

Parent-child relationship quality and psychological wellbeing  
among adoptive families

REBECCA ELIZABETH ANTHONY

A thesis submitted to the School of Psychology, Cardiff  
University, in partial fulfilment of the requirement for the  
degree of Doctor of Philosophy

August 2018

Under the supervision of

Dr Katherine Shelton

School of Psychology



## Table of Contents

Index of Tables.....	vi
Index of Figures .....	ix
Acknowledgements .....	xiii
Contributions to the Wales Adoption Cohort Study .....	xiv
Dissemination of Findings .....	xvi
SUMMARY .....	xvii
CHAPTER ONE ‘Introduction’ .....	1
Introduction.....	1
Adoption Context.....	2
Adoption .....	6
Developmental Psychopathology.....	10
Child psychopathology .....	16
Potential Risk Factors Contributing to Adoptee Psychopathology.....	16
Potential Mechanisms Linking Pre-Placement Experiences to Child Psychopathology .....	19
Potential Protective Factors .....	23
Adjustment of ‘Looked After’ and Adopted Children.....	24
Theoretical Model - Psychological Adjustment of Foster Care Adoptees .....	27
Thesis Aims .....	28
CHAPTER TWO ‘General Method’ .....	31
Design.....	31
Procedure .....	32
Participants.....	36
CHAPTER THREE ‘Pre-adoption Adversity and Child Mental Health’ .....	40
Introduction.....	40

Method .....	51
Results.....	57
Discussion.....	76
CHAPTER FOUR ‘Transition to Parenthood: The Mental Health of Adoptive Parents’ .....	85
Introduction.....	85
Method .....	104
Results.....	110
Discussion.....	124
CHAPTER FIVE ‘Parent-child Relationship Quality among Adoptive Families’ .....	133
Introduction.....	133
Method .....	158
Results.....	163
Discussion.....	172
CHAPTER SIX ‘Family processes in adoptive families’ .....	178
Introduction.....	178
Method .....	183
Results.....	186
Discussion.....	194
CHAPTER SEVEN ‘General Discussion’ .....	199
General Discussion .....	199
Implications for Policy and Practice .....	204
Strengths of the thesis .....	213

Limitations of the thesis.....	215
Future studies.....	218
Summary.....	219
References.....	220
Appendix 1: Letter of approval of ethical consent .....	287
Appendix 2: Data collection from Child Adoption Report (CAR).....	288
Appendix 3: Adopter recruitment flyer .....	302
Appendix 4: Questionnaire one .....	304
Appendix 5: Consent form for interviews .....	336
Appendix 6: Pre-school Five Minute Speech Sample procedure .....	338
Appendix 7: Pre-school Five Minute Speech Sample coding .....	347
Appendix 8: Pre-school Five Minute Speech Sample simple coding sheet .....	370
Appendix 9: Chapter five search strategy.....	371

## Index of Tables

Table 2.1.....	36
Distribution of children placed by each adoption consortium across Wales (N=374)	
Table 3.1.....	54
List of ACES definitions and WACS equivalent	
Table 3.2.....	56
SDQ subscale internal consistency estimates ( $\alpha$ )	
Table 3.3.....	59
Prevalence of each category of Adverse Childhood Experiences (ACEs) and ACE count by age at point of adoption placement	
Table 3.4.....	60
Adopted children's ACE exposure compared to a universal Welsh population	
Table 3.5.....	62
Inter-Correlations between ACE variables (N=374)	
Table 3.6.....	63
Comparison of WACS sample with national UK averages: SDQ subscale means	
Table 3.7.....	65
Comparing the mental health of adopted children to looked after and general UK populations using the SDQ total scores	
Table 3.8.....	67
Categorical SDQ scores	
Table 3.9.....	71
Correlations between co-variates, adversity and child adjustment across three time points	
Table 3.10.....	74

