



Institute of Public Health in Ireland

Equity Action Work Package 6: Literature Review

Interventions with Parents in the Early Years for improved health outcomes:

A focus on behaviour and cognitive development/school readiness

November 2013

Dr. Noëlle Cotter

noelle.cotter@publichealth.ie

Introduction

There are multiple influences on long term outcomes for child health but parenting is one of the most important. Although children from certain backgrounds may be at a greater material wealth disadvantage, and this cannot be ignored, research has demonstrated the potential of positive parenting, which is not intrinsically linked to economic status. Parenting determines the quality of the child's upbringing, and positive parenting can be a protective factor countering some of the negative outcomes associated with disadvantage. The importance of the role of parenthood has been acknowledged in the UN Convention on the Rights of the Child. It states that it is the right of children to be supported by their parents as they grow and develop, and places a responsibility on parents to ensure these rights are met.¹

The WHO (Irwin et al, 2007) note that the early child period is the most important developmental phase across the lifespan. Healthy early child development - including physical, social-emotional and language-cognitive development - is fundamental not only for childhood, but throughout the life-course. Early child development strongly influences well-being, obesity/stunting, mental health, heart disease, competence in literacy and numeracy, as well as economic participation throughout life.

However, social inequalities exist that shape the context and experience within which children are raised. These social inequalities impact health and other outcomes across the life course. Despite these disparities, it is possible to empower parents to give their children a good start in life across the social and economic continuum. There may be particular cohorts across this continuum requiring additional supports to empower them to provide their children with a good start in life addressing the inter-generational persistence of inequality (Bowers et al, 2012).

The importance of the early years for underpinning outcomes across the life-course is why this review focuses on this important period. In particular, the review focuses on parenting in the early years as a context within which progressive universalism can be applied to considerable benefit. This review was guided by a social determinants of health approach in considering what interventions with parents of children in the early years demonstrate longer

¹ The Scottish Government (2012) *National Parenting Strategy*.

term positive health impacts. The two key areas of interest were school readiness/behaviour and cognitive development with a focus on intervention effectiveness. A preliminary scoping of the literature indicated that these are the key areas that have been the focus of parenting programmes to date, but presence of literature is not sufficient reason to focus on these areas – these areas are also considered priorities. Capaldi et al (2002) comment that it is hard to overemphasise the importance of childhood conduct issues for maladjustment in later life with consequences for later-life partners and the next generation of children.

Education is a key determinant of health across the life course; children who are already at a disadvantage in terms of school readiness at the first point of education entry may carry this through their education experience – which may be cut short. This lack of engagement can be passed between the generations in terms of attitude to education creating a cycle of exclusion with potential impacts on health. In addition, the UCL Institute of Health Equity (Bowers et al, 2012) notes that low levels of cognitive development can lead to behavioural problems; therefore these two key areas are linked.

It is hoped that this review will provide evidence-based information to inform policy-making that is robust and transferable across Member States to empower parents to make positive improvements in their children's lives.

Methodology

The majority of articles returned by the literature search identifying and evaluating various parenting interventions were with regard to early intervention to prevent conduct disorders and assistance for parents of children with autism spectrum disorders. These interventions intend to prevent adverse outcomes across the life course which interact with, and impact on the social determinants of health. These include retention in education, avoidance of criminality, and positive family and peer relationships, as well as promoting positive mental health. A small number related to school readiness which was one element this review intended to address, and principally addressed literacy and language. However, the interventions which were not explicitly preparing children for school through their parents were still attempting to achieve this same aim in terms of addressing conduct disorders. Scott et al (2012) argue that the aspects of parenting that promote good behaviour concern relationship quality, for example giving warmth and encouragement while calmly enforcing clear limits, while the aspects that promote literacy are regular reading with the child in a manner that is sensitive to their ability level. However, it is unlikely that conduct disorders

and school readiness programmes are entirely mutually exclusive in terms of attempts to address positive health outcomes.

Also it cannot be considered inevitable but rather a risk that children displaying early symptoms of these forms of disorders will develop significant health problems across the life course. Hiscock et al (2008) note that left untreated, up to half of behavioural problems in preschool children develop into later mental health problems, therefore not necessarily all problems will manifest across the life course.

A strict systematic approach was not appropriate for this literature review; however the review did adhere to the ethos of a systematic review in terms of being repeatable, consistent, and using defined parameters. In addition to the considerable resources and time that would have been required for a systematic review, reviews of that nature can often be restrictive and limited by a narrow approach to a subject that requires a wider range of literature inputs. This is particularly the case when considering literature with differing outcomes; as in this review when considering school readiness, behavioural and cognitive development outcomes.

The review was restricted to English language peer reviewed journal articles accessed through the search engine ‘Google Scholar’. The search was completed using the term ‘parenting intervention’ for the period 2003-2013.² In total, 2,350 results were returned and each of these was considered for inclusion based on titles, and also by the accompanying abstract where any ambiguity occurred. Articles were included if describing a parenting intervention, in particular an evaluation of an intervention with parents with regard to behavioural and cognitive development. The greatest focus for these interventions was on parents of children with behavioural or cognitive development challenges – who often were low income households and in attempting to improve these situations for parents and their children, health equity was being addressed. In total 62 articles were included and these are listed in the bibliography.

Articles were not included if the research was not clearly about an intervention with parents, was focussed on children over age eight, or was specialised to a particular topic or population cohort and outside of this review’s remit. Topic-specialised and specific articles refers to articles that were particularly focussing on parenting interventions with within-population groups (e.g. minority ethnic groups), the parents/guardians of children who were fostered or

² Up to and including February 2013.

adopted, where parents were divorced/separated or attempting to co-parent or were teenage parents, where the parents were experiencing substance misuse issues, or where either the child or parent had a disability/disabilities, or the child was ‘gifted’, or articles considering parenting interventions for parents of preterm infants.³ Articles were also not included if they were methodology articles, for example considering how to develop an intervention or were considering methods of evaluating an intervention. The rationale for excluding these articles was based on the specific nature of their interest. These articles were considering a particular approach that would work with these cohorts, and would not add to the evidence-base for a more universal parenting intervention without additional research to review transferability. Interventions with parents of children with externalising/internalising problems such as conduct disorder or anxiety were included. The rationale for this, while excluding interventions for parents of children with disabilities, is based on the high percentage of children believed to experience these issues across any given population.⁴ In addition, many of these interventions were carried out prior to these children being clinically diagnosed, but rather the children were considered to have a borderline issue, or the potential for an issue, upon assessment for inclusion in the intervention and its evaluation.

Overview

‘The Marmot Review’ (2010) states that the foundations for virtually every aspect of human development (physical, intellectual, emotional) are laid down in early childhood. The early years have a lifelong effect on many aspects of health and well-being; from obesity, heart disease and mental health to educational achievement and economic status (The Marmot Review, 2010). The correct target for interventions in this field is not necessarily based on poverty or parental education, but rather parenting quality, and the programmes that build character and motivation rather than focussing on cognition are the most effective (Heckman, 2008). Heckman (2008) believes that experimental evidence on the positive effects of early interventions on children in disadvantaged families is consistent with a large body of non-experimental evidence showing that the absence of supportive family environments harms

³ These articles were very specifically dealing with preterm babies. One article was included that details an intervention with preterm infants (Nordhov et al, 2010). This is justified in being one of the few returned articles with a longer term follow up and possibly informs more about the potential of an intervention to effect change in cognitive development of a child than specifically about preterm infants being progressed along developmental norms.

⁴ Williams et al (2009) cited in McGilloway et al (2012) state that the literature in this area indicates a prevalence of 10-20% of socio-emotional and/or behavioural adjustment difficulties among children.

child outcomes. Early intervention is more cost-effective as well as providing better outcomes than intervening later in life or not at all (Heckman, 2008).

Bywater et al (2009) state that 10% of children aged 5-15 years in the UK have a mental health disorder, half of which are clinically significant while 20% of children from disadvantaged areas have a conduct disorder. Although the context of living within a disadvantaged area can contribute and augment a disorder through for example, being a proxy for the experience of poverty and social exclusion, these effects can be somewhat mediated by parenting effectively. In other words, being from a disadvantaged area or family does not have to determine parenting quality.

In Australia, and internationally, it is estimated that one in seven 4-17 year olds have behavioural problems primarily grouped into externalising (e.g. oppositional defiance, aggression) and internalising (e.g. anxiety/depression, withdrawal) problems. If these problems are left untreated, there may be serious mental health repercussions across the life course, and also serious financial implications for the State (Hiscock et al, 2008). Holmes et al (2013) state that longitudinal data show that persistently poor children have more disadvantageous developmental contexts than children in poverty for shorter periods of time and they also have worse developmental outcomes. The risk factors identified by National Institute for Health and Care Excellence (NICE) for conduct and oppositional defiant disorders in children age 3-12 years are also those factors associated with social exclusion and health inequality (Puckering, 2009). However taking an assets-based approach, resilience factors among persistently poor children have been shown to include parenting. For resilience in cognitive outcomes the following factors have been shown to be beneficial: where the mother reads to the child several times a week, the parent/child relationship involves positive interactions, and the mother feels she has control over her own life. For resilience factors in behavioural outcomes, lack of depression in mothers and little conflict between the parent and child have been shown to contribute positively (Holmes et al, 2013). However, parenting programmes cannot be seen as the silver bullet to address the negative effects of persistent poverty on child development (Holmes et al, 2013).

Bayer et al (2011) cite a WHO prediction that by 2030 internalising problems will be second only to HIV/AIDS in the international burden of disease; with an affect estimate of 1 in 7 school-age children, impacting negatively on peer relations, school engagement, mental health, adult relationships and employment. Bayer et al (2011) state that although parenting is

not the only risk factor associated with the socio-emotional problems in children, and causality has not been conclusively established in the case of anxiety, parenting is certain to be a key contributor to childhood development. Bayer et al (2011) outline an evaluation of a parenting programme ('Cool Little Kids') which has proven effective in pre-schoolers with inhibited temperament – a potential precursor to an internalising disorder – however the follow up was only two years.

Hautmann et al (2009) state that in general there is a paucity of data on the long term outcomes of interventions addressing externalising problem behaviour in children, with few studies reporting follow up data beyond 6 months. Hautmann et al (2009) undertook an effectiveness study to assess treatment effects under real-world conditions; the first study to consider longer term effects of parent management training in routine care in Germany. Externalising problem behaviour was stable over the 1 year follow up period and parenting self-efficacy and perceived parenting ability showed further improvement in the small to medium range. Hautmann et al (2009) considered this very positive as effectiveness trials are generally less positive than those of efficacy trials. However although a reduction, the range of children classified as 'severely impaired' at 1 year was 20.7-44.8% which is still a large proportion of children in need of further support.

