ratings on all subscales, except the prosocial behaviour subscale, are summed to obtain a SDQ Total Difficulties score. Previous research using the SDQ has demonstrated high internal consistency and test-retest reliability (Goodman, 1999;

Goodman, 2001; Hawes & Dadds, 2004). The SDQ Total Difficulties score demonstrated adequate internal consistency for mothers (α = .77, .77, and .86 at pre-intervention, post-intervention, and 6-month follow-up) and fathers (α = .79, .74, and .72 respectively) in this study.

The Parent Daily Report Checklist (PDR, Chamberlain & Reid, 1987) measures displays of a range of child behaviours on a weekday and a weekend day and provided a measure of change in target and non-target negative child behaviours. The PDR asks parents to rate the occurrence or non-occurrence of a variety of positive and difficult child behaviours using a yes-no format. In the current study, a modified version of the PDR was used which consisted of 28 items. The PDR measures displays of target behaviours that were addressed in all of the Triple P Discussion Groups topics, except for the session on chores. Therefore, three additional items were added to the existing 25 items to measure problems with chores (e.g., refusing to do chores or jobs). The PDR also taps into displays of behaviours that were not targeted during the intervention (e.g., stealing, misbehaviour while shopping). Responses to items measuring positive behaviours were reversed and PDR Weekday Total and PDR Weekend Total scores were calculated to produce a total number of negative behaviours displayed for each particular day (total scores ranged from 0-28). In the current study, high internal consistency was demonstrated. For mothers α's ranged from .72 to .87 for the PDR Weekday Total and .80 to .84 for the PDR Weekend day Total for the three time points. For fathers α's ranged from .73 to .88 for the PDR Weekday Total and .73 to .87 for the PDR Weekend day Total.

3.4.1.2 Parenting measures

The Parenting Scale (PS, Arnold et al., 1993) is a 30 item self-report questionnaire that measures the use of three dysfunctional/ineffective parenting practices: laxness, which measured permissive parenting practices; overreactivity, which measures displays of anger, meanness, and irritability in parenting; and verbosity, which taps into lengthy verbal responses and a reliance on talking. Each item is rated on a 7-point scale anchored by opposing response options reflecting functional/effective and dysfunctional/ineffective practices. Higher scores indicate more dysfunctional/ineffective parenting practices. A PS Total score is calculated by averaging the responses to all 30 items. Scores equal to or above 3.2 for the PS Total are considered to represent levels of dysfunctional/ineffective parenting practices that require clinical intervention. The PS has previously demonstrated good internal consistency (α = .84) and high test-retest reliability (Arnold et al., 1993). In the current study, high internal

consistency was also demonstrated for the PS Totals score at all time points for both mothers (α's ranged from .84 to .88) and fathers (α's ranged from .86 to .92).

The Parenting Tasks Checklist (PTC, Sanders & Woolley, 2005) measures task-specific parenting self-efficacy across behaviours and settings. The PTC is a 28 item measure that consists of two subscales each with 14 items; the Behavioural self-efficacy and Setting self-efficacy subscales. The Behavioural self-efficacy subscale taps into parents' self-efficacy for handling difficult child behaviours and the Setting self-efficacy subscale measures confidence for dealing with misbehaviour in different settings. Parents are asked to indicate how confident they feel dealing with each situation on a scale ranging from 0 (*certain I cannot do it*) to 100 (*certain I can do it*). Scores for each subscale are averaged to produce PTC Behavioural self-efficacy Total and PTC Setting self-efficacy Total scores. Higher scores indicted greater parenting self-efficacy. Previous research has demonstrated good internal consistency for both subscales (Sanders & Woolley, 2005). Internal consistency for the PTC was also high in the current sample at all three time points (for mothers α's were .97, .98, and .99 for the Behavioural self-efficacy Totals, and .94, .92, and .94 for the Setting self-efficacy Totals respectively; for fathers α's were .97, .97, and .97 for the Behavioural self-efficacy Totals and .87, .92, and .94 for the Setting self-efficacy Totals).

The Parenting Experience Survey Parenting Experience subscale (PES Parenting Experience, Sanders & Turner, 2011) was used to measure perceptions of parents' experience in their parenting role in the previous 6 weeks. The PES Parenting Experience subscale consists of five items rated on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*). The PES Parenting Experience Total score is calculated by summing the responses to the five items, with higher scores indicting a more positive parenting experience. Previous research has demonstrated high internal consistency (α = .81) for the Parenting Experience subscale (Morawska et al., 2010). In the current sample, Cronbach's alphas were adequate at pre-intervention, post-intervention, and 6-month follow-up (mothers: alphas were .77, .73, and .78 for the three time points respectively, and fathers: alphas were .78, .63, and .58 respectively).

The Parent Problem Checklist (PPC, Dadds & Powell, 1991) was used to measure child-rearing disagreements between parents in the past 4 weeks among two-parent families. The PPC is made up of 16 items and consists of two subscales, the Extent and Problem subscales. Items tap into parents undermining of each other's relationship with the child, and conflict over rules, discipline of child misbehaviour, and child-rearing. The Extent subscale measures the extent to which each item has been as issue for the parent using a 7 point scale ranging from 1 (*not at all*) to 7 (*very much*). The Problem subscale asks parents to rate

whether each item has been a problem or not for them and their partner using a yes-no format. Scores on the 16 items are summed to produce PPC Extent Total and PPC Problem Total scores that range from 16-112 and 0-16 respectively. Previous research using the PPC has demonstrated acceptable internal consistency and high test-retest reliability (Dadds & Powell, 1991). In the current sample, the internal consistency was high for both mothers (α's were .90, .93, and .95 for the PPC Extent and .83, .85, and .83 for the PPC Problem at pre-intervention, post-intervention, and 6-month follow-up respectively) and fathers (α's were .94, .92, and .93 for the PPC Extent and .84, .81, and .82 for the PPC Problem at pre-intervention, post-intervention, and 6-month follow-up respectively).

3.4.1.3 Parent mental health measure

The Depression Anxiety Stress Scales 21 item version (DASS-21, Lovibond & Lovibond, 1995) is a self-report scale measuring symptoms of depression, anxiety and stress experienced by the participants. Participants rate the extent to which each item applied to them in the past week on a 4-point scale ranging from 0 (*did not apply to me at all*) to 3 (*applied to me very much, or most of the time*). A DASS-21 Total score is calculated by summing responses to the 21 items (range 0 to 63). The DASS-21 Total score has previously been found to have high internal reliability (Crawford, Cayley, Lovibond, Wilson, & Hartley, 2011). Cronbach's alphas were high for the total scores at all three time points for mothers (.90, .87, and .91 respectively) and fathers (.93, .89, .92 respectively) in the current study.

3.4.1.4 Partner relationship measures

The Parenting Experience Survey Partner Support subscale (PES Partner Support, Sanders & Turner, 2011) was completed by two-parent families to provide a measure of each parent's perceptions of support from their partner. Two items tap into the extent of agreement over discipline and perceptions of support measured on a 5-point scale ranging from 1 (*not at all*) to 5 (*extremely*). A final question measures overall happiness in their partner relationship and is rated on a 7-point scale ranging from 0 (*extremely unhappy*) to 6 (*perfect*). Responses on the three items are summed to produce a Partner Support Total score. Higher Partner Support Total scores indicate greater partner support. Previous research has demonstrated adequate internal consistency (α = .70) for the Partner Support subscale (Morawska et al., 2010). In the current sample, Cronbach's alpha was adequate at all three time points (mothers: α = .84, .76, and .79 respectively; fathers: α = .75, .73, and .66 respectively).

The Relationship Quality Index (RQI, Norton, 1983) was completed by parents from two-parent families and measured partner relationship satisfaction. The RQI consists of seven

items. The first six items are rated on a 7-point scale ranging from 1 (*very strongly disagree*) to 7 (*very strongly agree*) and measure global aspects of the partner relationship. The final item is a global measure of happiness in the relationship and is rated on a 10-point scale ranging from 1 (*unhappy*) to 10 (*perfectly happy*). A maximum score of 45 is possible with higher scores indicating more satisfaction with the partner relationship. Previous research using the RQI has demonstrated adequate internal consistency (Norton, 1983). Internal consistency for the RQI was also high in the current sample at all three time points (for mothers α's were .97, .96, and .95; for fathers α's were .94, .96, and .93).

3.4.2 Other Measures

3.4.2.1 Family demographics

The Family Background Questionnaire (FBQ) was used to obtain demographic information from participants. The FBQ consists of questions asking about a range of demographic information such as the target child's age, gender, ethnicity, and health status, parental age, parental education, parental employment, and marital status, and household composition and total family income.

3.4.2.2 Participant satisfaction

Participant satisfaction with and acceptability of the programme delivered in each condition was measured using the Client Satisfaction Questionnaire (CSQ, Sanders, Markie-Dadds, & Turner, 2001). The CSQ is adapted from Eyberg's (1993) Therapy Attitude Inventory and consists of 15 items. Thirteen items measure each parent's perceptions of the quality of the programme, their satisfaction with the programme they received, the extent to which their programme met their own and their child's needs, the extent to which the parent perceived the programme increased their skills and improved their child's behaviour, and if they would seek help from Triple P in the future. The items are rated on a 7-point scale anchored by opposing response options reflecting lower and higher satisfaction (e.g., *very dissatisfied* and *very satisfied*). These 13 items are summed to provide a total satisfaction score with total scores ranging from 13-91. Two further items ask whether parents have sought any assistance for their child's behaviour from any other service, and for any other comments about the programme they received. The CSQ has previously been used to measure satisfaction with the Dealing with Disobedience Triple P Discussion Group (Morawska et al., 2010). A high internal consistency for the CSQ Total was found in the current sample for mothers (α = .96) and fathers (α = .95).

A second questionnaire, the Discussion Group Satisfaction Questionnaire (DGSQ, Sanders & Turner, 2011) was used to measure participant satisfaction with each of the Triple P Discussion Groups separately. At the end of each session, all attendees were asked to anonymously complete the DGSQ. The DGSQ is a 10 item questionnaire that asks about participants' satisfaction with the content and format of the discussion group, and their satisfaction with the amount and type of support they received. It also asked about their perceptions of the quality of the discussion group, whether the discussion group has meet their needs, whether the participant intends to implement the strategies taught in session, and whether they would seek help again from Triple P. The items are rated on a 7-point scale anchored by opposing responses (e.g., *poor* and *excellent)* resulting in a possible range of 10-70. A further question asks for participants to offer any other comments about the group they received. In the current study, the Cronbach alpha for the completed DGSQ was .92 indicating high internal consistency.

Table 3.3 Constructs Measured, Their Rationale for Use, and Data Collection Points

Construct	**Measure**	**Administration time point** Pre-intervention	Post-intervention	6-month follow-up	**Rationale for use** To measure or describe the following:
Child behaviour measures					
Disruptive child behaviour	Eyberg Child Behavior Inventory (ECBI)	✓	✓	✓	the effects of each condition on parents' perceptions of the target child's disruptive behaviour
Child psychosocial problems	Strengths and Difficulties Questionnaire (SDQ)	✓	✓	✓	the effects of each condition on parents' perceptions of the target child's psychosocial problems
Target and non-target negative child behaviours	Parent Daily Report Checklist (PDR)	✓	✓	✓	the effects of each condition on parents' perceptions of the target child's difficult and positive behaviours
Parenting measures					
Dysfunctional/ineffective parenting practices	Parenting Scale (PS)	✓	✓	✓	the effects of each condition on parents' self-reported dysfunctional/ineffective parenting practices
Parenting self-efficacy	Parenting Tasks Checklist (PTC)	✓	✓	✓	the effects of each condition on parents' self-reported parenting self-efficacy
Parenting experience	Parenting Experience Survey Parenting Experience subscale (PES Parenting Experience)	✓	✓	✓	the effects of each condition on parents' self-reported experiences of their parenting role
Inter-parental conflict	Parent Problem Checklist (PPC)	✓	✓	✓	the effects of each condition on parents' self-reported inter-parental conflict among two-parent families
Parent mental health measure					
Parent mental health	Depression Anxiety Stress Scales 21 (DASS-21)	✓	✓	✓	the effects of each condition on parents' self-reported symptoms of depression, anxiety and stress

Parent relationship measures					
Partner support	Parenting Experience Survey Partner Support subscale (PES Partner Support)	✓	✓	✓	the effects of each condition on parents' perceptions of support from their partner among two-parent families
Partner relationship satisfaction	Relationship Quality Index (RQI)	✓	✓	✓	the effects of each condition on parents' self-reported parental relationship satisfaction among two-parent families
Other measures					
Family demographics	Family Background Questionnaire (FBQ)	✓			the demographic information of the participating families
Programme satisfaction	Client Satisfaction Questionnaire (CSQ)		✓		the acceptability and satisfaction with each intervention condition
		Procedure			
Triple P Discussion Group satisfaction	Discussion Group Satisfaction Questionnaire (DGSQ)	Completed anonymously at the end of each Triple P Discussion Group by attendees			the acceptability and satisfaction of each Triple P Discussion Group

3.5 Design

A randomised control trial (RCT) design was used to examine the short- and long-term effects on a range of child and parent outcomes of attending one of two intervention conditions. In the current study, a 2 (condition: single exemplar vs. multiple exemplar) x 3 (time: pre-intervention, post-intervention, 6-month follow-up) RCT design was used. A RCT design was chosen as it is considered to be the 'gold standard' for determining what works and what does not work for health care research (Torgerson & Torgerson, 2008). The key features of a RCT are random allocation into two or more conditions to form an experimental group or an alternative, such as an active control, a care as usual group, or a waiting list control (Craig et al., 2008; Torgerson & Torgerson, 2008). When evaluating an intervention, Flay et al. (2005) recommend using a study design that allows for the strongest causal inference and that assignment to conditions needs to minimise bias. They suggest that randomisation is essential for generating unbiased estimates of intervention effects. Random allocation to condition enables researchers to control variables in each condition and is the most stringent way of determining a causal relationship between the intervention and measured outcomes (Kendall, 2003; Torgerson & Torgerson, 2008). Furthermore, random allocation to condition is the recommended approach for preventing selection bias (Craig et al., 2008).

A limitation of the literature on parenting programmes using RCT designs is that often RCTs are poorly reported (Gardner et al., 2013). The lack of detailed reporting of RCTs led to the development of the Consolidated Standards of Reporting Trials (CONSORT) statement (Moher et al., 2010). To fully understand the effects of parenting interventions, comprehensive and transparent reporting should describe the study design, delivery, uptake, context, and findings (Gardner et al., 2013). Reporting of the current study was guided by the CONSORT statement and checklist.

3.6 Procedure

A variety of community outreach methods (as above in section 3.3.1) were conducted to disseminate advertising material to potential participants. Parents who were interested in taking part in the study were asked to contact the PhD candidate. Upon contact, parents were fully informed of the research protocol and, if still interested in participating, parents were screened for eligibility (further details are in section 3.3.2). Eligible participants were enrolled in the study and sent a copy of the participant information sheet (PIS), the consent form (CF), and the pre-intervention measures (either online or in hard copy depending on the parent's

preference). The PIS and CF are displayed in Appendix E. After pre-intervention measures were completed participants were randomly assigned to one of the two intervention conditions (for further details see section 3.6.3). For two-parent families, if both parents consented to participating, this occurred when the measures from both parents were received. An allocation call or email was made to inform each family which condition they were allocated to. For families who were allocated to the multiple exemplar condition, parents were asked to nominate the two additional groups they would like to attend from the three options (Fighting and Aggression, Doing Chores, and Building Self-esteem).

Post-intervention measures were administered following the intervention. For families allocated to the multiple exemplar condition, post-intervention measures were administered immediately after the end of the intervention. For those in the single exemplar condition, post-intervention measures were administered at the equivalent time of post-intervention for the multiple exemplar condition (approximately 4 weeks after the session). The 6-month follow-up measures were administered approximately 6-months after post-intervention.

3.6.1 Ethics Approval

The study protocol was approved by The University of Auckland's Human Participants Ethics Committee (Reference 2011/360). An extension to the ethics approval was granted on 12/02/2014 (Reference 7431, expiry date 20/07/2017) to allow for further data collection with the aim of increasing the sample size.

3.6.2 Randomisation

A simple randomisation procedure was used. Simple randomisation involves allocating to condition using a computer generated list of random numbers on a random number table (Torgerson & Torgerson, 2008). Simple randomisation was used in the current study as it is easy to undertake (Torgerson & Torgerson, 2008) and was deemed the best design for comparing the effects of a two-armed trial. Randomisation occurred at the level of individual target children and allocation to condition was in sequence of completion of pre-intervention measures. Randomisation to condition was conducted after pre-intervention measures had been completed to reduce bias that can occur if randomisation happens prior to administration of pre-intervention measures, such as discontinuation if a desired intervention condition was not allocated (Torgerson & Torgerson, 2008). A key limitation of simple randomisation is that an imbalance in the number of participants allocated to groups may occur. In order to reduce the impact of any potential imbalances, allocation to condition was stratified by the area of Auckland in which the participants resided (Central or West), and household configuration (one-parent vs. two-parent household) and randomisation occurred with each strata. The

allocation was stratified in this way to ensure that there would be a balance of participants in both conditions at each site and to reduce the possibility of single parents being overrepresented in one condition.

To conduct randomisation, a spreadsheet was set up which was separated into two columns: Central and West Auckland. Within each area, the spreadsheet was further divided into two columns based on household configuration. Computer generated lists of random numbers were downloaded from random.org and a list of numbers was entered into each column (e.g., Central one-parent household families, Central two-parent household families). As described above, randomised occurred in sequence of completion of pre-intervention measures and participating families were allocated to condition within each strata. Allocation to condition was conducted by individuals independent of the study to ensure there was no bias in allocation.

3.6.3 Intervention

The Triple P Discussion Groups were used in the current study and are an example of a low-intensity topic-specific group parenting programme (Sanders, 2012). The Triple P Discussion Groups are a level 3 Triple P programme (see Appendix A for a detailed description of the Triple P multilevel system of support) and are a recent addition to the Triple P system (Sanders, 2012). The groups are two-hour interventions for parents looking for specific advice about a common child behaviour or developmental issue (e.g., disobedience, fighting and aggression). During the session, parents are taught the principles of positive parenting, including the use of positive encouragement and attention to motivate children to learn new skills and show desirable behaviour, and the use of consistent, assertive discipline techniques to manage misbehaviour and promote self-control. These strategies are alternatives to coercive and ineffective discipline strategies and are tailored to focus on the specific topic that is being addressed. The information is presented in a variety of ways: parents watch video-modelling of behaviour management strategies, complete a variety of exercises, and receive assistance in developing a plan to prevent and effectively manage difficult child behaviours related to a specific topic. Parents are also given the opportunity to practice their skills in session, and discuss their experiences and implementation plans with other group members. A group workbook is given to attendees to reinforce material presented in the session.

Parents from Central Auckland attended sessions held at the Faculty of Education campus in Epsom. For parents who resided in West Auckland, sessions were held at a community based setting in Titirangi. Among two-parent families, both mothers and fathers

were encouraged to attend. Sessions were held on weeknight evenings from 7-9pm. In the current study, all sessions were delivered by the PhD candidate who is a trained accredited Triple P Discussion Group practitioner. Sessions were delivered according to the standard manual (Sanders & Turner, 2011).

3.6.3.1 Single exemplar condition

Parents in the single exemplar condition attended one two-hour parenting group on Dealing with Disobedience (see Table 3.4 for further details).

3.6.3.2 Multiple exemplar condition

Parents allocated to the multiple exemplar condition attended four two-hour group sessions. There were two compulsory topics (Dealing with Disobedience and Being a Positive Parent; see Table 3.4) that all parents were asked to attend. Families were then asked to attend two additional sessions and could choose from three options targeting other specific behaviours and concerns (Fighting and Aggression, Doing Chores, and Building Self-esteem). Parents allocated to the multiple exemplar condition completed the Dealing with Disobedience and Being a Positive Parent sessions before attending sessions on the additional topics. For parents allocated to the multiple exemplar condition, the groups were held weekly at the same time; thus, attendance at four sessions occurred over a four or five week period depending on which additional sessions they chose.

Table 3.4 Description of Programme Sessions

Session	Content
Dealing with Disobedience Triple P Discussion Group	• Introduction to reasons for child disobedience • Taught skills to encourage positive child behaviour and to manage disobedience (e.g., giving clear, calm instructions)
Being a Positive Parent Triple P Discussion Group	• Introduction to principles of positive parenting • Taught skills to support child's competence and development, and build a positive relationship with their child (e.g., having realistic expectations)
Fighting and Aggression Triple P Discussion Group	• Introduction to reasons for fighting and aggression • Taught skills to teach children to play cooperatively and skills for dealing with sibling conflict, fighting, not sharing, and aggression (e.g., using directed discussion to deal with conflict)
Doing Chores Triple P Discussion Group	• Introduction to why helping out is important • Taught skills to help prepare and encourage children to do chores, and skills to use when they face problems with doing chores (e.g., using ask-say-do to teach children skills)
Building Self-esteem Triple P Discussion Group	• Introduction to causes of low self-esteem • Taught skills to encourage healthy self-esteem, and to help children to manage negative self-talk and solve problems (e.g., descriptive praise)

3.6.4 Intervention Fidelity

Craig et al. (2008) suggest that the fidelity of the programme and quality of implementation is an important area to study and Flay et al. (2005) also state that, when evaluating an intervention, it is desirable to measure programme implementation. Intervention fidelity for the Triple P Discussion Groups was measured using session checklists that were developed by the programme developers for the purpose of assessing intervention fidelity (Sanders & Turner, 2011). In the current study, the sessions were delivered by the PhD candidate, who is a trained accredited Triple P practitioner. Budget constraints did not allow for a Triple P practitioner independent of the study to deliver the sessions. However, as parents completed outcome measures in their homes and the DGSQs were anonymous, it is unlikely that this influenced their responses. Furthermore, it was not possible for the PhD candidate to be blind to participant condition and therefore potential bias cannot be eliminated. The session checklists were completed at the end of each Triple P Discussion Group and the proportion of the content covered was calculated to determine if each group session was delivered according to the standard manualised protocol. In order to determine the reliability of the practitioner-

rated intervention fidelity, the content covered in the sessions was also rated independently by a second PhD student who was a trained accredited Triple P practitioner using the same session checklist. All Triple P Discussion Groups were video or audio recorded and approximately 30% of the recorded sessions were checked at random by the second rater. The independent second rater was blind to intervention condition (e.g., single vs multiple exemplar). The proportion of content covered was calculated. In addition, agreement between the practitioner completed and second-rater completed checklists were examined to determine the extent of inter-observer agreement on intervention fidelity.

The PhD candidate delivered 21 sessions using the standard manualised protocol (Sanders & Turner, 2011). Frequent clinical supervision was provided to the PhD candidate to ensure that the intervention was being delivered to a high level of quality and to discuss any process issues. Adherence to the intervention protocol was high. Practitioner completed ratings of the proportion of content covered in the sessions ranged from 84.6% to 100.0% (*M* = 92.5%, *SD* = 0.04) for the 21 sessions (seven Dealing with Disobedience groups, four Being a Positive Parent groups, three Fighting and Aggression groups, two Doing Chores groups, and four Building Self-esteem groups). Inter-rater reliability was obtained for eight randomly selected group sessions. The ratings of the proportion of the intervention protocol covered in the sessions ranged from 84.1% to 100.0% (*M* = 91.5%, *SD* = 0.07) according to the second independent rater. Inter-rater agreement between the adherence ratings provided by the practitioner and those provided by the independent rater was high (ranged from 87.5% to 97.4%, *M* = 92.0%, *SD* = 0.04).

3.7 Data Analysis

3.7.1 Preliminary Analyses

Data from the participants were collected in two ways: via online and hardcopy versions of the measures. Data collected through hardcopy versions of the measures were entered into SPSS. The entry of approximately 30% of data collected through hardcopy versions was checked by an individual independent from the research. Only one error in the data entry was found, indicating high confidence in the accuracy of data entered. Data collected online were downloaded and merged with the data collected through hardcopies.

Prior to conducting the main analyses, preliminary analyses were conducted. First, analyses were conducted to identify any differences between those who were randomised (*n* = 77) and those who dropped out prior to randomisation (*n* = 12) on disruptive child behaviour,

child age, and single parent status reported at screening. There were no significant differences between those who were randomised and those who dropped out before randomisation on measures of disruptive child behaviour, child age, and single parent status at screening. This indicates that families who continued with the study were not demographically different from those who dropped out prior to randomisation.

An intention-to-treat (ITT) analysis was used in the current study to examine the effects of the two intervention conditions. An intention-to-treat analysis includes all participants who were randomised in the analysis, regardless of whether the intervention was received and whether withdrawal occurred (Gupta, 2011). Therefore, in an ITT analysis all randomised participants are analysed. An ITT analysis preserves sample size and statistical power, is seen to reflect the real-world situations where withdrawal and protocol deviation is common, and allows for greater generalisability (Gupta, 2011). Furthermore, ITT analyses prevent bias that may be associated with withdrawal and protocol deviation, such as those who withdraw may report poorer outcomes than those who adhere to protocol (Montori & Guyatt, 2001). An ITT has also been recommended for RCT designs in the CONSORT statement (Moher et al., 2010). However, one limitation of an ITT analysis is that intervention effects may be diluted by including those who did not comply with the protocol (Gupta, 2011). In the current study, all randomised participants were included in the ITT analysis which consisted of 75 mothers (single exemplar condition: n = 34, multiple exemplar condition: n = 41) and 58 fathers (single exemplar condition: n = 27, multiple exemplar condition: n = 31). Per protocol analyses were also conducted to examine the effects among those who completed measures at more than one time point.

First, missing variable analyses and Little's Missing Completely at Random (MCAR) tests were used to identify the extent and pattern of missing data. Missing data can be classified in three ways: Missing Completely at Random (MCAR), Missing at Random (MAR), and Missing Not at Random (MNAR, van Buuren, 2012). If data are MCAR, the likelihood of a value being missing is the same for all cases (van Buuren, 2012). MAR is more general than MCAR where the probability of missingness is the same within defined groups. If data are neither MCAR nor MAR, then MNAR holds where the probability data are missing varies for unknown reasons. Acock (2005) explained that data MCAR are rare in family studies and usually data MAR are expected. The findings from missing variable analyses and Little's MCAR tests are reported in section 4.2.

Multiple imputation (MI) was then used to impute all missing data. Therefore, for those who did not complete post-intervention and 6-month follow-up measures, their data

were imputed using MI. MI is a technique for dealing with missing data that differs from single imputation by imputing more than one possible value in a distribution (Rubin, 1987). By pooling a number of plausible values, rather than a single imputed value, MI results in an improved parameter estimate (Acock, 2005). MI is currently considered to be the best method for dealing with missing data (Tabachnick & Fidell, 2013; van Buuren, 2012). SPSS can conduct MI using two methods: linear regression and predictive mean matching. In the current study, the predictive mean matching method for MI was used. Predictive mean matching is an easy to use method (van Buuren, 2012), preserves the observed distribution of variables (Barnes, Lindborg, & Seaman, 2006), and provides some protection against violations to the assumptions of normality (Barnes et al., 2006). A further advantage of predictive mean matching is that only possible values within the observed data range are imputed (Barnes et al., 2006; van Buuren, 2012). Acock (2005) reported that from Schafer's research five imputations have been found to be adequate when up to 30% of the values are missing at random. Five imputations were used in the current study resulting in five complete data sets. As the patterns of data were likely to differ according to intervention condition and parent gender, missing data were imputed separately for mothers and fathers in each condition and then merged together.

After MI was completed, the total scale scores were then calculated and the internal reliability of each variable was examined using Cronbach's alpha (the relevant statistics are presented for each measure in the Measures section above). Each variable was then screened for outliers and for violations to the assumptions of normality (skewness and kurtosis). Univariate outliers were examined by converting each participant's score for each variable into z-scores (Field, 2013). Field's (2013) guidelines for identifying outliers using z-scores were used: if $z > 1.96$ = potential outlier (about 5% of the scores in a normal distribution would have a z-score greater than 1.96), if $z > 2.58$ = probable outlier (about 1% of scores in a normal distribution would have a z-score greater than 2.58), and if $z > 3.29$ = extreme outlier (no scores in a normal distribution would have a z-score greater than 3.29). Field (2013) recommends reducing outliers that have z-scores above 300 to three standard deviations from the mean. Details on univariate outliers found in the data are reported in section 4.2.

The assumption of normality was checked by examining the skewness and kurtosis statistics of each measure at each time point. Skewness and kurtosis statistics were obtained through SPSS and converted into z-scores by dividing the test statistic by the standard error (Field, 2013). The obtained z-scores were compared to Field's guidelines described previously to identify variables with significant non-normality problems. Variables that violated the assumption of normality and resulting transformations and decisions are described in section

4.2. Multivariate normality was then checked for variables used in the multivariate analyses described below. Multivariate outliers were examined by comparing the Mahalanobis distance values to a critical value (Pallant, 2010). Pallant (2010) specified that the critical value for two dependent variables is 13.82 and Tabachnick and Fidell (2013) recommend removing multivariate outliers from the data set. Details on multivariate outliers found in the data are reported in 4.2.

Preliminary analyses were then conducted using independent *t* tests for continuous variables and chi-squared tests of independence for categorical variables. When cell sizes were less than five, Fisher's exact tests were used to calculate the exact probability that the statistic is accurate (Field, 2013). First, preliminary analyses were conducted to identify whether there were any significant differences between those who were randomised and those who dropped out before randomisation on disruptive child behaviour, child age, and single parent status reported at screening. Preliminary analyses were then conducted to determine whether there were any differences by condition in demographic variables and pre-intervention measures for families, mothers, and fathers. Independent *t* tests and chi-squared tests were also used to compare demographic variables and pre-intervention measures for those families, mothers, and fathers who completed post-intervention and 6-month follow-up measures and those who did not. In addition, paired *t*-tests were used to compare pre-intervention and post-intervention scores for mother-father pairs (n = 55) to explore whether mothers and fathers in the same family were reporting similar problems.

3.7.2 Short-Term and Long-Term Condition Effects

As SPSS is not currently able to automatically pool the results from the imputed data sets, the three step approach described in Acock (2005) was used. First, data were imputed five times. Second, the analyses were then run on each of the data sets separately. Finally, the results are pooled to give a single solution. Therefore, all analyses described below were conducted on each of the five imputed data sets and the results were pooled manually. The analyses examining the short-term and long-term condition effects were also conducted with the sample of mothers and fathers who completed post-intervention and 6-month follow-up measures and the results were compared to the ITT sample.

To analyse change between pre- and post-intervention for the two conditions, a series of multivariate and univariate analysis of covariance (MANCOVA and ANCOVA) were used. A MANCOVA examines whether there are differences between groups when there is more than one conceptually related dependent variable whilst controlling for one or more covariates (Tabachnick & Fidell, 2013). An ANCOVA examines the difference between groups for one

dependent variable whilst controlling for a covariate (Field, 2013; Pallant, 2010). In the current study, pre-intervention scores of the dependent variable were used as covariates (e.g., for the ANCOVA examining PS Total scores, post-intervention PS Total scores were the dependent variable and pre-intervention PS Total scores were used as the covariate). To examine the long-term effects of the two conditions, the series of MANCOVAs and ANCOVAs were repeated using 6-month outcome measures as the dependent variables. Pre-intervention scores of the dependent variable were again used as covariates. Prior to conducting the MANCOVAs and ANCOVAs the specific assumptions for these analyses were tested, e.g., multicollinearity, homogeneity of variance-covariance matrices, and linearity for MANCOVAs; homogeneity of regression slopes, the assumption of equality of variance, and linearity for ANCOVAs (Pallant, 2010).

In the current study, MANCOVAs were used to examine the differences in post-intervention scores for the two intervention conditions, after controlling for pre-intervention scores of the dependent variables. They were used for the following conceptually related dependent variables: disruptive child behaviour (ECBI Intensity Total and ECBI Problem Total), parenting self-efficacy (PTC Behavioural self-efficacy and PTC Setting self-efficacy), target and non-target negative child behaviours displayed on weekdays and weekend days (PDR Weekday Total and PDR Weekend Total), and inter-parental conflict (PPC Extent Total and PPC Problem Total). When significant multivariate effects were found, the univariate analyses were examined to determine which dependent variables contributed to the multivariate effect. For the MANCOVAs, multivariate tests of significance were reported using Pillai's trace as it is more robust for small samples sizes, unequal *n*'s, and violations of assumptions (Pallant, 2010).

ANCOVAs were used to determine differences in post-intervention scores for the two intervention conditions for the following unidimensional measures: parenting practices (PS Total score), parenting experiences (PES Parenting Experiences Total), child psychosocial problems (SDQ Total Difficulties), parental mental health (DASS-21 Total), partner support (PES Parent Support Total), and partner relationship quality (RQI Total).

Effect sizes were calculated to report the pre- to post-intervention effect of the multiple exemplar condition over the single exemplar condition. This was done using the following equation: the difference in mean pre- to post-intervention scores for the multiple exemplar condition minus the difference in mean pre- to post-intervention scores for the single exemplar condition, divided by the pooled pre-intervention standard deviation (Morris, 2008). According to Cohen (1992), an effect is meaningful but small in size if d $0.20 \leq 0.49$, medium

in size if d 0.50 ≤ 0.79, and large if $d \geq 0.80$. A similar procedure was used to calculate effect sizes from pre-intervention to 6-month follow-up. The results of the analyses examining the short- and long-term condition effects are reported in Chapter 4 in sections 4.3 and 4.4.