Hierarchical multiple regression predicting externalizing behaviour at two time points from age placed and ACE score	
Table 3.11.....	75
Hierarchical multiple regression predicting internalizing behaviour problems at two time points from age placed and ACE score	
Table 4.1.....	111
Comparison of WACS sample with the national UK average: HADS	
Table 4.2.....	112
Prevalence of depression and anxiety in adoptive parents	
Table 4.3.....	112
Pairwise within time correlations between risk factors and parental mental health across three time points	
Table 4.4.....	120
Fit indices for all models showing change in depression measures over time (n=96)	
Table 4.5.....	121
Multiple regression analysis of risk factors predicting T1 depression and anxiety scores	
Table 4.6.....	123
Results of growth curve model analysis showing change in anxiety measures over time (n=96)	
Table 5.1.....	142
Methods and measures used in previous research examining the association between FMSS/PFMSS and child psychopathology	
Table 5.2.....	165
Descriptive data for the PFMSS assessment of the parent–child relationship	
Table 5.3.....	166
Quotations to illustrate PFMSS coding	

Table 5.4.....	168
Correlations between the emotional climate of parent–child relationships and child internalizing and externalizing problems	
Table 5.5.....	169
Correlations between the emotional climate of parent–child relationships and adoptive parent well-being	
Table 5.6.....	171
Correlations between aspects of the PFMSS and parent self-reported warmth and hostility	
Table 6.1.....	187
Inter-Correlations between variables of interest	
Table 6.2.....	191
Regression coefficients testing the direct and interaction effects of age placed and parenting on children’s internalizing and externalizing problems (n = 71)	
Table 6.3.....	194
Regression coefficients testing the direct and interaction effects of ACE and parenting on children’s internalizing and externalizing problems (n = 71)	

## Index of Figures

Figure 1.1.....	3
The Number of looked after children per 10,000 in Wales since 1991.	
Figure 1.2.....	8
A child’s journey to adoptive placement.	
Figure 1.3.....	12
A schematic representation of developmental pathways.	
Figure 1.4.....	14
Brofenbrenner’s Bioecological Model of Human Development.	
Figure 1.5.....	28
Overview of the ‘Psychological adjustment of foster care adoptees’ model proposed by Bolger et al., 2016.	
Figure 2.1.....	31
Overview of the Wales Adoption Cohort Study (WACS) procedure.	
Figure 2.2.....	36
National Adoption Service for Wales – Regional Collaborative Model.	
Figure 2.3.....	37
Adoptive parent participant flow diagram.	
Figure 3.1.....	42
ACE variables used in the original Felitti (1998) study.	
Figure 3.2.....	58
Number of ACES children experienced in the care of their birth parents.	
Figure 3.3.....	69
SDQ subscale median scores across three time points.	
Figure 4.1.....	96

Belsky’s (1984) process model of the determinants of parenting.	
Figure 4.2.....	117
Mean scores for depression and anxiety across time.	
Figure 4.3.....	118
Individual growth curve trajectories of depression for a random sample of n = 25 adoptive parents over three time points.	
Figure 4.4.....	119
Path diagram for an unconditional linear model of depression over time.	
Figure 4.5.....	122
Individual growth curve trajectories of anxiety for a random sample of n = 25 adoptive parents over three time points.	
Figure 5.1.....	172
Manifest autoregressive model of parent to child warmth and child to parent warmth across two time points.	
Figure 5.2.....	173
Manifest autoregressive model of parent to child hostility and child to parent hostility across two time points.	
Figure 6.1.....	185
Simple mediation model.	
Figure 6.2.....	186
Graphic representation of the proposed model for T2 parental warmth (approx. 16 months into placement) moderating the association between child age placed and T3 (approx. 32 months into placement) externalizing problems.	
Figure 6.3.....	188

Standardised parental warmth and hostility as mediators between time one parent depression and time three child externalizing problems.

Figure 6.4.....190

Standardised parental warmth and hostility as mediators between time one parent depression and time three child internalizing problems.

Figure 6.5.....192

The moderating role of parental warmth ( $\pm 1$  SD) in the relationship between age placed for adoption and T3 externalizing problems.

Figure 6.6.....195

The moderating role of parental warmth ( $\pm 1$  SD) in the relationship between ACE and T3 internalizing problems.

Figure 7.1.....201

The psychological adjustment of foster care adoptees – modified model based on thesis findings.

This thesis is dedicated to all the families who took part in the Wales Adoption Study.

## Acknowledgements

Firstly, I would like to thank the funders of the Wales Adoption Study, the Welsh Government, and the participating families who so generously gave their time to this study. Thank you to the Economic Social Research Council (ESRC) and the School of Psychology, Cardiff University, for my funding to complete this thesis. I would like to extend my gratitude to Dr Katherine Shelton, who gave me this opportunity. Thank you for your continued belief in me, advice and support throughout. I could not have done it without you. I would also like to thank Professor Dale Hay, for your guidance and feedback.