Research returned by the literature search for this review is organised here by focus beginning with evidence reviews, similar to the intent of this research in considering an overview of published information. These reviews provide information both on effectiveness and ideal modes of delivery for maximum success. Interventions which had more than one purpose or which were embedded in a larger service framework are also considered as this may be an ideal way, both in terms of efficiency and effectiveness, to provide targeted interventions. Interventions that take place at one point in time may have outcomes that reduce in effectiveness when viewed longitudinally, however 'refresher' or re-entry points may help to sustain impacts over the longer term. Cost-effectiveness is obviously an important aspect of both initial interventions and also maintenance over time, and new technologies may provide cost-effective, non-stigmatising solutions. Problematic behavioural interventions and school readiness interventions are also briefly considered. These interventions are most often focussed on children with emerging difficulties and/or children from disadvantaged families. Although several interventions came to the fore for the literature search, there were two in particular that were reoccurring. The Incredible Years and the Triple P programmes accounted for a large volume of parenting intervention articles that

were returned by the literature search. Due to the volume of these, both of these interventions are considered discretely within the wider review. This review concludes with a brief consideration of grey literature from the International, European, and Member State domains; these are found to support much of the information derived from the more systematic literature search.

Evidence Reviews: Programme Effectiveness and Content

The literature search returned a small number of reviews with a similar intent; identifying interventions in the early years to improve long term outcomes, with implications for health equity. These reviews considered international literature, with one Cochrane systematic review considering effectiveness, including cost-effectiveness. These reviews provide an evidence-based overview of what works in terms of content and delivery, while also noting the methodological shortcomings that prevent the determination of conclusive answers. These include short term assessments where long term assessments are needed, the potential problems of transferability across cultures, and extending beyond a trial to scaled-up interventions.

A Cochrane systematic review by Furlong et al (2012) assessed the effectiveness and cost-effectiveness of behavioural and cognitive-behavioural group-based parenting programmes for improving child conduct problems, parental mental health and parenting skills. This review acknowledged that methodological limitations are commonplace and evidence of effectiveness, and cost-effectiveness, of parenting programmes have been unclear.⁵ Furlong et al (2012) concluded that these interventions are effective in the short term, but long term assessment is needed, while the costs of delivery were modest when compared with the long term health, social, educational and legal costs associated with child conduct problems.

Engle et al (2011) stated that their goal was to identify assessments of effectiveness interventions/programmes for reducing inequalities and improving developmental outcomes for young children in low and middle income countries that included psychosocial components. This review found that the effect sizes were greatest for interventions that included parent and child, rather than the parent only while the most effective programmes were those with systematic training methods for the workers, a structured and evidence-based curriculum, and opportunities for parental practice with children with feedback. The total

⁵ The review included 13 trials (10 RCTs and 3 quasi-randomised trials) and 2 economic evaluations based on 2 of the trials.

number of contacts with parents in these studies varied from two to more than 100, but this was not clearly related to the size of the effect. However, Engle et al (2011) caution that scaling-up of what works in interventions is not always successful.

Geddes et al (2011) completed a rapid review of key strategies to improve the cognitive and social development of children in Scotland, with the intent of providing policy makers with a synthesis of international research evidence assessing the effectiveness of early childhood interventions. Inequalities in health and educational outcomes in Scotland show a persistent socio-economic status gradient, and Scottish health policy displays a commitment to early childhood development but information systems relating to implementation, identification of high risk families and early monitoring systems are inadequate. Geddes et al (2011) undertook a literature review which yielded 16 relevant review-level studies and reports, with grey literature providing a further 11 reviews and reports. Universal interventions focussing on child development and parenting show promising outcomes but the follow up in these reviewed studies was short term. However, the “model targeted” early childhood interventions that were reviewed did have longer follow up periods. These models began in infancy and showed that high-quality early childhood education, combined with home visits to improve the home learning environment, targeted at high risk groups can result in positive cognitive and academic achievement outcomes as well as greater early adult self-sufficiency.⁶

Geddes et al (2011) highlight problems with regard to the limits of evaluations but cite three large-scale programme evaluations that overcome some of these methodological problems; Early Head Start, the Nurse-Family Partnership, and the Chicago Parent-Child Centres. Early Head Start’s intervention group children showed improvements in cognitive-language development, social-emotional development (by independent observation), higher emotional engagement with the parents, sustained attention, and lower aggressive behaviours. Best results were seen in families utilising mixed (centre and home based) services and at sites that fully implemented and established the programmes from an early stage. The Nurse-Family Partnership is a home visitation programme beginning during pregnancy and has had three large scale RCT evaluations. The best outcomes were seen for children of mothers with low emotional intelligence and/or poor mental health prior to programme participation. Among other positive outcomes, there were significant improvements in cognitive and language development, behavioural adaptation (including attention, impulse control, and sociability)

⁶ For example, the cited Carolina-Abecedarian Project monitored mothers and children up to age 15 and found statistically significant higher IQ scores, and overall better educational outcomes.

and incidents of abuse/neglect/injuries. The 15 year follow up RCT showed the on-going positive impacts in terms of criminality, sexual behaviours, tobacco and alcohol use in particular among the higher risk groups. The Chicago Child-Parent Centres included a 19 year follow up, again showing positive outcomes in terms of retention in education, criminality, employment, maltreatment of children, and depression. Geddes et al (2011) found that universal interventions focussing on child development and parenting show promising outcomes but the follow up has been short term, this includes the Scottish early child development programmes. Geddes et al (2011) question the transferability (and acceptability to the parent) of many of the interventions reviewed due to their US-base and differing health systems and supports, and in addition the intensity of some of these interventions would be difficult to replicate on a large-scale. Geddes et al (2011:25-6) also caution with regard to the role of the broader context as *even the most impressive early child development programmes will struggle to shift the social distribution of human development outcomes unless these enabling social and economic policies are also in place.*

Table 1: Suggested mixed, two-generation approach to universal early childhood social-emotional and cognitive development based on evidence of promising interventions (Geddes et al, 2011:25)⁷

Delivery	Population	CONTINUUM OF CARE				
		Pregnancy	0-12 months	12-36 months	36-48+ months	
SPECTRUM OF RISK	Highest risk of developmental and/or attachment disorder	Children	Enrichment of home environment e.g. Play@home# Nurturing of holistic child development Children's centres with use of multi-agency integrated services	Full- or half-day child care at high quality child development centre (higher risk - higher number of hours up to a max. 30 hrs/wk) Enrichment of home environment	Full-day* high quality preschool Enrichment of home environment Child training e.g. Incredible Years Specialist input as required	
	Medium risk	Parent-Child	Intensive midwifery support Nurse-Family Partnership Parents As Teachers	Attachment-based interventions to improve parent sensitivity§ Intensive midwifery & home visiting support Nurse-Family Partnership Parents As Teachers	Intensive home visiting support Nurse-Family Partnership Parents As Teachers	Positive Parenting e.g. Triple P Specialist input as required
		Parents	Maternal education & literacy Parenting preparation Support for addictions	Training to understand stages of child development & how to nurture Parenting/child management support e.g. Incredible Years More intensive support in accessing services, problem solving, adult education for high school completion, job/employment support, accessing benefits, addiction management etc		
		Children		Enrichment of home environment e.g. Play@home Nurturing of holistic child development Children's centres	Half-day preschool	
	Universal	Parent-Child	Promotion of sensitive parenting with provision of support as needed			
		Parents	Support for behaviour change Antenatal care according to medical risk	Support for breastfeeding initiation & maintenance	Support in accessing services Problem solving techniques Adult education for high school completion, job/employment support	
		Children		Children's centres e.g. drop-in centres, toy & book libraries Resources e.g. Bookstart# Enrichment of home environment	Half-day preschool	
		Parent-Child	Access to information on positive, sensitive parenting			
		Parents	Standard antenatal care. Promotion of healthy diet, physical activity, breastfeeding & smoking cessation. Ready Steady Baby#	Information on healthy child development Information on available child, parent & family services Core child health promotion programme with routine child development reviews		

Boddy et al (2011) undertook a review of cross-national perspectives on ‘what works’ in supporting parents and families. This drew on a review for the UK government examining policies and services in Denmark, France, Germany, Italy and the Netherlands, in part to

⁷ Note: At any level of risk, the child/family receives services proportionate to their risk + any services below that level. *There is a debate about full vs. half day. British EPPE study says full day as good as half day; US Centre for Educational Statistics says full day for highest risk and half day for medium and low risk children. § Interventions to prevent/treat attachment disorder fall out with the scope of this review but are mentioned here for completeness. # See appendix 4 in the full report for a brief description of these universal resources. (Geddes et al, 2011).

overcome the bias towards English-speaking countries in the research literature. Boddy et al (2011) found that an emphasis on formal outcome evaluations is more amenable to using quasi-experimental research designs, as is the more common practice in England. Other European countries have their supports embedded in universal provision rather than a time-limited intervention and evaluation is more likely to involve assessment of individual progress rather than assessment of the overall programme. To understand ‘what works’, evaluations need to consider family level progress and service level evaluation to understand if an intervention works for a family and/or does it work for most families.

Boddy et al (2011) offer caution for the criteria of effectiveness in this field to be mediated through rigorous scientific evaluation design as the gold standard; in other words the RCT. Boddy et al (2011) see the RCT as a medical model of evaluation; a method designed to gauge the effectiveness of treatment but different forms of evaluation are required and a greater debate about research methods. Boddy et al (2011:192) fear there is risk that *an emphasis on standardisation, and on pre-defining measurable outcomes, could neglect the complexity of the intervention and of parenting itself – as a dynamic, multi-dimensional and relational process that happens with a family system, and not merely a set of skills and behaviours that can be universally applied*. When interventions are embedded within universal provision, the measurement of outcomes is less clear-cut; there is no comparison group, no start/end point, and this is further complicated when the question arises if the target is the parent or comprises part of a multidimensional intervention with the whole family.

In the five countries that were focussed on by Boddy et al (2011), there was found to be a strong emphasis on individually tailored approaches to support, including one to one or couple based counselling services delivered by professionals. In four of the five countries, universally accessible counselling services were offered in local centres, however the actual availability may have varied but the principle of accessibility to counselling and support was in place. In France, the ethos was for ‘going alongside’ the client, and Boddy et al (2011) state that caution is needed to ensure that standardisation of implementation is less important than standardisation of objectives. In addition, these authors remind the reader of the cultural specificity of parenting and the meaningfulness or desirability of defining ‘good parenting’.