3.7.3 Change Over Time by Condition

In addition to the MANCOVAs and ANCOVAs, analyses were conducted to also examine change over time in outcome measures for each of the conditions separately as the comparison group in the current study was an active intervention. To examine change in outcome measures over the three time points (pre-intervention, post-intervention, and 6-month follow-up), a series of doubly multivariate repeated measures analyses (see Kerr, Hall, & Kozub, 2002) and one-way repeated measures univariate analysis of variance (ANOVAs) were used. These analyses were conducted separately for each condition. Doubly multivariate repeated measures analyses were used for conceptually-related dependent variables described above in section 3.7.2 and one-way repeated measures ANOVAs were used for unidimensional measures. If a significant main effect for time was found, follow-up Bonferroni pairwise comparisons were used to examine change from pre- to post-intervention, and pre- and post-intervention to 6-month follow-up. Pre- to post-intervention effect sizes were calculated to examine the change over time for each outcome measure. For this effect size, the following formula was used for each condition separately: the difference in mean pre- to post-intervention scores divided by the pooled pre- and post-intervention standard deviation (Cohen, 1992). The results of these analyses are reported in section 4.5.

3.7.4 Statistically Reliable and Clinically Significant Change

The Reliable Change Index (RCI, Jacobson & Truax, 1991) and the clinical cut-offs were used to examine statistically reliable and clinically significant change from pre- to post-intervention for the ECBI Intensity Total, the ECBI Problem Total, and the PS Total scores for each condition. The RCI provides an indication of whether the extent of change is statistically reliable or whether the extent of change is likely due to variation in inaccurate measurement (Jacobson & Truax, 1991). To determine whether reliable change has occurred, an index is calculated based on the difference between pre- and post-intervention scores and the standard error of that difference. If the index is larger than 1.96, the differences between scores is likely to reflect real change. Based on the index, each participant's pre- and post-intervention difference in ECBI Intensity Total, ECBI Problem Total, and the PS Total scores were grouped into three categories: reliable improvement, reliable deterioration, or no reliable change.

The clinical cut-offs were also used to determine if movement in and out of the clinical range had occurred between pre- and post-intervention for these measures among parents in each condition. Based on the scores on the ECBI Intensity Total, the ECBI Problem Total, and the PS Total, participants were grouped into four categories on the level of clinical change. The four categories were: clinically significant change (scores above the clinical cut-off at pre-intervention and below the clinical cut-off at post-intervention), did not achieve clinical change (scores above the clinical cut-off at both pre- and post-intervention), worsened (scores below the clinical cut-off at pre-intervention and above the clinical cut-off at post-intervention), and not in clinical range (scores below the clinical cut-off at both pre- and post-intervention).

Chi-squared tests for independence were used to examine whether there were any significant differences in the distribution of statistically reliable and clinically significant change by intervention condition. Where there were fewer than five cases in a cell, Fisher's exact tests were used. See section 4.6 for the results from the statistically reliable and clinically significant change analyses.

3.7.5 Participant Attendance and Satisfaction

Participant attendance was analysed in two ways: 1) the number of sessions attended by families, mothers, and fathers in each condition was calculated, and 2) patterns of attendance among two-parent and sole parent families were classified into four categories (mother only attended, father only attended, mother and father attended at least one session together, mother and father alternated attendance). Details on participant attendance can be found in Chapter 4, section 4.7.1.

As described above (section 3.4.2.2) participant satisfaction with and acceptability of the intervention was measured in two ways. Total scores for parents who completed the Client Satisfaction Questionnaire (CSQ) at post-intervention (mothers: $n = 61$, fathers: $n = 45$) were calculated. Independent *t*-tests were used to examine mothers' and fathers' overall satisfaction with the two conditions. A paired *t*-test was also used to determine if there were differences in overall satisfaction among mothers and fathers from the same family ($n = 42$). In addition to the CSQ, the Discussion Group Satisfaction Questionnaire (DGSQ) was administered at the end of each group session and completed by attendees to examine satisfaction with each of the groups separately. Given that the DGSQs were completed by attendees, the results were not able to be separated out by condition. A one-way ANOVA was conducted to examine any differences on the DGSQ by topic and any significant main effects were followed up with post-hoc Bonferroni tests. See section 4.7.2 for findings for participant satisfaction.

Chapter 4. Results

4.1 Overview of Chapter

In this chapter, the results of study one are presented. First, in section 4.2 preliminary analyses are described. The chapter then presents the results for the short- and long-term condition effects for mothers and fathers in sections 4.3 and 4.4 respectively. The findings examining change over time for each condition are then presented (see section 4.5) followed by statistically reliable and clinically significant change achieved by post-intervention (section 4.6). Next details about participant attendance and satisfaction with the intervention conditions and individual group sessions are presented (section 4.7).

4.2 Preliminary Analyses

First, the extent and pattern of missing data were examined. Missing values analyses revealed that for mothers less than 10% of the data for any item were missing at pre-intervention, less than 25% was missing at post-intervention, and less than 26% was missing at 6-month follow-up. Little's Missing Completely at Random (MCAR) tests examining patterns of missingness were not significant for the pre-intervention measures (p = 1.000) and post-intervention measures (p = 1.000) for mothers, indicating that data were missing completely at random. However, at 6-month follow-up Little's MCAR test was significant (p < .001) suggesting that missing data were not missing completely at random. For fathers, the proportion of data missing was less than 11% for any item at pre-intervention, less than 25% at post-intervention, and less than 30% at 6-month follow-up. Little's MCAR tests were not significant at pre-intervention (p = 1.000) and 6-month follow-up (p = 1.000). However, Little's MCAR test was significant at post-intervention (p < .001) suggesting that data were not MCAR. As it is not possible to test for Missing At Random (MAR, van Buuren, 2012) and because data for mothers and fathers did not appear to be Missing Not at Random, it was assumed that missing data were MAR and that multiple imputation (MI) would be appropriate. All missing data for mothers and fathers were imputed using MI. The analyses described below were all conducted on the intention-to-treat (ITT) sample, except where stated.

The data were then examined for univariate outliers according to Field's (2013) guidelines (described in section 3.7.1). For mothers, outliers above three standard deviations from the mean were found on the several scales at pre-intervention (Parenting Tasks Checklist [PTC] Setting self-efficacy, Parent Problem Checklist [PPC] Extent, Depression Anxiety Stress Scales 21 [DASS-21]), post-intervention (PTC Behavioural self-efficacy, PTC Setting

self-efficacy, Parenting Experience Survey [PES] Parenting Experience, PPC Extent, DASS-21, Relationship Quality Index [RQI]), and 6-month follow-up (Eyberg Child Behavior Inventory [ECBI] Intensity, Strengths and Difficulties Questionnaire [SDQ] Total Difficulties, Parent Daily Report Checklist [PDR] Weekday, PTC Behavioural self-efficacy, PTC Setting self-efficacy, PPC Extent, PPC Problem, DASS-21). For fathers, outliers were also found on some scales at pre-intervention (Parenting Scale [PS], PPC Extent, DASS-21, RQI), post-intervention (PTC Behavioural self-efficacy, PTC Setting self-efficacy, PPC Extent, DASS-21, PES Partner Support, RQI), and 6-month follow-up (ECBI Problem, PTC Behavioural self-efficacy, PTC Setting self-efficacy, PPC Extent, PPC Problem, DASS-21, RQI). As recommended by Field (2013) all of these outliers were altered to three standard deviations from the mean to reduce the impact of the outliers.

All variables were then checked for the assumptions of normality (as described in section 3.7.1). Several measures (PTC, DASS-21, PPC, RQI) violated the assumptions of normality among both mothers and fathers. PTC and RQI scores were significantly negatively skewed and DASS-21 and PPC scores were significantly positively skewed. Tabachnick and Fidell (2013) recommend using the square root of the variable as the first approach to transformation for moderate deviations from normal. If variables are still non-normal after taking the square root of the scores, Tabachnick and Fidell (2013) suggest taking the Log of the variable. The square root of the DASS-21 and PPC scores were calculated. However, the square root of PPC scores was still significantly non-normal, so a Log transformation was then used. As the PTC and RQI were negatively skewed, scores on these measures were first reflected and the squared root of the reflected scores was calculated. The analyses examining short- and long-term condition effects were then conducted twice; once using the untransformed variables, and a second time using the transformed variables. For both mothers and fathers the pattern of results was similar for the untransformed and transformed variables. For ease of interpretation, the analyses reported below in sections 4.3, 4.4, and 4.5 are based on the untransformed variables.

The assumption of multivariate normality was also checked. Multivariate outliers were examined by comparing the Mahalanobis distance values to the critical value described in Pallant (2010). For mothers, no multivariate outliers were found at post-intervention, but two multivariate outliers were found at 6-month follow-up; one on the PDR and one on the PPC. For fathers, one multivariate outlier was found at post-intervention on the PTC, and two multivariate outliers were found at 6-month follow-up, one on the PTC and one on the PPC. As Tabachnick and Fidell (2013) suggest removing multivariate outliers from the data set the specific multivariate analyses were conducted twice; once using the data set that included the

multivariate outliers and a second time using the data set which excluded the multivariate outliers. No differences in the results of the analyses were found when multivariate outliers were removed in comparison to when they were retained. Therefore, the multivariate analyses described in this chapter are based on the data set which retained the multivariate outliers.

Independent *t* tests and chi-squared tests were then conducted to determine if mothers, fathers, and families in each condition differed in terms of their demographic details and pre-intervention measures. For both mothers and fathers there were no significant differences in any pre-intervention measure or key parental demographics (e.g., parental age, relationship to child, parental education level, parental paid work status, and employment hours) between the two conditions. Among the 78 families who took part, there were no significant differences between conditions for the following measures: child age, child gender, child ethnicity, family type, marital status, and total family income.

Preliminary analyses then examined the demographic details of those families, mothers, and fathers who completed post-intervention (*n*'s were 65, 62, and 47 respectively) and 6-month follow-up measures (*n*'s were 62, 57, and 46 respectively) and those who did not (post-intervention: *n*'s were 13, 13, and 11 families, mothers, and fathers respectively; 6-month follow-up: *n*'s were 16, 18, and 12 families, mothers, and fathers respectively). For the families who did and did not complete post-intervention measures, significant differences were found on several demographics measures (child ethnicity, family type, marital status, and total family income). Among those who did not complete post-intervention there were more defacto and separated families, more step and single parent families, and more families in the bottom family income range (< $30,000 per annum). There was no obvious pattern for child ethnicity; however, there appeared to be slightly fewer families reporting their child's ethnicity as 'other' among those who did not complete post-intervention measures. There were no significant differences in the age of the target child or child gender between families who completed post-intervention and those who did not.

The only significant difference between mothers who did and did not complete post-intervention measures was for education level, with slightly higher numbers of mothers with university degrees completing post-intervention measures and fewer mothers with a polytechnic qualification or year 13 education or less completing post-intervention measures. There were no significant differences between fathers who did and did not complete post-intervention measures on any of the key parent demographics. Furthermore, there were no significant differences in pre-intervention measures for fathers who did and did not complete post-intervention measures.

At 6-month follow-up, families who completed measures did not differ from those who did not complete measures on family demographics (e.g., child age, child gender, child ethnicity, family type, marital status, and total family income). Mothers who did and did not complete 6-month follow-up outcome measures did not differ on any of the key parent demographics, nor on any pre-intervention measure. There were no significant differences between fathers who did and did not complete 6-month follow-up measures on any of the key parent demographics. However, fathers who completed 6-month follow-up measures had significantly higher PPC Problem Total scores at pre-intervention, indicating greater inter-parental conflict prior to intervention when compared to fathers who did not complete 6-month follow-up measures.

4.3 Short-Term Condition Effects

To examine the short-term effects of the two intervention conditions a series of multivariate and univariate analysis of covariance (MANCOVA and ANCOVA) were conducted using post-intervention scores as the dependent variables and pre-intervention scores as covariates (for further details see section 3.7.2).

Prior to conducting the MANCOVAs examining the short-term condition effects, the specific assumptions for MANCOVA were tested. At post-intervention, multicollinearity was present on the PTC and the PPC for mothers and on the PTC for fathers. It was deemed inappropriate to use MANCOVAs for these variables due to the presence of multicollinearity (Tabachnick & Fidell, 2013). Instead univariate ANCOVAs for each subscale on these measures were conducted. Since the study was underpowered, a Bonferroni correction was not applied in order to minimise the risk of missing an intervention effect (Jaccard & Guilamo-Ramos, 2002). Box's *M* tests of equality of covariance matrices revealed no violations against the assumptions of variance-covariance matrices for the MANCOVAs and the scatterplots indicated no problems with linearity.

The specific assumptions for ANCOVA were also checked prior to conducting the short-term condition analyses. The assumption of homogeneity of regression slopes was violated for the mothers RQI ANCOVA and Field (2013) suggests that when this occurs, findings should be interpreted with caution. Examination of Levene's tests indicated a violation to the assumption of equality for fathers on the PS and the PES Partner Support. When the assumption of equality is violated, Tabachnick and Fidell (2013) suggest using a more stringent alpha level if untransformed variables are used in the ANCOVA. There were

no differences in the interpretation of findings when a more stringent alpha was applied; therefore, an alpha of .05 was retained. Inspection of the scatterplots suggested no problems with linearity.

Table 4.1 below shows the descriptive statistics for the outcome measures at pre- and post-intervention for mothers in each condition. Univariate *F* values, *p* values, and effect sizes demonstrating the relative magnitude of the difference between pre- to post-intervention change for the two conditions (*d*) are also presented. The same information is provided for fathers in Table 4.2.

4.3.1 Mothers

A multivariate condition effect was found for disruptive child behaviour on the ECBI after controlling for pre-intervention scores, $F(2, 70) = 6.94$, $p = .002$. Univariate analyses showed a significant condition effect for both the ECBI Intensity and the ECBI Problem subscales. Mothers in the multiple exemplar condition reported significantly lower ECBI Intensity Total and ECBI Problem Total scores than mothers in the single exemplar condition after controlling for pre-intervention levels of these measures indicating greater pre- to post-intervention improvement in the intensity and number of disruptive child behaviours. The relative magnitudes of the effects for the multiple exemplar condition were medium in size.

There was also a significant univariate condition effect for ineffective parenting practices in favour of the multiple exemplar condition. Mothers in the multiple exemplar condition reported a greater reduction in ineffective parenting practices than mothers in the single exemplar condition between pre- and post-intervention (medium condition effect size). In addition, a significant univariate condition effect was found for parenting self-efficacy across behaviours (PTC Behavioural self-efficacy). Mothers in the multiple exemplar condition reported superior improvement in their behavioural parenting self-efficacy between pre- and post-intervention when compared to mothers in the single exemplar condition. The condition effect was small in size.

No significant multivariate condition effect was found for target and non-target negative child behaviours on the PDR, $F(2, 67) = 1.67$, $p = .197$. Furthermore, no significant univariate condition effects were found for mothers on the following measures: child psychosocial problems (SDQ), parenting self-efficacy across settings (PTC Setting self-efficacy), parenting experiences (PES Parenting Experiences), the incidence and extent of conflict between parents (PPC Problem and PPC Extent), parental mental health (DASS-21), partner support (PES Partner Support), and partner relationship satisfaction (RQI).

4.3.2 Fathers

For fathers, no multivariate effect for condition was found for disruptive child behaviour when controlling for pre-intervention scores, $F(2, 53) = 3.12$, $p = .056$, however a medium effect in favour of the multiple exemplar condition over the single exemplar condition was found for the number of disruptive behaviours on the ECBI Problem subscale. There was also no univariate condition effect for ineffective parenting practices.

A multivariate condition effect was found for target and non-target negative child behaviours after controlling for pre-intervention scores, $F(2, 51) = 3.55$, $p = .038$. Univariate effects showed a significant condition effect for the PDR Weekday subscale only, although the relative condition effect for the PDR Weekend day was medium in size. Fathers in the multiple exemplar condition reported significantly lower PDR Weekday Total scores than fathers in the single exemplar condition when controlling for pre-intervention PDR Weekday Total scores. Examination of the means indicates that fathers in the multiple exemplar condition reported a reduction in target and non-target negative child behaviours between pre- and post-intervention, whereas fathers in the single exemplar condition reported a slight increase. The size of the condition effect was large for fathers.

No multivariate effect for condition was found for inter-parental conflict when controlling for pre-intervention scores, $F(2, 52) = 0.03$, $p = .973$, nor were any significant univariate condition effects found for fathers on the following measures: child psychosocial problems (SDQ), parenting self-efficacy across behaviours (PTC Behavioural self-efficacy), parenting self-efficacy across settings (PTC Setting self-efficacy), parenting experiences (PES Parenting Experiences), parental mental health (DASS-21), partner support (PES Partner Support), and partner relationship satisfaction (RQI).

4.3.3 Completer Analyses

The MANCOVAs and ANCOVAs were repeated to examine the short-term condition effects using only the sample of mothers and fathers who completed post-intervention outcome measures. At post-intervention, 28 mothers (82.4%) in the single exemplar condition and 34 mothers (82.9%) in the multiple exemplar condition completed outcome measures. The only difference between the completer and ITT sample for mothers was that the univariate condition effect for parenting self-efficacy across behaviours (PTC Behavioural self-efficacy) was not significant among the completer sample. Among fathers, 22 (81.5%) in the single exemplar and 25 (80.6%) in the multiple exemplar condition completed post-intervention outcome measures. The only difference between the completer and ITT sample was that the multivariate condition effect for disruptive child behaviour (ECBI) was significant among the

completer sample after controlling for pre-intervention scores, $F(2, 42) = 4.16$, $p = .023$. Univariate analyses showed that the effect between conditions was found on the ECBI Problem subscale only, with fathers in the multiple exemplar condition reporting a greater improvement in the number of disruptive behaviours displayed by their child from pre- to post-intervention than fathers in the single exemplar condition. The size of the effect of the multiple exemplar condition over the single exemplar condition was large.

Table 4.1 Descriptive Statistics and Univariate Effects for Condition for Mothers at Post-Intervention

Measure	Single exemplar (N = 34)				Multiple exemplar (N = 41)				F condition	p	d
	Pre-intervention		Post-intervention		Pre-intervention		Post-intervention				
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*			
Child behaviour measures											
ECBI Intensity Total (36-252)	150.10	30.51	133.49	27.01	145.53	22.24	114.50	19.25	13.45	**.001**	0.55
ECBI Problem Total (0-36)	19.37	6.23	15.96	7.32	19.40	5.55	12.14	5.66	9.17	**.004**	0.65
SDQ Total Difficulties (0-40)	15.16	5.89	13.60	5.92	15.11	5.94	12.26	4.91	1.83	.185	0.22
PDR Weekday Total (0-28)[a]	11.46	5.39	9.68	4.66	10.40	6.44	7.87	3.77	2.55	.116	0.13
PDR Weekend day Total (0-28)[b]	12.71	5.41	8.90	4.55	10.92	5.81	6.76	4.28	2.53	.117	0.06
Parenting measures											
PS Total (1-7)	3.45	0.58	3.11	0.56	3.49	0.61	2.80	0.61	7.57	**.008**	0.59
PTC Behavioural self-efficacy Total (0-100)	69.33	22.97	76.49	15.96	64.06	20.07	80.35	14.42	4.84	**.031**	0.42
PTC Setting self-efficacy Total (0-100)	81.27	14.93	88.30	8.49	80.80	12.97	88.78	9.02	0.20	.662	0.07
PES Parenting Experience Total (5-25)	14.35	3.64	16.34	3.15	15.07	2.79	17.40	2.62	1.65	.216	0.11
PPC Extent Total (16-112)[c]	33.22	15.11	29.03	14.22	38.57	17.67	34.02	17.66	0.30	.598	0.02
PPC Problem Total (0-16)[c]	5.73	3.93	3.97	3.58	6.32	4.06	5.28	3.93	1.68	.223	-0.18
Parent mental health measure											
DASS-21 Total (0-63)	10.85	8.21	7.69	5.95	10.23	8.07	7.28	5.77	0.03	.877	-0.03
Partner relationship measures											
PES Partner Support Total (2-16)[d]	10.36	2.51	10.97	1.60	9.60	3.10	10.74	2.69	0.42	.531	0.19
RQI Total (6-45)[e]	32.32	9.29	34.50	6.25	32.09	10.20	33.55	9.40	0.48	.521	-0.07

Note. F = univariate effect for condition, significant p values are bolded; d = effect size for condition; d 0.20 ≤ 0.49 = small, d 0.50 ≤ 0.79 = medium, d ≥ 0.80 = large.
[a]n = 33 for the single exemplar condition, n = 41 for the multiple exemplar condition.
[b]n = 33 for the single exemplar condition, n = 39 for the multiple exemplar condition.
[c]n = 29 for the single exemplar condition, n = 36 for the multiple exemplar condition.
[d]n = 28 for the single exemplar condition, n = 35 for the multiple exemplar condition.
[e]n = 29 for the single exemplar condition, n = 35 for the multiple exemplar condition.

Table 4.2 Descriptive Statistics and Univariate Effects for Condition for Fathers at Post-Intervention

Measure	Single exemplar (N = 27)				Multiple exemplar (N = 31)				F condition	p	d
	Pre-intervention		Post-intervention		Pre-intervention		Post-intervention				
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*			
Child behaviour measures											
ECBI Intensity Total (36-252)	134.89	26.89	118.59	23.62	142.81	29.87	114.48	27.16	1.03	.320	0.42
ECBI Problem Total (0-36)	16.37	6.64	14.93	7.17	18.14	7.80	11.28	6.51	5.89	.019	0.75
SDQ Total Difficulties (0-40)	12.52	5.24	11.15	4.65	14.79	6.21	12.49	4.84	0.62	.461	0.16
PDR Weekday Total (0-28)[a]	8.73	4.81	9.38	4.29	10.90	6.83	6.70	3.92	7.23	**.010**	0.83
PDR Weekend day Total (0-28)[b]	8.78	4.72	8.98	5.15	10.17	6.58	7.55	4.16	1.88	.178	0.50
Parenting measures											
PS Total (1-7)	3.33	0.54	2.96	0.55	3.32	0.73	2.83	0.72	0.85	.373	0.19
PTC Behavioural self-efficacy Total (0-100)	74.28	21.08	80.38	12.94	68.38	22.30	82.90	12.91	1.76	.190	0.39
PTC Setting self-efficacy Total (0-100)	86.84	9.45	90.03	6.84	82.50	11.65	86.99	9.05	0.69	.413	0.12
PES Parenting Experience Total (5-25)	17.07	3.85	18.36	2.34	15.81	3.39	18.03	2.81	0.06	.847	0.26
PPC Extent Total (16-112)[b]	32.19	16.19	28.21	12.06	38.19	18.92	30.33	14.05	0.02	.885	0.22
PPC Problem Total (0-16)[b]	5.35	3.90	4.43	3.37	5.97	4.13	4.63	3.51	0.04	.866	0.10
Parent mental health measure											
DASS-21 Total (0-63)	7.59	6.79	7.44	5.90	11.73	10.10	8.72	7.95	0.12	.796	0.34
Partner relationship measures											
PES Partner Support Total (2-16)[c]	10.74	2.70	11.78	1.69	10.53	2.49	11.04	2.61	1.60	.222	-0.20
RQI Total (6-45)[b]	33.62	8.47	36.25	5.39	33.41	8.69	34.46	8.28	1.22	.303	-0.18

Note. F = univariate effect for condition, significant p values are bolded; d = effect size for condition; d 0.20 ≤ 0.49 = small, d 0.50 ≤ 0.79 = medium, d ≥ 0.80 = large.
[a]n = 25 for the single exemplar condition, n = 31 for the multiple exemplar condition.
[b]n = 26 for the single exemplar condition, n = 31 for the multiple exemplar condition.
[c]n = 26 for the single exemplar condition, n = 30 for the multiple exemplar condition.

4.4 Long-Term Condition Effects

To examine the long-term effects of the two intervention conditions, a series of MANCOVAs and ANCOVAs were conducted using 6-month follow-up scores as the dependent variables and pre-intervention scores as covariates (section 3.7.2 described these analyses in further detail).

As with the analyses examining the short-term condition effects, the specific assumptions for MANCOVA were tested prior to conducting the long-term condition analyses. At 6-month follow-up, multicollinearity was present on the ECBI and the PTC for mothers and on the PTC and PPC for fathers. Instead of using MANCOVA for these variables, univariate ANCOVAs were conducted on each subscale and an alpha of .05 was retained for the same rationale as described in section 4.3 (Jaccard & Guilamo-Ramos, 2002). Box's *M* tests of equality of covariance matrices revealed no violations against the assumptions of variance-covariance matrices for the MANCOVAs and the scatterplots indicated no problems with linearity.

The specific assumptions for the ANCOVAs examining the long-term condition effects were also checked prior to conducting the analyses. The assumption of homogeneity of regression slopes was violated for the mothers PES Parenting Experience ANCOVA. As described previously, Field (2013) suggested that when this assumption is violated, findings should be interpreted with caution. Examination of the Levene's tests indicated a violation on the DASS-21 for mothers and on the following scales for fathers: SDQ Total Difficulties, DASS-21, and PES Partner Support. When the results were examined using a more stringent alpha, there was only one difference in the interpretation of findings (for the mothers DASS-21). However, an alpha level of .05 was retained for these ANCOVAs in order to minimise the risk of missing an intervention effect (Jaccard & Guilamo-Ramos, 2002). Inspection of the scatterplots indicated no problems with linearity.

Table 4.3 below shows the descriptive statistics for the outcome measures at pre-intervention and 6-month follow-up for mothers in each condition. Univariate *F* values, *p* values, and effect sizes (*d*) are also presented. The same information is provided for fathers in Table 4.4.

4.4.1 Mothers

Significant univariate condition effects for disruptive child behaviour on the ECBI Intensity and ECBI Problem subscales were again found at 6-month follow-up. Mothers in the multiple exemplar condition continued to report greater improvement in the intensity and

number of disruptive child behaviours between pre-intervention and 6-month follow-up when compared to mothers in the single exemplar condition. The condition effect was medium in size for the ECBI Problem subscale and small in size for the ECBI Intensity subscale. Furthermore, the univariate condition effects for ineffective parenting practices (PS) and parenting self-efficacy across behaviours (PTC Behavioural self-efficacy) were still significant at 6-month follow-up, with mothers in the multiple exemplar condition reporting greater improvements on these measures between pre-intervention and 6-month follow-up.

A significant univariate condition effect was now found at 6-month follow-up on the PTC Setting self-efficacy subscale. Mothers in the multiple exemplar condition reported significantly greater PTC Setting self-efficacy Total scores at 6-month follow-up after controlling for pre-intervention scores (small condition effect). Furthermore, significant univariate condition effects were also found on the measures of parental mental health (DASS-21) and partner support (PES Partner Support). Mothers in the multiple exemplar condition reported greater improvement in their mental health and their perceptions of partner support at 6-month follow-up after controlling for pre-intervention levels of these measures. There were no significant multivariate condition effects for the PDR, $F(2, 67) = 3.11$, $p = .052$, or the PPC, $F(2, 60) = 1.27$, $p = .298$, and no significant univariate condition effects for the SDQ, PES Parenting Experience, and the RQI.

4.4.2 Fathers

For fathers, at 6-month follow-up no multivariate condition effect was found for disruptive child behaviour on the ECBI after controlling for pre-intervention scores, $F(2, 53) = 1.63$, $p = .223$, and there was no significant univariate condition effect on the measure of ineffective parenting practices. However, the effect for the multiple exemplar condition over the single exemplar condition was medium in size for the ECBI Problem subscale. For the PDR, no multivariate condition effect was found at 6-month follow-up for fathers, $F(2, 51) = 2.93$, $p = .066$, and no significant univariate condition effects were found on any of the other measures at 6-month follow-up. Although the multivariate condition effect was not significant for the PDR, effects were medium in size in favour of the multiple exemplar condition on both of the subscales.

4.4.3 Completer Analyses

The MANCOVAs and ANCOVAs were repeated to examine the long-term condition effects using only the sample of mothers and fathers who completed 6-month follow-up outcome measures. At 6-month follow-up, 24 (70.6%) and 33 mothers (80.5%) in the single exemplar and multiple exemplar conditions respectively completed outcomes measures. For

mothers, none of the significant long-term condition effects found among the ITT sample were significant among the completer sample. For fathers, 6-month follow-up outcomes measures were completed by 19 (70.4%) fathers in the single exemplar condition and 27 (87.1%) fathers in the multiple exemplar condition. There were no differences in the pre-intervention to 6-month follow-up condition effects obtained from the completer sample when compared to the ITT sample for fathers.

Table 4.3 Descriptive Statistics and Univariate Effects for Condition for Mothers at 6-Month Follow-Up

Measure	Single exemplar (N = 34)				Multiple exemplar (N = 41)				F condition	p	d
	Pre-intervention		6-month follow-up		Pre-intervention		6-month follow-up				
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*			
Child behaviour measures											
ECBI Intensity Total (36-252)	150.10	30.51	131.46	33.23	145.53	22.24	115.75	24.22	4.95	**.031**	0.42
ECBI Problem Total (0-36)	19.37	6.23	15.48	8.17	19.40	5.55	11.88	6.67	4.73	**.034**	0.62
SDQ Total Difficulties (0-40)	15.16	5.89	12.72	7.10	15.11	5.94	11.80	5.87	0.64	.460	0.15
PDR Weekday Total (0-28)[a]	11.46	5.39	10.18	5.07	10.40	6.44	7.56	3.99	4.67	.039	0.26
PDR Weekend day Total (0-28)[b]	12.71	5.41	9.48	5.26	10.92	5.81	6.72	3.97	4.38	.046	0.17
Parenting measures											
PS Total (1-7)	3.45	0.58	3.07	0.49	3.49	0.61	2.79	0.60	5.50	**.023**	0.54
PTC Behavioural self-efficacy Total (0-100)	69.33	22.97	78.90	15.31	64.06	20.07	85.67	10.75	8.62	**.004**	0.56
PTC Setting self-efficacy Total (0-100)	81.27	14.93	87.34	10.30	80.80	12.97	92.55	6.17	9.54	**.003**	0.41
PES Parenting Experience Total (5-25)	14.35	3.64	16.09	4.14	15.07	2.79	17.49	2.67	2.25	.163	0.21
PPC Extent Total (16-112)[c]	33.22	15.11	33.24	16.03	38.57	17.67	32.09	16.33	1.34	.256	0.40
PPC Problem Total (0-16)[c]	5.73	3.93	4.86	3.48	6.32	4.06	4.25	3.57	2.51	.125	0.30
Parent mental health measure											
DASS-21 Total (0-63)	10.85	8.21	9.47	8.25	10.23	8.07	6.28	4.54	4.90	**.031**	0.32
Partner relationship measures											
PES Partner Support Total (2-16)[d]	10.36	2.51	10.43	2.38	9.60	3.10	11.05	2.96	5.24	**.036**	0.49
RQI Total (6-45)[e]	32.32	9.29	31.44	9.89	32.09	10.20	34.80	9.11	4.66	.059	0.37

Note. F = univariate effect for condition, significant p values are bolded; d = effect size for condition; d 0.20 ≤ 0.49 = small, d 0.50 ≤ 0.79 = medium, d ≥ 0.80 = large.

[a] n = 33 for the single exemplar condition, n = 41 for the multiple exemplar condition.

[b] n = 33 for the single exemplar condition, n = 39-40 for the multiple exemplar condition.

[c] n = 29 for the single exemplar condition, n = 36 for the multiple exemplar condition.

[d] n = 28-29 for the single exemplar condition, n = 35 for the multiple exemplar condition.

[e] n = 29 for the single exemplar condition, n = 35 for the multiple exemplar condition.

Table 4.4 Descriptive Statistics and Univariate Effects for Condition for Fathers at 6-Month Follow-Up

Measure	Single exemplar (*N* = 27)				Multiple exemplar (*N* = 31)				*F* condition	*p*	*d*
	Pre-intervention		6-month follow-up		Pre-intervention		6-month follow-up				
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*			
Child behaviour measures											
ECBI Intensity Total (36-252)	134.89	26.89	113.51	17.22	142.81	29.87	113.51	25.83	0.12	.742	0.28
ECBI Problem Total (0-36)	16.37	6.64	12.70	5.39	18.14	7.80	10.29	7.82	2.81	.107	0.58
SDQ Total Difficulties (0-40)	12.52	5.24	10.68	3.49	14.79	6.21	12.31	5.50	0.51	.501	0.11
PDR Weekday Total (0-28)[a]	8.73	4.81	8.24	4.05	10.90	6.83	6.16	3.83	5.62	.025	0.73
PDR Weekend day Total (0-28)[b]	8.78	4.72	8.33	4.12	10.17	6.58	6.81	3.62	3.35	.076	0.52
Parenting measures											
PS Total (1-7)	3.33	0.54	2.99	0.64	3.32	0.73	2.78	0.63	2.10	.159	0.31
PTC Behavioural self-efficacy Total (0-100)	74.28	21.08	83.72	11.20	68.38	22.30	85.04	12.44	1.32	.258	0.33
PTC Setting self-efficacy Total (0-100)	86.84	9.45	89.81	6.82	82.50	11.65	90.17	9.01	2.36	.131	0.45
PES Parenting Experience Total (5-25)	17.07	3.85	18.15	2.77	15.81	3.39	18.00	2.19	0.71	.483	0.31
PPC Extent Total (16-112)[b]	32.19	16.19	26.23	8.28	38.19	18.92	34.14	15.43	3.85	.055	-0.11
PPC Problem Total (0-16)[b]	5.35	3.90	3.52	2.81	5.97	4.13	4.80	3.67	1.79	.204	-0.16
Parent mental health measure											
DASS-21 Total (0-63)	7.59	6.79	7.37	4.97	11.73	10.10	9.73	9.19	0.19	.679	0.21
Partner relationship measures											
PES Partner Support Total (2-16)[c]	10.74	2.70	11.90	1.68	10.53	2.49	11.24	2.59	1.38	.285	-0.17
RQI Total (6-45)[b]	33.62	8.47	35.01	6.23	33.41	8.69	33.19	9.84	0.75	.412	-0.19

Note. *F* = univariate effect for condition; *d* = effect size for condition; *d* 0.20 ≤ 0.49 = small, *d* 0.50 ≤ 0.79 = medium, *d* ≥ 0.80 = large.