Thank you to all the members of the Wales Adoption Cohort Study (WACS) team. It has been a privilege to work in a team of such dedicated, knowledgeable and kind people. Thank you to Jan Whitley for all your help recruiting and retaining families. Thank you to my fellow PhD students, Claire, Andrew and Jenny, for your advice and laughter throughout. The Cardiff University Centre for Human Developmental Science (CUCHDS) has been a stimulating academic home but has also provided me with cherished friendships; a big thank you to Salim, Amy, Charli & Charlotte, for providing such a friendly and supportive environment. Thanks also to Jess, you have been a constant source of inspiration and friendship throughout.

Thank you to all my family and friends for supporting me. To my Husband Dean, Mum and Dad, thanks for all your love, reassurance and unwavering belief that I could do it.

Last, but certainly not least, thank you to my son, Dylan, you never failed to make me smile even on the toughest of days. I love you to the moon and back.

## **Contributions to the Wales Adoption Cohort Study**

The Wales Adoption Cohort Study (WACS) was the source of data for all empirical analysis presented as part of this thesis. The main aim of WACS was to investigate which factors characterise and underpin early placement success for families who have adopted children in Wales. The study was carried out by an interdisciplinary team of researchers at Cardiff University and included a stakeholder group of key adoption professionals as well as adoptive parents. Full details of the WACS are described in Chapter 2 of this thesis. In this section, I describe my contribution to this study since I joined the research group in 2013 and commenced by PhD research in 2014.

I joined the research group as a postgraduate on the Social Sciences Research Methods MSc. at Cardiff in 2013-2014. During this year, I carried out my dissertation, which compared two different methods of collecting background information about children adopted in Wales. It involved reading and collating information from the Child Adoption Report (CAR) and comparing this to information reported in telephone interviews with social workers. I compared both methods in terms of accuracy and accessibility. Following this, it was decided that the main project would gather information using the CAR forms due to the level of missing data associated with interviewing social workers. I then revised and updated the CAR database to use in the main project.

During my PhD research, I was responsible for creating and piloting the CAR database, which held details of the children's pre-adoption experiences (as discussed in Chapter two). In addition, I collected 83% ( $n = 309$ ) of the data. Each CAR took on average two hours to read and record the information required. This equated to approximately 618 hours of data collection. The decision to include the Preschool Five-Minute Speech Sample (PFMSS) at the commencement of interviews with families, was based on my knowledge of the PFMSS

through its use in a previous study<sup>1</sup>, and my interest in measuring expressed emotion in adoptive parents. In addition to my input into the interview schedule design, I also conducted seven interviews with adoptive parents about their experience. On average, the interviews lasted two hours. I coded 100% of the Five-Minute Speech Sample (FMSS) task ( $n = 40$ ) included as part of the interviews. Following completion of the second data collection time point, I entered, checked and cleaned all of the time three questionnaire data into SPSS.

---

<sup>1</sup> Simkiss DE, Snooks HA, Stallard N, Kimani PK, Sewell B, Fitzsimmons D, Anthony R, Winstanley S, Wilson L, Phillips CJ, Stewart-Brown S. Effectiveness and cost-effectiveness of a universal parenting skills programme in deprived communities: multicentre randomised controlled trial. *BMJ Open*. 2013, 3: e002851-