Askew (2011) undertook a targeted literature review and discussions with researchers and service delivery personnel in England and New Zealand for a review of family support programmes. The intent was to investigate national and international parenting support and

education programmes, including intensive home visiting programmes that aim to improve child health and development outcomes, and improve maternal and familial health and social outcomes. Askew (2011) concluded that evaluations of intensive home visiting programmes show a lack of consistent benefit in some child health outcomes and particularly in maternal and family related outcomes. However, Askew (2011) cites New Zealand's Early Start programme and the US based Nurse Family Partnership as programmes that do show benefits in child outcomes. These programmes are systematic, consistent and ensure each family receives a minimum dose of core components. Early Start is part of the wider national Family Start programme in New Zealand, funded by the government, and is available in 32 sites across the two islands. It offers intensive home-based support services for the 15% of families with high needs and who are at most risk of poor life outcomes. An RCT evaluation looking at children in this programme up to age 3 showed positive outcomes in terms of improved health care and health outcomes⁸ as well as positive parenting practices and reduced rates of problem behaviour. However there were no differences between the Early Start and control group in the areas of maternal health and well-being, family stability, family relationships and family violence, family economic and material well-being, and family exposure to stress and adversity. An evaluation at 9 years revealed that the benefits of the intensive home visiting programme diminish over time suggesting that the influence of the family support workers weakens without the constant reinforcement provided by on-going contact and as other influences overtake the family. Askew (2011) recognises that intensive home visiting programmes are expensive and the reach can be limited. Therefore, Askew (2011) advocates for progressive universalism, with all families receiving some support with more intensive supports for those most at risk, with the intent of ensuring the best possible health and development outcomes for the child.

Scott (2008) states that parenting programmes have proven effective for symptoms of conduct disorders in over 200 trials, with more than 60 trials proving their effectiveness for insecure attachment in infants. Scott (2008) tempers his enthusiasm for parenting programme effectiveness by stating that in real life everyday conditions, as opposed to trials run in university clinics, the effects are often more modest. This is partly due to a gap in skillset as well as comorbidity of conditions. The features of an effective parenting programme identified by Scott are outlined in Appendix 1.

⁸ Greater use of GPs, higher rates of well-child checks, fewer hospital attendances for accidents, injuries or poisoning, and greater use of preschool dental services. In addition there were lower rates of parental reports of severe physical assault compared to the control group.

Some intervention reviews identify factors within parenting programmes that appear to consistently demonstrate positive outcomes. Blok et al (2005) reviewed 19 studies of effectiveness in early intervention programmes and found that cognitive development effect sizes were dependent on delivery mode; centre-based interventions, and interventions following the combined home and centre-based delivery mode were preferable to home-only delivery, while a ‘coaching’ style with parents was also effective.

Therefore, evidence-base reviews provided information on outcomes as well as optimal delivery methods. Although most intervention evaluations are short term, some longer term follow-up evidence is available which is cautiously optimistic; effects may fade over time. There is evidence to suggest a broader approach both to delivery and evaluation. Progressive universalism with more intensive supports for families at greater risk may be a more practical and cost effective way of implementing interventions – and these costs are modest in comparison to the potential costs of conduct disorders over a lifetime. Evaluation may need to consider the impact on the individual rather than trying to establish baselines and norms; the focus should be on standardised objectives rather than standardised implementation. Outcomes may appear modest, but in general this may be the case for scaling-up interventions generally, while enthusiasm should be tempered by remembering the social and economic policy context of such interventions which may be the greatest influence on outcome for the individual. Optimal delivery methods suggest that a parent and child approach is more effective than considering the parent only, in a centre and home-based settings context which a coaching style delivered by well-trained workers using a robust curriculum.

Heckman (2008) states that the long-term follow up of programmes such as the ‘Perry Preschool Program’, the ‘Abecedarian Program’, the ‘Nurse Family Partnership Program’, as well as the non-controlled assessments of ‘HeadStart’ and the ‘Chicago Child-Parent Centers Programs’ demonstrate the considerable positive effects of early interventions on a range of cognitive and non-cognitive skills. However, to ensure that effects do not fade over time, Heckman (2008) believes that home visits are necessary to permanently change the environment after shorter term centre-based interventions. Heckman (2008) recognises that there is a potential for conflict with culture and family values, and these should be addressed through developing culturally diverse and appropriate programmes. The Marmot Review (2010) lists the 8 parenting programmes identified by the UK National Academy of Parenting

Practitioners as having a good evidence base⁹ and the key elements underpinning evidence-based parenting interventions: eligibility criteria, fidelity, and intensity. Respectively, these refer to targeting those most likely to benefit, ensuring the programmes are implemented according to how they were designed, and the ‘dose’ effect in proportion to need.

Multifunctional Interventions

Many interventions returned by the literature search included projects and programmes within which parental interventions were embedded. This method provided a more holistic approach to the families’ problems, demonstrating unexpected positive outcomes, as well as being more cost effective. Beeber et al (2007) outline the various projects to improve infant/toddler mental health in the US Early Head Start programme which led to the embedding of mental health within wider programmes but also led to identifying elevated risk factors within the home. This embedding of mental health within larger projects led to an overall strengthening of the entire programme. Therefore, although this review is limited to considering particular outcomes, it must be remembered that there may be positive cumulative effects of incorporating cited interventions within existing programmes. ‘Flying Start’ is a Welsh programme with several components to support and assist parents, one of these is ‘Parents Plus’, a home-based, time-limited, targeted and individualised programme for families who have difficulties with their preschool age children (Byrne et al, 2010). A qualitative follow up¹⁰ with mothers who had used the programme revealed that the most helpful technique learnt was ignoring bad behaviour and being able to notice good behaviour. An unexpected outcome was the emotional support provided to mothers, and how highly this was regarded and appreciated and how this had led to a happier overall family life and a more positive mothering identity (Byrne et al, 2010).

DeGarmo et al (2004) undertook a randomised prevention trial with 238 recently separated mothers and their sons (mean age 7.8 years old) for a Parent Management Training programme, with assessments at baseline and every 6 months through 30 months. Three main positive effects were identified; on parenting, the boy’s behaviour, and mothers’ experiences of depression. These effects occurred across the assessment timeline and followed a logical progression. The strongest effect was on parenting and this occurred at 12 months, the boys’

⁹ Incredible Years, Parenting Positively, Triple P, Strengthening Families Strengthening Communities, Family Links, Mellow Parenting, Strengthening Families Together (10-14), Families and Schools Together (Marmot Review, 2010:99).

¹⁰ Mean time period since the intervention was 4.8 years with a range of 2 to 8 years.

behaviour change followed and finally changes in maternal depression at 30 months. DeGarmo et al (2004) note the feedback loops between parental depression and ineffective parenting, and how a dual focus could accelerate positive outcomes. This methodological issue of short term follow up in evaluating parenting interventions has been mentioned, however there may be potential within a wider family support system to deliver short term programmes that are cost effective but where the effects fade with time, providing ‘booster’ interventions as needed for families in greater need. Therefore, fading effects over time may not always be cause to ignore interventions. Forehand et al (2011) in their effectiveness study of implementing a curriculum on parenting a ‘strong-willed child’, found that their small sample reported lower levels of child problem behaviour and improved parenting at 2 month follow up. Griffin et al (2010) reporting on a broad training intervention for parents of children with behavioural problems/children with a range of mild developmental difficulties noted that at 5 month follow up, positive outcomes were sustained. Griffin et al (2010) advocate for this intervention’s focus on developmental and behavioural goals rather than specific childhood problems and disorders as having implications for health equality.

Addressing socioeconomic status, Gardner et al (2007) undertook an RCT of a brief, but multifaceted preventive intervention (Early Steps) with 120 low income families with 2 year old boys to reduce disruptive behaviour, revealing that positive parenting practices did improve, but at borderline significance. This had a 1 year follow up and through home visits focused on parents’ motivation to change, tailoring intervention goals, content, and delivery to match parents’ needs using a menu-based approach. Gardner et al (2007) recommend using services that already exist to access at risk groups for targeting of such interventions for a public health impact. Based in England, Day et al (2012a; 2012b) evaluated the effectiveness of a peer-led parenting intervention delivered in socially disadvantaged families using an RCT. ‘Empowering Parents, Empowering Communities’ is an 8 week, 2 hour per week programme delivered in a group setting by trained peer facilitators. The advantage of such a design is that it accesses those who may be in greatest need but who otherwise would not access such programmes. The service model was deemed effective (Day et al, 2012b) while the intervention significantly reduced child behaviour problems and improved parenting competencies (Day et al, 2012a) however longer term follow up is required.¹¹

¹¹ Day et al (2011) also developed the ‘Helping Families’ programme which was demonstrating a potential value to the approach taken during initial piloting. ‘Helping Families’ is a programme rooted in an evidence-base identifying the factors that contribute to severe and persistent conduct problems leading to the development

Hiscock et al (2008) undertook a cluster randomised trial with 733 mothers of 8 month old babies, (656 mothers were retained at 24 months) to consider a universal parenting programme offered in primary care. Hiscock et al (2008) concluded that modest improvements in parenting risks that are known to contribute to child behavioural problems were made, however maternal distress and toddler behaviour were not improved. Bayer et al (2010) reported on this universal parenting programme offered in primary care at 3 year follow up. Bayer et al (2010) concluded that the impacts on parenting faded with time and a further trial was required to test if a universal programme adds public health benefits if coupled with an effective targeted family support programme due to improved reach and uptake.

Broadhead et al (2009) evaluated the overall effectiveness of ‘Scallywags’; a multi-component, early intervention scheme offering support in educational and home settings in Cornwall in the UK. At 6 month follow up the initial positive impacts on child conduct problems were sustained. Broadhead et al (2009) state that children with early onset conduct problems are more likely to leave school without qualifications and over a third become juvenile offenders. However there are other confounding factors such as environment and family characteristics.

Therefore, multifunctional or component based interventions provide a broader approach addressing the factors that can lead to negative outcomes, rather than focussing on addressing specific childhood disorders after they have occurred. The cost effectiveness of such an approach is obvious; addressing a problem before it has fully developed is always more cost effective than addressing the problem when it has fully manifested (See Heckman, 2008). These types of interventions also demonstrate the potential for accessing families at greater risk through this approach as these families may already be in contact with services, and this may also serve to reduce any stigma associated with attending parenting services. The use of peer trainers may also similarly assist in this regard, particularly for low income families who may prefer dealing with a peer who may also be more physically accessible when needed if already living in the community. Heckman (2008) addresses stigma by advocating for universal services, although this may result in ‘deadweight losses’, an alternative could be to

of a modular approach. This approach systematically addresses parent behaviour, cognition and emotion across 5 key risk factor domains: parental mood and dysregulation; parent-child, family and school relationships; substance misuse; social support and networks; and managing life events and crises. Therefore, a wider approach is taken, addressing some of the broader issues that may need attention within a family-setting.

have a sliding fee scale. The Marmot Review (2010) suggests proportionate universalism; this should also circumvent ‘deadweight losses’ and stigma. Multifunctional or component based interventions also demonstrate added-value; the knock-on effects of such an approach such as the positive feedback loops to parental depression when child behaviour improves, and how learned coping skills support this cyclical effect.

Cost-Effective Interventions

Cost-effective measures often form part of multifunctional interventions, providing beneficial add-ons to existing programmes. Many of these display the potential for embracing new technologies and the increasingly equitable access to such technologies. Technologies at a distance, such as recorded or remote technology are identified as potentially being more palatable for low-income families who may have intervention-fatigue and not want another ‘expert’ coaching them on how to raise their children.