[a]*n* = 25 for the single exemplar condition, *n* = 31 for the multiple exemplar condition.

[b]*n* = 26 for the single exemplar condition, *n* = 31 for the multiple exemplar condition.

[c]*n* = 26 for the single exemplar condition, *n* = 30-31 for the multiple exemplar condition.

4.5 Change Over Time by Condition

To examine change in outcome measures between pre-intervention, post-intervention, and 6-month follow-up for the two intervention conditions separately, a series of doubly multivariate repeated measures analyses and one-way repeated measures univariate analysis of variance (ANOVAs) were used (see section 3.7.3 for further details). Described below in sections 4.5.1 and 4.5.2 are the results of these analyses for mothers and fathers respectively.

4.5.1 Mothers

Mothers in both conditions reported significant reductions in both the intensity and number of child disruptive behaviours (ECBI Intensity Total and ECBI Problem Total scores) and ineffective parenting practices (PS Total). Reductions in disruptive child behaviour and ineffective parenting practices were reported between pre- and post-intervention and were maintained at 6-month follow-up. The pre- to post-intervention effects were medium in size for mothers in the single exemplar condition and large in size for mothers in the multiple exemplar condition. Significant improvements in behavioural and setting parenting self-efficacy (PTC) between pre- to post-intervention were also reported among mothers in both conditions which remained at 6-month follow-up (pre- to post-intervention effects were small to medium for the single exemplar condition and medium to large for the multiple exemplar condition). In addition, significant improvements in parenting experiences (PES Parenting Experience) between pre- to post-intervention were found for mothers in both conditions (effects were small in size) and these improvements in parenting experience were maintained at 6-month follow-up.

There were also significant improvements over time in child psychosocial problems (SDQ) for mothers in both conditions. Those in the multiple exemplar condition reported improvements between pre- to post-intervention (d = 0.53) and that these improvements were maintained at 6-month follow-up. For mothers in the single exemplar condition, significant improvements were found from pre-intervention to 6-month follow-up. On the PDR, mothers in both conditions reported significant improvements in the number of negative child behaviours on weekend days (PDR Weekend day Total) by post-intervention which remained at 6-month follow-up, but no significant improvements over time were reported for negative child behaviours on weekdays (PDR Weekday Total) for mothers in either condition.

For parental mental health, mothers in the multiple exemplar condition reported a significant reduction in DASS-21 Total scores by post-intervention and this reduction was maintained at 6-month follow-up. Among mothers in the single exemplar condition, a reduction in DASS-21 Totals scores was reported between pre- to post-intervention, whereas,

scores at 6-month follow-up were no longer significantly different from pre-intervention scores. Only mothers in the multiple exemplar condition reported improvements in their perceptions of partner support and in inter-parental conflict. Improvements in partner support were found between pre- and post-intervention (d = 0.39) and were maintained at 6-month follow-up and reductions in both the number and extent of child-rearing disagreements between parents emerged at 6-month follow-up. No significant improvements were reported by mothers in either condition for partner relationship satisfaction (RQI).

4.5.2 Fathers

Fathers in both conditions reported a significant pre- to post-intervention reduction in the intensity of disruptive child behaviours (ECBI Intensity Total) which was maintained at 6-month follow-up. For the number of disruptive child behaviours (ECBI Problem Total), a significant improvement was only found for fathers in the multiple exemplar condition. Effect sizes for pre- to post-intervention changes in disruptive child behaviour were small to medium for fathers in the single exemplar condition and large for fathers in the multiple exemplar condition. Significant reductions in ineffective parenting practices were also reported at post-intervention (PS Total; medium effect sizes for both conditions) by fathers in both conditions and these improvements were maintained at 6-month follow-up. On the PTC, fathers in the multiple exemplar condition reported significant improvements in both behavioural and setting parenting self-efficacy. On the PTC Behavioural self-efficacy subscale improvements were found at post-intervention and maintained at 6-month follow-up, whereas, on the PTC setting self-efficacy subscale fathers reported a significant improvement at 6-month follow-up but not at post-intervention. For fathers in the single exemplar condition, improvements in behavioural parenting self-efficacy were reported at 6-month follow-up but not at post-intervention.

Only fathers in the multiple exemplar condition reported significant improvements over time on the PDR. Improvements were seen in the number of negative child behaviours displayed on weekdays (PDR Weekday Total) by post-intervention (medium effect size) and these improvements remained at 6-month follow-up. Improvements in the number of negative child behaviours displayed on weekend days (PDR Weekend day Total) were reported at 6-month follow-up. Furthermore, only fathers in multiple exemplar condition reported an improvement in their parenting experiences (PES Parenting Experience) between pre- and post-intervention (d = 0.72) which was maintained at 6-month follow-up. However, only fathers in the single exemplar condition reported improvements in partner support (PES Partner Support) at 6-month follow-up. Fathers in both conditions did not report significant improvements over time on the following measures: child psychosocial problems (SDQ),

inter-parental conflict (PPC), parental mental health (DASS-21), and partner relationship satisfaction (RQI).

4.6 Statistically Reliable and Clinically Significant Change at Post-Intervention

The Reliable Change Index (RCI; Jacobson & Truax, 1991) was used to provide an indication of whether the extent of change from pre- to post-intervention is statistically reliable for the ECBI Intensity Total, the ECBI Problem Total, and the PS Total (further details are provided in section 3.7.4). Table 4.5 displays the number and proportion of mothers who reported statistically reliable change on the ECBI Intensity Total, the ECBI Problem Total, and the PS Total from pre- and post-intervention for each condition. The results from chi-squared tests examining any differences in distribution between the two conditions and *p* values are also presented. Where there were fewer than five cases in a cell, Fisher's exact chi-squared tests were used and are reported. Table 4.7 displays the same information for fathers.

The clinical cut-off scores were also used to examine movement in and out of the clinical range from pre- to post-intervention for the ECBI Intensity Total, the ECBI Problem Total, and the PS Total scores (see section 3.7.4 for further details). Table 4.6 displays the number and proportion of mothers who reported clinically significant change for each condition. The results from chi-squared tests examining the differences in distribution between the two conditions and *p* values are also presented in Table 4.6. Fathers' movement in and out of the clinical range between pre- and post-intervention and results from the chi-squared tests are displayed in Table 4.8.

4.6.1 Mothers

Between approximately one-quarter and two-thirds of mothers reported statistically reliable improvements in their child's disruptive behaviours and their parenting practices between pre- and post-intervention (see Table 4.5). Very few mothers in both conditions reported deterioration for these measures and 58.8-73.5% of mothers in the single exemplar condition and 34.1-53.7% of mothers in the multiple exemplar condition did not meet the criteria for statically reliable change for disruptive child behaviour and ineffective parenting practices.

Chi-squared analyses revealed a significant effect for mothers on the ECBI Intensity Total, but not on the ECBI Problem Total. More mothers in the multiple exemplar condition

reported statistically reliable improvements in the intensity of their child's disruptive behaviour than mothers in the single exemplar condition. Although the proportion of mothers in the multiple exemplar condition who reported statistically reliable change for ineffective parenting practices was substantially larger than mothers in single exemplar condition, this difference in distribution was not statistically significant.

Between approximately one-quarter and one-half of mothers reported clinically significant improvements in their child disruptive behaviours and their parenting practices between pre- and post-intervention (see Table 4.6). A substantial proportion of mothers in both conditions reported that their child was not in the clinical range on the ECBI Intensity (29.4% and 26.8% for the single exemplar and multiple exemplar conditions respectively) and the ECBI Problem subscales (14.7% and 12.2% for the single exemplar and multiple exemplar conditions respectively). Furthermore, about one-quarter of mothers in both conditions were not in the clinical range for ineffective parenting practices. A small number of mothers reported their child's behaviour or their parenting practices got worse between pre- and post-intervention (0.0-5.9%).

A significant effect was found for the proportion of mothers reporting clinically significant change on the ECBI Intensity Total. A greater proportion of mothers in the multiple exemplar condition reported clinically significant change (56.1%) when compared to mothers in the single exemplar condition (23.5%). Although more mothers in the multiple exemplar condition reported clinically significant change on the ECBI Problem Total and the PS Total than mothers in the single exemplar condition, these differences were not statistically significant.

Table 4.5 Statistically Reliable Change From Pre- and Post-Intervention by Condition for Mother-Rated Disruptive Child Behaviour and Parenting Practices

Measure	**Single exemplar** (*N* = 34)		**Multiple exemplar** (*N* = 41)		χ^2	*p*
	n	%	*n*	%		
ECBI Intensity Total					6.96	**.021**
Reliably improved	11	32.4	26	63.4		
Reliably deteriorated	3	8.8	1	2.4		
No reliable change	20	58.8	14	34.1		
ECBI Problem Total					5.41	.051
Reliably improved	10	29.4	21	51.2		
Reliably deteriorated	2	5.9	0	0.0		
No reliable change	22	64.7	19	46.3		
PS Total					3.24	.106
Reliably improved	9	26.5	19	46.3		
Reliably deteriorated	0	0.0	0	0.0		
No reliable change	25	73.5	22	53.7		

Note. Significant *p* values are bolded.

Table 4.6 Clinically Significant Change From Pre- and Post-Intervention by Condition for Mother-Rated Disruptive Child Behaviour and Parenting Practices

Measure	**Single exemplar** (*N* = 34)		**Multiple exemplar** (*N*= 41)		χ^2	*p*
	n	%	*n*	%		
ECBI Intensity Total					11.05	**.009**
Clinically significant change	8	23.5	23	56.1		
Did not achieve clinical change	14	41.2	7	17.1		
Worsened	2	5.9	0	0.0		
Not in clinical range	10	29.4	11	26.8		
ECBI Problem Total					7.50	.055
Clinically significant change	9	26.5	23	56.1		
Did not achieve clinical change	18	52.9	12	29.3		
Worsened	2	5.9	1	2.4		
Not in clinical range	5	14.7	5	12.2		
PS Total					6.41	.088
Clinically significant change	9	26.5	22	53.7		
Did not achieve clinical change	14	41.2	8	19.5		
Worsened	2	5.9	1	2.4		
Not in clinical range	9	26.5	10	24.4		

Note. Significant *p* values are bolded.

4.6.2 Fathers

A substantial number (51.6% on the ECBI Intensity Total and 48.4% on the ECBI Problem Total) of fathers in the multiple exemplar condition reported statistically reliable improvements in their child's disruptive behaviours, whereas, fewer fathers (37.0% and 14.8% on the ECBI Intensity Total and ECBI Problem Total respectively) in the single exemplar condition reported reliable improvements (see Table 4.7). Between one-quarter and one-third of fathers reported improvements in their parenting practices that were statistically reliable. As with mothers, very few fathers in both conditions reported reliable deterioration in their child's behaviour or their parenting practices. The proportion of fathers who did not report statistically reliable change in their child's behaviour and their parenting practices ranged from 55.6-77.8% for the single exemplar condition and 41.9-64.5% for the multiple exemplar condition.

The chi-squared analyses showed that significantly more fathers in the multiple exemplar condition reported statistically reliable improvement in the number of disruptive behaviours displayed by their child (ECBI Problem Total) when compared to fathers in the single exemplar condition. The chi-squared analyses examining differences in reliable change of the ECBI Intensity Total and PS Total were not significant for fathers.

Improvements in the intensity and number of child disruptive behaviours were clinically significant for between 18.5% and 48.4% of fathers (see Table 4.8). A slightly larger proportion of fathers in the single exemplar condition reported clinically significant change in their parenting practices than did fathers in the multiple exemplar condition, although there were not statistically significant differences by condition. This may be because there were more fathers in the multiple exemplar condition whose PS Total scores were not in the clinical range at pre- and post-intervention.

The chi-squared test examining differences between the two conditions for the measures of child behaviour showed that the distribution differed significantly for the ECBI Problem Total but not for the ECBI Intensity Total (see Table 4.8). For the ECBI Problem Total, a significantly larger proportion of fathers in the multiple exemplar condition reported clinically significant change than those in the single exemplar condition.

Table 4.7 Statistically Reliable Change From Pre- and Post-Intervention by Condition for Father-Rated Disruptive Child Behaviour and Parenting Practices

Measure	**Single exemplar** (*n* = 27)		**Multiple exemplar** (*n* = 31)		χ^2	*p*
	n	%	*n*	%		
ECBI Intensity Total					1.79	.461
Reliably improved	10	37.0	16	51.6		
Reliably deteriorated	2	7.4	2	6.5		
No reliable change	15	55.6	13	41.9		
ECBI Problem Total					7.87	**.015**
Reliably improved	4	14.8	15	48.4		
Reliably deteriorated	2	7.4	14	6.5		
No reliable change	21	77.8	2	45.2		
PS Total					1.45	.522
Reliably improved	6	22.2	10	32.3		
Reliably deteriorated	0	0.0	1	3.2		
No reliable change	21	77.8	20	64.5		

Note. Significant *p* values are bolded.

Table 4.8 Clinically Significant Change From Pre- and Post-Intervention by Condition for Father-Rated Disruptive Child Behaviour and Parenting Practices

Measure	**Single exemplar** (*n* = 27)		**Multiple exemplar** (*n* = 31)		χ^2	*p*
	n	%	*n*	%		
ECBI Intensity Total					3.32	.339
Clinically significant change	8	29.6	15	48.4		
Did not achieve clinical change	6	22.2	6	19.4		
Worsened	1	3.7	0	0.0		
Not in clinical range	12	44.4	10	32.3		
ECBI Problem Total					8.35	**.041**
Clinically significant change	5	18.5	15	48.4		
Did not achieve clinical change	12	44.4	6	19.4		
Worsened	2	7.4	2	6.5		
Not in clinical range	8	29.6	8	25.8		
PS Total					3.46	.329
Clinically significant change	15	55.6	10	32.3		
Did not achieve clinical change	4	14.8	7	22.6		
Worsened	1	3.7	1	3.2		
Not in clinical range	7	25.9	13	41.9		

Note. Significant *p* values are bolded.

4.7 Participant Attendance and Satisfaction

4.7.1 Participant Attendance

Table 4.9 displays the number of sessions attended and patterns of attendance for participating families. Generally attendance was high with the majority of families in the single exemplar condition attending the session (88.6%), and a large portion of families in the multiple exemplar condition attending two or more of the four sessions (81.4%). Among two-parent families, a large proportion of families in both conditions attended a session together (single exemplar: 45.2%; multiple exemplar: 51.3%), however, there was also a large number of families in which only the mother attended and had direct contact with the intervention material (single exemplar: 41.9%; multiple exemplar: 25.6%). When examining attendance for mothers and fathers separately for the two conditions, a higher proportion of mothers in the single exemplar condition (85.3%) attended the session than fathers (59.3%). For those allocated to the multiple exemplar condition, a similar proportion of mothers and fathers attended two or more sessions (73.1% and 67.8% respectively). However, a larger proportion of fathers did not attend any sessions (25.8%) when compared to mothers (14.6%).

Table 4.9 Number of Sessions Attended and Patterns of Attendance by Condition

Attendance	Single exemplar (N = 35)		Multiple exemplar (N = 43)	
	n	%	*n*	%
0 sessions	4	11.4	4	9.3
1 session	31	88.6	4	9.3
2 sessions			6	14.0
3 sessions			4	9.3
4 sessions			25	58.1
Mothers attendance[a]				
0 sessions	5	14.7	6	14.6
1 session	29	85.3	5	12.2
2 sessions			6	14.6
3 sessions			3	7.3
4 sessions			21	51.2
Fathers attendance[b]				
0 sessions	11	40.7	8	25.8
1 session	16	59.3	2	6.5
2 sessions			2	6.5
3 sessions			8	25.8
4 sessions			11	35.5
Attendance patterns*				
Two-parent families				
M only attended	13	41.9	10	25.6
F only attended	1	3.2	4	10.3
M and F attended together for at least one session[c]	14	45.2	20	51.3
M and F alternated attendance	0	0.0	1	2.6
Sole parent families				
M only attended	2	6.5	4	10.3
F only attended	1	3.2	0	0.0

Note. *Percentage reported refers to families who attended at least one session (N = 70).
[a]n = 34 for the single exemplar condition, n = 41 for the multiple exemplar condition.
[b]n = 27 for the single exemplar condition, n = 31 for the multiple exemplar condition.
[c]One family was a same-sex couple who attended together.

4.7.2 Participant Satisfaction

4.7.2.1 Overall satisfaction

In total, 61 mothers (single exemplar condition: n = 27, multiple exemplar condition: n = 34) and 45 fathers (single exemplar condition: n = 22, multiple exemplar condition: n = 25) completed the Client Satisfaction Questionnaire (CSQ) at post-intervention. Data were missing for one mother and two fathers did not complete the CSQ as they had not attended any sessions. For mothers, overall satisfaction was moderate to high. Mothers in the multiple exemplar condition reported significantly higher CSQ Total scores (M = 64.63, SD = 12.24)

than mothers in the single exemplar condition (*M* = 49.44, *SD* = 14.77) indicating that mothers in the multiple exemplar condition were significantly more satisfied with the programme they received, $t(59) = -4.39$, $p < .001$. As with mothers' satisfaction, the level of satisfaction reported by fathers varied by condition and ranged from moderate to high. Fathers in the multiple exemplar condition reported significantly higher CSQ Total scores (*M* = 68.48, *SD* = 9.27) indicating that they were more satisfied with the intervention that they received when compared to fathers in the single exemplar condition (*M* = 54.33, *SD* = 11.26); $t(43) = -4.61$, $p < .001$. The paired *t*-test examining differences in overall satisfaction among mothers and fathers from the same family was not significant, $t(41) = -1.523$, $p = .133$, indicating that mothers and fathers from the same family did not differ on their levels of overall satisfaction with the received intervention.

4.7.2.2 Satisfaction with the individual Triple P Discussion Groups

A total of 220 Discussion Group Satisfaction Questionnaires (DGSQ) were completed by attendees. Among the families in the multiple exemplar condition who were required to choose two additional groups, the most popular additional discussion group was Building Self-esteem (*n* = 38 families), followed by Fighting and Aggression (*n* = 25 families), and then Doing Chores (*n* = 23 families). Therefore, the number of DGSQ completed about each topic varied, with 100 attendees completing the DGSQ about the Dealing with Disobedience group, 45 attendees completing the DGSQ about the Being a Positive Parent group, and the following for the additional topics: Fighting and Aggression (*n* = 25 attendees), Doing Chores (*n* = 20 attendees), and Building Self-esteem (*n* = 30 attendees).

Overall satisfaction with each of the Triple P Discussion Groups was high (*M*'s ranged from 49.98 to 55.52; see Table 4.10). A statistically significance difference was found on the DGSQ Total scores for the different topics: $F(4, 215) = 4.22$, $p = .003$. Post-hoc comparisons indicated that the only significant difference was that the mean DGSQ Total for the Dealing with Disobedience group was significantly lower than the mean DGSQ Total for the Fighting and Aggression group ($p = .011$).

Table 4.10 Number of Attendees who Completed the Discussion Group Satisfaction Questionnaire, and the Mean and Standard Deviation for Each Item and Total Scores for Each Topic

Question	Dealing with Disobedience (n = 100)		Being a Positive Parent (n = 45)		Fighting and Aggression (n = 25)		Doing Chores (n = 20)		Building Self-esteem (n = 30)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
1. How would you rate the quality of the discussion group	5.07	1.07	5.27	0.86	5.56	0.96	5.35	0.75	5.37	0.81
2. Did you receive the type of help you wanted from the program	4.59	1.11	5.31	1.06	5.44	0.71	5.30	0.80	5.52	0.77
3. To what extent has the program met your needs	4.29	1.12	4.80	0.94	5.20	0.96	4.95	1.00	5.17	0.91
4. How satisfied were you with the amount of help you received	4.76	0.97	5.09	0.85	5.24	0.60	5.30	0.66	5.23	0.77
5. Did you gain sufficient knowledge or information to be able to implement the parenting strategies introduced	5.26	1.02	5.40	0.86	5.80	0.76	5.65	0.81	5.37	0.96
6. Do you intend to implement the parenting strategies introduced	5.84	0.98	5.93	0.99	5.96	0.89	5.85	0.93	5.90	0.92
7. How satisfied were you with the content of the discussion group	4.97	1.10	5.20	1.06	5.48	0.71	5.35	1.09	5.42	0.81
8. How satisfied were you with the format of the discussion group	5.15	1.09	5.11	0.88	5.60	0.82	5.20	1.06	5.40	0.62
9. If you were to seek help again, would you come back to Triple P	4.98	1.19	5.11	1.11	5.48	1.12	5.30	1.08	5.40	0.97
10. Has the program helped you to develop skills that can be applied to other family members	5.09	0.99	5.49	1.01	5.76	1.01	5.35	0.81	5.53	0.90
Total DGSQ score	49.98	8.39	52.71	7.28	55.52	5.63	53.60	6.61	54.30	6.48

4.7.2.2.1 Satisfaction with the format, content and quality of the discussion groups

Overall, the quality of the discussion groups was rated highly with a high proportion of attendees rating the sessions as at least 'good' (%'s ranged from 77.0 to 96.0). The Dealing with Disobedience discussion group had slightly lower mean scores for quality than the other topics, although these differences were not statistically significant. For the format of the discussion groups, satisfaction was high for all topics (*M*'s ranged from 5.11 to 5.60), and differences between the topics were not statistically significant. Several parents also commented that they particularly enjoyed the group format of the programme and that being able to talk with other parents with a child displaying similar behaviours was both useful and reassuring. For example, one parent noted "*at the end of the day parents have similar problems, I've enjoyed listening and talking with the group*". Another parent commented that they found "*group discussions and 'brainstorming' others' real life issues really helpful*".

Satisfaction with the content of the discussion groups was generally high, but differed across topics (although not significantly). Attendees were most satisfied with the content of the Fighting and Aggression discussion group and were least satisfied with the content of the Dealing with Disobedience discussion group. Furthermore, some attendees commented on the usefulness of the content of the all the discussion groups. For example, one parent commented that the Dealing with Disobedience group taught "*good strategies to remove problem behaviour and remove the frustration*". Another parent commented that they liked the content presented in the Being a Positive Parenting group: "*I liked the fact it looked at helpful/unhelpful thoughts from a parent's point of view and looking after yourself as a parent as well as strategies of improving behaviour*". When asked if they would return to Triple P in the future, mean scores across all topics were generally high and did not differ significantly. The majority of attendees responded that they would 'yes, I think so' return to Triple P across all topics (range: 73.0% - 90.0%).

4.7.2.2.2 Perceptions of the amount and type of help

On average, satisfaction with the amount of help provided during each discussion group was high but varied significantly between topics: $F(4, 215) = 3.736$, $p = .006$. Post-hoc comparisons indicated that the mean scores did not differ significantly, but lower levels of satisfaction for the Dealing with Disobedience were reported. Only 67.0% of the attendees at the Dealing with Disobedience group reported that they were at least 'satisfied' with the amount of help received. For the other topics, the proportion of attendees who indicated they were at least 'satisfied' with the amount of help received was higher (range: 82.2% to 95.0%).

Satisfaction with the type of help was significantly lower for the Dealing with Disobedience discussion group (M = 4.59) when compared with all the other topics (M's ranged from 5.30-5.52). Significant differences in attendees' perception of the extent to which the group met their needs was also found: $F(4, 215) = 7.32$, $p < .001$. The extent to which the Dealing with Disobedience discussion group met the participants' needs was significantly lower than for the participants who attended the Fighting and Aggression (p = .001) and Building Self-esteem (p = .001) discussion groups.

4.7.2.2.3 Use of strategies taught in session

The attendees generally felt that they had gained sufficient knowledge to be able to implement the parenting strategies introduced in the discussion groups (%'s ranged from 84.5 to 100.0). There were no significant differences in attendees' perceptions of gaining sufficient knowledge for the different topics. In addition to feeling like they had the knowledge to use the strategies introduced, attendees also indicated a high level of intent to use the strategies that were taught in the discussion groups and there were no statistically significant differences in intent to use across the topics. There was however, an overall difference between the groups regarding the attendees' perceptions of whether the group helped them to develop skills that could be applied to other family members: $F(4, 215) = 3.38$, p = .010. The mean for the Dealing with Disobedience discussion group was significantly lower than the mean for the Fighting and Aggression group for this item (p = .023).

4.7.2.2.4 Comments about the Dealing with Disobedience group

Given that the Dealing with Disobedience group was consistently rated lower than the other topics, the comments on the DGSQ that were completed about the Dealing with Disobedience group were examined to investigate if there was a reason for the less favourable ratings. All of the 42 comments made about the Dealing with Disobedience group were examined. Satisfaction with the group or positive feedback about the session made up 17 of the 42 comments, whereas dissatisfaction with the session or negative feedback was present in seven of the comments. These comments expressed general dissatisfaction with the content of the group and/or the way it has conducted (e.g., "*too broad, needed to be more individually targeted to the parents*", "*I think the strategies are a little bit idealistic*"). In addition, seven attendees commented that the Dealing with Disobedience group did not meet their needs or expectations, as this comment demonstrates: "*all the information is valid and sensible but are strategies that I'm already aware of and try to implement. My expectation was that this group would deal with slightly more excessive challenging situations and behaviour*". Furthermore,

three attendees commented that they thought the content of the session was geared towards younger children (i.e., preschool aged).

4.7.2.2.5 Areas for improvement

Some of the comments made by attendees included suggestions for how the discussion groups could be improved. Some parents offered suggestions about the way the groups were run (n = 16), such as having a group email list for parents who are willing to exchange ideas in the future, grouping parents into groups by age of child, amending the start time and length of the groups, having smaller group sizes, tailoring more to participants' individual needs, and the balance between the time spent on background information, the teaching of the strategies, and group discussion. For example, one parent commented that they would have liked "*an extra 30 minutes to allow for more group discussion and ideas from other parents*".

Other suggestions for areas of improvement focused on the content of the sessions (n = 8) and included incorporating information about cultural aspects or cultural differences, specific behaviour problems, providing more examples and clarification about particular topics, advice on how to prevent a child becoming reward orientated when using behaviour charts, and using families from the environment and culture where the groups were run to demonstrate strategies. One attendee commented that incorporating information about managing stress may also be useful for parents: "*the strategies are only as good as the people who are implementing them - a session on reducing stress/management for parents might be half the battle solved? A less stressed parent can implement more successfully*". Furthermore, another attendee thought that including more information on emotional responses and how to describe emotions to children would be useful: "[the group] *could relate more to how a child feels or you feel, acknowledge/talk about this to help the child calm down and cooperate*". A few parents thought some of the content presented in the Being a Positive Parent discussion group repeated information presented in the Dealing with Disobedience session or that content within a session was repetitive (n = 4).

Chapter 5. Discussion

5.1 Overview of Chapter

This study sought to extend the literature on low-intensity parenting programmes by examining the impact of low-intensity topic-specific parenting groups with parents of primary school aged children, comparing the effects of single exemplar and multiple exemplar training, and examining the effects for both mothers and fathers. The aim of this chapter is to summarise and discuss the main findings from the study (section 5.2). Limitations with the study (section 5.3), directions for future research (section 5.4), and implications for practice (section 5.5) are then discussed. The chapter ends by describing the key contributions of the study in section 5.6.

5.2 Summary and Discussion of Key Findings

The study compared the effects of single exemplar vs. multiple exemplar training among 75 mothers and 58 fathers with a 5-8 year old child. It is important to keep in mind that the study is statistically underpowered. Therefore, non-significance will not differentiate between the lack of an intervention effect and the lack of statistical power. Furthermore, significant effects are likely to be exaggerated in underpowered studies (Button et al., 2013). Caution must be taken when interpreting the results of the study.

It was hypothesised that mothers in both conditions would report reductions in disruptive child behaviour, but that mothers in the multiple exemplar condition were expected to report greater change than those in the single exemplar condition. The data showed support for this hypothesis. Mothers in the multiple exemplar condition reported superior improvements in disruptive child behaviour at post-intervention and 6-month follow-up when compared to mothers in the single exemplar condition. Furthermore, a greater proportion of mothers in the multiple exemplar condition reported statistically reliable and clinically significant improvement in their child's disruptive behaviour. The pre- to post-intervention improvements in disruptive child behaviour reported by mothers in the current study are in line with previous research examining the effects of attending a single exemplar of a Triple P Discussion Group among parents with preschoolers (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010) and parents with a 3-12 year old in a low-resource context (Mejia et al., 2015). Furthermore, the medium pre- to post-intervention effect sizes found for mothers in single exemplar condition and large effects for those in the multiple exemplar condition are comparable to effect sizes reported for more intensive versions of the Triple P programme

(Sanders et al., 2014). In the Sanders et al. (2014) meta-analysis, a medium effect size (d = 0.48) was found for mothers' reports of child social, emotional, and behavioural outcomes after a more intensive (level 4) Triple P programme. The current study adds to the existing evidence by demonstrating that single exemplar and multiple exemplar training of low-intensity parenting groups leads to positive outcomes for primary school aged children. Expected superior child outcomes were found for mothers in the multiple exemplar condition and were assumed to be a result of the generalisation promotion strategies which aimed to enhance parents' ability to apply parenting skills flexibly and feel more confident in their parenting, resulting in a broader more robust change in child behaviour.

In contrast to the significant condition effects found for disruptive child behaviour, no significant condition effects were found on other outcomes measuring child behaviour among mothers at post-intervention or 6-month follow-up. This may be because these measures tapped into a range of child behaviours (for example the Strengths and Difficulties Questionnaire measures peer and emotional problems) and parenting skills taught during the programme may not have generalised to these behaviours. Teaching multiple exemplars may promote the generalisation of parenting skills to deal with other conduct type problems or deal with disruptive behaviours in various settings, but may be less helpful for enhancing the generalisation of skills to other types of problems (e.g., emotional, peer problems).

A significant condition effect for parenting practices was also found for mothers at post-intervention which continued to be significant at 6-month follow-up. As hypothesised, mothers in the multiple exemplar condition reported greater improvement in their parenting practices than mothers in the single exemplar condition and the condition effects at both time points were medium in size. Previous research has also found improvements after attending a single exemplar of a topic-specific parenting group among parents with young children (Dittman et al., 2015; Joachim et al., 2010; Mejia et al., 2015; Morawska et al., 2010); however in Morawska et al. (2014) a significant intervention effect for parenting practices in general was not observed. Additional benefits for maternal parenting practices demonstrated in the current study further supports that the generalisation promotion strategies incorporated in the multiple exemplar condition led to superior intervention outcomes. Pre- to post-intervention improvements for parenting practices were medium in size for the single exemplar condition and large in size for the multiple exemplar condition. These effect sizes were slightly higher than the effect size for level 4 Triple P programmes (d = 0.57) reported in the meta-analysis (Sanders et al., 2014).

It was also hypothesised that mothers in the multiple exemplar condition would report superior parenting self-efficacy outcomes. At post-intervention, a significant univariate condition effect was found for maternal parenting self-efficacy across behaviours, but not for parenting self-efficacy across settings. Even though the short-term condition effect for setting parenting self-efficacy was not significant, the size of the pre- to post-intervention improvement was slightly larger for mothers in the multiple exemplar condition than mothers in the single exemplar condition. Greater improvements in behavioural parenting self-efficacy were again assumed to be a result of the generalisation promotion strategies which aimed to enhance parents' ability to apply parenting skills flexibly and feel more confident in their parenting. It appeared that multiple exemplar training was particularly useful for promoting generalisation of parenting skills and associated self-efficacy across a broad range of difficult child behaviours in the short-term. At 6-month follow-up, significant condition effects were seen for both behavioural and setting parenting self-efficacy for mothers. Mothers in the multiple exemplar condition now reported greater improvement in both parenting self-efficacy across a range of behaviours (the condition effect was medium in size) and settings when compared to mothers in the single exemplar condition. Thus, superior outcomes for setting parenting self-efficacy following multiple exemplar training may be delayed.

The previous research evaluating a single exemplar of a Triple P Discussion Group on parenting self-efficacy as assessed across multiple child behaviours and settings with parents of preschoolers has reported inconsistent findings. Some studies found effects at post-intervention for both behavioural and setting self-efficacy (e.g., Dittman et al., 2015; Joachim et al., 2010), whereas Morawska et al. (2010) found effects for behavioural parenting self-efficacy only and not setting parenting self-efficacy. In the current study, the pre- to post-intervention improvements on the PTC were similar in size to the overall effect size reported in the Sanders et al. (2014) meta-analysis. In the meta-analysis, an overall medium effect size was reported for parenting satisfaction and efficacy for level 4 Triple P programmes evaluated using a range of trial designs (e.g., uncontrolled trials, randomised control trials). It appears that the effects on parenting self-efficacy can be promoted through teaching parents to apply parenting skills flexibly through multiple exemplar training.

The effects of the two conditions on parenting experiences and parental mental health were also examined. Mothers in both conditions reported pre- to post-intervention improvements in parenting experiences (which were maintained at 6-month follow-up) and parental mental health (maintained at 6-month follow-up for mothers in the multiple exemplar condition). No condition effects were found for these measures at post-intervention suggesting that benefits were not differentiated by condition. The effect for parenting experiences is in

contrast to previous research that did not find intervention effects on measures of parenting experiences after a single exemplar (Morawska et al., 2010). A reason for this difference may be because families were screened into the current study on the basis of their child's conduct problems using a cut-off score on a standardised measure and parents may have reported higher levels of other familial risk factors (such as poorer parenting experiences). As pre-intervention scores for mothers in the single exemplar condition in the current study (M = 14.35) were slighting lower to those in Morawska et al. (2010; M = 15.39) it may be that mothers in the current study had more scope for change. In addition, inconsistent findings for the effects of the Triple P Discussion Groups on parental mental health have been reported. Joachim et al. (2010) reported no intervention effect after attending a single exemplar, whereas Mejia et al. (2015) reported a reduction in poor mental health over time, and Dittman et al. (2015) reported reductions by 6-month follow-up. The lack of effect in Joachim et al. (2010) may be because the Triple P Discussion Group focused on managing difficult child behaviour in the supermarket and, on average, parents in the study did not report clinically elevated levels of disruptive child behaviour or ineffective parenting practices at pre-intervention. It may be that an intervention targeting misbehaviour while shopping has less impact on parental mental health than an intervention that aimed to improve parents' skills to manage disobedience. It appears that further investigation is needed to obtain a greater understanding of the effects of the Triple P Discussion Groups on parental mental health.