## Dissemination of Findings

Most of the work presented in this thesis has been disseminated at conferences and submitted to journals for publication. Work during my first year investigating factors affecting adoption in Wales was presented at the ‘National Social Services Conference 2015’, for which I won the best student project prize. Following this, the paper was revised and accepted for publication in the journal ‘*Child and Youth Services Review*’<sup>2</sup>. In addition, a review of the paper was included in the 7<sup>th</sup> edition of ‘Knowledge Hub Family Justice Bulletin (FJB)’. Chapter three of this thesis was presented at the 2017 Child and Adolescent Psychopathology in London, 18<sup>th</sup> July 2017 and additionally at the Cardiff Adoption Research Conference, on June 30<sup>th</sup>, 2017. Chapter three has also been cited in the media<sup>3</sup>. Findings from Chapter four were presented at the Cardiff University Psychology seminar series on 1<sup>st</sup> March 2018 and the Cardiff University Speaking of Science conference on May 3<sup>rd</sup>, 2018, for which I won the ‘best presentation’ prize. A version of chapter four has been submitted for publication. Findings from Chapter five were presented at the Cardiff University psychology postgraduate conference on November 9<sup>th</sup>, 2017, for which I won the ‘people’s choice best poster prize’. A research article combining findings from chapters three, five and six has been submitted for publication. Findings from chapters three and six were presented at the ISPCAN XXII International Congress on Child Abuse and Neglect in Prague, Czech Republic on September 2<sup>nd</sup>, 2018, and additionally at the European Scientific Association on Residential and Family Care for Children and Adolescents in Porto, Portugal on October 2<sup>nd</sup>, 2018.

---

<sup>2</sup> Anthony, R., Meakings, S., Doughty, J., Ottaway, H., Holland, S., and Shelton, K. (2016). Factors affecting adoption in Wales: Predictors of variation in time between entry to care and adoptive placement. *Children & Youth Services Review*, 67, 184-190.

<sup>3</sup> Hodgson, P. (2017, July 17). More support for adoptive families in Wales. Retrieved from <http://www.itv.com/news/wales/2017-07-17/more-support-for-adoptive-families-in-wales/>.

## SUMMARY

There is a paucity of UK research addressing family factors that may attenuate or add to existing risk for psychopathology in children adopted from care. The participants in this research were part of the Wales Adoption Cohort Study, a prospective longitudinal study to examine the experiences of newly formed adoptive families. The Child Adoption Records of all children placed for adoption in Wales over a one-year period ( $N = 374$ ) were reviewed. Adoptive parents of these children ( $n = 96$ ) completed questionnaires at four months, 16 months and 32 months into the adoptive placement. A subsample of parents ( $n = 40$ ) took part in an interview, which included the pre-school five minute speech sample.

Children in this sample had higher rates of psychopathology than those in the UK general population. Nearly half the children had experienced four or more adverse childhood experiences (ACEs) whilst living with their birth parents. In addition, adoptive parents had depression symptom scores significantly higher than the UK general population and they remained stable across time. Parents who adopted older children, sibling groups, those with a lower parental sense of competency and less support from family were at increased risk for depression.

Despite this, most parents were rated as showing high warmth towards their children and experiencing a positive relationship. Overall, adoptive parent warmth predicted lower levels of child externalizing and internalizing behaviours, and cross-lagged models showed that parental warmth predicted increases in subsequent child-to-parent warmth. However, analysis also revealed that parental warmth moderated the relationship between the number of adverse childhood experiences and child internalizing problems, such that children who experienced more adversity prior to placement and lower adoptive parent warmth had the highest internalizing problem scores.

Findings are discussed in the context of relevant literature and existing approaches to supporting adoptive families.

## **CHAPTER ONE**

### **Introduction**

---

In 2017, there were over 58,000 children identified as needing protection from abuse in the UK (NSPCC, 2017). Childhood is a time of both opportunity and vulnerability, and those reared in high-risk environments may be particularly vulnerable (Knitzer & Perry, 2009). Children who have experienced abuse and neglect are at an increased risk for a number of problematic developmental, health, and mental health outcomes (Diaz & Peterson, 2014). For children unable to remain with their birth families due to experiencing, or at risk of experiencing abuse and neglect, current policy favours achieving permanence within a family setting, with a focus on adoption (DfE, 2016). Thus, most children adopted from care will have experienced abuse and/or neglect within their birth family (Simmel, 2007; Selwyn, Meakings, & Wijedasa, 2015). Furthermore, children placed for adoption from care experience the loss of their family, friends, home and community (Bernard et al., 2012), and this may be compounded by experiences whilst in care, such as repeated separations from caregivers and unstable living arrangements. This thesis uses a developmental psychopathology framework to construct a profile of adoptive family well-being over the first few years of a placement.

In order to understand the well-being of children adopted from care, this chapter first outlines relevant features of the UK child protection system before focusing on adoption specifically. The chapter then outlines a developmental psychopathology framework, reviewing potential risk factors for poor adjustment in children adopted from care. Finally, this chapter summarises research on adopted children's adjustment problems, incorporating a

conceptual model of the psychological adjustment of foster care adoptees (Del Pozo De Bolger, Dunstan & Kaltner, 2018).