Although also having a very limited follow up period, some cost effective measures such as using short term group sessions and/or DVDs demonstrate potential. Bradley et al (2003) cite a four session psychoeducational group for parents of preschool children with behaviour problems using a video ‘1-2-3 Magic’ with self-reported positive outcomes maintained at 1 year follow up. An audit (as an alternative to an RCT which can be too costly) of the ‘1-2-3 Magic’ programme was undertaken and effectiveness in parental self-efficacy was demonstrated, however this was slightly stronger in the behavioural rather than the emotional domain and a balance may need to be struck in designing or improving such interventions (Bloomfield et al, 2010).

Gordon et al (2003) cite a CD-Rom programme ‘Parenting Wisely’ for low income single parent families that was low cost, required no training and could be easily incorporated into existing programmes that avoided the known barriers such as people not wanting to take part in group-work or people not wanting to be told how to raise their children. ‘Parenting Wisely’ has been shown to produce moderate effect sizes on child problem behaviour and the authors state it has been distributed widely.¹²

Van Zeijl et al (2006) undertook an RCT of an attachment-based intervention for enhancing sensitive discipline in mothers of 1-3 year old children at risk for externalising behaviour in

¹² ‘Parenting Wisely’ is used in approximately 20 locations in England, 14 locations in Ireland, 8 in Canada, 2 in Australia. Academics in Germany, France, Switzerland, Belgium Holland, Spain and Quebec in Canada were reported to be seeking funding for cultural/language adaptations of the programme. (Gordon et al, 2003:318).

the Netherlands. This intervention also used recorded technology, however unlike those already discussed this intervention used a home-based video-feedback intervention with highly skilled staff providing support. In comparison with the control group, the intention to enhance sensitive discipline was effective and in particular for families with marital discord and more daily hassles. However, it is not known if this intervention would be similarly effective for families of lower socioeconomic status, however its effectiveness in the most troubled families is considered a positive sign by Van Zeijl et al (2006).

School Readiness

There were few research articles returned relating to school readiness, and the few that were returned related specifically to children at risk; parents of preterm infants, parents of toddlers with autism symptoms, children identified as slow to talk, and children from low income families. While results were generally positive with regard to interventions with at risk families, the evidence was not as compelling with regard to interventions with families where the child had early signs of learning difficulties. However, this literature did return some interesting results; one of the longest follow up periods showing longer term impacts. This supports the hypothesis and intent of parental interventions; that health equity benefits across the life course should follow.

Nordhov et al (2010) RCT of a ‘Mother-Infant Transaction’ programme was one of the longest follow up periods found in the literature search. This programme was a modified version of a sensitizing parental intervention programme for parents of preterm infants in Norway. At age 5 there was a significant difference in mean IQ scores in favour of the intervention group, and an earlier evaluation of this intervention demonstrated improved intelligence at age 9 years.

Lunkenheimer et al (2008) considered the Family Check-Up (FCU) on parents’ positive behaviour support and children’s school readiness competencies in early childhood. FCU has a public health focus, and had previously been shown to reduce drug use in children from age 11 through school, reduce arrests, antisocial behaviour. Lunkenheimer et al (2008) hypothesised that FCU promoted language skills and inhibitory control in children at risk for behavioural problems as an indirect outcome of improvements in parents’ positive behaviour support. Three year assessments began at age 2, and findings suggest that a brief preventive intervention supporting positive parenting practices can indirectly foster key facets of school readiness in children at risk. Lunkenheimer et al (2008) support the evaluation of early

preventive intervention models that focus more directly on parenting mechanisms and child behaviours considered essential for a success trajectory, rather than only focussing on the prevention of psychopathology.

Children from low income families are particularly vulnerable to experiencing language and literacy deficits and Sheridan et al (2011) carried out a randomised trial over 2 academic years with disadvantaged preschool children in the US enrolled in the ‘Getting Ready’ intervention. This intervention was designed to provide an integrated approach to promoting children’s school readiness within existing early childhood programmes. Teacher reports of language use, reading and writing skills were significantly different in favour of the treatment group 2 years later. Sheridan et al (2011:363) report that despite consistent findings linking positive relationships and family-school partnerships to desirable developmental outcomes, research-based interventions focussing on partnering with families to determine goals, priorities and culturally relevant practices in early childhood are sparse.

However the effectiveness of 2 different interventions to help toddlers with language over a longer term follow up was not consistently demonstrated in RCTs. Wake et al (2011) had the objective of determining the benefits of a low intensity parent-toddler language promotion group programme where the child had been identified as slow to talk in universal service screening. This cluster RCT in Australia found little evidence that language or behaviour was improved either immediately (at 18 months) or at age 3 years. At age 2 children had low mean language scores, but by age 3 they had achieved scores similar to population norms. Carter et al (2011) RCT in the US was of Hanen’s ‘More than Words’ parent programme for toddlers with early autism symptoms. The follow up at its longest point was 9 months. ‘More than Words’ consisted of 8 weekly group sessions and 3 individual family sessions designed to increase the frequency of playful parent-child interactions and facilitative child communicative development. The curriculum is administered by a speech and language therapist and is designed to teach parents to structure everyday routines to be sensitive to the child’s developmental level. The RCT found no main effects of the treatment on child outcomes, however some children showed gains in communications that were associated with the intervention while others showed communications attenuation. Therefore there were inconsistent responses to the intervention.

Overall, these few interventions demonstrate the value of embedding interventions in existing programmes, while also demonstrating the potential for a more holistic approach – focussing

on parenting mechanisms rather than a narrower focus on prevention or improvement in one area.

Problematic Behaviour Interventions

Behavioural problems identified in the early years are often identifying a potential behavioural problem rather than a diagnosing a conduct disorder. Three targeted interventions were returned by the literature search, where families who are at greater risk for children developing problems were targeted – families in domestic violence shelters, families where children exhibited early signs of ADHD which is more often diagnosed among low income families, and families recruited from a family support service. Despite exerting positive effects, the opportunity for re-entry points to services may be needed across the life course.

McDonald et al (2011) completed an RCT on ‘Project Support’; a parenting intervention to reduce child conduct problems and exert positive effects on psychopathology in children. Participants were families recruited from domestic violence shelters and McDonald et al (2011:1014) report this is the first parenting intervention that could alter the course of development of psychopathology in young children with conduct problems with the potential for *significant public health benefit*. Lakes et al (2011) evaluated a community based 10 week programme with parents to reduce attention and behaviour problems in low income preschool children exhibiting early signs of ADHD. Positive parenting is expected to reduce the risk of conduct problems among children with ADHD, and at 1 year follow up significant positive changes were found. However, Anderson et al (2005) undertook a 3 year follow up of a family support service cohort of children with behavioural problems and their parents revealing that positive intervention outcomes are not always sustained, even in the medium term. Despite positive results after the intervention, at 3 years improvements were either not sustained or there were new difficulties. Anderson et al (2005) conclude that although it is unrealistic to provide long term support for all families, those most at-risk could receive additional attention and there should be accessible re-entry points into services where needed, and these should be facilitated by the expansion of preventive interagency programmes for multiple risk families.

Triple P – Positive Parenting Programme

Matthew Sanders describes his Triple P Positive Parenting Programme as a public health approach to parenting (Sanders et al, 2006). It was designed as a comprehensive population-

level system of parenting and family support. It aims to enhance parental competence, prevent dysfunctional parenting practices, and promote better teamwork between partners, thereby reducing an important set of family risk factors associated with behavioural and emotional problems in children and adolescents. Sanders et al (2006) describe Triple P as a multilevel system with five levels of intervention of increasing intensity and narrowing population reach:

- Universal Triple P (level 1) is a media and communication strategy designed to target all parents in a population
- Selected Triple P (level 2) is a brief one or two session intervention
- Primary Care Triple P (level 3) is a more intensive but brief four session primary care intervention
- Standard Triple P (level 4) is a more intensive eight to ten session active skills training programme
- Enhanced Triple P (level 5) is the most intensive parenting intervention that targets parenting, partner skills, emotion coping skills, and attribution retraining for the highest-risk families.

The core positive parenting principles that form the basis of the Triple P programme were selected to address the specific risk and protective factors believed to predict positive developmental and mental health outcomes in children. These principles are: a safe and engaging environment, a positive learning environment, assertive discipline, realistic expectations, and parental self-care. Although evaluations are generally positive about Triple P, it cannot be considered to be an inoculation model. In other words, the Triple P designers recognise that confining parenting services to a single developmental period in the hope that, like a vaccination, this will have a long-term protective function is unlikely to be effective in preventing future problems. Although there is ‘plasticity’ in the first three years of life the broader family context and changing needs of the child mean that programmes need to be accessible throughout the parenting career, but these may not need to be as intensive if the groundwork has been laid in the early years (Sanders, 2008).

The literature search returned several evaluations of the Triple P programme. Two were with small samples and included Matthew Sanders as an author, three further evaluations were with larger samples; two in Australia and one in Germany. Sanders et al (2008) also undertook a large scale population trial in Australia, while an earlier report discussed

maintenance of treatment gains (Sanders et al, 2007). De Graaf et al (2008) undertook a meta-analysis of the Triple P programme effectiveness for parenting. Thomas et al (2007) undertook a review and meta-analysis of behavioural outcomes of Parent-Child Interaction Therapy (PCIT) and Triple P. Wilson et al (2012) question the evidence base for Triple P while Sanders et al (2012) respond to this criticism addressing the empirical evidence. Each of these are discussed in turn below, with a focus on evidence of intervention effectiveness with regard to longer term positive health impacts, and where relevant, a social determinants approach.

Martin et al (2003) considered a small evaluation of a Triple P intervention to support working parents on-site who reported difficulties managing home and work responsibilities and behavioural difficulties with their children. A group version of the programme was delivered to 42 academic staff randomly assigned to wait-list or intervention groups. Short term improvements were maintained at the four month follow up. Parents moved from being in the clinical range for dysfunctional parenting practices (e.g. displays of anger, irritability) to being in the non-clinical range after intervention and these were improved upon at the follow up assessment. However, parental adjustment did not significantly improve post-intervention, but this may be as parents were in the normal range, this intervention is typically for parents with severe mood disturbances. Boyle et al (2010) considered Primary Care Triple P for 9 families with pre-schoolers with disruptive behaviour. Parents reported a significant reduction in intensity and frequency of disruptive behaviour and all short term effects were maintained at the four month follow up.

With regard to transitioning to school, McTaggart et al (2003) undertook an evaluation of the effectiveness of Triple P (level 4) in reducing child behaviour problems in the classroom. A group format behavioural family intervention programme involving approximately nine hours of intervention was made available to parents in the intervention schools. Compared to control schools (n=495 children), the levels of teacher-reported conduct problems were significantly lower in the intervention schools (n=490 children) and this was sustained at six month follow up. This behaviour improvement was considered to have achieved clinically reliable change and was considered important by McTaggart et al (2003) due to the poor prognosis for children who display conduct problems.