The study also aimed to explore the effects of the two conditions on inter-parental conflict, partner support, and partner relationship quality. It was also expected that training in multiple exemplars may be more likely to result in robust changes at multiple levels of the family system than narrowly focused single exemplar training. In support of this possibility, only mothers allocated to the multiple exemplar condition reported significant improvements over time in perceptions of partner support and improvements in inter-parental conflict emerged for mothers in the multiple exemplar condition at 6-month follow-up. At 6-month follow-up additional condition effects were found for mothers on measures of parental mental health and partner support, with mothers in the multiple exemplar condition reporting greater improvements in these areas than mothers in the single exemplar condition. As previous research has found that parents with a child displaying difficult behaviour are more likely to report having a stressful or depressing parenting experience (e.g., Sanders et al., 2007), it may be that the greater improvements in child behaviour, parenting practices, and behavioural parenting self-efficacy that were found at post-intervention among mothers in the multiple exemplar condition led to more change over time in inter-parental conflict and superior intervention outcomes for mental health and partner support.

As there is paucity of research on the effects of low-intensity parenting programmes for fathers, scholars have argued that attempts to engage fathers in studies should be made and that the effects for fathers should be reported separately to mothers (Panter-Brick et al., 2014; Sanders & Kirby, 2014). Another key contribution of the current study was the father-reported intervention outcomes.

There was some evidence that multiple exemplar training led to greater improvements in father-rated child behaviour. Fathers in the multiple exemplar condition reported that their child displayed less target and non-target negative behaviours on weekdays at post-intervention when compared to fathers in single exemplar condition and this condition effect was large in size. In addition, a larger proportion of fathers in the multiple exemplar condition reported statistically reliable and clinically significant change in the number of problematic disruptive behaviours displayed by their child between pre- and post-intervention. Furthermore, although the pre- to post-intervention multivariate condition effect for the ECBI was not significant for fathers, a medium condition effect was found on the ECBI Problem subscale in favour of the multiple exemplar condition. Taken together, these findings suggest that multiple exemplar training promoted generalisation of parenting skills among fathers which in turn led to the superior outcomes for children. In contrast to mothers, no condition effects were found at 6-month follow-up on any measure when controlling for pre-intervention measures among fathers, although pre-intervention to 6-month follow-up condition effects were medium in size in favour of the multiple exemplar condition on the ECBI Problem subscale and the Parent Daily Report Checklist subscales. Given that pre- to post-intervention change in child behaviour was maintained at 6-month follow-up, these findings suggest that superior intervention effects found among fathers in the multiple exemplar condition continued to be present, but were slightly smaller in size, at 6-month follow-up.

Fathers in both conditions also reported small to large effects on several domains over the course of the study: disruptive child behaviour, parenting practices, and parenting self-efficacy. Among fathers in the multiple exemplar condition improvements in target and non-target negative child behaviours and parenting experiences were also reported, whereas fathers in the single exemplar condition reported improvements in partner support. These findings extend the current literature on low-intensity topic-specific group parenting programmes (Anesko & O'Leary, 1982; Dittman et al., 2015; Joachim et al., 2010; Mejia et al., 2015; Morawska et al., 2010; Morawska et al., 2014) by demonstrating that fathers report benefits for themselves and their primary school aged children. However, for fathers, substantial improvements in child psychosocial problems, inter-parental conflict, mental health, and partner relationship satisfaction were not found. Since these domains were not direct targets of

the delivered intervention, it is not surprising that significant improvements were not found. As previous research examining the effects of the low-intensity group parenting programmes on these factors has used samples that consist mainly of mothers and the effects for any participating fathers were not reported separately (Dittman et al., 2015; Joachim et al., 2010; Mejia et al., 2015; Morawska et al., 2010), it is unknown whether the Triple P Discussion Groups have limited impact on these areas for fathers or whether the lack of reported change in the current study is a result of ceiling and floor effects.

There may be several alternative explanations for the less positive intervention effects among fathers than mothers. First, there were fewer fathers than mothers who participated in the study so lack of intervention effects on some measures may be due to reduced power. Second, less positive results for fathers may be a result of lower attendance of fathers in the interventions. Fewer fathers than mothers in the single exemplar condition attended the intervention, and among families in the multiple exemplar condition, a greater number of fathers than mothers did not attend any of the sessions. Furthermore, in the current study a substantial proportion of mothers from two-parent families attended alone. Taken together, these findings indicate that overall fathers had less direct contact with the programme material and thus had fewer opportunities than mothers to learn and implement new parenting strategies. Moreover, typically mothers initiated contact and enrolled the family to take part in the study. Thus, the majority of families were screened in on the basis of mother-rated child conduct problems. It has been suggested that fathers' perceptions of the nature and severity of their child's behaviour problems may differ from mothers (e.g., Phares et al., 2010). Therefore, if both mothers and fathers from two-parent families had been included in the screening process, and families were enrolled only if both parents reported at least a mild level of conduct problems, a different pattern of results may have been found.

Previous research using the Triple P Discussion Groups has generally reported high satisfaction with the intervention (Joachim et al., 2010; Morawska et al., 2010; Morawska et al., 2014). Satisfaction with the interventions delivered in the current study was moderate to high. Both mothers and fathers in the single exemplar condition reported significantly lower levels of satisfaction than parents in the multiple exemplar condition. Therefore, not only were superior intervention outcomes found on some measures, parents in the multiple exemplar condition were also more satisfied with the help they received. It is also important to note that fathers in both conditions reported slightly higher overall mean satisfaction scores than mothers. This finding, coupled with the relatively high level of involvement of fathers in the evaluation and intervention in the current study in comparison to previous research (e.g.,

Sanders et al., 2014), suggests that low-intensity topic-specific parenting groups are an attractive option for support for fathers.

Findings from the Discussion Group Satisfaction Questionnaires completed anonymously after each Triple P Discussion Group indicated that overall the sessions were relevant and useful to parents of primary school aged children. However, attendees in the Dealing with Disobedience group indicated that this group was less likely to meet their needs than the other topics. Some parents commented that the Dealing with Disobedience session was too broad or that they had an expectation the group would deal with high levels of disruptive behaviours and more challenging situations. As parents were screened in using a minimum cut-off score on the measure of child's conduct problems, some of the parents did report high levels of conduct problems. These comments suggest that a more intensive programme or an individually-administered programme may have been more appropriate for some of these families, particularly if their children were displaying more severe conduct problems. In addition, some parents thought the Dealing with Disobedience group was targeted towards parents of younger children. Dittman et al. (2015) reported moderate levels of satisfaction with the Dealing with Disobedience Triple P Discussion Group in their sample of parents with preschool aged children, whereas Morawska et al. (2010) found higher levels of satisfaction among parents with preschoolers. This suggests that the more favourable satisfaction ratings in Morawska et al. (2010) was due to the additional telephone support provided, rather than the younger age of the children in the study. However, when delivering topic-specific parenting groups to parents with primary school aged children, practitioners may need to tailor content and examples to demonstrate teaching points and meet parents' needs. For example, keeping children safe may focus on safety with computers and the internet and safety getting to and from school, rather than child-proofing the home. Furthermore, additional low-intensity topic-specific parenting groups could be developed to address other child behaviours or developmental issues that are particularly relevant to parents of primary school aged children. Additional groups could address topics such as dealing with sibling conflict, getting along with peers, and managing information technology devices and screen time.

5.3 Limitations

The study has a number of limitations. In the current study, a self-referral method for recruitment was used. Although this type of recruitment strategy is considered to be a clinically viable method (Matthey, Patterson, Mutton, & Kreutzfeldt, 2006) which can be

undertaken in settings that do not have substantial budgets or resources, it can result in samples that are not representative of the population. Wilson et al. (2012b) emphasised the possibility that parents who self-refer to take part in a parenting programme are more motivated and educated than other parents facing challenges with their children's behaviour. In the current study, the obtained sample had high levels of university education, had high levels of total family income at or above the median for the Auckland region, and had an under-representation from ethnic minorities (e.g., Māori). If additional resources had been available, further efforts could have been made to sample across a more diverse range of socioeconomic communities and promote participation among Māori people through visiting marae and working with Māori organisations. Furthermore, alternative methods of recruitment, such as through clinical referral, may have led to a sample of families who may be less motivated and have more entrenched child and family problems but may also result in a sample that is unrepresentative of the general population. It is important to keep in mind that the intervention delivered in the current study is designed for parents with children displaying mild to moderate problems (Sanders & Murphy-Brennan, 2010) and that for families with children displaying more severe problems a more intensive intervention may be needed. A second limitation with the recruitment method is that parents were excluded from participating if they were unable to read a newspaper without assistance (see section 3.3.2 for rationale). Likewise, if additional resources were available it would have been possible to employ an individual to read out written information to those with low literacy.

A further limitation with the current study is the sample size. A power analysis indicated the study would need a total *N* of 154 after taking into account attrition for the study to be adequately powered to detect a medium effect size in disruptive child behaviour. Thus, non-significant effects may be a result of insufficient power and conversely, the size of significant effects may be over-estimated (Button et al., 2013). In addition, as the study was unpowered a Bonferroni correction was not applied to the series of univariate analysis of covariance in order to minimise the risk of missing an intervention effect (Jaccard & Guilamo-Ramos, 2002). Therefore, these conclusions should be approached cautiously.

Moreover, it was assumed that greater change in children's behaviour, parenting practices, and parenting self-efficacy was due to generalisation of parenting skills resulting from the generalisation promotion strategies. Ideally, the generalisation of parenting behaviours should be measured using observational methods that examine parents' responses to a range of child behaviours (target and non-target) in a range of settings (target and non-target). Unfortunately the current study was unable to obtain observational measures of generalisation due to time and budget constraints. The study also relies on self-report measures

to evaluate the intervention. It is unknown whether changes reported on the outcomes measures were actually observed or whether improvements relate to changes in parents' perceptions of their child and parenting. As explained above, obtaining observational measures of behaviour was beyond the scope of this study.

The study required the use of an active comparison condition to be able to investigate the effects of single vs. multiple exemplar training. A single exemplar is the typical delivery format for the Triple P Discussion Groups and previous evaluations on the Dealing with Disobedience Triple P Discussion Group (Dittman et al., 2015; Mejia et al., 2015; Morawska et al., 2010) have reported significant reductions in child and parent outcomes when compared to a waitlist control condition among samples of parents with young children. However, the design of the study may have been strengthened by including a waiting list control condition in addition to the two active intervention conditions to determine whether changes in outcome measures over time were greater than no support at all.

It could also be argued that the superior outcomes reported by parents in the multiple exemplar condition were related to the greater amount of time those parents spent attending the intervention, rather than a result of the generalisation promotion strategies. Consideration was given to the possibility of producing similar practitioner contact time between the two intervention conditions but was ruled out as delivering a single Triple P Discussion Group over a longer period of time would alter the programme from its existing evidence base and additional placebo sessions could be ethnically questionable when they are unnecessary. However, it remains unknown as to whether teaching a single exemplar over a longer period of time with greater practitioner contact or receiving additional placebo sessions would result in equivalent intervention outcomes to multiple exemplar training.

5.4 Future Research

The current study leads to a number of questions for future research. Research using low-intensity parenting programmes allows us to explore the minimally sufficient level of intervention required to provide the most beneficial and cost-effective intervention. It remains an empirical question as to how many additional exemplars are required before superior intervention outcomes are not attained. It is possible that additional benefits may have been found after two or three exemplars; thus, future research could investigate this. In addition, a non-inferiority trial could directly compare the effects of receiving multiple exemplars of low-intensity topic-specific parenting groups to a high-intensity group parenting programme, such

as Group Triple P. If non-inferior intervention outcomes are found from multiple exemplar training when directly compared with Group Triple P, it may be preferable to offer parents training in a series of parenting exemplars to improve cost-effectiveness and enhance the reach of parenting programmes on the population. A further limitation is the lack of longer-term follow-up effects. It is unknown, for example, if taking part in a Triple P Discussion Group when a child is young impacts on the development and wellbeing of the child beyond 6-months post-intervention and if the trajectory of young children displaying early conduct problems is altered.

Future research could also investigate ways to enhance father participation in low-intensity topic-specific parenting programmes as such programmes appear to be an attractive option for intervention among fathers. For example, father participation may be enhanced by recruiting through and delivering sessions in a diverse range of contexts, such as workplaces and sports clubs. Similar trials could also be conducted using a more diverse sample with representation from a variety of ethnic groups and socioeconomic backgrounds.

5.5 Implications for Practice

There are several key implications for practice that arose from the current study. Results demonstrated that low-intensity topic-specific parenting groups led to improvements in a range of child and parent outcomes among families with primary school aged children. Multiple exemplar training of low-intensity topic-specific parenting groups has additional benefits for improving mother- and father-rated child behaviour and mothers' parenting practices, parenting self-efficacy, mental health, and perceptions of partner support. A key aim of low-intensity programmes is to improve the cost-effectiveness of interventions (Bennett-Levy et al., 2010) and there is a payoff that needs to be considered between the cost of additional sessions and added benefits. Delivering multiple exemplars adds to the cost of the intervention but increases effects sizes of low-intensity parenting groups.

A population health approach to parenting support highlights the need to target parents at the whole-of-population level to reduce the overall prevalence of child conduct problems (Sanders & Kirby, 2014; Sanders et al., 2014). For many families, an intensive intervention is not feasible or required (Dishion & Stormshak, 2007a). Low-intensity programmes are designed to play a key role in reducing the prevalence of child conduct problems by targeting parents of children with mild to moderate problems and aiming to prevent the development of more serious long-standing difficulties (Sanders, 2008; Sanders & Murphy-Brennan, 2010).

For families with young children displaying early mild to moderate conduct problems, practitioners could consider teaching parenting skills through training in multiple exemplars. This could be a first line of approach to intervention with more intensive parenting programmes being reserved for those families who fail to generalise parenting skills effectively, those with children displaying very high levels of conduct problems, and those with multiple family risk factors. Furthermore, parents may be more likely to take part in several topic-specific parenting groups which may be more relevant to the particular parenting challenges they are currently facing than a more general parenting programme.

Low-intensity parenting groups may also be a way to engage and enhance father participation in parenting programmes. For two-parent families, both parents should be encouraged to attend and engage with the programme. Child care services could be offered to enable both mothers and fathers to participate in parenting programmes and session delivery needs to be timed to suit both parents. Flexible delivery options could include offering evening sessions or full-day weekend workshops in easy to access settings.

Furthermore, to increase the reach of parenting programmes on the population, practitioners already trained in more intensive group based interventions, such as Group Triple P, could receive additional training to deliver the Triple P Discussion Groups. This would allow practitioners to have more flexibility in their delivery of parenting programmes and be able to better suit the needs and preferences of more parents.

5.6 Key Contributions of the Study

This study provided a unique contribution to the literature on low-intensity topic-specific parenting programmes in several ways. First, the study contributed to the limited knowledge on the effects of generalisation promotion strategies aimed at enhancing intervention outcomes. This study was the first time that the effects of single exemplar training of a low-intensity topic-specific parenting group were compared to training in multiple exemplars using a randomised control trial design. The results of the study further our understanding of the effects of generalisation promotion strategies by demonstrating that multiple exemplar training leads to better intervention outcomes for children and mothers. The study also extends the previous research examining the Triple P Discussion Groups among parents with preschoolers (Dittman et al., 2015; Joachim et al., 2010; Morawska et al., 2010; Morawska et al., 2014) and 3-12 year olds (Mejia et al., 2015) by examining the effects among parents of 5-8 year old children addressing topics relevant to this developmental phase. The

Triple P Discussion Groups used in the current study produced positive effects on a range of child and parent outcomes for parents with primary school aged children. The study also addressed limitations of previous research by encouraging both mothers and fathers to take part in the intervention and evaluation. Fifty-eight fathers were involved in the study and Triple P Discussion Groups appear to be an attractive and effective intervention for fathers.

Study Two: Enhancing Intervention Outcomes of Low-Intensity Parenting Groups by Simultaneously Addressing Parenting and Parental Mental Health

Chapter 6. Method

6.1 Overview of Chapter

The aim of this study was to explore the effects of attending a low-intensity group based parenting programme combined with a low-intensity group based cognitive behavioural intervention for common mental health problems among parents with 3-8 year old children. Effects of the combined programme were explored using both quantitative and qualitative methods and aimed to answer the following research questions:

1. Does the combined low-intensity parenting programme and a low-intensity cognitive behaviour intervention for common mental health problems change parenting practices and parental mental health?
2. Does the combined programme change disruptive child behaviour, parenting experiences, family relationships, parenting self-efficacy, positive mental health, and among two-parent families, partner support?
3. What are parents' perceptions of the combined programme?
4. What are parents' perceived impacts of the combined programme?
5. What factors affect parents' implementation of strategies?

Described below are details about registration of the study (section 6.2), the recruitment of participants and a description of participating families (section 6.3), the measures used in the study (section 6.4), the study design (section 6.5) and the study procedure (section 6.6). The chapter ends by describing details of the analysis of the data in section 6.7.

6.2 Study Registration

This study was registered on the ClinicalTrials.gov registry (ref: NCT01777724) and specified the study protocol and outcome measures. Ethical approval for the study is detailed in section 6.6.1.

6.3 Participants

6.3.1 The Study Context

The study took place in South East Glasgow in 2013. Glasgow is Scotland's largest city (National Records of Scotland, 2013) and has a unique health profile, with a proportionally large number of the population living in the most deprived areas in Scotland (Glasgow Centre for Population Health, 2014b), high levels of child poverty (Glasgow Centre for Population Health, 2014a), and shortened life expectancy (National Records of Scotland, 2013). South East Glasgow has a population of approximately 100,000 individuals (Glasgow Centre for Population Health, 2008). The area has a large ethnic minority community and is an area with a relatively large population of income deprived and employment deprived individuals (Glasgow Centre for Population Health, 2008). Approximately 34.4% of households in South East Glasgow with children are single-parent households.

Research has shown that there are poorer health outcomes in Glasgow when compared to cities of a similar size and deprivation level (Walsh, Bendel, Jones, & Hanlon, 2010). These outcomes are above what are expected based on socio-economic circumstances. This phenomenon is known as the 'Glasgow effect'. In support of this, recent findings from the 2008 and 2009 Scottish Health Survey showed that individuals who resided in Greater Glasgow and Clyde were at an increased risk of psychological distress after controlling for a range of demographic and health factors (Landy, Walsh, & Ramsay, 2010). Given the links between poor parental mental health, less optimal parenting and discipline practices, and child conduct problems, it was expected that a substantial proportion of parents in the population in South East Glasgow would experience stress in this environment, hence why the study was conducted in this context.

6.3.2 Recruitment

A self-referral route for enrolment was used in the study. Advertising material describing the study was developed (see Appendix B for an example) and disseminated to the local community in South East Glasgow. The mental health component of the programme was

already being delivered by the National Health Service (NHS) Greater Glasgow and Clyde (GGC) South Primary Care and Mental Health Team as part of their routine practice and was held at a local hall in South East Glasgow. Therefore, recruitment for participants was focused on this area due to the proximity to the location where the programme was held. The advertising materials were disseminated in South East Glasgow through six main methods: 1) the Stress Control website and members of the NHS GGC South Primary Care Mental Health Team (www.glasgowsteps.com), 2) general practitioner (GP) and health clinics in the local community, 3) community health teams in the South Glasgow area (multi-disciplinary teams of social care, nursing, and health staff who provide support and advice to families with young children: www.chps.org.uk), 4) local primary schools, nurseries, early years centres, and playgroups, 5) libraries, cafes, and shops in the local community, and 6) social media. The advertisements encouraged parents with 3–8 year old children who were 'juggling a lot as well as being a parent' and were interested in attending an 8 week group programme aimed at helping parents 'learn to relax, de-stress, and achieve Healthy And Positive Parenting for You' to take part.

Two pathways were set up to enable interested parents to self-refer. Interested parents could email to express interest and an email for the study was supplied on the advertising material (HAPPY@sphsu.mrc.ac.uk). Alternatively a freephone number was supplied in order for parents to phone from a landline free of charge. A voicemail for the study was set up so parents could leave a message if there was no answer. Upon contact, parents were informed of the study protocol and if interested and eligible, written informed consent was obtained.

6.3.3 Eligibility Criteria

To be eligible to take part, parents were required to: 1) have a child between the ages of 3 and 8 years old (rationale: the content delivered in the Triple P Discussion Groups is relevant for parents with children between the ages of 3 and 8 years), 2) be able to attend the group sessions held at the Langside Halls in Shawlands, Glasgow, and 3) be able to read a tabloid newspaper without assistance (rationale: the written materials used in the Triple P Discussion Groups and Stress Control are not suitable for parents who cannot read a newspaper without assistance). Interested parents were excluded if the child had a diagnosis of a developmental or intellectual disability or other significant health impairment (rationale: the Triple P Discussion Groups are designed for children with behaviour problems who are otherwise normally developing).

6.3.4 Enrolment and Attrition

Figure 6.1 displays the flow of participants through each stage of the study. In total, 36 individuals contacted the research team before the close of the study and expressed interest in taking part. Of those 36, 21 discontinued at this point (see Figure 6.1 for reasons for discontinuation) and 15 were screened for eligibility. As part of the screening for eligibility, parents were asked where they had heard about the study to get an idea of which recruitment strategies were most successful. Of the 15 parents who were screened, the highest proportion of participants had seen the advertisement about the study at a nursery or school (n = 5), or a local shop, library or cafe (n = 4). Two of the parents had seen the study advertised in their GP or local health clinic, and one participant had been advised of the study from a staff member at their community health team. Two parents heard about the study through word of mouth, and one parent had seen the study advertised online.

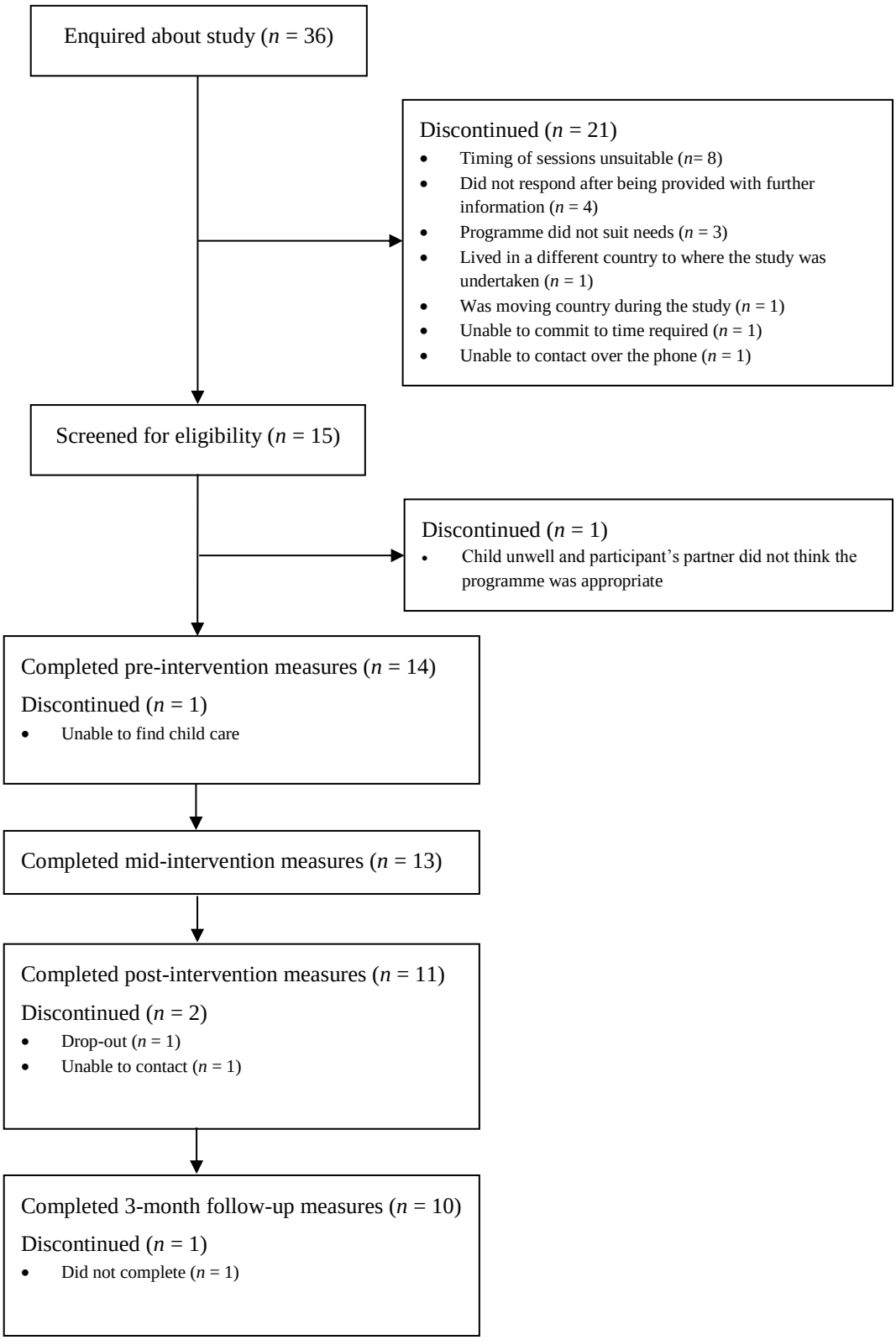

Figure 6.1 Flow of Participants Through Each Stage of the Study and Reasons for Discontinuation

6.3.5 Description of Participants

The sample consisted of 13 families with a child between the ages of 3 and 8 years (*M* = 5.15 years, *SD* = 1.46 years; 76.9% male, *n* = 10). For two-parent families, only one parent was asked to complete the questionnaire measures and for this study the measures were completed by 12 mothers and 1 father. The majority of parents (92.3%, *n* = 12) and all of the target children were born in the United Kingdom. The majority of parents reported their child's ethnicity as Scottish (53.8%, *n* = 7) or British (23.1%, *n* = 3). The remaining parents reported their child's ethnicity as Pakistani (7.7%, *n* = 1), or more than one ethnicity (15.4%, *n* = 2); a British Mexican (*n* = 1) and a Scottish born Indian Pakistani (*n* = 1).

On average parents were 35.85 years old (*SD* = 5.17 years). There was a range in parental education level with more than half of the parents having obtained a university degree (61.5%, *n* = 8), and 23.1% (*n* = 3) were school leavers at 16. The majority of parents were married or living with their partner (84.6%, *n* = 11). The remaining parents reported they were separated (15.4%, *n* = 2). All but one of the children (92.3%, *n* = 12) lived with their original family (one child lived with a foster family where the child had been since birth; the birth parents of the child, who were separated, were taking part in the study), while the other child lived in a single parent family. The mean number of children in the household under 18 years of age was 2.00 (*SD* = 0.58).

In the past 6 months, one parent (7.7%) reported that they sought professional assistance from a psychologist and a counsellor, another parent (7.7%) reported they had seen a counsellor, and four other parents (30.8%) reported they had sought professional assistance from other services. No parents reported that their partner had sought professional assistance from a psychologist, psychiatrist, counsellor, social worker, or other health professional in the past 6 months. Just under half of the parents were in paid employment (46.2%, *n* = 6) and worked on average 26.25 hours per week (range = 17.5-36.0 hours).

Total family income was normally distributed: 15.4% (*n* = 2) reported their total family income as less than £10,000 per annum, 38.5% (*n* = 5) reported their total family income as between £10,000 and £30,000, 30.8% (*n* = 4) reported their total family income as between £30,000 and £50,000, and the remaining 15.4% (*n* = 2) reported a total family income of over £50,000. The median annual gross income for employed individuals in Glasgow City is £19,987 (Office for National Statistics, 2013). Some of the families (38.5%, *n* = 5) reported that they had been unable to meet essential expenses at some time during the past 12 months. After paying for essential expenses, a proportion of families had enough money left over for them to comfortably purchase most of the things they really want (23.1%, *n* = 3), 53.8% (*n* =

7) of the parents reported they had enough money left to purchase only some of the things they really want, and the remaining parents (23.1%, *n* = 3) reported they did not have enough money left over to purchase much of anything they really want.

6.4 Measures

Table 6.1 describes the measures used in study, their rationale for use, and their administration time points and further details about each measure are described below. In the current study, two questionnaire measures were used to measure the effects of the combined intervention on the primary intervention targets at pre-intervention, mid-intervention, post-intervention, and 3-month follow-up, which were parenting practices and mental health. Five secondary outcome measures were used in the current study to measure a range of secondary outcomes at pre-intervention, post-intervention, and 3-month follow-up. When evaluating interventions where intervention effects may change over time (improve or deteriorate), Flay et al. (2005) recommend at least one follow-up measure should be obtained after an appropriate length of time from the end of the intervention (they recommend at least 6 months). Due to time restrictions, follow-up measures were collected 3-months after the end of the combined programme. For two-parent families who took part in the study, only one parent was asked to complete the questionnaire measures.

After NHS West of Scotland Research Ethics Committee (REC) and the NHS Research & Development (R&D) approval was obtained but prior to administration to participants, the participant information sheet (PIS), the consent form (CF), and the pre-intervention questionnaire measures were piloted to check for the clarity of information provided in the PIS and the CF, the comprehension, acceptability, and order of questions in the questionnaire, and completion time. Nine research colleagues with 3-8 year old children at the Medical Research Council/Chief Scientist Office (MRC/CSO) Social and Public Health Sciences Unit, University of Glasgow (which was where the PhD candidate was based), and two parents with 3-8 year old children who had already attended the Stress Control intervention piloted the PIS, the CF, and the pre-intervention questionnaire. The PIS, CF, and questionnaires were amended, if possible and applicable, according to feedback received during piloting. As a result of the piloting, the PIS and CF were amended to improve the clarity of the information. In the pre-intervention questionnaire, the questions gathering demographic information were moved to the end of the questionnaire. One scale that measured the number of disruptive child behaviours that parents considered to be a problem was removed, another scale measuring parenting self-efficacy was replaced with a different scale

measuring this outcome, and a measure of the quality of family relationships was included. Where validated standardised questionnaires were used to measure outcomes, some changes that were suggested during the piloting were not able to be made. An amendment approving the updated versions of the PIS, the CF, and the questionnaires was obtained from the NHS West of Scotland REC and the NHS R&D prior to administration to participants. Copies of the self-report outcome measures used are in Appendix D.

6.4.1 Outcome Measures

6.4.1.1 Parenting measures

The Parenting Scale (PS, Arnold et al., 1993) was one of the primary outcome measures for the study. The PS is a 30 item self-report questionnaire that measures the use of dysfunctional/ineffective parenting practices. As described in section 3.4.1.2 in Chapter 3, each item is rated on a 7-point scale anchored by opposing response options reflecting functional/effective and dysfunctional/ineffective parenting practices. In the current study, internal consistency was high for the PS Total scores at all time points (α's were: .83, .84, .86, and .91).

The Child Adjustment and Parent Efficacy Scale Self-Efficacy subscale (CAPES Self-Efficacy, Morawska & Sanders, 2010) was used to measure parents' self-efficacy in managing a range of difficult child behaviours (e.g., gets upset or angry when they don't get their own way). The CAPES Self-Efficacy subscale consists of 20 items and parents rate each item on a 10-point scale from 1 (*certain I can't do it*) to 10 (*certain I can do it*). A total score is calculated by summing the responses to all items and higher scores indicate higher parenting self-efficacy. Morawska, Sanders, Haslam, Filus, and Fletcher (2014) reported good psychometric properties and a high Cronbach alpha (α = .96) for the CAPES Self-Efficacy subscale. In the current study, the CAPES Self-Efficacy subscale demonstrated high internal consistency with alpha's ranging from .92 to .98 across the three time points.

The Parenting Experience Survey Parenting Experience subscale (PES Parenting Experience, Sanders & Turner, 2011), which was also used in study one, measured perceptions of parents' experience in their parenting role in the previous 6 weeks. The PES Parenting Experience subscale consists of five items rated on a 5-point scale. Further details about the PES Parenting Experience subscale can be found in section 3.4.1.2 in Chapter 3. In the current sample, Cronbach's alpha was good at all time points (alpha's ranged from .71 to .79).

6.4.1.2 Parental mental health measures

As used in study one, the Depression Anxiety Stress Scales 21 item version (DASS-21, Lovibond & Lovibond, 1995) is a self-report scale which was used to measure symptoms of depression, anxiety and stress experienced by the participants and was the second of the primary outcome measures. Participants rate the extent to which each item applied to them in the past week on a 4-point scale (see Chapter 3, section 3.4.1.3 for further details). Cronbach's alphas ranged from .79 to .90 at the four time points for the DASS-21 Total scores in the current study.

The Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS, NHS Health Scotland, University of Warwick, & University of Edinburgh, 2008) was used in the study to measure positive mental wellbeing. The SWEMWBS is a 7 item questionnaire and items are worded positively (e.g., I've been feeling optimistic about the future). Participants rate the extent to which each statement described their experiences over the past 2 weeks on a 5-point scale ranging from 1 (*none of the time*) to 5 (*all of the time*). Items are summed to provide a total score with higher scores indicating more positive mental wellbeing (range: 7-35). The SWEMWBS has also demonstrated good psychometric properties (Stewart-Brown et al., 2009) and the full WEMWBS is sensitive to change in parents' positive mental wellbeing after completing a parenting programme (Lindsay et al., 2008). In the current study, the SWEMWBS demonstrated high internal consistency with alpha's ranging from .85 to .92 across the three time points.