Sanders et al (2007) compared enhanced, standard and self-directed Triple P Positive Parenting Programme for maintenance of treatment gains over three years. After one year,

there were similar improvements across the three formats in terms of observed and self-reported measures for pre-schoolers disruptive behaviour. By the third year (139 families) each format showed the same levels of maintenance. Of the pre-schoolers who were clinically elevated for measures of disruptive behaviours at pre-intervention, two-thirds into the non-clinical range. Sanders et al (2007) had hypothesised that there would be a tiered effect with the most intense intervention associated with the best outcomes; however this was not the case. All three variants of the Triple P programme were associated with long term favourable outcomes for the high risk 3 year olds in the sample. This has important implications for cost-effectiveness of a Triple P programme, a standard moderate intensity programme could be offered with adjunctive intervention offered in cases where parental risk factors are not changed by the intervention.

Hahlweg et al (2010) evaluated the two year efficacy of the Triple P parenting programme delivered in groups based on the approximation that 20% of children experience internalizing or externalizing disorders which cannot be addressed through treatment only. Externalising disorders can persist and evolve into more antisocial behaviours in adulthood, while internalising disorders create a greater lifetime risk of anxiety, depression and overall these disorders can have considerable impacts on educational attainment, family relations, delinquency, substance misuse and risky behaviours (Hahlweg et al, 2010). Efficacy was analysed using parental questionnaires, observation of mother-child interaction and teacher evaluations among 280 families assigned randomly to either the intervention or control group. At a 2 year follow up for the intervention group, significant reductions in dysfunctional parenting behaviour was found and mothers reported significant reductions in internalizing and externalizing child behaviour. Neither teacher ratings nor interaction observations yielded significant results. Some of the results for single-parent families were unexpected, and suggestions for this, rather than definite evidence are put forward. Hahlweg et al (2010) advise that programme variants need to be developed for effectiveness with single parents.

Sanders et al (2008) undertook a large scale evaluation of Triple P in Australia. This evaluation was part of a national programme called *Beyondblue: The national depression initiative* with the intention of determining the real world effects of a public health approach to mental health promotion and prevention using evidence based interventions delivered through regular services. All parents of children aged between four and seven in 10 catchment areas in Brisbane received Triple P, and 10 socio-demographically matched

catchment areas in Sydney and Melbourne were used as care-as-usual comparison communities. All five levels of Triple P were used and assessment was through phone interviews with a random sample of 3000 households in each community before the intervention and again two years later. There was a significant reduction in the number of children with clinically elevated and borderline behavioural and emotional problems at two years. However, the effects were not for conduct problems, hyperactivity and peer relationship difficulties. Sanders et al (2008) concluded that Triple P, and its blending of universal and targeted intervention components has the advantage of creating a more supportive community environment for raising children. This may in turn improve the maintenance of gains over time while the systemic introduction of a coordinated agency system of parenting support can produce meaningful population level effects.

De Graaf et al (2008) undertook a meta-analysis of Triple P level 4 interventions on parenting styles and parental competency. The hypothesis for this meta-analysis of 19 studies was that dysfunctional parenting styles would improve and parental competencies would increase after the intervention and would be sustained 3-12 months later. The lack of follow up was recognised as a problem in determining long term effects by De Graaf et al (2008), however longer term follow up in studies with boys did show greater effects on parental competencies. Despite the evidence being limited to shorter term follow up, the meta-analysis showed that Triple P resulted in a significant decrease in dysfunctional parenting styles, while increases were found in parental satisfaction with their role and self-efficacy. These effects, evident in the short term follow up period, were independent of the intervention being delivered in individual groups or a self-help format. In addition, effectiveness was the same for parents of children with behavioural problems in the clinical and non-clinical range, the age of the child was not linked to effectiveness.¹³

Thomas et al (2007) undertook a review and meta-analysis of the Parent-Child Interaction Therapy (PCIT) and Triple P programmes. There were 24 studies included, and all participants were caregivers to 3-12 year old children. Positive effects were found for both programmes however these varied depending on intervention length, components, and source of outcome data. All forms of Triple P had moderate to large effects when outcomes were

¹³ This mirrors the results of a different parenting intervention (Playing and Learning Strategies) considering the optimal timing (infant, toddler-preschool or both) for facilitating responsive parenting and the intervention effects on maternal behaviours and child social and communication skills for children who vary in biological risk (very low birth weight). Behaviours that required responsiveness to the child's changing signals (contingent responsiveness, redirecting) required the intervention across both the early and later periods. (Landry et al, 2008).

parent-reported child behaviours and parenting, with the exception of Triple P (level 1) which had small effects. Family focused prevention interventions produced moderate to large effects, while child only interventions had small effects. The long term effectiveness of either of these programmes is tentative and the authors recommend long term follow up evaluations, however PCIT met the criteria for a well-established treatment and Triple P met the criteria for a probably efficacious treatment.

Wilson et al (2012) also conducted a systematic review and meta-analysis with 33 eligible studies identified. Wilson et al (2012) raise concerns of bias given that 32 of these papers included Triple P affiliated personnel. Wilson et al (2012) believe there are selective reporting bias, maternal reporting bias and conflicts of interest. Wilson et al (2012) caution against Triple P given its cost, and do not believe such a public health approach should be taken but rather targeted evidence-based interventions with some cohorts and that funding should not be given unless the standards of evaluation are the same as for clinical evaluations. Sanders et al (2012) countered this by stating that Wilson et al (2012) had reported selectively from a limited subsample of available studies, while ignoring the impact of parenting programmes on other significant family risk and protective factors. Triple P has been scrutinised in system, content and process over the thirty years of its existence and the evidence base is substantial and constantly evolving (Sanders et al, 2012).

The case for Triple P is convincing; it has been rigorously evaluated over an extended period, it takes a public health approach and it applies what is suggested repeatedly across the literature – that interventions should be progressive and targeted based on identified need. The criticism of Triple P returned by the literature search could be stated for all parental interventions reviewed. The evaluations often involve people providing the service or who have designed it, and self-reporting bias will always be a potential confounder when parents own experiences are part of the research design. Articles already discussed have outlined the case against RCTs for evaluating parental interventions, and although all may agree that standards of evaluation should be robust, there is disagreement over the applicability of a clinical model in evaluations of this nature.

Incredible Years

The Webster-Stratton Incredible Years Basic Parenting Programme was developed to reduce conduct problems in young children and improve parental competence. It has been widely rolled-out in various countries and it appears to be particularly used for families where

children have autism spectrum disorders. Literature returned was from the US and UK, Ireland and the Netherlands.

Jones et al (2007) note that the Incredible Years Basic Parenting Programme was identified by the University of Colorado Centre for Violence Prevention in 2002 as one of 11 blueprint interventions for enhancing parental competencies and reducing disruptive behaviours in children and sustaining these results. In making this blueprint list, Incredible Years satisfied stringent scientific criteria such as use of follow up, RCT, and replication by independent researchers. Jones et al (2007) wished to consider the potential of Incredible Years for preschool children at risk of developing conduct problems and ADHD. ADHD is not typically diagnosed until the child is older when comorbidity may be a problem. Clinically reliable positive outcomes were found at 3 month post-intervention follow up, however this was parent-reported. Roberts et al (2010) considered a pilot Incredible Years programme for parents with children with autism spectrum disorders. This was a small study with just eight parents of all male children with a mean age of 8 years old, and it was short term – a 12 week period. However, there were positive outcomes for parental mental health and child behaviour.

Posthumus et al (2012) evaluated the preventive effects of behavioural parent training which positions the parent as the primary agent for change and has been shown to be an effective method to reduce conduct problems in young children in particular. This type of training forms part of the Incredible Years Programme, and a two year follow up of this intervention with parents of four year old children in the Netherlands at risk for the development of a chronic pattern of conduct problems was evaluated. Self-rated and observed parenting skill improvements as well as observed child conduct improvements were sustained over time. Posthumus et al (2012) note the importance of follow up due to sleeper effects; parents who receive help could be more inclined to report the child's misbehaviour at assessments after termination of the intervention. However, this was not an RCT, and there could be significant differences between intervention and control groups.

In Ireland, McGilloway et al (2012) undertook a RCT of the Incredible Years Basic Parenting Programme in a disadvantaged urban community to test its effectiveness. It is estimated that 15% of Irish children experience considerable socio-emotional and/or behavioural adjustment difficulties. This evaluation was of an intervention comprising 14 group-based sessions guided by behavioural and social learning principles. The evaluation mirrored previous

results showing parenting skills and child adjustment improvements, and included follow up at six months using both independent observation and parent reporting. At follow up the children who had scored above a clinical cut-off point (Eyberg Child Behaviour Inventory) at baseline were, on average, below this cut off. McGilloway et al (2012) note that this RCT was one of the first within a European context that focussed on a high-risk sample recruited from real world urban settings, where a significant improvement was demonstrated in child and parent outcomes following a parenting intervention delivered by community-based staff. This mirrored a similar RCT of Incredible Years in the UK with a 6 month follow up which also showed these positive outcomes for parents of children with conduct problems, as well as for the child (Gardner et al, 2006). However, O'Mara (2007) noted in a commentary on this RCT that the mental health of parents did not improve, albeit the intervention improved parenting behaviours and attitudes, but there was no follow up of the control group.

A cost effectiveness analysis undertaken as part of the Incredible Years evaluation (McGilloway et al, 2012) considered the costs of behavioural problems over the long term based on three outcomes; education, crime and unemployment. This research formed part of the randomised evaluation of Incredible Years and concluded a favourable cost-benefit ratio (O'Neill et al, 2013).

The literature search returned five articles all relating to the same Incredible Years parenting programme run in 11 Sure Start (high risk, disadvantaged areas) in north and mid-Wales (Hawkins-Walsh, 2007; Hutchings et al, 2007; Edwards et al, 2007; Bywater et al, 2009; Gardner et al, 2010). There were 104 parents of 3-4 year old children at risk of conduct disorder in the intervention group, and 49 on the waiting list. The intervention was delivered in two-hour weekly small group sessions for 12 weeks. Boys and younger children and children with depressed mothers showed greater improvements however other risk factors showed no predictive effects implying that the intervention was as successful at helping the most disadvantaged families as the most advantaged (Gardner et al, 2010). However, depressed parents may rate their child's problems more severely than other parents who are not depressed and it is feasible that this in part accounted for the greater reported effect among this cohort. Gardner et al (2010) conclude that improvements in positive parenting, rather than a reduction in harsh or negative parenting, was the key factor in mediating change in child problem behaviour. Bywater et al (2009) considered if these benefits were sustained at 12 and 18 months from the baseline. The improvements were sustained with reduced reliance on health and social service provision over time. Edwards et al (2007) considered

cost effectiveness alongside the RCT, and found the Incredible Years programme to be cost effective without considering the potential savings made through improved parental mental health and sibling effects.

Incredible Years, like Triple P, is a very promising programme particularly in use in low income communities and for families where children have conduct problems and disorders. Its applicability across cultures is demonstrated by its roll-out internationally which is also the case for Triple P. However, as with all interventions, there must be fidelity to the original programme and evaluations must consider more than the impact on one factor but also the wider impact on the family unit.

‘Grey’ Literature

‘Grey’ literature in this review refers to information in the form of reports that would not otherwise be found in journals. It was not possible to undertake a comprehensive review of grey literature in this area, however 3 pieces of grey literature will be briefly mentioned. These were identified early on in the review process and are considered here due to their various scopes. These reports are included as they are based on overviews of good practice; at an international level, a European level and within Ireland. The International Child Development Initiative produced a review of research, policy and good practice with regard to parental involvement in early learning based on international evidence. Eurochild, at the European level, produced a compendium of case studies demonstrating the positive impact of various services on the families they serve. In Ireland, 9 programmes that have been delivered as part of a Prevention and Early Intervention Initiative have had their learning synthesised and reveal that evidence-based programmes can be used across cultures and to great effect when local contexts are accounted for.

The International Child Development Initiative (2012) report on parental involvement in early learning is a review of research, policy and good practice. It was based on international research, research from the Netherlands, as well as discussions with key informants. The research findings revealed a correlation between parents own cognitive development in childhood and that of their children. While other factors such as social class, level of education, psychosocial health, lone parent status, and ethnicity can be factors determining engagement in early learning. Case studies of good practice in relation to parental involvement in early learning raised key points of interest and learning, highlighting the importance of:

- A continuum or joined-up services for young children and their families
- Political commitment and long term vision
- Engaging fathers as well as mothers in supporting their children's learning
- Viewing parents, practitioners and children as active learners
- Ensuring practitioners are skilled in responding to a diversity of families and parents
- Parenting support measures that are embedded in training, practice and policy at national and local levels.

Eurochild (2012) published a compendium of inspiring practices in early intervention and prevention in family and parenting support which included 12 case studies. These case studies are a sample of services that have had a demonstrable positive impact on the children and families they aim to serve. They were selected because they reflect a response to an identified need, social challenge, economic and/or political imperative that was innovative in the context of prevailing circumstances, and for their potential to inform practice more widely across Europe. Although the intent was not comparability across case studies, there were common features. All case studies:

- Aim to work with parents, families and communities to promote a positive environment in which children and young people can grow and thrive
- Demonstrate the need to intervene with appropriate, timely measures when children, their parents or families are in a vulnerable situation
- Are underpinned by key principles such as a non-judgemental and non-stigmatising orientation, participatory and strengths based approach, accessible services for all and early intervention services for the most vulnerable
- Demonstrate inter-service collaboration, as a way of engaging with families, building their resilience and empowering them.

Eurochild (2012:6) have 3 key policy recommendations:

- *Family and parenting support is crucial to fighting child poverty and promoting child well-being. However, to maximise effectiveness it needs to be complemented by effective intervention to tackle the root cause of poverty and social exclusion, and address structural barriers and inequalities. **Parenting interventions should sit***

alongside wider family support and be part of a comprehensive package that enhances children's rights and well-being.

- *Family and parenting support includes a wide range of actions and services that help parents develop the skills they need to carry out their parenting role and that support children within families. It can range from low threshold advice and support to all parents to very targeted, specialised services for the most vulnerable. However, **all services aimed at family and parenting support must be non-stigmatising and empowering in their approach, have a participatory and strengths-based orientation, be accessible to all but built around a model of progressive universalism. Their conception must be underpinned by a child-rights approach.***
- *Family policies and parent support services and programmes should be evidence-based and reflect best practice. Against a backdrop of spending cuts, it is essential to show what works to improve children's outcomes. It is important that policies and practice build on what works and constantly look to improve through evidence base and learning. However, evidence of effectiveness in early intervention and prevention in family support can come from a range of sources. **We caution against a blind faith in randomised control trials. Eurochild strongly advocates a balanced perspective in evidence based approaches which are capable of reflecting critically on quantitative and qualitative data and analysis in assessing practice.***

Ireland's Centre for Effective Services (CES) (Sneddon et al, 2012) synthesised the learning available from the 9 programmes delivered as part of the Prevention and Early Intervention Initiative; an all-island initiative with significant funding to support services using a diverse range of approaches. Two of these programmes are Triple P and Incredible Years, as already discussed.

Sneddon et al (2012) describe the continuum of services; from mainstream services delivered to all families either nationally or within particular communities, to services for children who have some additional needs, where there are chronic or severe problems, to support for families where the young person may no longer be at home. The programmes that formed part of the CES synthesis were delivered in a variety of ways, from universal to targeted, based on geographic levels of advantage/disadvantage. There were many other variations between the programmes; entrance criteria (self-identified, referral), diversity of approaches (group, individual), settings (home, community, day care, educational setting). There were

also many variations in development methods. Some programmes were developed elsewhere and delivered locally with fidelity, others were heavily adapted, while others were developed ‘from scratch’. The service had to be located locally and be convenient for parents (e.g. held in a town hall with crèche facilities provided), non-judgemental, non-stigmatising and flexible to accommodate the needs and pace of the parents. The facilitator’s role was identified as being a key ingredient for engagement and success, balancing the social dynamic of group work. Considerable training was required for staff, and CES warn that consideration of programme costs should include the costs for setting up and delivering the service such as training, cost of resources and cost to deliver.

The programmes demonstrated improved parental attitudes, mental health and well-being with a range of approaches used. Outcomes for parents included improved self-efficacy, skills, knowledge, stress-reduction, and more realistic expectations of children’s behaviour. Reiterating research already discussed, Sneddon et al (2012) note that Triple P and Incredible Years resulted in significantly reduced emotional and behavioural problems in children. However, it is unknown if any of the outcomes are sustained over time, and CES suggest that refresher courses may be required to reinforce and build on the parenting knowledge, skills and strategies acquired during the interventions.

Of particular interest, Sneddon et al (2012) concluded that it was possible to replicate evidence-based programmes in Ireland that had been developed elsewhere and achieve successful results, the same results that had been found elsewhere. However, it took more than simply using programmes and implementing them ‘off the shelf’; it took time and effort to recruit and train staff, and organisations had to be prepared for such programmes. This was facilitated with success through consultation with communities and key stakeholders, paying close attention to organisational readiness for implementation, recruiting, training and supporting staff and monitoring service delivery, as well as what was needed, by whom and when within the community. There was no one approach to meet the needs of all parents; the service users’ needs, the most appropriate mode of delivery and children’s developmental stage guided the approach. Understanding the local context was crucial to the development and implementation of services.

Sneddon et al (2012) cite the importance of cross-agency and collaborative partnerships for the development and delivery of several programmes. This encouraged buy-in and commitment from key stakeholder agencies delivering services across the primary sectors of

child and family, health, education and justice. The aim was to reduce duplication, streamline services in communities and increase effectiveness of service delivery.

These 3 pieces of grey literature, from an International, European, and Member State perspective, concur with the findings of the literature generally in acknowledging the need for progressive universalism and the importance of working with parents and communities to identify their needs. Interventions should be part of a wider net of family supports provided by joined-up services, and delivered by skilled and well-equipped practitioners. It is interesting to note that Eurochild also call for a balanced perspective on evidence-based approaches and caution against an over-reliance on RCTs.

Conclusion

Despite the number of articles meeting the inclusion criteria, there were none of a longitudinal nature of sufficient duration to state conclusively that an intervention produced long-term outcomes across the life course. What could be deduced from the literature accessed was that short to medium term positive outcomes were almost uniformly found and it is feasible that these outcomes would have positive effects across the life course in terms of participation in education, social interactions, peer and parent relations and self-esteem. However, it is unknown if benefits were sustained or if ‘refresher’ interventions would be needed to render these interventions sustainable. A consistent finding within the evaluation timeframe was the knock-on positive effects for the family reported/observed during the intervention/evaluation timeframe. The parent, usually the mother, frequently reported less stress and more enjoyable time with the child due to better child management. The improved mental health of the parent was anticipated to create a positive feedback loop.

The Marmot Review (2010) and Heckman (2008), in writing more generally about intervening for child health in the early years, clearly state and have evidence to show that intervening at an early age confers benefits across the life course impacting on health equity, and that this is the most cost effective (albeit, not inexpensive) point of intervention. This review was more specifically focussed; however the evidence-base more generally appears to be convinced of the benefits of intervening with parents and children during the early years with long term benefits reaped across the life course and for society. Intervening early is about parenting quality, not necessarily family income or education (Heckman, 2008) however children living in poverty are at a greater disadvantage upon starting school than

children from more affluent backgrounds.¹⁴ To avoid stigma and ensure that services are accessible to all, interventions should be universal but tapered to accommodate those in greatest need. Re-entry points across childhood may also be an essential component to maximise effectiveness. A recent systematic review and narrative synthesis (Diepeveen et al, 2013) of public acceptability of government intervention to change health-related behaviours found that the least intrusive interventions are the most accepted though generally the least effective, while interventions targeting others rather than the respondent are more acceptable. However the focus was on tobacco, alcohol, diet and physical activity; there may be greater acceptability in intervening when the positive outcome relates to the child and immediate improvements in family life are apparent. However, this is not to suggest that this would not be a contested area and the public may need to be brought along with such ideas to avoid ‘nanny-state’ accusations. This may also be determined by the cultural setting; and research, design, monitoring and evaluation of such interventions should include charting this acceptability to inform implementation across cultures.

Future research will also need to address, alongside longer-term follow up and cultural milieu, the issues of intervention fidelity, control groups and the reliability of reporting. The reporting of intervention effectiveness frequently relied upon parents self-rated perceptions of improvements, rather than an independent measure. However, parents are perhaps best placed to evaluate change in their children.

Control groups are another barrier to ascertaining the long-term impacts of an intervention. It is unethical to provide a potentially beneficial treatment to one cohort and exclude another who would otherwise potentially benefit. In general, when an attempt was made to have a ‘control’ group, a wait-list system was operated. In other words, participants were recruited to an intervention group and a group that would receive the intervention in due course. This worked well over the period of evaluation with relatively clear disparities observed between groups over the short term. However, this method will not provide the required evidence of intervention effectiveness over the life course as there will not be a long term control group for comparative purposes.

¹⁴ 4 November 2013; Lady Sally Morgan, the head of Ofsted (the school inspection group in the UK) stated that a bold move was needed to address educational underachieving by establishing schooling for from age 2 or 3 years old. [<http://www.theguardian.com/education/2013/nov/04/schools-admit-children-age-two-three-ofsted-chief> Accessed 5 November 2013].