6.4.1.3 Child behaviour measure

The Eyberg Child Behavior Inventory (ECBI, Eyberg & Pincus, 1999) is a 36 item questionnaire that measures parents' perceptions about their child's disruptive behaviour. The ECBI consists of two subscales; however, only the Intensity subscale was used in this study which measures the frequency of each problem behaviour on a 7 point scale (see section 3.4.1.1 in Chapter 3 for further details). In the current study, high internal consistency for the ECBI Intensity Total was also demonstrated at all time points (α's were .93, .93, and .95).

6.4.1.4 Family relationships measures

The Parenting and Family Adjustment Scale Family Relationships subscale (PAFAS Family Relationships, Sanders & Morawska, 2010) was used to measure the quality of family relationships. This subscale consists of 4 items measuring how true each statement is for their family on a 4-point scale ranging from 0 (*not at all*) to 4 (*very much*). The scores on all 4 items are summed to provide a PAFAS Family Relationships Total score with higher scores

reflecting stronger family relationships. Previous research has demonstrated good psychometric properties for the PAFAS Family Relationships subscale and a Cronbach's alpha of .78 (Sanders, Morawska, Haslam, Filus, & Fletcher, 2014). In the current study, Cronbach's alphas for the PAFAS Family Relationships subscale were .62, .10, and .78 for the three time points. Given the low Cronbach alpha for the PAFAS Family Relationships subscale at post-intervention, the reliability was examined if each item was excluded. Item two was identified as having a low inter-item correlation and if excluded Cronbach's alpha was .50. The statistics reported in the results section for the analysis (see Table 7.1) used only three items for the post-intervention PAFAS Family Relationships Total; however, median values are based on all four items so that values are comparable to pre-intervention and 3-month follow-up PAFAS Family Relationships scores.

The Parenting Experience Survey Partner Support subscale (PES Partner Support, Sanders & Turner, 2011) was completed by two-parent families to provide a measure of parents' perceptions of support from their partners. As described in section 3.4.1.4 in Chapter 3, two items tap into the extent of agreement over discipline and perceptions of support and one question measures parents' overall happiness in their partner relationship. In the current sample, Cronbach's alpha was adequate at all time points (alpha's ranged from .54 to .74).

6.4.2 Other Measures

6.4.2.1 Family demographics

The Family Background Questionnaire (FBQ) was used to obtain demographic information from participants. The same questionnaire used in study one was used in the current study (see section 3.4.2.1 for further details), but was adapted to be relevant to the Glasgow context (e.g., ethnicity, qualifications).

6.4.2.2 Programme satisfaction

Participant satisfaction with the programme and acceptability of the programme were measured using two questionnaires: one to measure the satisfaction and acceptability of the parenting component and one to measure the satisfaction and acceptability of the mental health component. The Client Satisfaction Questionnaire (CSQ, Sanders et al., 2001), as used in study one, was used in the current study to measure satisfaction with and acceptability of the parenting component of the programme. Further details about the CSQ can be found in Chapter 3, section 3.4.2.2. A high internal consistency for the CSQ Total was found in the current sample (α = .94).

Satisfaction with the mental health component of the programme was measured using items from a questionnaire developed for Stress Control. The questionnaire is used descriptively to determine the proportion of participants that were satisfied with the mental health component. Eight items from the questionnaire were used to measure parents' satisfaction, the extent to which they attended the programme and tried out the strategies, the extent which the programme has increased their coping skills, their perceived change in their mental health and wellbeing, the extent to which the programme met expectations, and whether they would recommend the programme to others. Items are rated on a range of scales anchored by opposing response options reflecting lower and higher satisfaction. For example, overall satisfaction was measured on a 7-point scale ranging from 1 (*completely dissatisfied*) to 7 (*completely satisfied*). When the mental health component of the programme changed from Stress Control to the Stress and Wellbeing course, the same questions were used to measure satisfaction and wording of the questions was adapted appropriately (e.g., participants were asked about the Stress and Wellbeing course rather than Stress Control).

6.4.2.3 Interviews

Semi-structured in-depth interviews were conducted at post-intervention after the completion of post-intervention questionnaire measures. The interviews explored parents' experiences of taking part in the programme, their perceived impact of the programme, their implementation of strategies, and factors that affected implementing the strategies (see Appendix F for the interview schedule). A separate PIS and informed consent process was conducted for taking part in the post-intervention interview (see Appendix E for an example). The participants were given a £10.00 shopping voucher as compensation for their time and effort. Parents from 10 families were interviewed. In two-parent families, if both parents had attended at least one of the sessions they were both invited to be interviewed. This was the case for two families, resulting in a total of 12 post-intervention interviews conducted. Six of the parents interviewed had received the combined programme with Stress Control and six had received the combined programme with the Stress and Wellbeing course. All interviews were audio recorded and transcribed verbatim.

Table 6.1 Constructs Measured, Their Rationale for Use, and Data Collection Points

Construct	**Measure**	**Administration time point** Pre-intervention	Mid-intervention	Post-intervention	3-month follow-up	**Rationale for use** To measure, describe or explore the following:	**Addresses research question**
Parenting measures							
Dysfunctional/ ineffective parenting practices	Parenting Scale (PS)	✓	✓	✓	✓	the effects of the combined intervention on dysfunctional/ineffective parenting practices	research question 1
Parental self-efficacy	Child Adjustment and Parent Efficacy Scale Self-Efficacy subscale (CAPES Self-Efficacy)	✓		✓	✓	the effects of the combined intervention on parental self-efficacy	research question 2
Parenting experience	Parenting Experience Survey Parenting Experience subscale (PES Parenting Experience)	✓		✓	✓	the effects of the combined intervention on parents' self-reported experiences of their parenting role	research question 2
Parental mental health measures							
Parent mental health	Depression Anxiety Stress Scales 21(DASS-21)	✓	✓	✓	✓	the effects of the combined intervention on symptoms of depression, anxiety, and stress	research question 1
Positive parent mental health	Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS)	✓		✓	✓	the effects of the combined intervention on parents' positive mental health	research question 2
Child behaviour measure							
Disruptive child behaviour	Eyberg Child Behavior Inventory Intensity Scale (ECBI Intensity)	✓		✓	✓	the effects of the combined intervention on children's behaviour	research question 2

Family relationships measures						
Family relationships	Parenting and Family Adjustment Scale Family Relationships subscale (PAFAS Family Relationships)	✓	✓	✓	the effects of the combined intervention on family relationships	research question 2
Partner support	Parenting Experience Survey Partner Support subscale (PES Partner Support)	✓	✓	✓	the effects of the combined intervention on parents' perceptions of support from their partner among two-parent families	research question 2
Other measures						
Family demographics	Family Background Questionnaire (FBQ)	✓			the demographic information of the participating families	-
Participant satisfaction of the parenting component of the programme	Triple P Client Satisfaction Questionnaire (CSQ)		✓		the acceptability and satisfaction with the Triple P Discussion Groups	research question 3
Participant satisfaction of the mental health component of the programme	Stress Control Client Satisfaction Questionnaire		✓		the acceptability and satisfaction with the mental health component of the programme	research question 3
Subjective experiences of the programme and qualitative behaviour change	Interview		✓		the experiences of taking part in the programme, the perceived impact of the programme, the experiences of implementation, and factors that affected implementing the strategies	research questions 1, 2, 3, 4, and 5

6.5 Design

The design of the study was a quasi-experimental, repeated-measures design (time: pre-intervention, mid-intervention, post-intervention, 3-month follow-up) with no control group. Both quantitative and qualitative methods were used to evaluate the combined intervention. The study was originally designed at a feasibility 2 (group: intervention vs. waiting list control) x 4 (time: pre-intervention, mid-intervention, post-intervention, 3-month follow-up) randomised control trial to examine the short- and long-term effects of attending the combined intervention in comparison to a waitlist (see Palmer, Henderson, Sanders, Keown, & White, 2013 for original protocol). Although randomised control trial (RCT) designs are considered to be the 'gold standard' for determining what works and what does not work for health care research (Torgerson & Torgerson, 2008), in practice they are not always feasible. Though the study had originally been designed as an RCT and NHS ethical approval was granted in a timely manner, several challenges throughout the course of the study were faced which necessitated a change in study design from a RCT to a quasi-experimental design with no control group. First there were delays in receiving approvals from the NHS R&D office and these delays were mainly created by inconsistency between organisations' requirements around researcher membership to the Protecting Vulnerable Groups scheme. NHS R&D approval is required to be in place alongside NHS ethical approval before research can commence. After the delay to starting the study, several other challenges such as poor recruitment rate, the fixed timing of the intervention, and a limited timeframe for conducting this study meant that the trial could not have been undertaken as originally planned. In addition, the NHS GGC stopped delivering Stress Control, which comprised a component of the combined intervention, and replaced it with the Stress and Wellbeing course. Decision-makers were aware of the ongoing research. Quasi-experimental, repeated-measures designs with no control group have limitations; for example effects may be overestimated because of issues related to temporal changes and regression to the mean (Torgerson & Torgerson, 2008). However, in settings where it is difficult to randomise to conditions, a quasi-experimental repeated-measures design has been recommended to evaluate an intervention (Katz, 2010).

The MRC guidelines for evaluating complex interventions (Craig et al., 2008) suggest undertaking a 'process evaluation' alongside measuring change in outcomes. Craig et al. (2008) highlight the valuable insights that can be gained from conducting a process evaluation. This type of information can provide an understanding of why an intervention works or fails to work and any unintended consequences. It can be used to examine the implementation of the programme, identify contextual factors that may impact the programme outcomes, and illuminate underlying mechanisms of change. One way of collecting some of this information

is to conduct in-depth interviews with parents about their experience of taking part in a parenting programme and their perceived programme impact. In addition, qualitative approaches can be used to understand how parents implement the taught strategies in their homes and under what conditions and in which contexts the programmes are beneficial. In support of these ideas, Pawson and Tilley's (1997) realist evaluation highlights the importance of understanding what and how programmes work, for whom do they work, and in what context. This incorporates not only collecting information to establish the change in outcome measures, but collecting information about aspects of the context that may influence outcomes and specific mechanisms of change. Furthermore, Foster and Mash (1999) argue that the social validity of an intervention should be explored, referring to the importance and acceptability of the intervention for individuals. One way of examining the social validity on an intervention is to obtain opinions of qualitative behaviour change (Kazdin, 1977).

To reduce the limitations associated with a quasi-experimental repeated-measures design with no control group and to further understand the processes of the combined intervention, a mixed method evaluation of the combined intervention was undertaken. Considering the novelty of the combined intervention, a mixed method design was able to provide initial findings about the acceptability of the intervention and whether further research was warranted. Mixed methods research involves collecting and analysing data that are both quantitative and qualitative in nature (Creswell & Plano Clark, 2011; Johnson & Onwuegbuzie, 2004). In mixed methods studies, quantitative and qualitative approaches are not seen as incompatible, but aim to reduce weaknesses in methodology by drawing on the strengths of both approaches (Johnson & Onwuegbuzie, 2004; Weis, Jenkins, & Stich, 2009). When used together, quantitative and qualitative methodologies can generate a more comprehensive understanding (Johnson & Onwuegbuzie, 2004). Creswell and Plano Clark (2011) describe how mixed methods research is suitable for a number of research problems such as: when data from one source are insufficient, when there is a need to explain findings, when an additional method is required to enhance the findings from the main method, or when specific research questions are best addressed using different approaches. Specifically, quantitative methods lack participant voice (Creswell & Plano Clark, 2011) and do not address the reasons or processes for intervention effects (Weis et al., 2009). Qualitative approaches can make up for these weaknesses.

An embedded design was used in the current study to collect qualitative data, meaning that the supplementary data collection was embedded in a larger study to answer different research questions (Creswell & Plano Clark, 2011). The most common type of the embedded design is the embedded-experiment variant, in which qualitative data are embedded in an

experimental trial. This design was used in the current study and qualitative data collection consisted of semi-structured, in-depth interviews conducted at post-intervention.

6.6 Procedure

Advertising materials developed for the study were disseminated in South East Glasgow (further details described above in section 6.3.2) and parents who were interested in taking part were asked to contact the researchers. Upon contact, parents were informed about the study procedures and the programme and were screened for eligibility (criteria described above in 6.3.3). Written informed consent was obtained from all eligible parents who were interested in taking part in the study. Pre-intervention questionnaire measures were then administered. After pre-intervention measures were completed, participants were asked to attend the intervention. Mid-intervention questionnaire measures were completed after the end of the parenting component of the programme, but before the start of the mental health component (between sessions 2 and 3). Post-intervention questionnaire measures were obtained immediately after the end of the intervention and post-intervention interviews were conducted after post-intervention questionnaire measures were completed. A 3-month follow-up questionnaire was administered 3 months after the end of the programme. Depending on participant preference, questionnaires were either completed online or in hardcopy.

6.6.1 Ethics Approval

The study protocol and amendments to the protocol were approved by the NHS West of Scotland REC (ref 12/WS/0242) and the NHS R&D Management Office (ref GN12FS463).

6.6.2 Intervention

The intervention was a combination of a low-intensity parenting programme (Triple P Discussion Groups) and a low-intensity cognitive behaviour intervention for common mental health problems (initially Stress Control and then changed to the Stress and Wellbeing course). The change from Stress Control to the Stress and Wellbeing course was a result of change in management in the NHS GGC South Primary Care and Mental Health Team and Stress Control being withdrawn from the NHS services. The change occurred when the third and final delivery of the combined programme had started (parents had completed the first parenting session). All of the families who were taking part at this time re-consented to attend the Stress and Wellbeing course instead of Stress Control. Table 6.2 describes the two combined programmes.

The parenting component of the intervention was two Triple P Discussion Groups (Sanders, 2012). As described in study one (see section 3.6.3), the parent discussion groups are two hours long and delivered in a small group format. During the first session, Being a Positive Parent, the principles of positive parenting were introduced and a range of skills to support children's competence and development and to build positive relationships with children are taught. The second session focused on child disobedient behaviour. Reasons for child disobedience, common parenting traps, and skills to prevent and manage disobedient behaviours are taught. Three practitioners were involved in delivering the parenting component of the combined programme. They were all trained Triple P practitioners and delivering the Triple P programmes to parents in Glasgow was part of their professional roles.

The component of the programme aimed at improving parental mental health was initially Stress Control, which then changed to the Stress and Wellbeing course. Stress Control is a low-intensity cognitive behavioural intervention for common mental health problems consisting of six 90-minute sessions (White, 2010a). Sessions are delivered in a large group format and discussion is actively discouraged. During the first session, information about common mental health problems is presented. Sessions 2-4 focus on controlling your body, controlling your thoughts, and controlling your actions respectively. During these sessions, the effects of stress on your body, your thoughts, and your actions are introduced and a range of cognitive and behavioural techniques to control your body, your thoughts, and your actions are taught. Session 5 focused on controlling panic and information on medication and anti-depressants was provided. During the final session, information on how stress affects sleep and skills to control your sleep were taught. In addition, information on positive wellbeing and skills for promoting positive wellbeing was presented. Three practitioners were involved in delivering the Stress Control programmes that the participants in the study attended. They delivered Stress Control as part of their routine clinical practice.

The Stress and Wellbeing course is a four session low-intensity cognitive behavioural intervention for common mental health problems (Lifelink UK, 2014). Sessions are two hours long and are also delivered in a large group format. In session 1, psychoeducation about stress is presented and strategies like relaxation and breathing retraining are introduced. Sessions 2 and 3 focus on the effects of stress on behaviour and thoughts, and cognitive and behavioural techniques are taught to manage stress. The final session covered worry, taught problem solving, and looked at ways to promote positive wellbeing. One key difference between the programmes was that exercises were completed in session during the Stress and Wellbeing course, but not in Stress Control. One practitioner delivered the Stress and Wellbeing programme that the participants in the study attended.

The findings reported in Chapter 7 are pooled for the parents who received Stress Control and those who received the Stress and Wellbeing course. The information provided by these two groups of parents was pooled for the following reasons: 1) both Stress Control and the Stress and Wellbeing course are low-intensity programmes for common mental health problems and thus the findings shed light on the impact of attending such programmes in combination with a low-intensity parenting programme; 2) they both taught cognitive and behavioural techniques; 3) they were both delivered in a large group format, and 4) the Stress and Wellbeing course is the replacement service for Stress Control in South East Glasgow.

The combined programme was run three times with three parents participating in the first delivery of sessions, four parents (three families) in the second delivery, and eight parents (seven families) in the final delivery of the combined programme. Of these 13 families, six attended the intervention when the mental health component was Stress Control, and seven attended when the parenting programme was combined with the Stress and Wellbeing course.

Table 6.2 Description of Programme Sessions

Sessions	Triple P Discussion Groups and Stress Control	Triple P Discussion Groups and Stress and Wellbeing
1	Being a Positive Parent Triple P Discussion Group	Being a Positive Parent Triple P Discussion Group
2	Dealing with Disobedience Triple P Discussion Group	Dealing with Disobedience Triple P Discussion Group
3	Stress Control Session 1: Information about stress	Stress and Wellbeing Session 1: What is stress?
4	Stress Control Session 2: Controlling your body	Stress and Wellbeing Session 2: Behaviour and stress
5	Stress Control Session 3: Controlling your thoughts	Stress and Wellbeing Session 3: Thought patterns and stress
6	Stress Control Session 4: Controlling your actions	Stress and Wellbeing Session 4: Problem solving and wellbeing
7	Stress Control Session 5: Controlling your panic, using your breathing to control stress, prevention skills and medication	
8	Stress Control Session 6: Controlling your sleep, wellbeing, and controlling your future	

6.6.3 Intervention fidelity

As in study one, intervention fidelity for the Triple P Discussion Groups was measured using session checklists that were developed by the programme developers for the purpose of assessing intervention fidelity (Sanders & Turner, 2011). The session checklists were used to determine if the group sessions were delivered according to the standard manualised protocol. In the current study, the sessions were delivered by three trained female Triple P practitioners. The session checklists were completed by the practitioners at the end of each Triple P Discussion Group and a proportion of the content covered was calculated. In order to determine the reliability of the practitioner-rated intervention fidelity, the content covered in the sessions was also rated by a second individual independently using the same session checklist. In order to obtain a reliability check of the intervention fidelity, all Triple P Discussion Groups were audio recorded and approximately 30% of the recorded sessions were checked at random by the second rater and the proportion of content covered was calculated. In addition, agreement between the practitioner completed and second-rater completed

checklists were examined to determine the extent of inter-observer agreement on intervention fidelity.

Six Triple P Discussion Groups were delivered as part of the current study using the standard manualised protocol (Sanders & Turner, 2011). Practitioner completed ratings of the proportion of content covered in the sessions were high (ranged from 84.0% to 100.0%, *M* = 95.3%, *SD* = 0.07) indicating that the programme was delivered according to the standard manualised protocol. The ratings of the proportion of content covered in the sessions completed independently by the second rater ranged from 93.8% to 96.0% (*M* = 94.9%, *SD* = 0.02). Intervention fidelity ratings provided by the practitioner and those provided by the second rater were compared. Inter-rater agreement was high (ranged from 93.8% to 96.0%, *M* = 94.9%, *SD* = 0.02).

Intervention fidelity for Stress Control was measured using the same method. Session checklists were developed for the study and approved by the programme developer. The checklists developed used the same format as the checklists for the Triple P Discussion Groups so the proportion of content covered in each session could be calculated. This was done to keep intervention fidelity measures consistent between the two components of the combined programme. Three trained professionals were involved in the delivery of Stress Control programmes that the participants in the study attended. The session checklists were completed by the practitioners after each session and a second individual independently completed measures of intervention fidelity using the same session checklist. As with the Triple P Discussion Groups, all Stress Control sessions were audio recorded and approximately 30% of the recorded sessions were checked at random by the second rater and the proportion of content covered was calculated. Inter-observer agreement on intervention fidelity was also calculated.

High intervention fidelity was also reported for Stress Control. Practitioner completed ratings of the proportion of the content covered in the Stress Control sessions were all 100.0%. In addition, second rater completed ratings of the proportion of content covered in the sessions ranged from 90.0% to 100.0% (*M* = 95.1%, *SD* = 0.05). Inter-rater agreement was high for the ratings provided by the practitioner and those provided by the second rater (range from 90.0% to 100.0%, *M* = 95.0%, *SD* = 0.05).

When the mental health component of the programme changed from Stress Control to the Stress and Wellbeing course, intervention fidelity was unable to be measured as a checklist or protocol had not been developed to measure fidelity. Thus, it was not possible to obtain a measure of fidelity in a similar way to the how fidelity was measured for Stress Control.

6.7 Data Analysis

6.7.1 Preliminary Analyses

Questionnaire data were collected in two ways: via online and hardcopy versions. Data collected through hardcopy versions of the questionnaire were entered into SPSS. The entry of all data collected through hardcopy was checked by an individual independent from the research and 100.0% accuracy of data entry was reported. The quantitative data collected online were downloaded and merged with the data collected through hardcopies.

Due to the small size, an intention-to-treat approach described in the original protocol (Palmer et al., 2013) was considered to be inappropriate as it would result in a large proportion of the data at post-intervention and 3-month follow-up being imputed. Therefore, analyses were conducted for participants who completed measures at more than one time point.

First, missing variable analyses were used to identify the extent and pattern of missing data. The total scale scores were then calculated and the internal reliability of each variable was examined using Cronbach's alpha (the relevant statistics are presented for each measures in the measures section above). Each variable was then screened for outliers and for violations to the assumptions of normality (skewness and kurtosis). Univariate outliers were examined by converting each participant's score for each variable into z-scores (Field, 2013). Field's (2013) guidelines described in section 3.7.1 for identifying outliers using z-scores were used. Field (2013) recommends reducing outliers that have z-scores above 3.00 to three standard deviations from the mean. The assumption of normality was then checked by examining the skewness and kurtosis statistics of each measure at each time point. Skewness and kurtosis statistics were obtained through SPSS and converted into z-scores by dividing the test statistic by the standard error (Field, 2013). The obtained z-scores were compared to Field's guidelines described previously to identify variables with significant non-normality problems. The results of these preliminary analyses are described in Chapter 7, section 7.2.

In the current study, non-parametric tests were used to analyse quantitative data. The central limit theorem refers to when samples are big enough (commonly accepted as greater than 30), sampling variables will have a normal distribution (Field, 2013). In the current study, the sample consisted of 13 families which justified the use non-parametric tests. Non-parametric tests make fewer assumptions about the population which data are drawn from, although they can have less power to detect differences than equivalent parametric tests (Field, 2013). Non-parametric tests overcome problems with outliers, skewness, and kurtosis by ranking the data and conducting the analyses on the ranked data.

First, preliminary analyses were conducted to identify any differences in demographic variables and pre- and mid-intervention questionnaire measures for participants who did and did not complete the questionnaire measures at post-intervention and 3-month follow-up. First the sample was split into groups according to whether the participant had completed post-intervention and 3-month follow-up questionnaire measures. Mann-Whitney U Tests (non-parametric version of the independent samples *t*-test, Pallant, 2010) were used to examine whether those who completed the measures at post-intervention and 3-month follow-up differed on continuous variables (e.g., pre- and mid-intervention questionnaire measures, child age) from those who did not complete measures at post-intervention and 3-month follow-up. The Mann-Whitney U Test calculates significance in two ways: the asymptotic and exact methods (Field, 2013). When sample sizes are small (Field suggests anything under 50), the exact method for significance should be used (Field, 2013). Thus, exact significance for the Mann-Whitney U Tests is reported in the results.

The chi-squared test for independence was used to examine any differences in categorical variables (e.g., child gender, parental education) between those who completed the questionnaire measures at post-intervention and 3-month follow-up and those who did not. In small samples the approximate chi-square distribution may not be accurate (Field, 2013) and Fisher's exact test, which calculates the exact probability that the statistic is accurate, should be used. In Chapter 7, the findings of chi-squared analyses are reported using the Fisher's exact test.

6.7.2 Change Over Time in Outcome Measures

The Friedman's test is the non-parametric alternative of a one-way repeated-measured ANOVA (Pallant, 2010) and is used to test differences between scores collected at three or more time points from the same sample (Field, 2013; Pallant, 2010). The Friedman's tests were used to compare the scores on the primary measures at all four time points (pre-, mid-, and post-intervention, and 3-month follow-up) and scores on the secondary measures at the three time points (pre- and post-intervention, and 3-month follow-up). As with other non-parametric tests, the Friedman's test is based on ranked data which are compared at each time point and results in a χ^2 test statistic (Field, 2013). Any significant effects that were found in the Friedman's tests were followed up with pairwise comparisons using Wilcoxon Signed Rank tests (a non-parametric alternative of a repeated-measures t-test based on ranked data, Field, 2013). For the Wilcoxon Signed Rank tests, to reduce the number of analyses due to the small sample size, pre-intervention scores were compared with post-intervention scores only, and post-intervention scores were compared with 3-month follow-up scores only to examine

maintenance of any pre- to post-intervention effects. The effect size (*r*) of significant Wilcoxon Signed Rank tests were calculated by dividing the z-score by the square root of the number of observations over the two time points (Field, 2013). According to Cohen (1992) *r* = .10 indicates a small effect, *r* = .30 indicates a medium effect size, and *r* = .50 indicates a large effect size. See Chapter 7, section 7.3 for the results of these analyses.

6.7.3 Statistically Reliable and Clinically Significant Change

As in study one, the Reliable Change Index (RCI, Jacobson & Truax, 1991) and clinical cut-offs were also used in the current study to examine statistically reliable and clinically significant change from pre- to post-intervention for the two primary outcomes (PS Total, DASS-21 Total), as well as disruptive child behaviour which also had a clinical cut-off score (ECBI Intensity Total). The RCI provides an indication of whether the extent of change is statistically reliable or whether the extent of change is likely due to variation in inaccurate measurement (Jacobson & Truax, 1991); see section 3.7.4 for further details. Based on the index, each participant's difference in PS Total, DASS-21 Total, and ECBI Intensity Total scores between pre- and post-intervention were grouped into three categories: reliable improvement, reliable deterioration, or no reliable change. Results are displayed in section 7.4.

The clinical cut-offs were also used to determine if movement in and out of the clinical range had occurred for these measures. Based on the scores on the PS Total, DASS-21 Total and the ECBI Intensity Total, participants were grouped into four categories on the level of clinical change. The four categories were: clinically significant change (scores above the clinical cut-off at pre-intervention and below the clinical cut-off at post-intervention), did not achieve clinical change (scores above the clinical cut-off at both pre- and post-intervention), worsened (scores below the clinical cut-off at pre-intervention and above the clinical cut-off at post-intervention), and not in clinical range (scores below the clinical cut-off at both pre- and post-intervention). Results are displayed in section 7.4.

6.7.4 Analysis of Interviews

The interviews were analysed using a general inductive approach (Thomas, 2006) with the aid of NVivo 10. The key purpose of a general inductive analysis approach is to condense and summarise raw data, establish transparent and defensible links between research objectives and summary findings, and to develop a model about the experiences or processes that are represented in the data (Thomas, 2006). This involves conducting detailed readings of the raw data to derive themes. For this study, all transcripts were read multiple times and emergent themes were identified and used to create five overall themes: 1) why parents were interested in attending the programme, 2) their perceptions of the programme, 3) their

perceived impact of the programme, 4) their challenges with or barriers to implementation, and 5) their preferences for support. The statements that were coded under each of the five themes were then further defined into sub-themes. See Table 7.4 for a description of the sub-themes and examples in Chapter 7.

In qualitative research, there is a focus on ensuring validity by establishing whether the findings provided are accurate and credible (Creswell & Plano Clark, 2011). This involves assessing the trustworthiness of the findings, which refers to the credibility, transferability, dependability, and confirmability of the results (Lincoln & Guba, 1985). Credibility refers to confidence in the accuracy of the findings (Lincoln & Guba, 1985). Thomas (2006) describes one way to determine whether the findings are credible and dependable is to obtain a check on the clarity of the categories by an independent rater. This involves a second independent rater coding a randomly selected sample of the transcriptions. In the current study, a second independent rater coded three (25.0%) randomly selected transcripts. A list of codes was given to the inter-rater, who was asked to code the transcripts against the categories. The coding was then discussed and compared to examine the creditability of the coding. Adjustments to the codes and coding scheme were made as necessary. The Kappa Measure of Agreement was then calculated to assess inter-rater agreement (Pallant, 2010). A Kappa value of .5 represents moderate agreement, a value of .7 represents good agreement, and a Kappa value above .8 indicates very good inter-rater agreement. In addition to inter-rater coding checks, credibility can also be examined by triangulation via data sources to corroborate and confirm findings (Shenton, 2004). Taken together, these methods help to enhance confidence in the accuracy of the findings.

Transferability refers to the applicability of the findings to other contexts or individuals (Lincoln & Guba, 1985). Transferability of the findings to other contexts or populations is difficult to demonstrate in small qualitative studies of particular individuals (Shenton, 2004). However, in similar situations findings may be similar. It is recommended that a detailed description of the context and research procedures is essential to enable others to assess the transferability of findings (Shenton, 2004). This information was included in the current study and involves providing a description of where the study was based (described in section 6.3.1), any eligibility criteria for participation (see section 6.3.3), the data collection methods used (see section 6.4), and the number and demographic information of the participants who were involved (described in section 6.3.5). In the current study, all participants who had attended at least one session of the combined programme were invited to be interviewed to ensure the range of experiences and views were captured. Selected quotations from participants are

presented in section 7.5 in Chapter 7 to enhance the transfer of findings. Quotations have been modified, where necessary, to aid expression and understanding of ideas.

Dependability of qualitative analysis refers to the consistency of the findings (Lincoln & Guba, 1985); that if the work was repeated the findings obtained would be similar (Shenton, 2004). Dependability is closely linked with credibility (Lincoln & Guba, 1985) and the demonstration of and procedure to determine credibility of the findings also suggests the results are dependable. In addition, to allow others to ascertain dependability, Shenton (2004) recommends describing methods in enough detail that would allow for replication. The details of the measures, design, and procedure are described above in sections 6.4, 6.5, and 6.6 respectively.

The final area for ensuring the trustworthiness of qualitative findings is confirmability, meaning that findings are shaped by the participants and not by researcher biases or motivations (Lincoln & Guba, 1985). In the current study, triangulation with different data sources was used to reduce any research biases or motivations, and detailed methodological descriptions give confidence that the findings emerged from the data.

6.7.5 Integration of Quantitative and Qualitative Analysis

As described previously, mixed methods studies using both quantitative and qualitative data aim to reduce weaknesses in methodology by drawing on the strengths of both approaches (Johnson & Onwuegbuzie, 2004; Weis et al., 2009). When used together, quantitative and qualitative methodologies can generate a more comprehensive understanding (Johnson & Onwuegbuzie, 2004). Therefore, a key component of mixed method research involves integrating quantitative and qualitative data into a coherent whole. O'Cathain, Murphy, and Nicholl (2010) argue that without integration, understandings of the findings are equivalent to when quantitative and qualitative studies are conducted independently. In the current study, as quantitative methodologies were used to explore changes in outcomes over time and qualitative approaches were used to examine the experiences and perceptions of the combined programme, it's perceived impact, and factors affecting implementation, data were first analysed separately (O'Cathain et al., 2010). In Chapter 8, the findings are integrated and triangulated to allow for corroboration of findings and provide a more comprehensive understanding (O'Cathain et al., 2010) of the effects of the combined programme for parents of 3-8 year old children.

Chapter 7. Results

7.1 Overview of Chapter

This chapter will start by describing the findings from the preliminary data analyses outlined in section 6.7.1 in Chapter 6. Change over time in pre-specified outcomes (Palmer et al., 2013) and statistically reliable and clinically significant change from pre- to post-intervention among outcomes are then presented in sections 7.3 and 7.4. Findings from the qualitative interviews are described and selected quotes are used for illustration purposes (see section 7.5). The chapter ends with details on intervention attendance and participant satisfaction (section 7.6).

7.2 Preliminary Analyses

Missing values analyses revealed that there was no missing data for the pre- and mid-intervention measures. For the post-intervention questionnaire measures, one participant had missed one question (which equated to 9.1% of the data missing for this item), and for 3-month follow-up data one participant missed three questions (which equated to 10.0% of the data missing for these items). Little's Missing Completely at Random tests for the missing data at post-intervention and 3-month follow-up were not significant (p = .910 and p = .875 respectively), indicating that the missing values were missing completely at random. These four missing items were imputed using the expectation maximisation method.

The data were then examined for univariate outliers according to Field's (2013) guidelines. Potential outliers (a z-score was greater than 1.96 but less than 2.58) were found on several scales at pre-intervention (Eyberg Child Behavior Inventory [ECBI] Intensity, Parenting Experience Survey [PES] Parenting Experience, PES Partner Support, Short Warwick-Edinburgh Mental Well-being Scale [SWEMWBS]), mid-intervention (Parenting Scale [PS], Depression Anxiety Stress Scales 21 [DASS-21]), post-intervention (DASS-21, ECBI Intensity) and 3-month follow-up (PES Partner Support). Five of the 13 participants accounted for these potential outliers. Field (2013) recommends reducing outliers from above three standard deviations to three standard deviations from the mean. These identified outliers were retained in the sample as they did not exceed three standard deviations from the mean. In addition, it was further deemed unsuitable to reduce the impact of these outliers considering the high proportion of participants in the sample who accounted for them (for five participants at least one of their scores on the questionnaire measures would have been adjusted) and the scores were considered to be part of the target population.

All variables were then checked for the assumption of normality. All scales, except one, did not violate this assumption. For the post-intervention DASS-21 Total scores, a significant kurtosis statistic was found. Due to the large numbers of potential outliers, the violations against the assumption of normality for one variable, and the small sample size, non-parametric tests were used to analyse the quantitative data (see section 6.7.1 in the Method for further details supporting the use of non-parametric techniques).

There were no significant differences between parents who did and did not complete post-intervention and 3-month follow-up questionnaire measures on demographic variables and mid-intervention questionnaire scores using the Mann-Whitney U and chi-squared tests. Furthermore, there were no differences between completers and non-completers of post-intervention measures for all pre-intervention questionnaire scores. However, there was a significant difference between those who completed 3-month follow-up and those who did not on the PES Parenting Experience subscale at pre-intervention. Those who completed 3-month follow-up questionnaire measures had lower PES Parenting Experience scores indicating a less positive parenting experience at pre-intervention than those who did not complete 3-month follow-up questionnaire measures (p = .049). This was the only pre-intervention variable that differentiated the completers and non-completers of 3-month follow-up measures.

7.3 Change Over Time in Outcome Measures

The table below (Table 7.1) shows the descriptive statistics for the outcome measures at each time point and the results of the Friedman's Tests (further details about these analyses can be found in Chapter 6, section 6.7.2). It is important to first note that this was a feasibility study that is statistically underpowered. Significant effects are likely to be exaggerated in underpowered studies (Button et al., 2013) and conversely, non-significance will not differentiate between the lack of an intervention effect and the lack of statistical power. A much larger sample size (N = 160) is required for adequate power (see Palmer et al., 2013 for full details of the power calculation).

A statistically significant difference in the PS Total scores and DASS-21 Total scores across the four time points was found. Follow-up Wilcoxon Signed Rank tests were used to compare pre- and post-intervention scores, and post-intervention and 3-month follow-up scores. There was a significant reduction in PS Total scores from pre- to post-intervention (p = .005). The effect size for the change in PS Total was large (r = -.60). For the DASS-21 Total, there was also a significant reduction in scores between pre- and post-intervention (p = .011)

which was large in size (r = -.54). There were no statistically significant changes in either the PS Total or the DASS-21 Total scores from post-intervention to 3-month follow-up, indicating that improvements seen between pre- and post-intervention were maintained. The Friedman's Tests for the secondary outcome measures indicated that there were no statistically significant differences across the three time points for all secondary outcomes.

Table 7.1 Medians and Freidman's Test Statistics for the Outcomes Measures at All Time Points

Measures	**Pre-intervention** (n = 13) *Md*	**Mid-intervention** (n = 13) *Md*	**Post-intervention** (n = 11) *Md*	**3-month follow-up** (n = 10) *Md*	Friedman's Test (χ^2)	p
Parenting measures						
PS Total	3.60	3.20	2.97	2.82	11.67	**.009**
CAPES Self-Efficacy Total	122.00	-	153.00	132.00	2.60	.273
PES Parenting Experience Total	15.00	-	17.00	16.00	1.03	.597
Parental mental health measures						
DASS-21 Total	10.00	9.00	7.00	7.00	9.42	**.024**
SWEMWBS Total	26.00	-	26.00	24.50	2.32	.313
Child behaviour measure						
ECBI Intensity Total	144.00	-	130.00	116.00	4.20	.122
Family relationships measures						
PAFAS Family Relationships Total	3.00	-	3.00	1.50	2.47	.291
PES Partner Support Total[a]	10.00	-	10.00	10.00	2.57	.276

Note. Significant p values are bolded.

[a]n = 11 at pre-intervention; n = 9 at post-intervention and 3-month follow-up.

7.4 Statistically Reliable and Clinically Significant Change at Post-Intervention

Table 7.2 displays the number and proportion of parents who reported statistically reliable change using the Reliable Change Index (RCI; Jacobson & Truax, 1991) on the PS Total, the DASS-21 Total, and the ECBI Intensity Total from pre- and post-intervention. Following, Table 7.3 displays the number and proportion of parents who reported clinically significant change on these measures. See section 6.7.3 for a description of the process for these analyses.

A substantial proportion of the participants reported statistically reliable change from pre- to post- intervention for the PS Total, the DASS-21 Total, and the ECBI Intensity Total (see Table 7.2). There was some movement out of the clinical range for parenting practices at post-intervention and disruptive child behaviour. Parents tended to not be in the clinical range for the DASS-21 Total at pre-intervention.

Table 7.2 Statistically Reliable Change From Pre- and Post-Intervention for Parenting Practices, Mental Health Problems, and Disruptive Child Behaviour

Outcome measure	**Post-intervention (*n* = 11)**	
	n	%
PS Total		
Reliably improved	5	45.5
Reliably deteriorated	0	0.0
No reliable change	6	54.5
DASS-21 Total		
Reliably improved	3	27.3
Reliably deteriorated	0	0.0
No reliable change	8	72.7
ECBI Intensity Total		
Reliably improved	3	27.3
Reliably deteriorated	1	9.1
No reliable change	7	63.6

Note. Valid % reported.

Table 7.3 Clinically Significant Change From Pre- and Post-Intervention for Parenting Practices, Mental Health Problems, and Disruptive Child Behaviour

Outcome measure	**Post-intervention (*n* = 11)**	
	n	%
PS Total		
Clinically significant change	4	36.4
Did not achieve clinical change	4	36.4
Worsened	0	0.0
Not in clinical range	3	27.3
DASS-21 Total		
Clinically significant change	0	0.0
Did not achieve clinical change	1	9.1
Worsened	0	0.0
Not in clinical range	10	90.9
ECBI Intensity Total		
Clinically significant change	4	36.4
Did not achieve clinical change	3	27.3
Worsened	2	18.2
Not in clinical range	2	18.2

Note. Valid % reported.

7.5 Analysis of Interviews

Table 7.4 describes the coding categories and topic descriptions that were derived from the post-intervention interviews. To assess the trustworthiness of the findings and determine whether the findings were credible and dependable, a second independent rater coded a randomly selected sample of transcripts (n = 3, 25.0% of all interviews). A list of codes was given to the independent rater who was asked to code the transcripts against the categories. The coding was then discussed and compared to examine the creditability of the coding. Adjustments to the codes and coding scheme were made as necessary. This resulted in an overall inter-coder agreement of 98.3%. The Kappa Measure of Agreement for the overall inter-coder agreement was .94, $p < .001$, indicating very good agreement between raters.

Table 7.4 Coding Categories and Topic Descriptions

Topic category Topic subcategory	**Topic description**
Why interested in attending	
Parenting related reasons	Comments describing reasons for taking part in the programme that were related to parenting (e.g., wanted to change parenting practices, parenting practices were ineffective)
Child related reasons	Comments describing reasons for taking part in the programme that were related to the target child (e.g., challenging child, concerns about child's future)
Mental health reasons	Comments describing reasons for taking part in the programme that were related to the parent's mental health (e.g., to cope with changes in parent's life)
Other reasons	Comments about other reasons for taking part in the programme (e.g., documentation, time of sessions suited parent)
Perceptions of the programme	
Positive	Positive comments about the programme or things parents liked about the programme (e.g., useful, informative)
Negative	Comments about programme that displayed a negative opinion of some aspect of the programme or things parents didn't like about the programme (e.g., the way the programme was run)
Neutral	Comments about the programme that were not linked with a positive or negative opinion (e.g., wasn't what they were expecting, not relevant to their personal situation)
Perceived impact of the programme	
Changes in knowledge/attitude	Comments about changes in knowledge/attitude as a result of attending the programme (e.g., new knowledge, more open-minded)
Changes in behaviour	Comments about the impact of the programme on their own, their partner's, or their child's behaviour. Changes (or lack of) could be related to parenting or mental health but were something they were doing as a result of attending the programme (e.g., new parenting skills, improved self-care skills, perceived change in child behaviour)
Changes in affect	Comments about changes related to an emotion or how they feel as a result of attending the programme (e.g., happier, improved self-esteem)
Other impacts of the programme	Comments about other impacts of the programme (e.g., chance to reflect, time to self)

Challenges with or barriers to implementation	
Logistical/practical barriers	Comments describing logistical/practical barriers to implementing strategies (e.g., lack of time, being busy)
Family related barriers	Comments describing family related challenges with or barriers to implementing strategies (e.g., lack of support, partner resistance, parenting more than one child)
Parent related barriers	Comments describing parent related challenges with or barriers to implementing strategies (e.g., poor organisational skills, lack of effort)
Child related barriers	Comments describing child related challenges with or barriers to implementing strategies (e.g., child's personality, child's developmental stage)
Programme related barriers	Comments describing barriers to implementing strategies that were related to the programme (e.g., resistance to suggested strategies, time required to implement strategies successfully)
Preferences for support	
Preferences for support – parenting component	Parents' descriptions of their preferences for support related to the parenting component of the programme (e.g., additional sessions, follow-up sessions)
Preferences for support – mental health component	Parents' descriptions of their preferences for support related to the mental health component of the programme (e.g., opportunity for discussion, smaller groups)

7.5.1 Why Interested in Attending the Programme

Generally, the parents were participating for parenting and child-related reasons (see Table 7.4 for coding descriptions) as these quotes demonstrate:

> *"I was looking for some guidance on how to become a better parent."*

> *"I just want my son to do well in life and that was my motivation because I was worried about him."*

Only one parent mentioned that they were attending the programme for mental health reasons in addition to parenting, child, and other reasons. Several parents mentioned a variety of other reasons for taking part in the programme, such as to obtain documentation to prove to relevant authorities they were taking action to help become better parents, they felt attending a group programme would be more motivating than doing something alone, they had previously taken part in Triple P and benefitted, or had previously tried to take part in a Triple P programme but had not been able to attend.

7.5.2 Perceptions of the Programme

The majority of comments about the combined programme were positive (see Table 7.4 for coding descriptions). Generally, the parents thought that the programme was good and they found it useful, for example one parent commented: "*I really enjoyed that, it was really helpful to me, I would do it all again.*" Most parents also expressed positive opinions about the content and some found it useful to be reminded about strategies they were already aware of. There were also several positive comments about the formats of the programmes. Parents commented that they liked the small group format of the parenting component as it allowed for more individualised discussion:

> *"it's good to have the opportunity to ask something, specifically when you are talking about children. In that respect I think it was good that you have a small group for Triple P."*

Several parents also commented about the usefulness of combining support for parenting and stress or mental health problems. They felt that the two components of the programme complimented each other and recognised the role mental health played in their parenting, as these quotes demonstrate:

> *"if you have a clear mind by managing your stress, whatever it is, then you are able to perform a better role as a parent. So in that sense I think that they both work together."*

"I think if it helps you with your stress then if you're less stressed you're going to be a better parent."

Some parents commented about aspects of the combined programme that they did not like. Some parents felt that the parenting component of the programme was too quick, that the fixed structure of the sessions made it feel stagnated, and that they felt like there wasn't enough time to get through all the information and discuss everything. These two quotes demonstrate negative views about aspects of the combined programme.

"It felt like we were quite bound to going through it in stages… I felt a bit like, 'alright, I know he does that and I know why he does that, but just tell me how we could fix that or how we could help,' rather than it would be another fifteen minutes' time before we got to that stage."

"I didn't like the style of it, I didn't feel comfortable. Usually I get on really well with people, I like discussions but for some reason I didn't feel that in this group."

For the mental health component, some parents felt that the non-participatory nature of the programme made it less engaging and that there were too many people in a session. For example one parent said, "*I just felt all you're doing is talking, nothing really had gone in, I didn't really take much from it. Also because the stress session was so big, I was at the back, I could not hear*."

Four parents felt that the information presented in the mental health component of the programme was not particularly relevant to their personal situations. "*It probably wasn't what I was expecting, just purely because it wasn't parenting-based.*" Of these parents, three stated that even though the information was not particularly relevant, the content of the programme was still interesting and may be useful in the future, or that they passed on information to others they knew who would find it useful. Whereas for the other parent, they did not enjoy taking part in the mental health component of the programme as this quote demonstrates: "*I just felt like an outsider, I just didn't feel right, I didn't really enjoy the stress. I mean I didn't really take much from it. His examples he was giving weren't really relating to me.*"

In addition, three parents mentioned that they thought the information presented during the stress competent was for individuals who were struggling described in the following quote. "*At the end of the day I just have a challenging 5 year old. I don't suffer from panic attacks. I'm not in the depths of despair. I think that's maybe partly what it was about, people that were struggling with everyday living.*" For other participants, taking part in the combined programme was deemed to be useful for all parents, not just for parents with poor mental

health. "*I think actually these things are useful for all parents so it doesn't even have to be parents who are struggling.*"

7.5.3 Perceived Impact of the Programme

All of the parents commented that they had acquired some new knowledge after attending the programme (see Table 7.4 for coding descriptions), about parenting and/or stress:

> *"There was certainly things that stopped me in my tracks, like, wait five seconds when you say something to them."*

> *"It taught me a lot, that stresses build, that stress is normal, that stress is healthy to have a bit of stress on you. I used to think that having stress altogether was just wrong but it's actually ok to have some."*

Furthermore, the majority of parents also commented that information presented in the programme reinforced what they already knew about parenting and/or stress, or reinforced some strategies they were already using. Nine of the parents also reported an increased awareness or new perspective on their behaviour, their stress, and/or their child's behaviour after attending the programme and two were more open-minded about parenting strategies, as the following quote describes: "*The thing that came out of the first session for me the most was to be a bit more open-minded about things.*" [talking about parenting strategies].

Regarding changes in behaviour, all of the parents reported gaining new parenting skills, for example, giving descriptive praise (see the first quotation below), using reward charts, spending brief quality time, providing engaging activities, having clear rules, giving effective instructions, using planned ignoring (see the second quotation below), and using quiet-time and time-out.

> *"My daughter put her clothes on in about two seconds yesterday, and I said, 'wowee, that was so quick putting your clothes on, well done'."*

> *"My son has a tendency to ask for something, like, 'mummy, I want a biscuit', and I'll say, 'well, it's too close to dinnertime, so you can't have that just now'. And then I'll carry on doing what I'm doing and then he'll carry on saying like, 'mummy, I want a biscuit, mummy, I want a biscuit...', and I just ignore him."*

Parents also reported that they felt calmer, were more in control in parenting situations, were firmer with their children, were more positive in their parenting approach, felt more organised, and were more confident in their parenting skills. Some parents also talked about

the impact of the programme on their partner's behaviours. Four parents mentioned that they had discussed the programme with their partners, and three parents reported changes in their partner's parenting as the quote below demonstrates (e.g., they had started using some of the parenting skills that were taught in the programme). Two of the parents reported that they had not seen any changes in their partner's parenting.

> *"My partner has definitely used this, 'do you want to sit and have quiet time?'... so he does sit with him and my son listens to that and he responds to that so it has helped him in that respect."*

The majority of parents also perceived changes in their children's behaviour. These changes ranged in size, from slight changes to clear changes. Parents generally perceived these changes to be a result of the positive parenting skills that they had been using (see quote below). Only one parent said that they had not seen any changes in their child's behaviour following the programme.

> *"I'm adopting things that make her feel better. She's obviously responding positively to that, no shouting, paying her attention for even five minutes makes a big difference, having a dialogue, explaining why she shouldn't be doing this or that, rather than just saying 'No'. All that has definitely had a positive way with her because she's less shouty, less challenging, and more accepting in a good way."*

> *"This is the way we get ready in a morning, and he accepts it which is a different thing rather than throwing an absolute fit."*

Two of the parents felt that they had initially changed their behaviour after attending the programme, but that these changes hadn't sustained. Furthermore, half of the parents reported that attending the programme did not necessarily lead to trying out some of the strategies. For some parents, this was because they found that the strategies provided were not relevant for them, or because of barriers that made it more difficult to implement the strategies.

Some parents felt that the mental health component of the programme had had less of an impact as they were not currently experiencing stress, as these quotes demonstrate:

> *"I wasn't like very stressed and very depressed so I didn't have a big journey to take."*

> *"I wouldn't say that I was depressed or anxious or anything like that so I didn't get a lot out of it that way."*

On the other hand, some parents reported improved self-care skills as a result of attending the programme, for example, exercising, drinking less caffeine, using relaxation and breathing retraining. These skills were used both in parenting situations and also other situations that the parents found stressful.

> *"Like if my son was playing up or he's not doing what I'm asking him to do, I take a deep breath, calm down and then speak to him, so I have used that. I have used that quite a few times or I can hear my younger son screaming and it's irritating me and he's playing up and he's whinging, I try and take a deep breath."*

Furthermore, several parents reported various changes in affect, such as being less stressed, more relaxed, more assertive, greater self-esteem, increased confidence, had a more positive outlook in life, were happier, and had a better quality of life. These quotes illustrate these changes:

> *"If I plan ahead and I'm more in control of what's going to happen, then I can have a better quality of life, less stressful and more predictable. Less problems arise from that."*

> *"The most positive thing out of that stress management programme that I used was face your fears... Be positive, be happy, be cheerful. Be optimistic and face your fears in that positive way."*

The group format of the programme also appeared to have positive effects with parents reporting a positive impact from the support they received from other parents in the programme, and that they felt less alone. "*It makes you feel a lot better as well when you know that you're not the only person that has challenges in the house*." In addition, four parents commented how the programme gave them an opportunity to reflect on their parenting and/or mental health. For example, one parent said: "*It gave me a chance to centre my ideas and reflect on what was going on*."

7.5.4 Challenges With and Barriers to Implementation

The most commonly reported barriers were logistical/practical barriers and family related barriers (see Table 7.4 for coding descriptions). Lack of time or being busy was a common barrier to implementation. For parents this resulted in inconsistent use of new strategies and/or not being able to use some of the strategies they would like to. For two parents, a lack of time with their child (as their child was in foster care) restricted their opportunity to implement strategies and had implications on the parenting skills that they

could put into practice due to the nature of the contact. In addition, three parents mentioned that finding time to discuss the strategies with their partner was a barrier to implementation.

A lack of support from other adults involved in parenting was a key family related barrier. For some parents this was linked with a lack of time to implement strategies consistently. For example, two parents said:

> *"being a parent with no help and support... I don't have that time that I would love to have with them, like more one-on-one time and more time to put down the rules and the regulations. So that would be a help if I did have more people."*

> *"My husband's not home to support me, my mum and dad are away… I'm finding it hard to put into practice again."*

A second key family related barrier reported by three parents was experiencing resistance from a partner. For two of these parents attending the programme without their partner had resulted in an increased inconsistency in parenting practices between parents and they felt their family would have benefitted if their partner had also attended the sessions. As one parent describes:

> *"I did get a comment once like, 'you've been to two classes, you think you know what you're doing, you think you're the expert'… because he hadn't been through the programme. It didn't make it necessarily difficult for me to implement them, but it made it slightly harder, and I could see him going down maybe like a wrong route or a different route… that possibly made it like a little bit harder for my children to see what was going on, if I was doing something and my partner was doing something a bit different."*

A final key family related barrier was related to parenting more than one child, particularly if one child was more challenging. This resulted in arguments with children and in inconsistent use of certain strategies (i.e., using consequences when out in public, time-out) as this quote demonstrates:

> *"When you're trying to parent your children and they are so different, it's hard in the house to discipline one child and not to discipline the other. So there is a lot of 'he's got that' and 'why have I not got this?'"*

Some parents mentioned that they themselves were a barrier to implementation. For example, one parent described about how their poor organisational and time management skills had limited them from using some of the mental health and parenting strategies. Another

parent felt that they hadn't put enough effort in to implementing strategies and felt that the information presented in the programme hadn't been ingrained. Two parents reported that they had been dealing with other stressors, which had limited their time and opportunity to spend on implementing the parenting and mental health strategies.

Three parents also mentioned child related barriers, such as the developmental stage and age of the child, and their personality and behaviour. For example, one parent felt that particularly strategies were ineffective with her child (e.g., time-out) and described how her son's problems with attention and concentration made it difficult to implement some strategies, "*sometimes it is quite hard to get his concentration 'cause he is very, when you're talking to him, very distracted quite a lot of the time.*"

Furthermore, some parents experienced barriers related to the programme such as resistance to suggested strategies (described in first quote below), the theory not working in practice, the time required to implement strategies successfully (described in second quote below), and not remembering certain skills that were taught.

> *"It's not something that was used with me so that's where I was like 'well I didn't need the naughty step, I'm fine'."*

> *"Sometimes with these things you put them in their room if they come out you put them in the room again, and all that. But this might come as you're trying to get them ready for school ... and you're thinking you have to just see it through. It might take forty minutes, you don't have forty minutes you've missed the school bus. The theory and the practice don't necessarily entwine."*

Although all parents described some form of barrier that impacted on their implementation to some extent, inconsistent with this, two parents felt that they hadn't faced any barriers. Both of these parents felt that the key perceived barriers to implementation were parent related, specifically parental determination and motivation.

7.5.5 Preferences for Support

Table 7.5 displays the number and proportion of participants who expressed a range of preferences about the support provided by the combined programme (see Table 7.4 for coding descriptions). A key finding was that three-quarters of the parents stated that they would have liked more parenting sessions. For some parents, this was because that had particularly enjoyed that component of the programme, whereas others felt like the sessions were only just starting to "*scratch the surface*" or wanted more support. For one parent, they felt a longer course may have helped them feel more comfortable sharing with the group. Three parents

also felt that a follow-up session would have helped with implementing the parenting strategies described by the following quote: "*Have the sessions and then do a follow-up. It doesn't have to be really onerous and some of that might be 'these are the things that I couldn't do' or 'this was the thing that I found most difficult'*." Several parents also mentioned that they would be interested in receiving advice on specific topics, such as dealing with siblings, whining, and problems with gaming. For example, one parent said, "*If there was a class just on gaming, building in how to deal with the stress of it and how to control it, that would be the thing for me*." For the mental health component of the programme, a couple of parents mentioned that would have liked the opportunity to discuss the ideas presented in the session and would have preferred smaller groups. As one parent said, "*It's quite difficult to imagine how you might put it into practice without being given the opportunity to ask questions… it would have been nice to have a little bit of discussion*."

Table 7.5 Comments Regarding Parents' Preference for Support and the Number and Proportion of Parents who Mentioned Each Comment

Preferences for support	(*N* = 12) *n*	%
Parenting component		
More parenting sessions	9	75.0
Addressing specific topics (e.g., siblings, whining, gaming etc.)	7	58.3
More opportunity for discussion	4	33.3
More in-depth support	3	25.0
Follow-up session	3	25.0
Individual advice	2	16.7
More examples	2	16.7
Greater focus on strategies rather than theory	1	8.3
Materials for behaviour charts	1	8.3
More flexible structure	1	8.3
References to other literature (e.g., books, website)	1	8.3
Role play with facilitator rather than other parents	1	8.3
Mental health component		
Opportunity for discussion	2	16.7
Smaller groups	2	16.7
More relevant examples (parenting related)	1	8.3
Female facilitator	1	8.3

7.6 Participant Attendance and Satisfaction

7.6.1 Participant Attendance

Of the 13 families who took part, in two families fathers were involved in the programme. For one of these families the father attended both of the parenting sessions and five of the six Stress Control sessions. For the other family, the father attended only one of the parenting sessions. In the remaining 11 families, 10 of these were two-parent families where only the mother was involved in the programme and in one family the mother was parenting on her own. Table 7.6 displays the session attendance for the families who completed post-intervention questionnaire measures (n = 11).

Table 7.6 The Number of Sessions Attended by Parents of the Participating Families who Completed Post-Intervention Questionnaire Measures

Attendance	**Triple P Discussion Groups and Stress Control** (*N* = 5)		**Triple P Discussion Groups and Stress and Wellbeing** (*N* = 6)	
	n out of 8 sessions	%	*n* out of 6 sessions	%
Number of sessions attended				
1	-	-	-	-
2	-	-	1	16.7
3	1	20.0	2	33.3
4	-	-	-	-
5	-	-	2	33.3
6	-	-	1	16.7
7	2	40.0		
8	2	40.0		

Note. Valid % reported.

7.6.2 Participant Satisfaction With the Triple P Discussion Groups

Ratings of overall satisfaction with the Triple P Discussion Groups ranged from 46 to 81 (possible range 13-91) on the Client Satisfaction Questionnaire. On average, the satisfaction with and acceptability of the parenting sessions was high (*M* = 64.55, *SD* = 12.08). The majority of participants thought that the quality of the two parenting sessions was at least 'good' (81.9%, *n* = 9) and were overall at least 'satisfied' with the sessions (63.7%, *n* = 7). Most parents felt that they 'generally' received the type of help they wanted (90.9%, *n* = 10), however, some parents rated the group as meeting 'only a few' or less of their needs (36.4%, *n* = 4) and their child's needs (36.4%, *n* = 4). The majority of parents rated their child's behaviour as having 'slightly improved' (81.9%, *n* = 9) and most were at least 'slightly satisfied' with their child's progress (81.9%, *n* = 9).

7.6.3 Participant Satisfaction With the Mental Health Component

Five participants completed satisfaction questionnaires about Stress Control and five completed satisfaction questionnaires about the Stress and Wellbeing course. Overall, seven (70.0%) participants were at least 'fairly satisfied' with the mental health component, two participants were neutral (20.0%), and the final participant was very dissatisfied (10.0%). Overall, the majority of participants (90.0%, *n* = 9) reported they were at least 'moderately confident' the programme could help them cope in the future. Almost all of the participants felt attending the mental health component caused at least a 'slight improvement' in their main complaint (80.0%, *n* = 8), with only two participants reporting no change. Furthermore, six participants (60.0%, *n* = 6) reported at least a 'slight improvement' in their wellbeing and four

participants reported no change in their wellbeing. However, when asked about trying out the strategies at home, the majority (70.0%, *n* = 7) indicated they had not used the strategies very often or at all. Three participants reported that they had tried out the suggested strategies 'most of the time'. Almost all of the participants indicated that they 'probably' or 'definitely' would recommend the course to their family and friends (80.0%, *n* = 8). In addition, six participants (60.0%) felt that mental health component of the programme had met their expectations.

Chapter 8. Discussion

8.1 Overview of Chapter

This study used a mixed-method quasi-experimental design to explore the effects of a combined low-intensity group based parenting programme with a low-intensity group based cognitive behaviour intervention for common mental health problems among 13 families with 3-8 year old children. The aim of this chapter is to integrate the results from the quantitative and qualitative methodologies and discuss the findings. First, a summary of the key findings for the study are discussed and situated within the literature in section 8.2. Next, the limitations with the study (section 8.3), suggestions for future research (section 8.4), and implications for practice (section 8.5) are described. The chapter ends by highlighting the key contributions of the study in section 8.6.

8.2 Summary and Discussion of Key Findings

The findings from the study suggest that the combined programme led to meaningful change for parents and their children. Parents reported a significant reduction in ineffective parenting practices and symptoms of poor mental health (e.g., symptoms of stress, anxiety, and depression) from pre- to post-intervention. Although the sample was small, these effects from pre- to post-intervention were large in size and were maintained at 3-month follow-up. For a proportion of the parents, these changes in parenting practices and parental mental health were statistically reliable. In addition, for approximately one-third of the parents there was movement out of the clinical range from pre- to post-intervention for parenting practices. For parental mental health, parents tended to not be in the clinical range for symptoms of stress, anxiety, and depression at pre-intervention. These changes in parenting practices and parental mental health are in line with previous research evaluating the effects of combined interventions that were high in intensity, in that effects in both domains are seen (e.g., Gavita & Joyce, 2008; Sanders & McFarland, 2000).

Findings from the qualitative interviews triangulated the effects found for questionnaire measures of parenting practices. All of the parents reported gaining new parenting skills and generally parents reported feeling calmer, more in control, and more positive in parenting situations. Perceived improvements in parental mental health were also mentioned by parents during post-intervention interviews with some parents indicating they felt less stressed, were more relaxed, and had improved self-care skills in both parenting and non-parenting situations that they found stressful. These findings are similar to Stewart-Brown

et al. (2004) who found that after attending a high-intensity group parenting programme, parents perceived a qualitative change in their behaviour and reported feeling less stressed and more skilful. Additionally, the Kane, Wood and Barlow (2007) systematic review of four qualitative studies examining parents' perceptions of taking part in parenting programmes reported that attending a parenting programme led to an acquisition of knowledge, skills, and understanding. They argued that this acquisition, coupled with feeling supported, led to reductions in guilt, improved parenting confidence, and increased parental empathy for their children.

Even though on average parents reported that the intensity of child disruptive behaviour problems decreased from pre- to post-intervention, and from post-intervention to 3-month follow-up, these changes were not statically significant. This is in contrast to previous research evaluating low-intensity group parenting programmes where significant reductions in disruptive child behaviour have been reported (Dittman et al., 2015; Joachim et al., 2010; Mejia et al., 2015; Morawska et al., 2010). It is likely that the lack of a significant effect on child behaviour is due to insufficient power because of the small sample size. Findings from the qualitative interviews demonstrate that the majority of parents perceived improvements in their child's behaviour and these changes were generally perceived to be a result of the positive parenting practices that they had been using. There was also statically reliable change in disruptive child behaviour reported by just over a quarter of parents and movement out of the clinical range on the Eyberg Child Behavior Inventory Intensity subscale was reported for four children at post-intervention.

There were no significant changes after attending the combined intervention on questionnaire measures of parents' experience of their parenting role, parenting self-efficacy, the quality of family relationships, and positive mental health, although some parents perceived qualitative changes in these areas. For example, some parents reported improvements in positive mental health, such as having a more positive outlook on life, that they felt happier, and that their self-esteem had increased. Examination of the median scores for these measures show that changes in are in the right direction.

Largely the combined programme was well received and the content was acceptable to parents. For many parents in the study, the group format of the combined programme was a strength of the programme and provided parents with informal social support. Group based programmes provide parents with the opportunity to seek comfort and have problems with their children normalised by meeting other parents experiencing similar difficulties with their children (Lundahl, Risser, & Lovejoy, 2006). Previous research has reported that an important

element of group parenting programmes for participants is being able to meet others, exchange ideas, feel acceptance, and receive support (Kane et al., 2007; Mytton, Ingram, Manns, & Thomas, 2014). In the current study parents reported that they enjoyed listening to other parents' experiences with their children during the parenting component of the programme. Furthermore, some parents described a normalising process from hearing about parenting and mental health problems faced by others.

One aspect of the parenting component that was negatively perceived was the fixed structure of the programme and that on occasion the practitioner cut group discussions short to ensure all programme content was covered. Eames et al. (2009) highlight the need to adhere to intervention fidelity to maintain the intended behaviour change mechanisms of programmes. However, a common challenge for practitioners is finding the right balance between adhering to the programme protocol and addressing parents' needs. Kendall and Beidas (2007) propose that delivering programmes with fidelity and flexibility should not be seen as incompatible and Mazzucchelli and Sanders (2010) describe how Triple P programmes are designed to be delivered flexibly and practitioners can adapt and tailor them to meet the needs of participating parents. Strategies of adaption may include modifying the content and format to suit parents' abilities, cultures, and the behaviours displayed by children (Mytton et al., 2014).

The majority of parents reported that they would have liked to attend more parenting sessions as part of the programme. This was largely because parents reported enjoying the sessions and would have liked to have more opportunity to discuss ideas and seek support from other parents. Including more parenting sessions in a combined programme may be beneficial for some parents and their families or alternatively providing a follow-up session may facilitate implementation and help parents to overcome barriers to implementation.

The perceived usefulness of the mental health component of the programme was mixed. Some parents commented that they found the combination really useful, whereas others felt the information presented in the mental health component of the programme was not particularly relevant to their personal situations. This may be because the parents in the current sample were generally attending the combined programme for parenting and/or child-related reasons rather than mental health reasons. In support of this, pre-intervention scores on the Depression Anxiety Stress Scales 21 (DASS-21) were not clinically elevated on average and only one of the participants reported a DASS-21 Total score in the clinical range at pre-intervention. However, theoretically the combined programme would still be appropriate for such parents as low-intensity interventions aim to promote mental health and wellbeing on a community-wide basis and are designed for mild to moderate levels of problems (Bennett-

Levy et al., 2010; White, 2010a). For parents with mild to moderate levels of poor mental health symptoms, they may be more likely to see themselves as stressed (Watkins et al., 2000).

The majority of parents who attended the programme and completed the measures were mothers. This is not uncommon in research evaluating parenting programmes and it has been recognised that practitioners and researchers need to engage more with fathers (Panter-Brick et al., 2014; Sanders et al., 2014). What is of concern is that a key barrier to or challenge with implementing the strategies was partner resistance. In some families this led to increased inconsistency between parents' child rearing practices and some parents felt that their family would have benefitted if their partner had also attended the sessions. This result was similar to a finding reported in Mockford and Barlow's (2004) qualitative study that examined the experiences of attending a high-intensity parenting programme among mothers with young children displaying disruptive behaviour problems. In their study they found that gaining support from a partner was a key difficulty in implementing strategies and that changing one parent's approach to parenting can lead to increased discrepancies between parents and may result in increased conflict over child rearing. In addition, Koerting et al. (2013) found in their review of barriers and facilitators of parenting programmes that a lack of support from family members leads to inconsistent use of strategies and difficulties following the programme, which was a barrier for continued engagement. Therefore there appears to be a further need to engage fathers in such programmes in order to promote co-parenting and overcome this barrier to implementation. By including both mothers and fathers in interventions parents have the opportunity to align their parenting behaviours. This is likely to produce superior outcomes as fathers can support mothers with the implementation of discipline strategies and mothers and fathers may be more likely to respond to problems in similar ways (Phares et al., 2010; Tiano & McNeil, 2005). Furthermore, given that the majority of the target children in the current sample were male (76.9%), engaging fathers in such programmes may provide more effective adult role models for boys.

8.3 Limitations

The present findings need to be interpreted in light of the limitations. As discussed, a key limitation is the small sample size. As a result of lack of power, significant effects for parenting practices and parental mental health may be over-estimated (Button et al., 2013). In addition, non-significant effects found for measures of child disruptive behaviour, parenting experiences, parenting self-efficacy, the quality of family relationships, and positive mental health are likely to be a result of insufficient power. Furthermore, a second key limitation is

the resulting repeated-measures design used in the current study. It is unknown to what extent the changes in parenting practices and parental mental health that were reported are a result of attending the combined intervention when there is no comparison group. However, triangulation of findings from the qualitative interviews indicating parents perceived positive changes in parenting practices and parental mental health gives some confidence that the significant changes in outcome measures were due to attending the combined programme.