When an intervention is extended beyond a pilot and implemented across services it is not known how faithful the service providers are in adhering to the original intervention design. Providers may tailor the service to the needs of their users, or may see fit to tailor the intervention in an alternative format for a myriad of reasons. The real world results of interventions may be modest but worthwhile; improvements in parental mental health were a common theme, and this may have benefits not only for the child in the intervention but also for siblings. Rolling out such interventions on a wider scale can create other complications in evaluating effectiveness; there may be comorbidity issues which mask effects, and there may not be fidelity to the original model. However, two models were consistently reoccurring and demonstrating positive outcomes in many countries; Triple P and Incredible Years. However, it is unknown if these are the most effective programmes, or simply the most used. For example, Thomas et al (2007) cite Parent-Child Interaction Therapy as more effective in comparison. Publication bias is also an issue; interventions that are successful may be published, but interventions that do not work are less likely to be published, albeit some were identified in this review. However, these were in the minority and the initial impression is that parental interventions are inherently positive, but it is possible that there are many that simply do not work.

Overall in considering the literature; interventions should be evidence-based, carried out by trained staff/peer facilitators, in an accessible format along a continuum from universal provision to a targeted approach with ‘refresher’ intervention available throughout childhood. There was no absolute certainty from a consideration of the literature if a group or individual approach, or if the level of intensity mattered, but rather these are the factors that should be decided in a local context as appropriate, addressing different parents’ needs, and based on the intervention format. The worthwhile potential for embedding interventions within existing programmes may also dictate these formats.

Summary

Parental interventions have the potential to improve parental mental health and health outcomes for all children, and certain at risk children in particular. However the effectiveness of parental interventions with children who may have learning difficulties was less convincing, albeit a limited amount of research in this area was covered by this review.

Research design limitations, for example the problem of short term follow-up, means that impacts across the life course are not observable. However for studies that did have longer

term follow-up periods, the outcomes were very promising. A promising outcome of interventions reviewed were the feedback loops created by improvements to parental mental health and outlook and children's behaviour, leading to positive parenting and behavioural change. Resilience and wellbeing improvements may be among the most important factors marking the success of an intervention. These improvements should be considered at the level of family progress, with an orientation towards objectives rather than implementation. In other words, interventions should have a broader scope to assist the family in a more holistic way across many indicators and progress should be viewed on a more individual level. This format is also more conducive to the 'coaching' style that appeared successful across the literature. This style facilitates working with the parent and child rather than one or other only. It is delivered by skilled workers using a robust curriculum and providing feedback opportunities for their clients.

Interventions should be delivered in a progressive universalism format. However, interventions need to be evidence-based, address the needs of the local community, be accessible across childhood and be cost effective. There are many ways to judge effectiveness and what success might look like and these need to be identified in advance. There are many excellent models, such as Triple P, Incredible Years and the many case studies provided in the grey literature. The expected problem of cultural specificity in translating interventions across borders may not be as much of a barrier as expected, but considerable groundwork is required in advance to ensure that the best format is obtained before scaling-up and rolling-out.

Bibliography¹⁵

Anderson, L. Vostanis, P. O'Reilly, M. (2005). 'Three-year follow-up of a family support service cohort of children with behavioural problems and their parents'. *Child: Care, Health and Development* 31(4):469-77.

Askew, D. (2011). *Family support programs: ensuring a healthy start to life*. APHCRI Travelling Fellowship. Australian National University.

Bayer, J.K. Hiscock, H. Ukoumunne, O.C. Scalzo, K. Wake, M. (2010). 'Three-year-old outcomes of a brief universal parenting intervention to prevent behaviour problems: randomised controlled trial'. *Archives of Disease in Childhood* 95:187-92.

Bayer, J.K. Rapee, R.M. Hiscock, H. Ukoumunne, O.C. Mihalopoulos, C. Wake, M. (2011). 'Translational research to prevent internalizing problems early in childhood'. *Depression and Anxiety* 28:50-7.

Beeber, L.S. Chazan-Cohen, R. Squires, J. Jones Harden, B. Boris, N.W. Heller, S.S. Malik, N.M. (2007). 'The early promotion and intervention research consortium (E-PIRC): Five approaches to improving infant/toddler mental health in early head start'. *Infant Mental Health Journal* 28(2):130-50.

Blok, H. Fukkink, R.G. Gebhardt, E.C. Leseman, P.P.M. (2005). 'The relevance of delivery mode and other programme characteristics for the effectiveness of early childhood intervention'. *International Journal of Behavioral Development* 29:35-47.

Bloomfield, I. Kendall, S. (2010). 'Audit as evidence: the effectiveness of '123 Magic' programmes'. *Community Practitioner* 83(1):26-9.

Boddy, J. Smith, M. Statham, J. (2011). 'Understandings of efficacy: cross-national perspectives on 'what works' in supporting parents and families'. *Ethics and Education* 6(2):181-96.

*Bowers, A.P. Strelitz, J. Allen, J. Donkin, A. (2012). *An Equal Start: Improving outcomes in Children's Centres. The Evidence Review*. UCL Institute of Health Equity.

[<http://www.instituteofhealthequity.org/projects/an-equal-start-improving-outcomes-in-childrens-centres> Accessed 12 June 2013]

Boyle, C.L. Sanders, M.R. Lutzker, J.R. Prinz, R.J. Shapiro, C. Whitaker, D.J. (2010). 'An analysis of training, generalization, and maintenance effects of primary care Triple P for parents of preschool-aged children with disruptive behavior'. *Child Psychiatry Human Development* 41:114-31.

Bradley, S.J. Jadaa, D.A. Brody, J. Landy, S. Tallett, S.E. Watson, W. Shea, B. Stephens, D. (2003). 'Brief psychoeducational parenting program: An evaluation and 1-year follow-up'. *Journal of the American Academy of Childhood and Adolescent Psychiatry* 42(10): 171-78.

¹⁵ References marked (*) were not part of the 62 articles identified in the literature search outlined on page 4.

Broadhead, M.A. Hockaday, A. Zahra, M. Francis, P.J. Crichton, C. (2009). 'Scallywags – an evaluation of a service targeting conduct disorders at school and at home'. *Educational Psychology in Practice* 25(2):167-79.

Byrne, E. Holland, S. Jerzembek, G. (2010). 'A pilot study on the impact of a home-based parenting intervention: Parents Plus'. *Child Care in Practice* 16(2):111-27.

Bywater, T. Hutchings, J. Daley, D. Whitaker, C. Yeo, S.T. Jones, K. Eames, C. Edwards, R.T. (2009). 'Long-term effectiveness of a parenting intervention for children at risk of developing conduct disorder'. *The British Journal of Psychiatry* 195:318-24.

*Capaldi, D. DeGarmo, D. Patterson, G.R. Forgatch, M. (2002). 'Contextual risk across the early life span and association with antisocial behavior.' Reid, J.B. Patterson, G.R. Snyder, J. (eds.) *Antisocial behavior in children and adolescents. A developmental analysis and model for intervention* (pp. 123-145). Washington, DC: APA Books.

Carter, A.S. Messinger, D.S. Stone, W.L. Celimli, S. Nahmias, A.S. Yoder, P. (2011). 'A randomized controlled trial of Hanen's 'More Than Words' in toddlers with early autism symptoms'. *Journal of Child Psychology and Psychiatry* 52(7):741-52.

Day, C. Kowalenko, S. Ellis, M. Dawe, S. Harnett, P. Scott, S. (2011). 'The Helping Families Programme: a new parenting intervention for children with severe and persistent conduct problems'. *Child and Adolescent Mental Health* 16(3):167-71.

Day, C. Michelson, D. Thomson, S. Penney, C. Draper, L. (2012a). 'Evaluation of a peer led parenting intervention for disruptive behaviour problems in children: community based randomised controlled trial'. *British Medical Journal* 344:e1107.

Day, C. Michelson, D. Thomson, S. Penney, C. Draper, L. (2012b). 'Innovations in practice: Empowering Parents, Empowering Communities: A pilot evaluation of a peer-led parenting programme'. *Child and Adolescent Mental Health* 17(1):52-7.

DeGarmo, D.S. Patterson, G.R. Forgatch, M.S. (2004). 'How do outcomes in a specified parent training intervention maintain or wane over time?' *Prevention Science* 5(2):73-89.

De Graaf, I. Speetjens, P. Smit, F. de Wolff, M. Tavecchio. (2008). 'Effectiveness of the Triple P Positive Parenting Program on Parenting: A meta-analysis'. *Family Relations* 57:553-66.

*Diepeveen, S. Ling, T. Suhrcke, M. Roland, M. Marteau, TM. (2013). 'Public acceptability of government intervention to change health-related behaviours: a systematic review and narrative synthesis'. *BMC Public Health* 13:756.

Edwards, R.T. O Ceilleachair, A. Bywater, T. Hughes, D.A. Hutchings, J. (2007). 'Parenting programme for parents of children at risk of developing conduct disorder: cost effectiveness analysis'. *British Medical Journal* doi:10.1136/bmj.39126.699421.55

Engle, P.L. Fernald, L.C.H. Alderman, H. Behrman, J. O’Gara, C. Yousafzai, A. De Mello, M.C. Hidrobo, M. Ulkuer, N. Ertem, I. Iltus, S. Global Child Development Steering Group. (2011). ‘Strategies for reducing inequalities and improving developmental outcomes for young children in low-income and middle-income countries’. *The Lancet* 378:1339-53.

*Eurochild. (2012). *Compendium of Inspiring Practices: Early Intervention and Prevention in Family and Parenting Support*.

[<http://www.childandfamilyresearch.ie/sites/www.childandfamilyresearch.ie/files/eurochildcompendiumfps.pdf> Accessed 12 June 2013]

Forehand, R.L. Merchant, M.J. Parent, J. Long, N. Linnea, K. Baer, J. (2011). ‘An examination of a group curriculum for parents of young children with disruptive behavior’. *Behavior Modification* 35(3):235-251.

Furlong, M. McGilloway, S. Bywater, T. Hutchings, J. Smith, S.M. Donnelly, M. (2012). ‘Behavioural and cognitive-behavioural group-based parenting programmes for early-onset conduct problems in children aged 3 to 12 years’. *The Cochrane Library* Issue 2.

Gardner, F. Burton, J. Klimes, I. (2006). ‘Randomised controlled trial of a parenting intervention in the voluntary sector for reducing child conduct problems: outcomes and mechanisms of change.’ *Journal of Child Psychology and Psychiatry* 7:1123-32

Gardner, F. Hutchings, J. Bywater, T. Whitaker, C. (2010). ‘Who benefits and how does it work? Moderators and mediators of outcome in an effectiveness trial of a parenting intervention’. *Journal of Clinical Child and Adolescent Psychology* 39(4):568-80.

Gardner, F. Shaw, D.S. Dishion, T.J. Burton, J. Supplee, L. (2007). ‘Randomized prevention trial for early conduct problems: Effects on proactive parenting and links to toddler disruptive behavior’. *Journal of Family Psychology* 21(3):398-406.

Geddes, R. Frank, J. Haw, S. (2011). ‘A rapid review of key strategies to improve the cognitive and social development of children in Scotland’. *Health Policy* 101:20-8.