8.4 Future Research

The findings of the current study indicate that a group based combined low-intensity parenting programme and a low-intensity cognitive behavioural intervention for common mental health problems shows promise. Future research should investigate whether combined programmes are effective in comparison to care as usual using randomised control trial designs with adequate power and longer-term follow-up. The effects of a combined intervention also need to be examined in comparison to parenting support alone to determine if simultaneously targeting mental health problems provides added value. Further research could also examine the order effects of combined programmes. For example, it may be that parental mental health may first need to be addressed for parents to fully benefit from a low-intensity parenting programme.

8.5 Implications for Practice

Given the sample size of the study, these implications for practice should be considered with caution. A combined low-intensity parenting programme and a low-intensity cognitive behavioural intervention for common mental health problems appears to be acceptable for parents with young children and may produce positive changes in parenting practices, parental mental health, and children's behaviour. A combined programme that targets both parenting and mental health may be best suited for parents who experience stress outside of their parenting role. Practitioners may consider including more than two sessions that target parenting or providing a follow-up session to assist with the implementation of parenting strategies may enhance the benefits of combined intervention. For two-parent families, both parents should be encouraged to attend and engage with the programme to prevent barriers to implementation. It is important to consider the issues that engaging both mothers and fathers in two-parent families may raise, such as child care arrangements and timing of sessions to suit both parents. In the current study, several parents interested in taking

part in the combined programme were unable to due to the timing of the sessions or lack of child care (see diagram in Figure 6.1). It may mean that health services need to offer child care services when delivering programmes aimed at improving parenting and mental health. Additionally, the dates and times that programmes are delivered need to be suitable for both parents in two-parent families to attend. Flexible delivery options are required and include offering evening sessions or full-day weekend workshops in easy to access settings. Furthermore, to recruit parents from the community for such programmes, a range of recruitment strategies are required. Recruitment should involve disseminating advertising material through nurseries, schools, local shops, libraries, and cafes.

8.6 Key Contributions of the Study

This study provided a unique contribution to the literature on low-intensity topic-specific parenting in several ways. This is the first study that evaluated a low-intensity group parenting programme when delivered in combination with a low-intensity group based cognitive behaviour intervention for common mental health problems among parents with young children. The findings from the study add to the literature on interventions that simultaneously target parenting and mental health by demonstrating that low-intensity combined interventions show promise and warrant further research. Furthermore, few studies have used qualitative approaches to examine parents' experiences and perceived impacts of taking part in a parenting programme to complement or support the understanding gained from measuring change in outcomes. The current study used a mixed-method design to examine both change over time in outcomes and explore parents' experiences of taking part in the programme, their perceived impact of the programme, their implementation of strategies, and factors that affected implementing the strategies.

Chapter 9. Conclusion

9.1 Overview of Chapter

The final chapter reviews the findings from this thesis. An overview of the major conclusions from the literature review and the two studies conducted as part of this Universitas 21 (U21) Joint PhD is presented first in section 9.2. The chapter then considers the overall future directions for the field of low-intensity parenting programmes (section 9.3) and ends with some concluding remarks (section 9.4).

9.2 Major Conclusions

This thesis aimed to add to the literature on low-intensity topic-specific group parenting programmes for parents with young children. Ways of enhancing intervention outcomes of programmes were identified through the literature and then empirically examined in study one and explored in study two. The two studies in this thesis addressed gaps in the literature on low-intensity parenting programmes by investigating if teaching multiple exemplars of topic-specific low-intensity parenting groups enhances intervention outcomes by promoting generalisation of parenting skills, and by exploring whether combining low-intensity programmes addressing parenting and parental mental health are beneficial for parents with young children. The thesis also adds to the literature by examining the effects of the Triple P Discussion Groups among parents of primary school aged children addressing topics relevant to this developmental phase and investigating outcomes separately for mothers and fathers. First, an overview of the literature that informed this thesis is presented. The two studies conducted as part of this U21 Joint PhD are then described. The findings from each study will be summarised briefly below and main conclusions will be drawn.

9.2.1 Literature Review

Chapter 2 described the literature that informed the two studies conducted as part of this U21 Joint PhD. First, the nature, prevalence, and intervention of child conduct problems was discussed and the rationale and evidence of low-intensity parenting programmes was described. The review of the literature on low-intensity parenting programmes identified several key gaps in the current evidence base to which this thesis contributes. They were the need to examine the effects of strategies to promote generalisation of parenting skills (e.g., teaching multiple exemplars), the effects of low-intensity topic-specific group parenting programmes for fathers, and the effects on parents with primary school aged children

addressing topics relevant to this age group. Next, parental mental health, another key risk factor associated with the development of child conduct problems was discussed. The review then presented a rationale for including support for parental mental health when delivering low-intensity programmes.

9.2.2 Study One: Enhancing Intervention Outcomes of Low-Intensity Parenting Groups for Parents of Young School Aged Children Through Generalisation Promotion Strategies

The first study (see Chapter 3, Chapter 4, and Chapter 5 for the Method, Results, and Discussion respectively) aimed to address gaps in the literature on low-intensity parenting programmes by examining whether teaching multiple exemplars of low-intensity topic-specific parenting groups enhances intervention outcomes. Drawing on generalisation theory (Stokes & Baer, 1977), it was hypothesised that teaching multiple topic-specific exemplars would assist parents to apply what they have learnt more flexibly and generalisation of parenting skills to a range of non-target behaviours and settings would be more likely to occur, leading to superior intervention outcomes. A randomised control trial design was used to examine the effects of single exemplar training in comparison to multiple exemplar training. Participants were 75 mothers and 58 fathers with a 5-8 year old child displaying conduct problems. They represented 78 families: 66 two-parent families and 12 single parent families. Among two-parent families, there were 55 mother-father pairs, nine mothers who participated alone, and two fathers who participated alone. The majority of the single parent families were mothers (n = 11). Parents completed self-report measures at pre-intervention, post-intervention, and 6-month follow-up on child behaviour, parenting practices, parenting self-efficacy, parenting experiences, and parental mental health. Two-parent families also completed questionnaire measures on inter-parental conflict, partner support, and partner relationship satisfaction.

Results showed that mothers and fathers in both conditions reported improvements in a range of child and parent outcomes over time. Relative to mothers and fathers in the single exemplar condition, parents in the multiple exemplar condition reported greater improvements on some child behaviour measures between pre- and post-intervention indicating greater generalisation of parenting skills. Parents in the multiple exemplar condition were also more likely to report statistically reliable and clinically meaningful improvements in their child's disruptive behaviour than parents in the single exemplar condition. For mothers in the multiple exemplar condition, superior improvements in disruptive child behaviour were maintained at 6-month follow-up. Although the condition effects were not significant at 6-month follow-up

for child behaviour among fathers, relative effect sizes and time analyses indicated that superior intervention effects were maintained at 6-month follow-up. Receiving multiple exemplars also resulted in greater improvements in mothers' parenting practices and behavioural parenting self-efficacy at post-intervention, and these condition effects continued to be significant at 6-month follow-up. In addition, greater improvements in mothers' setting parenting self-efficacy, mental health, and perceptions of partner support were found at 6-month follow-up for the multiple exemplar condition. In contrast to mothers, no additional condition effects were found for fathers in the multiple exemplar condition at 6-month follow-up. Both mothers and fathers reported moderate to high levels of satisfaction and the individual Triple P Discussion Groups were generally acceptable to parents.

The findings from this study add to the literature on low-intensity topic-specific group parenting programmes (Dittman et al., 2015; Joachim et al., 2010; Mejia et al., 2015; Morawska et al., 2010; Morawska et al., 2014) in several ways. The study contributes to the understanding of ways to enhance intervention outcomes of low-intensity programmes by using generalisation promotion strategies and suggests that teaching several exemplars may aid generalisation of parenting skills and lead to superior child and maternal intervention outcomes. Initial evidence on the effects of the Triple P Discussion Groups for fathers was also presented as well as evidence on the effects of the groups with parents of primary school aged children about topics relevant to this age group. Low-intensity group based parenting programmes that are topic-specific appear to be an effective option for intervention for parents with primary school aged children displaying early conduct problems. Teaching multiple exemplars to parents of children with mild to moderate disruptive behaviour problems could be considered as an alternative to more intensive intervention.

9.2.3 Study two: Enhancing Intervention Outcomes of Low-Intensity Parenting Groups by Simultaneously Addressing Parenting and Parental Mental Health

The second study in this thesis extended the current literature on low-intensity parenting programmes when delivered in combination with support for common mental health problems (see Chapter 6, Chapter 7, Chapter 8 for the Method, Results, and Discussion respectively). This study drew on literature that demonstrated that poor parental mental health is linked with child conduct problems and ineffective parenting practices (e.g., Australian Institute of Family Studies, 2012; Duncombe et al., 2012). As poor parental mental health also appears to play a role in the outcomes of parenting programmes (Kjøbli et al., 2013; Reyno & McGrath, 2006), it seems beneficial to address parenting practices and mental health problems simultaneously. The study used a mixed-method quasi-experimental design to explore the

effects of attending a low-intensity group parenting programme combined with a low-intensity cognitive behavioural intervention for common mental health problems among parents with 3-8 year old children. The intervention consisted of two Triple P Discussion Groups and either a six session Stress Control course or a four session Stress and Wellbeing course. Thirteen parents completed self-report questionnaires measuring parenting practices and parental mental health at pre-intervention, mid-intervention, post-intervention, and 3-month follow-up. Questionnaire measures of disruptive child behaviour, parenting experiences, partner support, family relationships, parental self-efficacy, and positive mental health were also obtained at pre-intervention, post-intervention, and 3-month follow-up. After completing the combined programme, 12 parents participated in a semi-structured interview which explored their experiences of taking part in the programme, their perceived impact of the programme, and their implementation of strategies.

Findings from the mixed-method evaluation showed promising outcomes for the combined programme on measures of parenting practices and parental mental health problems. The combined programme was generally acceptable to participating parents and parents perceived a range of positive impacts from the programme. A key barrier to implementation was a lack of time or being busy. Among two-parent families, some parents mentioned that having a partner who did not attend the programme was a barrier to successfully implementing the strategies. This study contributed to the literature on combined programmes that simultaneously target parenting and mental health. This is the first study that has examined a combined programme that is low in intensity. Although the small sample size limits firm conclusions from the current study, the findings suggest that low-intensity combined programmes may be beneficial and acceptable to parents of young children and should be explored further as an option for support.

9.3 Overall Future Directions

Although our understanding of the effects of parenting programmes has progressed greatly, there is still so much we do not know, particularly around low-intensity topic-specific parenting groups. The findings from the current studies make a small contribution to the field of low-intensity parenting programmes; however, further research using large scale randomised control trial designs that are adequately powered with follow-up periods beyond 6-months post-intervention are required. It is also important that future studies consider alterative designs to waiting list control trials, that studies are pre-registered, and recruit diverse samples representative of the population to further strengthen the evidence and

knowledge about effective interventions for child conduct problems. The transferability of research findings across contexts and cultures should also be considered.

Future research could also include economic evaluations to demonstrate the cost-effectiveness of low-intensity interventions and future savings for society. If potential savings are demonstrated, funds could be put towards the costs of providing child care services to enable both parents in two-parent families to take part in parenting programmes. Furthermore, in addition to examining outcomes of low-intensity parenting programmes, factors that moderate or mediate intervention outcomes need more investigation. This information would be particularly useful for a public health approach to parenting support as it would assist practitioners to identify the best intervention options for families. This would ultimately reduce over-servicing, improve cost-effectiveness, and should reduce the prevalence of child conduct problems in the population.

9.4 Concluding Remarks

The aim of this thesis was to add to the evidence on the effects of low-intensity topic-specific parenting groups for parents with young children. Drawing on previous literature, ways to enhance intervention outcomes were identified and investigated in this thesis. This thesis extended the literature on low-intensity topic-specific group parenting programmes by examining if teaching multiple exemplars promoting the generalisation of parenting skills led to superior intervention outcomes in comparison to teaching a single exemplar. It also explored whether combining low-intensity programmes addressing parenting and parental mental health are beneficial for parents with young children. It is often said that parenthood is the most challenging role in life. Supporting parents to raise confident happy children without behaviour problems will benefit our society as a whole. Low-intensity topic-specific group parenting programmes should be considered as an intervention option as they appear to have the potential to improve the lives of families and children.

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Appendix A. Table Displaying the Triple P System of Parenting and Family Support

The Triple P system of parenting and family support (copied with permission from Sanders, 2012).

Level of intervention	Intensity	Program variant	Target population	Modes of delivery	Intervention methods used
Level 1					
Media and communication strategy on positive parenting	Very low intensity	*Stay Positive*	All parents and members of the community interested in information about parenting to promote children's development and prevent or manage common social, behavioral, and emotional problems	Web site to promote engagement. May also include television programming, public advertising, radio spots, newspaper and magazine editorials	Coordinated media and promotional campaign to raise awareness of parent issues, destigmatize and encourage participation in parenting programs. Involves electronic and print media
Level 2					
Brief parenting interventions	Low intensity	*Selected Triple P* *Selected Teen Triple P* *Selected Stepping Stones Triple P*	Parents interested in general parenting information and advice or with specific concerns about their child's development or behavior	Series of 90-minute stand-alone large group parenting seminars or one or two brief individual face-to-face or telephone consultations (up to 20 minutes)	Parenting information promoting healthy development or advice for a specific developmental issue or minor behavior problem (e.g., bedtime difficulty)
Level 3					
Narrow focus parenting programs	Low to moderate intensity	*Primary Care Triple P* *Primary Care Teen Triple P* *Primary Care Stepping Stones Triple P*	Parents with specific concerns as above who require brief consultations and active skills training	Brief program (about 80 minutes) over three to four individual face-to-face or telephone sessions	Combination of advice, rehearsal, and self-evaluation to teach parents to manage discrete child problems

		Triple P Discussion Groups		Series of two-hour stand-alone group sessions dealing with common topics (e.g., disobedience, hassle-free shopping)	Brief topic-specific parent discussion groups
Level 4					
Broad focus parenting programs	Moderate to high intensity	*Standard Triple P* *Group Triple P* *Self-Directed Triple P* *Standard Teen Triple P* *Group Teen Triple P* *Self-Directed Teen Triple P* *Online Triple P* *Baby Triple P*	Parents wanting intensive training in positive parenting skills	Intensive program (about 10 hours) with delivery options including 10 60-minute individual sessions; or five two-hour group sessions with three brief telephone or home visit sessions; or 10 self-directed workbook modules (with or without telephone sessions); or eight interactive online modules	Broad focus sessions on improving parent-child interaction and the application of parenting skills to a broad range of target behaviors. Includes generalization enhancement strategies
		Standard Stepping Stones Triple P *Group Stepping Stones Triple P*	Parents of children with disabilities who have, or who are at risk of developing, behavioral or emotional problems	Targeted program involving 10 60- to 90-minute individual sessions or two-hour group sessions	Parallel program with a focus on parenting children with disabilities

		Self-Directed Stepping Stones Triple P			
Level 5					
Intensive family interventions	High intensity	*Enhanced Triple P*	Parents of children with behaviour problems and concurrent family dysfunction such as parental depression or stress, or conflict between partners	Adjunct individually tailored program with up to eight individual 60-minute sessions (may include home visits)	Modules include practice sessions to enhance parenting, mood management and stress-coping skills, and partner support skills
		Pathways Triple P	Parents at risk of maltreating their children. Targets anger management problems and other factors associated with abuse	Adjunct program with three 60-minute individual sessions or two-hour group sessions	Modules include attribution retraining and anger management
		Lifestyle Triple P	Parents of overweight or obese children. Targets healthy eating and increasing activity levels as well as general child behaviour	Intensive 14-session group program (including telephone consultations)	Program focuses on nutrition, healthy lifestyle, and general parenting strategies
		Family Transitions Triple P	Parents going through separation or divorce	Intensive 12-session group program (including telephone consultations)	Program focuses on coping skills, conflict management, general parenting strategies, and developing a healthy coparenting relationship

a. Only program variants that have been trialled and are available for dissemination are included.

Appendix B. Example Advertising Materials

Mums and Dads wanted for a brief positive parenting programme

The Parenting Research Group at the University of Auckland is seeking families with a 5- to 8-year-old child to participate in a research project. Participation will include attendance at parenting groups that teach about positive parenting and discipline strategies to constructively manage their child's behaviour, free of charge.

We are looking for parents to participate in the project who:

- have a child between the ages of 5 and 8 who is showing some difficulties with his or her behaviour
- and are interested in attending a brief discussion group based parenting programme.

Please contact Melanie Palmer on 09 623 8899 ext. 83042 or via email: ml.palmer@auckland.ac.nz for more information.

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE (Reference 7431; expiry date 20/07/2017).

Are you juggling a lot as well as being a parent? …

What about a programme aimed at helping you learn to relax, de-stress, and achieve Healthy And Positive Parenting for You (HAPPY)?

Am I eligible? *If you …*

- have a 3-8 year old child
- are able to attend 8 group sessions at Langside Halls, Shawlands
- are interested in taking part in a stress management and parenting programme

For more information or to sign up for the study contact:

Melanie Palmer
Ph: 0800 389 2129
Email: HAPPY@sphsu.mrc.ac.uk

APPROVED BY THE NHS WEST OF SCOTLAND ETHICS SERVICE (12/WS/0242)

University of Glasgow

MRC Medical Research Council

NHS Greater Glasgow and Clyde

Triple P Positive Parenting Program for every parent

stresscontrol
Face your fears; be more active; watch what you drink

Appendix C. Eyberg Child Behavior Inventory Intensity Subscale 15 Item Version

How often do the following behaviours occur with your child?

1. Does not obey house rules on his or her own
2. Refuses to obey until threatened with punishment
3. Acts defiant when told to do something
4. Argues with parents about rules
5. Answers back to adults
6. Steals
7. Lies
8. Teases or provokes other children verbally
9. Fights with friends own age
10. Physically fights with friends own age
11. Is easily distracted
12. Has short attention span
13. Fails to finish tasks or projects
14. Has difficulty concentrating on one thing
15. Is overactive or restless

Rating scale:

1 = never

2-3 = seldom

4 = sometimes

5-6 = often

7 = always

TOTAL INTENSITY SCORE = _____ → *EXCLUDE IF SCORE IS BELOW **45***

Appendix D. Measures

Eyberg Child Behavior Inventory

Directions: Below are a series of phrases that describe children's behaviour. Please (1) circle the number describing **how often** the behaviour **currently** occurs with your child, and (2) circle either "yes" **or** "no" to indicate whether the behaviour is **currently a problem for you.**

		How often does this occur with your child?							Is this a problem for you?	
		Never	Seldom		Sometimes		Often	Always		
1.	Dawdles in getting dressed	1	2	3	4	5	6	7	YES	NO
2.	Dawdles or lingers at mealtime	1	2	3	4	5	6	7	YES	NO
3.	Has poor table manners	1	2	3	4	5	6	7	YES	NO
4.	Refuses to eat food presented	1	2	3	4	5	6	7	YES	NO
5.	Refuses to do chores when asked	1	2	3	4	5	6	7	YES	NO
6.	Slow in getting ready for bed	1	2	3	4	5	6	7	YES	NO
7.	Refuses to go to bed on time	1	2	3	4	5	6	7	YES	NO
8.	Does not obey house rules on own	1	2	3	4	5	6	7	YES	NO
9.	Refuses to obey until threatened with punishment	1	2	3	4	5	6	7	YES	NO
10.	Acts defiant when told to do something	1	2	3	4	5	6	7	YES	NO
11.	Argues with parents about rules	1	2	3	4	5	6	7	YES	NO
12.	Gets angry when doesn't get own way	1	2	3	4	5	6	7	YES	NO
13.	Has temper tantrums	1	2	3	4	5	6	7	YES	NO
14.	Answers back to adults	1	2	3	4	5	6	7	YES	NO
15.	Whines	1	2	3	4	5	6	7	YES	NO
16.	Cries easily	1	2	3	4	5	6	7	YES	NO
17.	Yells or screams	1	2	3	4	5	6	7	YES	NO
18.	Hits parents	1	2	3	4	5	6	7	YES	NO
19.	Destroys toys and other objects	1	2	3	4	5	6	7	YES	NO
20.	Is careless with toys and other objects	1	2	3	4	5	6	7	YES	NO
21.	Steals	1	2	3	4	5	6	7	YES	NO

22.	Lies	1	2	3	4	5	6	7	YES	NO
23.	Teases or provokes other children	1	2	3	4	5	6	7	YES	NO
24.	Verbally fights with friends own age	1	2	3	4	5	6	7	YES	NO
25.	Verbally fights with sisters and brothers	1	2	3	4	5	6	7	YES	NO
26.	Physically fights with friends own age	1	2	3	4	5	6	7	YES	NO
27.	Physically fights with sisters and brothers	1	2	3	4	5	6	7	YES	NO
28.	Constantly seeks attention	1	2	3	4	5	6	7	YES	NO
29.	Interrupts	1	2	3	4	5	6	7	YES	NO
30.	Is easily distracted	1	2	3	4	5	6	7	YES	NO
31.	Has short attention span	1	2	3	4	5	6	7	YES	NO
32.	Fails to finish tasks or projects	1	2	3	4	5	6	7	YES	NO
33.	Has difficulty entertaining self alone	1	2	3	4	5	6	7	YES	NO
34.	Has difficulty concentrating on one thing	1	2	3	4	5	6	7	YES	NO
35.	Is overactive or restless	1	2	3	4	5	6	7	YES	NO
36.	Wets the bed	1	2	3	4	5	6	7	YES	NO

Strengths and Difficulties Questionnaire

For each item, please mark the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain. Please give your answers on the basis of your child's behaviour **over the last six months.**

	Not True	Somewhat True	Certainly True
Considerate of other people's feelings	☐	☐	☐
Restless, overactive, cannot stay still for long	☐	☐	☐
Often complains of headaches, stomach-aches or sickness	☐	☐	☐
Shares readily with other children, for example, toys, treats, pencils	☐	☐	☐
Often loses temper	☐	☐	☐
Rather solitary, prefers to play alone	☐	☐	☐
Generally well behaved, usually does what adults request	☐	☐	☐
Many worries or often seems worried	☐	☐	☐
Helpful if someone is hurt, upset or feeling ill	☐	☐	☐
Constantly fidgeting or squirming	☐	☐	☐
Has at least one good friend	☐	☐	☐
Often fights with other children or bullies them	☐	☐	☐
Often unhappy, depressed or tearful	☐	☐	☐
Generally liked by other children	☐	☐	☐
Easily distracted, concentration wanders	☐	☐	☐
Nervous or clingy in new situations, easily loses confidence	☐	☐	☐
Kind to younger children	☐	☐	☐
Often lies or cheats	☐	☐	☐
Picked on or bullied by other children	☐	☐	☐
Often volunteers to help others (parents, teachers, other children)	☐	☐	☐
Thinks things out before acting	☐	☐	☐
Steals from home, school or elsewhere	☐	☐	☐
Gets along better with adults than with other children	☐	☐	☐
Many fears, easily scared	☐	☐	☐
Good attention span, sees chores or homework through to the end	☐	☐	☐

Overall, do you think that your child has difficulties in any of the following areas: emotions, concentration, behaviour or being able to get along with other people?

No	Yes – minor difficulties	Yes – definite difficulties	Yes – severe difficulties
☐	☐	☐	☐

If you have answered "Yes", please answer the following questions about these difficulties:

How long have these difficulties been present?

Less than 1 month	1 – 5 months	6 – 12 months	Over a year
☐	☐	☐	☐

Do these difficulties upset or distress your child?

Not at all	A little	A medium amount	A great deal
☐	☐	☐	☐

Do the difficulties interfere with your child's everyday life in the following areas?

	Not at all	A little	A medium amount	A great deal
Home life	☐	☐	☐	☐
Friendships	☐	☐	☐	☐
Classroom learning	☐	☐	☐	☐
Leisure activities	☐	☐	☐	☐

Do the difficulties put a burden on you or the family as a whole?

Not at all	A little	A medium amount	A great deal
☐	☐	☐	☐

Parent Daily Report

Directions: On the page below is a list of difficult behaviours. Please pick a weekday and a weekend day when your child will be with you for at least part of the day. At the end of each of those days, put 'Y' for yes in the correct column if a particular behavior occurred during that day. Put 'N' for no if the behavior did not happen that day. Go right through the list for each day.

If your child was absent for part of the day, for example while at childcare or school, fill in the checklist based on the behavior you saw in the morning before your child left, and in the evening after your child returned.

Behaviour	Weekday ____/____/____		Weekend day _____/____/____	
	NO	YES	NO	YES
1. Being considerate, helpful, sharing, getting along cooperatively.				
2. Being respectful and polite, using a pleasant voice.				
3. Being cheerful, showing contentment and self-confidence.				
4. Playing independently, doing things for himself/ herself.				
5. Minding, listening, following directions.				
6. Managing difficult feelings well, showing self-control.				
7. Solving a problem well.				
8. Being aggressive, fighting, hitting, biting, kicking others.				
9. Arguing, talking back to or giving cheek to an adult.				
10. Complaining, negativism, pouting, whining.				
11. Crying.				
12. Not minding, say ‘no’, being disobedient or defiant.				
13. Being destructive, throwing things.				
14. Fighting with siblings.				
15. Hyperactivity.				
16. Irritability, fussiness.				
17. Lying.				
18. Making excessive noise, noisiness.				
19. Not eating meals, mealtime battles.				
20. Misbehaviour while shopping.				
21. Teasing others.				
22. Temper tantrum.				
23. Yelling, screaming at someone.				

24. Making messes.				
25. Stealing.				
26. Refusing to do chores or jobs.				
27. Complaining about doing chores or jobs.				
28. Not completing chores or jobs satisfactorily.				

Parenting Scale

At one time or another, all children misbehave or do things that could be harmful, that are "wrong", or that parents don't like. Examples include:

hitting someone	whining	throwing food
forgetting homework	not picking up toys	lying
having a tantrum	refusing to go to bed	wanting a cookie before dinner
running into the street	arguing back	coming home late

Parents have many different ways or styles of dealing with these types of problems. Below are items that describe some styles of parenting. For each item, circle the number that best describes your style of parenting during the past two months with your child.

SAMPLE ITEM

At meal time…

I let my child decide how much to eat.	1	(2)	3	4	5	6	7	I decide how much my child eats.

1. **When my child misbehaves…**

I do something right away.	1	2	3	4	5	6	7	I do something about it later.

2. **Before I do something about a problem…**

I give my child several reminders or warnings.	1	2	3	4	5	6	7	I use only one reminder or warning.

3. **When I'm upset or under stress…**

I am picky and on my child's back.	1	2	3	4	5	6	7	I am no more picky than usual.

4. **When I tell my child not to do something…**

I say very little.	1	2	3	4	5	6	7	I say a lot.

5. **When my child pesters me…**

I can ignore the pestering.	1	2	3	4	5	6	7	I can't ignore the pestering.

6. **When my child misbehaves…**

I usually get into a long argument with my child.	1	2	3	4	5	6	7	I don't get into an argument.

7. **I threaten to do things that…**

I am sure I can carry out.	1	2	3	4	5	6	7	I know I won't actually do it.

8. **I am the kind of parent that…**

sets limits on what my child is allowed to do.	1	2	3	4	5	6	7	lets my child do whatever he or she wants.

9. **When my child misbehaves…**

I give my child a long lecture.	1	2	3	4	5	6	7	I keep my talks short and to the point.

10. **When my child misbehaves…**

I raise my voice or yell.	1	2	3	4	5	6	7	I speak to my child calmly.

11. **If saying no doesn't work right away…**

I take some other kind of action.	1	2	3	4	5	6	7	I keep talking and trying to get through to my child.

12. **When I want my child to stop doing something…**

I firmly tell my child to stop.	1	2	3	4	5	6	7	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.	1	2	3	4	5	6	7	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.	1	2	3	4	5	6	7	things get back to normal quickly.

15. **When we're not at home…**

I handle my child the way I do at home.	1	2	3	4	5	6	7	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.	1	2	3	4	5	6	7	I often let it go.

17. **When there's a problem with my child…**

things build up and I do things I don't mean to do.	1	2	3	4	5	6	7	things don't get out of hand.

18. **When my child misbehaves, I spank, slap, grab, or hit my child…**

never or rarely.	1	2	3	4	5	6	7	most of the time.

19. **When my child doesn't do what I ask…**

I often let it go or end up doing it myself.	1	2	3	4	5	6	7	I take some other action.

20. **When I give a fair threat or warning…**

I often don't carry it out.	1	2	3	4	5	6	7	I always do what I said.

21. **If saying no doesn't work…**

I take some other kind of action.	1	2	3	4	5	6	7	I offer my child something nice so he/she will behave.

22. **When my child misbehaves…**

I handle it without getting upset.	1	2	3	4	5	6	7	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.	1	2	3	4	5	6	7	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.	1	2	3	4	5	6	7	I let it go that time.

25. **When my child misbehaves…**

I rarely use bad language or curse.	1	2	3	4	5	6	7	I almost always use bad language.

26. **When I say my child can't do something…**

I let my child do it anyway.	1	2	3	4	5	6	7	I stick to what I said.

27. **When I have to handle a problem…**

I tell my child I am sorry about it.	1	2	3	4	5	6	7	I don't say I'm 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.	1	2	3	4	5	6	7	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.	1	2	3	4	5	6	7	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.	1	2	3	4	5	6	7	I stick to what I said.

Parenting Tasks Checklist

Using the scale provided, write down the number next to each item that best describes how confident you are that you can successfully deal with your child if they engage in difficult behaviour in each situation.

Rate your confidence from 0 (Certain I can't do it) to 100 (Certain I can do it)

How confident are you in successfully handling your child's difficult behaviour when:

Waking and getting your child out of bed	
Helping your child with bathing	
Going to the doctor	
Getting your child ready to go out	
Getting your child ready to use the toilet	
Shopping with your child	
Travelling in the car with your child	
Leaving your child at daycare/kindergarten/school	
Visiting friends or relatives with your child	
Visitors arrive at your home	
You are speaking to another adult	
You are on the telephone	
You are preparing meals	
You are busy with chores	
Your child refuses to do as they have been told	
Your child gets upset when they do not get their own way	
You child acts defiantly when asked to do something	
Your child throws a tantrum	
Your child yells	
Your child answers back	
Your child whines or whinges	
Your child interrupts	
Your child refuses to eat their food	
Your child refuses to do chores or jobs as asked	
Your child argues with you about rules	
Your child constantly seeks attention	
Your child takes too long when dressing	
Your child takes too long when eating	

Parenting Experience Survey

Below are a list of issues relating to being a parent. Please circle the number describing the response which best describes how you honestly feel.

1. In an overall sense, how difficult has your child's behaviour been over the last 6 weeks?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

2. To what extent do the following statements describe your experience as a parent in the last 6 weeks?

	Not at all	Slightly	Moderately	Very	Extremely
Parenting is rewarding	1	2	3	4	5
Parenting is demanding	1	2	3	4	5
Parenting is stressful	1	2	3	4	5
Parenting is fulfilling	1	2	3	4	5
Parenting is depressing	1	2	3	4	5

3. In the last 6 weeks, how confident have you felt to undertake your responsibilities as a parent?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

4. How supported have you felt in your role as a parent over the last 6 weeks?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

If you have a partner, please complete the following items.

5. To what extent do you both agree over methods of disciplining your child?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

6. How supportive has your partner been towards you in your role as a parent over the last 6 weeks?

Not at all	Slightly	Moderately	Very	Extremely
1	2	3	4	5

7. In an overall sense, how happy do you consider your relationship with your partner to be?

   (Note: the middle point,"happy" represents the degree of happiness of most relationships, please indicate the point that best describes the degree of happiness, all things considered, of your relationship)

Extremely unhappy	Fairly unhappy	A little unhappy	Happy	Very happy	Extremely happy	Perfect
0	1	2	3	4	5	6

Depression Anxiety Stress Scales-21 item version

Please read each statement and circle a number 0, 1, 2 or 3 which indicates how much the statement applied to you **over the past week**. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0	Did not apply to me at all
1	Applied to me to some degree, or some of the time
2	Applied to me a considerable degree, or a good part of the time
3	Applied to me very much, or most of the time

1.	I found myself getting upset by quite trivial things.	0	1	2	3
2.	I was aware of dryness of my mouth.	0	1	2	3
3.	I couldn't seem to experience any positive feeling at all.	0	1	2	3
4.	I experienced breathing difficulty (e.g., excessively rapid breathing, breathlessness) in the absence of physical exertion.	0	1	2	3
5.	I just couldn't seem to get going.	0	1	2	3
6.	I tended to over-react to situations.	0	1	2	3
7.	I had a feeling of shakiness (e.g., legs going to give way).	0	1	2	3
8.	I found it difficult to relax.	0	1	2	3
9.	I found myself in situations which made me so anxious I was most relieved when they ended.	0	1	2	3
10.	I felt that I had nothing to look forward to.	0	1	2	3
11.	I found myself getting upset rather easily.	0	1	2	3
12.	I felt that I was using a lot of nervous energy.	0	1	2	3
13.	I felt sad and depressed.	0	1	2	3
14.	I found myself getting impatient when I was delayed in any way (e.g., lifts, traffic lights, being kept waiting).	0	1	2	3
15.	I had a feeling of faintness.	0	1	2	3
16.	I felt that I had lost interest in just about everything.	0	1	2	3
17.	I felt I wasn't worth much as a person.	0	1	2	3
18.	I felt that I was rather touchy.	0	1	2	3
19.	I perspired noticeably (e.g., hands sweaty) in the absence of high temperatures or physical exertion.	0	1	2	3
20.	I felt scared without any good reason.	0	1	2	3
21.	I felt that life wasn't worthwhile.	0	1	2	3

Parent Problem Checklist

Directions: Below is a list of issues over child-rearing which parents often discuss. Please (1) circle either "yes" **or** "no" to indicate whether or not each issue has been a problem for you and your partner over the **last 4 weeks**, and (2) circle the number describing the **extent** to which each issue has been a problem for you and your partner in the **last 4 weeks**.

	Has this issue been a problem for you and your partner?		To what extent has this issue been a problem for you and your partner?						
			Not at all	A little		Somewhat		Much	Very much
1. Disagreement over household rules (e.g. bedtime/curfews, play areas)	YES	NO	1	2	3	4	5	6	7
2. Disagreement over type of discipline (e.g. smacking children)	YES	NO	1	2	3	4	5	6	7
3. Disagreement over who should discipline the children	YES	NO	1	2	3	4	5	6	7
4. Fighting in front of the children	YES	NO	1	2	3	4	5	6	7
5. Inconsistency between parents	YES	NO	1	2	3	4	5	6	7
6. Children preventing parents from being alone	YES	NO	1	2	3	4	5	6	7
7. Disagreement about sharing child care workloads	YES	NO	1	2	3	4	5	6	7
8. Inability to resolve disagreements about child care	YES	NO	1	2	3	4	5	6	7
9. Discussions about child care turning into arguments	YES	NO	1	2	3	4	5	6	7
10. Parents undermining each other, i.e. not backing each other up	YES	NO	1	2	3	4	5	6	7
11. Parents favouring one child over another	YES	NO	1	2	3	4	5	6	7
12. Lack of discussion between parents about child care	YES	NO	1	2	3	4	5	6	7
13. Lack of discussion about anything	YES	NO	1	2	3	4	5	6	7
14. One parent 'soft' one parent 'tough' with children	YES	NO	1	2	3	4	5	6	7
15. Children behave worse with one parent than the other	YES	NO	1	2	3	4	5	6	7
16. Disagreement over what is naughty behaviour	YES	NO	1	2	3	4	5	6	7

Relationship Quality Index

Instructions: Circle the number that best describes the degree of satisfaction you feel in various areas of your relationship with your partner.

	Very Strongly Disagree	Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly Agree	Very Strongly Agree
1. We have a good relationship	1	2	3	4	5	6	7
2. My relationship with my partner is very stable	1	2	3	4	5	6	7
3. My relationship with my partner is strong	1	2	3	4	5	6	7
4. My relationship with my partner makes me happy	1	2	3	4	5	6	7
5. I really feel like part of a team with my partner	1	2	3	4	5	6	7

6. All things considered, what degree of happiness best describes your relationship?

1	2	3	4	5	6	7	8	9	10
Unhappy				Happy					Perfectly Happy

Client Satisfaction Questionnaire

This questionnaire will help us to evaluate and continually improve the program we offer. We are interested in your *honest opinions* about the services you have received, whether they are positive or negative. Please answer all the questions.

Please circle the response that best describes how you honestly feel.

1. How would you rate the quality of the service you and your child received?

7	6	5	4	3	2	1
Excellent		Good		Fair		Poor

2. Did you receive the type of help you wanted from the programme?

1	2	3	4	5	6	7
No definitely not		No not really		Yes generally		Yes definitely

3. To what extent has the programme met *your child's* needs?

7	6	5	4	3	2	1
Almost all needs have been met		Most needs have been met		Only a few needs have been met		No needs have been met

4. To what extent has the programme met *your* needs?

7	6	5	4	3	2	1
Almost all needs have been met		Most needs have been met		Only a few needs have been met		No needs have been met

5. How satisfied were you with the *amount of help* you and your child received?

1	2	3	4	5	6	7
Quite dissatisfied		Dissatisfied		Satisfied		Very satisfied

6. Has the programme helped you to deal more effectively with your child's behaviour?

7	6	5	4	3	2	1
Yes, it has helped a great deal		Yes, it has helped somewhat		No, it hasn't helped much		No, it made things worse

7. Has the programme helped you to deal more effectively with problems that arise in your family?

7	6	5	4	3	2	1
Yes, it has helped a great deal		Yes, it has helped somewhat		No, it hasn't helped much		No, it made things worse

8. Do you think your relationship with your partner has been improved by the programme?

1	2	3	4	5	6	7
No definitely not		No not really		Yes generally		Yes definitely

9. In an overall sense, how satisfied are you with the programme you and your child received?

7	6	5	4	3	2	1
Very satisfied		Satisfied		Dissatisfied		Very dissatisfied

10. If you were to seek help again, would you come back to Triple P?

1	2	3	4	5	6	7
No definitely not		No I don't think so		Yes I think so		Yes definitely

11. Has the programme helped you to develop skills that can be applied to other family members?

1	2	3	4	5	6	7
No definitely not		No I don't think so		Yes I think so		Yes definitely

12. In your opinion, how is your child's behaviour at this point?

1	2	3	4	5	6	7
Considerably worse	Worse	Slightly worse	The same	Slightly improved	Improved	Greatly improved

13. How would you describe your feelings at this point about your child's progress?

7	6	5	4	3	2	1
Very satisfied	Satisfied	Slightly satisfied	Neutral	Slightly dissatisfied	Dissatisfied	Very dissatisfied

14. Since you completed the last questionnaire, have you sought further assistance for your child's behaviour or for your family from any other source? If so, please describe. _____

_____

_____

15. Have you had any other problems with your child which you feel may be related to the original difficulty? _____

_____

_____

14. Do you have any other comments about this programme? _____

_____

_____

Discussion Group Satisfaction Questionnaire

This questionnaire will help us to evaluate and continually improve the program we offer. We are interested in your *honest opinions* about the services you have received, whether they are positive or negative. Please answer all the questions.

Please circle the response that best describes how you honestly feel.

1. How would you rate the quality of the discussion group?

7	6	5	4	3	2	1
Excellent		Good		Fair		Poor

2. Did you receive the type of help you wanted from the programme?

1	2	3	4	5	6	7
No definitely not		No not really		Yes generally		Yes definitely

3. To what extent has the programme met your needs?

7	6	5	4	3	2	1
Almost all needs have been met		Most needs have been met		Only a few needs have been met		No needs have been met

4. How satisfied were you with the amount of help you received?

1	2	3	4	5	6	7
Quite dissatisfied		Dissatisfied		Satisfied		Very satisfied

5. Did you gain sufficient knowledge or information to be able to implement the parenting strategies introduced?

7	6	5	4	3	2	1
Yes, definitely		Yes, generally		No, not really		No, definitely not

6. Do you intend to implement the parenting strategies introduced?

7	6	5	4	3	2	1
Yes, definitely		Yes, generally		No, not really		No, definitely not

7. How satisfied were you with the content of the discussion group?

1	2	3	4	5	6	7
Very dissatisfied		Dissatisfied		Satisfied		Very satisfied

8. How satisfied were you with the format of the discussion group?

1	2	3	4	5	6	7
Very dissatisfied		Dissatisfied		Satisfied		Very satisfied

9. If you were to seek help again, would you come back to *Triple P*?

1	2	3	4	5	6	7
No definitely not		No I don't think so		Yes I think so		Yes definitely

10. Has the programme helped you to develop skills that can be applied to other family members?

1	2	3	4	5	6	7
No definitely not		No I don't think so		Yes I think so		Yes definitely

11. Do you have any other comments about this programme? _____

_____

_____

Child Adjustment and Parent Efficacy Scale-Parent Efficacy subscale

Below is a list of child behaviours. Please read each statement and write down the number next to each item that best describes how confident you are that you can successfully deal with your child's behaviour, even if it is a behaviour that rarely occurs or does not concern you.

Please write ONE NUMBER between 1 and 10 in the box for EACH QUESTION

1 = Certain I can't do it
10 = Certain I can do it

1.	Gets upset or angry when they don't get their own way	☐
2.	Refuses to do jobs around the house when asked	☐
3.	Worries	☐
4.	Loses their temper	☐
5.	Misbehaves at mealtimes	☐
6.	Argues or fights with other children, brothers or sisters	☐
7.	Refuses to eat food made for them	☐
8.	Takes too long getting dressed	☐
9.	Hurts me or others (e.g. hits, pushes, scratches, bites)	☐
10.	Interrupts when I am speaking to others	☐
11.	Seems fearful and scared	☐
12.	Misbehaves at school or nursery	☐
13.	Has trouble keeping busy without adult attention	☐
14.	Yells, shouts or screams	☐
15.	Whines or complains (whinges)	☐
16.	Acts defiant when asked to do something	☐
17.	Cries more than other children their age	☐
18.	Rudely answers back to me	☐
19.	Seems unhappy or sad	☐
20.	Has trouble organising tasks and activities	☐

The Short Warwick-Edinburgh Mental Well-being Scale (SWEMWBS)

Below are some statements about feelings and thoughts.

Please tick the box that best describes your experience of each over the last 2 weeks

STATEMENTS	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future	1	2	3	4	5
I've been feeling useful	1	2	3	4	5
I've been feeling relaxed	1	2	3	4	5
I've been dealing with problems well	1	2	3	4	5
I've been thinking clearly	1	2	3	4	5
I've been feeling close to other people	1	2	3	4	5
I've been able to make up my own mind about things	1	2	3	4	5

Parenting and Family Adjustment Scale-Family Relationships subscale

Below is a list of statements about family relationships. Please read each statement and indicate how true the statement was for you over the **PAST FOUR WEEKS**.

	Please tick ✓ONE box for EACH QUESTION	Not true of me at all	True of me a little, or some of the time	True of me quite a lot, or a good part of the time	True of me very much, or most of the time
1.	Our family members help or support each other	☐	☐	☐	☐
2.	Our family members get on well with each other	☐	☐	☐	☐
3.	Our family members fight or argue	☐	☐	☐	☐
4.	Our family members criticize or put each other down	☐	☐	☐	☐

Family Background Questionnaire Study One

This questionnaire collects information about your family.

Your Family (please tick the appropriate response)

1. Child's sex:

   Male ( ) Female ( )

2. Child's age today: _____ (years)

3. Child's date of birth: _____/_____/_____

4. Your relationship to this child:

   Mother (biological or adoptive) ( ) Father (biological or adoptive) ( )

   Step-mother ( ) Step-father ( )

   Foster mother ( ) Foster father ( )

   Other, please describe: ( ) _____

5. Your age: _____ (years)

6. Your current marital status:

   Married ( ) Divorced ( ) Widowed ( )

   Defacto ( ) Separated ( ) Single ( )

7. At present who lives at home with your child (e.g. parents, siblings, grandparents)?

Name	Age	Sex	Relationship to child

8. Which best describes the household in which your child is presently living?

Original family (both biological or adoptive parents present) ( )

Step family (two parents, one being a step parent) ( )

Sole parent family ( )

Other, please describe: ( ) _____

9. Which ethnic group does your child best identify with?

New Zealand European ( ) Maori ( )

Pacific Islander ( ) Asian ( )

Other, please specify: ( ) _____

Your Education and Employment

10. Your highest level of education:

Less than Year 10 ( ) Year 12 ( ) Trade/apprenticeship ( )

Year 10/11 ( ) Polytech Qualification ( ) University degree ( )

11. Are you currently in paid employment?

Yes ( ) No ( )

If Yes, how many hours per week? _____ hours

12. Which of the following income bands best describes the TOTAL INCOME for your family (gross - before tax)?

Less than $308 per week (less than $16000 per year)		$578 - $673 per week ($30001-$35000 per year)		$1155 - $1346 per week ($60001-$70000 per year)	
$309 - $385 per week ($16001 - $20000 per year)		$674 - $769 per week ($35001-$40000 per year)		more than $1346 per week (more than $70000 per year)	
$386 - $481 per week ($20001-$25000 per year)		$770 - $961 per week ($40001-$50000 per year)		Don't know	
$482 - $577 per week ($25001-$30000 per year)		$962 - $1154 per week ($50001-$60000 per year)			

Your Health

13. In the last 6 months have either you or your partner sought professional assistance from any of the following:

Self

Psychologist	Yes	( )	No	( )
Psychiatrist	Yes	( )	No	( )
Counsellor	Yes	( )	No	( )
Social Worker	Yes	( )	No	( )
Other Professional	Yes	( )	No	( )

Partner

Psychologist	Yes	( )	No	( )
Psychiatrist	Yes	( )	No	( )
Counsellor	Yes	( )	No	( )
Social Worker	Yes	( )	No	( )
Other Professional	Yes	( )	No	( )

Your Child's Health

14. Does your child experience any of the following problems:

A vision or hearing impairment?	Yes ( )	No ( )
A severe chronic illness that results in regular hospitalisation?	Yes ( )	No ( )
A physical disability?	Yes ( )	No ( )
An intellectual disability?	Yes ( )	No ( )
A developmental delay?	Yes ( )	No ( )
A restrictive/therapeutic diet prescribed by a health professional?	Yes ( )	No ( )

If Yes to any of the above, please provide details:

_____

_____

_____

15. Is your child having any regular contact with another professional or government agency for emotional or behavioural problems?

    Yes ( ) No ( )

    If yes, please describe:

_____

_____

_____

Family Background Questionnaire Study Two

This section will ask questions about you and your family.

1. Is your child:

Female ☐
Male ☐

Please tick ✓ONE box

2. How old is your child in years?

3 years ☐
4 years ☐
5 years ☐
6 years ☐
7 years ☐
8 years ☐

Please tick ✓ONE box

3. What is your child's date of birth (dd/mm/yyyy)? ***Please write in below***

……/……/……

4. Was your child born in the UK?

No ☐
Yes ☐

Please tick ✓ONE box

5. Which ethnic group does this child best identify with? ***Please tick ✓ONE box***

British ☐
Scottish ☐
English ☐
Irish ☐
Welsh ☐
European ☐
Chinese ☐
Indian ☐
Pakistani ☐
Other ☐

Please tick and write in below

_____

6. What is your relationship to this child? ***Please tick ✓ONE box***

Mother (biological or adoptive)	☐	Foster father	☐
Step-mother	☐	Grandparent	☐
Foster mother	☐	Carer	☐
Father (biological or adoptive)	☐	Other	☐ ***Please tick and write in below***
Step-father	☐		

_____

7. Are you: ***Please tick ✓ONE box***

Female ☐

Male ☐

8. How old are you in years? ***Please write in below***

_____ years

9. Were you born in the UK?

No ☐

Yes ☐ ***Please tick ✓ONE box***

10. What is your current marital status? ***Please tick ✓ONE box***

Married	☐	Living with Partner	☐
Divorced	☐	Separated	☐
Widowed	☐	Single	☐
Civil Partnership	☐	Other	☐ ***Please tick and write in below***

_____

11. Which best describes the household in which your child is presently living?
Please tick ✓ONE box

Original family (both biological or adoptive parents present) ☐

Step family (two parents, one being a step parent) ☐

Sole parent family ☐

Other ☐ ***Please tick and write in below***

_____

12. At present who lives at home with your child (e.g. parents, siblings, grandparents)?

Note: Please include yourself in this list. If there is anyone who lives at home with your child only part of the time, please also include them in this list (e.g. step-brothers, step-sisters).

Relationship to child ***Please write in below***	Age in years ***Please write in below***	Gender ***Please tick ✓ONE box***
		Female ☐ Male ☐
		Female ☐ Male ☐
		Female ☐ Male ☐
		Female ☐ Male ☐

The next section will ask questions about your education, employment and income.

1. What is your highest level of education? ***Please tick ✓ONE box***

- ☐ School leaver at 16
- ☐ 'Highers' ('H' grades)/'A' levels
- ☐ Any advanced qualification - not a degree (e.g. HND, nursing, teaching diploma)
- ☐ University degree
- ☐ Apprenticeship/trade

2. Are you currently in paid employment? ***Please tick ✓ONE box***

- ☐ No
- ☐ Yes ***Please write in below how many hours per week***

_____ hours

3. Which of the following income bands best describes the TOTAL INCOME for your family before tax? ***Please tick ✓ONE box***

- ☐ Less than £10,000 per year
- ☐ £10,000 - £15,000 per year
- ☐ £15,000 - £20,000 per year
- ☐ £20,000 - £25,000 per year
- ☐ £25,000 - £30,000 per year
- ☐ £30,000 - £35,000 per year
- ☐ £35,000 - £40,000 per year
- ☐ £40,000 - £45,000 per year
- ☐ £45,000 - £50,000 per year
- ☐ £50,000 - £60,000 per year
- ☐ £60,000 - £70,000 per year
- ☐ £70,000+ per year
- ☐ Prefer not to say

4. During the past 12 months, has there been a time when your household could not meet its essential expenses? By essential expenses we mean things like food, the mortgage or rent payment, utility bills, or child care. ***Please tick ✓ONE box***

- ☐ No
- ☐ Yes
- ☐ Prefer not to say

5. After you have paid for your essential expenses like food, housing, utilities, and child care, how much money is left over? ***Please tick ✓ONE box***

Enough that we can comfortably purchase most of the things we really want ☐

Enough that we can purchase only some of the things we really want ☐

Not enough to purchase much of anything we really want ☐

Prefer not to say ☐

This section will ask questions about your health.

---

1. In the last 6 months have YOU sought professional assistance from any of the following: ***Please tick ✓ONE box on EACH LINE***

	No	Yes
Psychologist	☐	☐
Psychiatrist	☐	☐
Counsellor	☐	☐
Social Worker	☐	☐
Other Professional	☐	☐

If you have a partner, please complete the following items. If you do not have a partner please go to the next question.

2. In the last 6 months has YOUR PARTNER sought professional assistance from any of the following: ***Please tick ✓ONE box on EACH LINE***

	No	Yes
Psychologist	☐	☐
Psychiatrist	☐	☐
Counsellor	☐	☐
Social Worker	☐	☐
Other Professional	☐	☐

The next section will ask questions about your child's health.

1. Does your child experience any of the following problems:
Please tick ✓ONE box on EACH LINE

	No	Yes
A vision or hearing impairment	☐	☐
A severe chronic illness that results in regular hospitalisation	☐	☐
A physical disability	☐	☐
An intellectual disability	☐	☐
A developmental delay	☐	☐
A restrictive/therapeutic diet prescribed by a health professional	☐	☐

If you answered YES to any of the above, please write in details below

_____

_____

_____

2. Is your child having any regular contact with another professional or government agency for emotional or behavioural problems? ***Please tick ✓ONE box***

No ☐

Yes ☐ ***Please tick and write in below***

_____

_____

_____

Consumer Satisfaction Questionnaire-Stress Control/Stress and Wellbeing course

This questionnaire will help us to evaluate and continually improve the programme we offer. We are interested in your honest opinions about the *Stress and Wellbeing course* you have received, whether they are positive or negative.

1. Has attending the Stress and Wellbeing course caused any change (improvement or deterioration) in your main complaint?

Please tick ✓ONE box

- Cured / Daily living is back to normal ☐
- Major improvement (that has an effect on your daily living) ☐
- Moderate improvement (that has an effect on your daily living) ☐
- Slight improvement ☐
- No change ☐
- Slight deterioration (but it has no effect on your daily living) ☐
- Moderate deterioration (that has an effect on your daily living) ☐
- Major deterioration (that has an effect on your daily living) ☐
- Disastrous deterioration ☐

2. Has attending the Stress and Wellbeing course caused any change (improvement or deterioration) in your wellbeing?

Please tick ✓ONE box

- Cured / Daily living is back to normal ☐
- Major improvement (that has an effect on your daily living) ☐
- Moderate improvement (that has an effect on your daily living) ☐
- Slight improvement ☐
- No change ☐
- Slight deterioration (but it has no effect on your daily living) ☐
- Moderate deterioration (that has an effect on your daily living) ☐
- Major deterioration (that has an effect on your daily living) ☐
- Disastrous deterioration ☐

3. How confident are you that the Stress and Wellbeing course will help you cope in the future? ***Please tick ✓ONE box***

Not confident / slightly confident	Moderately confident	Very confident	Completely confident
☐	☐	☐	☐

4. Throughout Stress and Wellbeing course the course leader has asked you to try things out at home. Have you been able to do them? ***Please tick ✓ONE box***

Yes, all the time	Yes, most of the time	No, not very often	No, not at all
☐	☐	☐	☐

5. How many sessions of the Stress and Wellbeing course have you managed to come along to? ***Please tick ✓ONE box***

1 session	2 sessions	3 sessions	4 sessions
☐	☐	☐	☐

6. All things considered, how satisfied are you with the Stress and Wellbeing course overall? ***Please tick ✓ONE box***

Completely dissatisfied	Very dissatisfied	Fairly dissatisfied	Neutral	Fairly satisfied	Very satisfied	Completely satisfied
☐	☐	☐	☐	☐	☐	☐

7. Would you recommend the Stress and Wellbeing course to your family and friends? ***Please tick ✓ONE box***

Definitely not	Probably not	Not sure	Probably yes	Definitely yes
☐	☐	☐	☐	☐

8. Do you feel that the Stress and Wellbeing course has met your expectations?

Please tick ✓ONE box

No ☐

Yes ☐

If Yes / No, in what way? ***Please write in details below***

_____

_____

_____

9. Any comments you would like to make about Stress and Wellbeing course would be very helpful for us. ***Please write in details below***

_____

_____

_____

_____

Appendix E. Example Participant Information Sheets and Consent Forms

LOUISE KEOWN *PhD*
Senior Lecturer

MELANIE PALMER
PhD Candidate

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Evaluation of brief parenting discussion groups for parents with 5-8 year-old children

PARTICIPANT INFORMATION SHEET (PARENT)

Dear Parents,

My name is Melanie Palmer and I am a PhD candidate with the Parenting Research Group at the Faculty of Education, University of Auckland. The Parenting Research Group conducts research looking at the effectiveness of the Triple P Positive Parenting Program. The current project aims to evaluate the effectiveness of a newly-developed series of Triple P parent discussion groups. We are inviting parents who have a 5- to 8-year-old child who is showing some difficulties with his or her behaviour to participate in this project.

What is involved in the discussion groups?
During each discussion group, parents are taught about positive parenting and discipline strategies to manage their child's behaviour in a constructive way. The discussion groups offered in the study are: 'Dealing with Disobedience', 'Positive Parenting', 'Fighting and Aggression', 'Self-esteem', and 'Chores'. Eligible parents will be given the opportunity to attend the discussion groups free-of-charge as part of the study, and parents will be allowed to keep all discussion group resources. Each group is presented by a trained Triple P practitioner and both mothers and fathers are encouraged to attend. Parents will be given the chance to practice strategies in session, and to develop an implementation plan tailored for their family. Groups will be conducted either at the Triple P Research Group clinic at Epsom or local community based settings that are convenient for parents to access.

What does participation involve?
Participants in the project will be randomly allocated to one of two groups: the single discussion group condition or the multiple discussion group condition. Parents in the single discussion group condition will attend one two-hour discussion group targeted at managing disobedient behaviour. Parents in the multiple discussion group condition will attend four two-hour discussion groups; two compulsory topics ('Dealing with Disobedience' and 'Positive Parenting'), and the choice of two out of three additional discussion groups targeting other specific behaviours and concerns ('Fighting and Aggression', 'Self-esteem' and 'Chores').

Please note that participants are not able to choose which group they would like to be allocated to. Confidentiality with respect to your identity cannot be guaranteed due to the group nature of the research, that is, other members of the group may be able to identify you.

Participation in this project involves the completion of a number of questionnaires. These questionnaires ask about a range of parenting and child behaviour issues, as well as about parents' own well being and relationship quality. So that we can assess the immediate and long-term effects of the group, all participants will be asked to complete the assessment before the discussion group, 6 weeks after completing the first assessment, and again 6 months later. Both mothers and fathers are encouraged to complete the assessments. The questionnaires take approximately 45 minutes to complete at each time point.

The group sessions may be video-recorded. These recordings are only made for the purpose of ensuring that the therapists have delivered the group according to the research protocol. Parents' responses will not be evaluated in any way. The recordings will only be viewed by Melanie Palmer and her supervisor.

Other important information about your participation
Names and identifying details will not be used in any summary report of this data, and all data will be described only in general terms at the group level. Each family will be assigned a code number and your name will be erased from any forms or questionnaires. Only the researchers and their assistant/s will have access to information that matches names with code numbers. All research assistants will be required to sign a confidentiality agreement before commencing employment. All information collected for this study will be stored in locked filing cabinets on University premises, and all electronic and web-based data will be secured by a password system. All data, including questionnaires, forms, videotapes, and electronic files, will be destroyed or erased 6 years after publication in academic journals. The data will be used in my PhD thesis, academic publications and conference presentations. Applications for funding to cover the costs of this research will be submitted to various funding bodies (e.g. Lotteries Commission), who may also receive a summary of the findings. A summary of the findings will be provided to you if requested.

Your participation in this study is voluntary and you are free to decline to answer questions. You have the right to withdraw yourself and any information traceable to you from the project at any time prior to the completion of data collection (31/07/2015) without penalty or giving a reason.

If you are willing to participate in this study, please complete and return the enclosed consent form in the envelope provided. Thank you very much for your time and help in making this study possible. If you have any questions or concerns about your participation in this study, please contact me on 09 623 8899 ext. 83042 or via email at ml.palmer@auckland.ac.nz.

Yours sincerely,

Melanie Palmer

Melanie Palmer
PhD Candidate
School of Learning, Development and Professional Practice
Ph: 09 623 8899 Ext. 83042
Email: ml.palmer@auckland.ac.nz

Dr Louise Keown *PhD* (Main Supervisor)
Senior Lecturer
School of Learning, Development and Professional Practice
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The Head of the School of Learning, Development and Professional Practice is:
Associate Professor Christine Rubie-Davies
Faculty of Education
The University of Auckland
Private Bag 92601
Symonds St, Auckland 1150
Ph: 09 373 7599 ext. 82974

For queries regarding ethical concerns, contact:
The Chair, the University of Auckland Human Participants Ethics Committee
The University of Auckland
Office of the Vice Chancellor
Private Bag 92019
Auckland 1142
Ph: 09 373 7599 ext. 83711

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE (Reference 7431; expiry date 20/07/2017).

LOUISE KEOWN *PhD*
Senior Lecturer

MELANIE PALMER
PhD Candidate

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Auckland 1105, New Zealand

CONSENT FORM (PARENT)

THIS CONSENT WILL BE HELD FOR A PERIOD OF SIX YEARS.

Study title: Evaluation of brief parenting discussion groups for parents with 5-8 year old children.

Researcher: Melanie Palmer

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered. I have been informed that participation in this project is voluntary.

- I agree to take part in this research.
- I understand that participation in this research involves attending either one or four 2-hour parenting discussion groups.
- I understand that participation in this research involves the completion of questionnaires about child behaviour, parenting, parental wellbeing and family context at the start the study, six weeks later, and 6 months following the end of the programme. The questionnaires will take about 45 minutes to complete each time.
- I understand that group sessions may be videotaped.
- I understand that confidentiality with respect to participation cannot be guaranteed due to the group nature of the research.
- I understand that names and identifying details will not be used in any summary report of this data, and all data will be described only in general terms at the group level.
- I understand that all data, including video recordings, questionnaires, transcriptions and forms will be stored in a locked filing cabinet on University premises to maintain confidentiality. This consent form will be kept separate from all other forms of data, including questionnaires.
- I understand that all information I provide will be stored under my assigned number rather than my name to ensure confidentiality and that all stored electronic data will be password protected.
- I understand that data from this study will be stored for the duration of the research and will be destroyed or erased six years after publication in academic journals.

- I understand that any staff employed to work on this study, including research assistants and practitioners, will be required to sign a confidentiality agreement before commencing employment.
- I understand that I am free to withdraw myself and any information traceable to me from the study at any time prior to completion of data collection (31/07/2015) without penalty or giving a reason.

Signed: _____ Date: _____/_____/_____

Name: _____

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE (Reference 7431; expiry date 20/07/2017).

Contacts : Dr Marion Henderson or **Melanie Palmer**
MRC/CSO Social and Public Health Sciences Unit
University of Glasgow
4 Lilybank Gardens
Glasgow, UK
G12 8RZ

Project phone number:
0800 389 2129 - Option 5

Project email address:
HAPPY@sphsu.mrc.ac.uk

PARTICIPANT INFORMATION SHEET

Invitation to take part in an interview about your experience in taking part in HAPPY: A stress management and parenting programme

We would like to invite you to take part in an interview about the stress management and parenting programme you attended. Before you decide you need to understand why the research is being done and what it would involve of you. Please take time to read the following information carefully. Talk to others about the study if you wish. Ask us if there is anything that is not clear or if you would like more information.

Who is conducting the research?
The research is being carried out by Melanie Palmer as part of her doctoral research and under the supervision of Dr Marion Henderson.

What is the purpose of the study?
The study is designed to find out your experiences of taking part in a stress management and parenting programme. The study aims to help us understand the benefits of the programme and areas for improvement. This kind of research aims to help health practitioners to offer the right kind of support to parents and their children. The study also forms a part of Melanie Palmer's PhD thesis.

Why have I been invited?
You have been invited to take part in this study as you took part in a research project that looked at the effects of a stress management and parenting programme.

Do I have to take part?
It is up to you to decide, taking part is entirely voluntary. We will describe the study and go through this information sheet, which we will then give to you. You will be asked to sign a consent form to show you have agreed to take part.

What does taking part involve?
If you decide to take part, I will ask you a few questions about your experience in attending the stress management and parenting programme. I will arrange to meet with you or to ask the questions over the telephone and will take 30-60 minutes. To help me remember everything

you tell me, I will audio-record our discussion. In order to compensate for your time we will offer you a voucher (£10) that you can use to buy something for yourself or your child.

What happens to the information you provide?
All the information you provide will be kept private and will be stored in a locked cabinet. Any information stored electronically will be stored on highly secure password–protected computers. No one outside of the research team will be able to find out your names, or any other information which could identify you.

What are the possible benefits of taking part?
It is hoped that by taking part in this research, you will be providing valuable information regarding the stress management and parenting programme. This will help to find better ways to support parents in the future.

Is there a downside to taking part?
We do not expect that taking part will cause you any distress.

Can I change my mind?
You can change your mind about taking part at any time and you do not need to give a reason. This would not affect the care you receive or any future treatment.

What will happen to the results of the study?
The results will be published in Melanie Palmer's PhD thesis, academic journals, and conference presentations. The researchers will make sure that the general public know about the results. A summary of the findings will be provided to you if requested. Your name will not be used in any report.

Who has reviewed the study?
This study has been reviewed by the West of Scotland NHS Research Ethics Committee.

If you have any further questions:
We will give you a copy of the information sheet and signed consent form to keep. If you would like more information about the study and wish to speak to someone not closely linked to the study, please contact Professor Daniel Wight via phone on 0141 357 3949.

If you have a complaint about any aspect of the study:
If you are unhappy about any aspect of the study and wish to make a complaint, please contact the researcher in the first instance but the normal NHS complaint mechanisms is also available to you.

Thank you for your time and cooperation.

Contacts :
Dr Marion Henderson or **Melanie Palmer**
MRC/CSO Social and Public Health Sciences Unit
University of Glasgow
4 Lilybank Gardens
Glasgow, UK
G12 8RZ

Project reception phone number:
0800 389 2129 - Option 5

Project email address:
HAPPY@sphsu.mrc.ac.uk

CONSENT FORM **Participant ID:** _ _ _

Invitation to take part in a research project about stress and parenting

Please initial the BOX

I have read and understand the information sheet (dated 05/06/2013, v3)	
I have had the chance to ask questions and discuss the research	
I understand that taking part is voluntary and that I can change my mind at any time and do not need to give a reason, without my medical care or legal rights being affected	
I understand that I will be asked questions about the stress management and parenting programme I attended	
I agree to the interview being audio-recorded	
I understand that things I say in the interview may be quoted in Melanie Palmer's PhD thesis, research reports and articles without using my name	
I understand I will be given a £10 voucher as compensation for my time	
I understand that all information I provide will be kept private and stored in a secure location	
I agree to take part in the research	

Name of Participant	Signature	Date
Name of Researcher	Signature	Date

Appendix F. Interview Schedule

Family background

Firstly, can you tell me a bit about your children?

Follow-up prompts:

- How many do you have?
- What are they like to parent?

Can you tell me a bit about your household?

Follow-up prompts:

- Who is in your household?
- Do you get support for others in our household (not in our household) with parenting?

Can you tell me a bit about your life?

Follow-up prompts:

- Are you in paid employment?

Family life prior to attending programme

So I am interested in finding out what things were like in your household before the programme?

Follow-up prompts:

- What was your household like?
- What were your children like?
- How did your children behave?
- How did you parent your children?
- Did you feel you were coping?
- Why were you interested in attending the programme?

Perceptions of programme

Next I would like to you talk about what you thought of the programme you attended.

Follow-up prompts:

- Overall, what did you think about the parenting and stress management programme?
- Ask more specifically about each session (refer to table regarding the information and strategies taught during each session, and homework tasks)
- Was the programme that you received what you were expecting?
- What did you think of the different formats of the parenting and stress control sessions?

Impact of programme

I would like to explore a bit more about how the programme has changed things in your family/household.

Follow-up prompts:

- Have you used the parenting strategies to help you parent your child/ren?
    - Can you give me an example of when you have used one of the parenting strategies to help you parent your child/ren?
    - What strategy and how used?
    - Ask for a recent example of when they used the strategy
- Have you used the stress management strategies to help you manage stress?
    - Can you give me an example of when you have used one of the stress management strategies to help you?
- Have you used one of the stress management strategies to help you parent your child?
    - Can you give me an example of when you have used one of the stress management strategies to help you parent your child/ren?
    - What strategy and how used?
    - Ask for a recent example of when they used the strategy.
- Can you describe any changes that have occurred in your household over the last 10 weeks.
    - Do you think these changes are to do with the programme you attended?
- Do you think you have changed the way you parent your child?
    - What do you do differently?
    - Get example
- What are you children like now after you have attended the programme?

Factors that affected attendance and implementation

The last thing I would you to talk about is the factors affected the attending the programme and implementation of the strategies.

Follow-up prompts:

- What were the barriers to attending the programme?
    - Get an example of when a barrier impacted on attendance
- What helped facilitate attending of the programme?
    - Get an example of when a facilitator impacted on attendance
- What were the barriers to implementing the strategies?
    - Get an example of when a barrier impacted on implementation

- What helped facilitate implementation of the strategies?
    - Get an example of when a facilitator impacted on implementation