Gordon, D.A. Rolland Stanar, C. (2003). ‘Lessons learned from the dissemination of parenting wisely, a parent training CD-Rom’. *Cognitive and Behavioral Practice* 10:312-23.

Griffin, C. Guerin, S. Sharry, J. Drumm, M. (2010). ‘A multicentre controlled study of an early intervention parenting programme for young children with behavioural and developmental difficulties’. *International Journal of Clinical and Health Psychology* 10(2):279-94.

Hahlweg, K. Heinrichs, N. Kuschel, A. Bertram, H. Naumann, S. (2010). ‘Long-term outcome of a randomized controlled universal prevention trial through a positive parenting program: is it worth the effort?’ *Child and Adolescent Psychiatry and Mental Health* 4:14

Hautmann, C. Hoijsink, H. Eichelberger, I. Hanisch, C. Pluck, J. Walter, D. Döpfner, M. (2009). ‘One-year follow-up of a parent management training for children with externalizing behaviour problems in the real world’. *Behavioural and Cognitive Psychotherapy* 37:379-96.

Hawkins-Walsh, E. (2007). 'A cognitive-behavioural parenting intervention reduced problem behaviours in at-risk preschool children and improved parenting skills in socially disadvantaged families'.

Heckman, JJ. (2008). 'The case for investing in disadvantaged young children'. In *Big Ideas for Children: Investing in our Nation's Future* [http://www.firstfocus.net/sites/default/files/r.2008-9.15.ff_.pdf Accessed October 2013].

Hiscock, H. Bayer, J.K. Price, A. Ukoumunne, O.C. Rogers, S. Wake, M. (2008). 'Universal parenting programme to prevent early childhood behavioural problems: cluster randomised trial'. *British Medical Journal* 336(7639):318-21.

Holmes, J. Kiernan, K. (2013). 'Persistent poverty and children's development in the early years of childhood.' *Policy and Politics* 41(1):19-42.

Hutchings, J. Bywater, T. Daley, D. Gardner, F. Whitaker, C. Jones, K. Eames, C. Edwards, R.T. (2007). 'Parenting intervention in Sure Start services for children at risk of developing conduct disorder: pragmatic randomised controlled trial'. *British Medical Journal* doi:10.1136/bmj.39126.620799.55

*International Child Development Initiatives. (2012). *Parental Involvement in Early Learning* ICDI and Bernard van Leer Foundation. [http://bernardvanleer.org/files/Parental_involvement_in_early_learning.pdf Accessed 12 June 2013]

*Irwin, L.G. Siddiqi, A. Hertzman, C. (2007). *Early Child Development: A Powerful Equalizer*. WHO: Commission on the Social Determinants of Health.

Jones, K. Daley, D. Hutchings, J. Bywater, T. Eames, C. (2007). 'Efficacy of the Incredible Years Basic parent training programme as an early intervention for children with conduct problems and ADHD'. *Child: Care, health and development* 33(6):749-56.

Lakes, K.D. Vargas, D. Riggs, M. Schmidt, J. Baird, M. (2011). 'Parenting intervention to reduce attention and behavior difficulties in preschoolers: A CUIDAR evaluation study'. *Journal of Children and Family Studies* 20:648-59.

Landry, S.H. Smith, K.E. Swank, P.R. Guttentag, C. (2008). 'A responsive parenting intervention: The optimal timing across early childhood for impacting maternal behaviors and child outcomes'. *Developmental Psychology* 44(5):1335-53.

Lunkenheimer, E.S. Dishion, T.J. Shaw, D.S. Connell, A.M. Gardner, F. Wilson, M.N. (2008). 'Collateral benefits of the family check-up on early childhood school readiness: indirect effects of parents' positive behavior support'. *Developmental Psychology* 44(6):1737-52.

Martin, A. J. Sanders, M.R. (2003). 'Balancing work and family: A controlled evaluation of the Triple P- Positive Parenting Program as a work-site intervention'. *Child and Adolescent Mental Health* 8(4):161-9.

McDonald, R. Dodson, M.C. Rosenfield, D. Jouriles, E.N. (2011). 'Effects of a parenting intervention on features of psychopathy in children'. *Journal of Abnormal Child Psychology* 39:1013-23.

McGilloway, S. Ni Mhaille, G. Bywater, T. Furlong, M. Leckey, Y. Kelly, P. Comiskey, C. Donnelly, M. (2012). 'A parenting intervention for childhood behavioral problems: a randomized controlled trial in disadvantaged community-based settings'. *Journal of Consulting and Clinical Psychology* 80(1):116-27.

McTaggart, P. Sanders, M.R. (2003). 'The Transition to School Project: Results from the classroom'. *Australian e-Journal for the Advancement of Mental Health* 2(3) www.auseinet.com/journal/vol2iss3/mctaggart.pdf [Accessed April 2013]

Nordhov, S.M. Rønning, J.A. Dahl, L.B. Ulvund, S.E. Tunby, J. Kaaresen, P.I. (2010). 'Early intervention improves cognitive outcomes for preterm infants: randomized control trial'. *Pediatrics* 126(5):e1088-94.

O'Mara L. (2007). 'A cognitive behavioural parenting intervention reduced conduct problems in children and improved parenting skill and confidence'. *Evidence Based Nursing* 10:46

O'Neill, D. McGilloway, S. Donnelly, M. Bywater, T. Kelly, P. (2013). 'A cost-effectiveness analysis of the Incredible Years parenting programme in reducing child health inequalities'. *European Journal of Health Economics* 14:85-94.

Posthumus, J.A. Raaijmakers, M.A.J. Maassen, G.H. Van Engeland, H. Matthys, W. (2012). 'Sustained effects of Incredible Years as a preventive intervention in preschool children with conduct problems'. *Journal of Abnormal Child Psychology* 40:487-500.

Puckering, C. (2009). 'NICE guidelines on parenting programmes for children with conduct disorder'. *Child and Adolescent Mental Health* 14(2):58-61.

Roberts, D. Pickering, N. (2010). 'Parent training programme for autism spectrum disorders: an evaluation'. *Community Practitioner* 83(100):27-30.

Sanders, M.R. (2008). 'Triple P-Positive Parenting Program as a public health approach to strengthening parenting'. *Journal of Family Psychology* 22(3):506-17.

Sanders, M.R. Bor, W. Morawska, A. (2007). 'Maintenance of treatment gains: A comparison of enhanced, standard, and self-directed Triple P-Positive Parenting Program'. *Journal of Abnormal Child Psychology* 35:983-98.

Sanders, M.R. Morawska, A. (2006). 'Towards a public health approach to parenting'. *The Psychologist* 19(8):476-9.

Sanders, M.R. Pickering, J.A. Kirby, J.N. Turner, K.M.T. Morawska, A. Mazzucchelli, T. Ralph, A. Sofronoff, K. (2012). 'A commentary on evidence-based parenting programs: redressing misconceptions of the empirical support for Triple P'. *BMC Medicine* 10:145

Sanders, M.R. Ralph, A. Sofronoff, K. Gardiner, P. Thompson, R. Dwyer, S. Bidwell, K. (2008). 'Every Family: A population approach to reducing behavioral and emotional problems in children making the transition to school.' *Journal of Primary Prevention* 29:197-222.

Scott, S. (2008). 'Parenting programmes for attachment and conduct problems'. *Psychiatry* 7(9):367-70.

Scott, S. Sylva, K. Beckett, C. Kallitsoglou, A. Doolan, M. Ford, T. (2012). 'Should parenting programmes to improve children's life chances address child behaviour, reading skills, or both? Rationale for the Helping Children Achieve trial'. *European Journal of Developmental Psychology* 9(1):47-60.

Sheridan, S.M. Knoche, L.L. Kupzyk, K.A. Pope Edwards, C. Marvin, C.A. (2011). 'A randomized trial examining the effects of parent engagement on early language and literacy: The Getting Ready intervention'. *Journal of School Psychology* 49:361-83.

*Sneddon, H. Owens, S. (2012). *Prevention and Early Intervention in Children and Young People's Services – Parenting*. Dublin: The Centre for Effective Services.

*Strategic Review of Health Inequalities in England post-2010. (2010). *Fair Society, Healthy Lives. The Marmot Review* [<http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review> Accessed January 2013].

Thomas, R. Zimmer-Gembeck, M.J. (2007). 'Behavioral outcomes of parent-child interaction therapy and Triple P-Positive Parenting Program: A review and meta-analysis'. *Journal of Abnormal Child Psychology* 35:475-95.

Van Zeijl, J. Mesman, J. Van Ijzendoorn, M.H. Bakermans-Kranenburg, M.J. Juffer, F. Stolk, M.N. Koot, H.M. Alink, L.R.A. (2006). 'Attachment-based intervention for enhancing sensitive discipline in mothers on 1- to 3- year-old children at risk for externalizing behaviour problems: A randomized controlled trial'. *Journal of Consulting and Clinical Psychology* 74(6):994-1005.

Wake, M. Tobin, S. Girolametto, L. Ukoumunne, O.C. Gold, L. Levickis, P. Sheehan, J. Goldfeld, S. Reilly, S. (2011). 'Outcomes of population based language promotion for slow to talk toddlers at ages 2 and 3 years: Let's Learn Language cluster randomised controlled trial'. *British Medical Journal* 343:d4741

Wilson, P. Rush, R. Hussey, S. Puckering, C. Sim, F. Allely, C.S. Doku, P. McConnachie, A. Gillberg, C. (2012). 'How evidence-based in an 'evidence-based parenting program'? A PRISMA systematic review and meta-analysis of Triple P'. *BMC Medicine* 10:130

Appendix 1: Scott (2008:368): Features of effective parenting programmes based on social learning theory¹⁶

Content:

- Structured sequence of topics, introduced in set order during 10-12 weeks
- Curriculum includes play, praise, rewards, setting limits, and discipline
- Parenting seen as a set of skills to be deployed in the relationship
- Emphasis on promoting sociable, self-reliant child behaviour and calm parenting
- Constant reference to parent's own experience and predicament
- Theoretical basis informed by extensive empirical research and made explicit
- Plentiful practice, either live or role-played during sessions
- Homework set to promote generalisation
- Accurate but encouraging feedback given to parent at each stage
- Self-reliance prompted (e.g. through giving parents tip sheets or book)
- Emphasis on parent's own thoughts and feelings varies from little to considerable
- Detailed manual available to enable replicability

Delivery:

- Strong efforts made to engage parents (e.g. home visits if necessary)
- Collaborative approach, typically acknowledging parents' feelings and beliefs
- Difficulties normalized, humour and fun encouraged
- Parents supported to practice new approaches during session and through homework
- Parent and child can be seen together, or parents only seen in some group programmes
- Creche, good-quality refreshments, and transport provided if necessary
- Therapists supervised regularly to ensure adherence and to develop skills

¹⁶ Social learning theory has a focus on interactions, rather than implying that the child or parent is independently responsible for the problem (Thomas et al, 2007).