### **Adoption Context**

**Child protection system.** Local authority care is a vital part of our child protection system, its purpose to address a child's need for good parenting, protect children from further harm, improve their outcomes and enable them to recover from adverse experiences (Association of Directors of Children's Services (ACDS), as cited in Selwyn, 2017). The Child Protection System does this firstly through supporting families to enable children to remain with or return to their birth parents. However, if this support is inadequate to mitigate risk or where birth parents cannot meet a child's basic needs, the state has a duty to intervene, taking on parental responsibility to ensure that children are kept safe from harm (DfE, 2016). Both of these mechanisms are rooted in the idea that children's exposure to public care should be minimised (Hannon, Wood & Bazalgette, 2010).

At any given time, approximately 6000 children in Wales are looked after by local authorities (Welsh Government, 2016). Government statistics on looked after children show that of the children looked after as of 31<sup>st</sup> March, 2017, 61% were looked after due to abuse and neglect, 15% because of family dysfunction and a further 7% due to absent parenting. In England and Wales, the number of looked after children is currently at its highest since the Children Act 1989 (See figure 1.1, source: Care Crisis Review, 2018). Children may be looked after on a short or long-term basis, with some experiencing multiple periods of care (McGrath-Lone, Dearden, Nasi, Harron & Gilbert, 2016). Figures show that the chances of returning home after a year in care are very small, e.g. approximately 8 out of 10 children who have been looked after for a year are still looked after one year later (Sinclair, Baker, Lee & Gibbs, 2007).



Figure 1.1 The Number of looked after children per 10,000 in Wales since 1991.

Hannon, Wood and Bazalgette (2010) showed that for children unable to remain at home with their birth parents due to maltreatment (or risk of), the best outcomes for looked-after children were associated with early intervention, minimum delay and stability during care. This is reflected in the DfE Adoption Strategy, “Research tells us that permanence, stability, quality of care and avoidance of delay are the factors which most affect children’s welfare and their future chances in life” (DfE, 2016, p.5). One of the main aims is to ensure that every child has a plan for permanence, developed to reduce “foster care drift”, i.e. ‘a sense of security, continuity, commitment and identity ... a secure, stable and loving family to support them through childhood and beyond’ (DfCFS, 2010, p12). This permanence plan must be in place no later than four months after a child enters care. If the child remains in care, the plan should be reviewed three months later and then subsequently every six months (Selwyn, 2017). Every review is chaired by an Independent Reviewing Officer, who is experienced and has oversight of the care plan and acts on the child’s behalf to challenge the local authority if the plan has not been acted upon (Selwyn, 2017). In addition, many local authorities have permanency

panels, whose role is to scrutinize the plans of all children in their care to ensure there are no unnecessary delays.

**Types of care.** The right permanence option for a child depends on their individual needs and circumstances. If they cannot live with their birth parents, local authorities have different options with regard to care planning. Foster care encompasses parent figures in private families who are entrusted with the care of these children. A small payment to the foster family is usually provided to cover the costs of care (Li, Chng, & Chu, 2017). Residential care is usually referred to as a group home, institutional care, or an orphanage in which professional caregivers look after the daily care and welfare of these children. Worldwide, residential and family foster care are the two most common forms of substitute care. In Wales, the majority (74%) of looked after children at 31 March 2017 were accommodated in foster care, 9% placed with parents, 5% placed for adoption, and the remainder (7%) placed at secure units, children's homes, living independently or residential schools (Welsh Government, 2017a). Many other countries make much more use of residential care and care by relatives. In Spain, for example, 42% of looked after children are in residential care and 41% are cared for by relatives (Llosada-Gistau, Monserrat & Casas, 2015). In the UK, most foster parents are not relatives, but are professionals who have been assessed and trained for a paid foster carer role.

Research has shown that children adopted from care generally fare better in many domains than those who remain in foster care (Berlin, Vinnerljung & Hjern, 2011). For example, they have a greater sense of belonging in their adoptive homes than those in foster care (Triseliotis, 2002; Selwyn & Quinton, 2004), reinforced by adoptive parents who act as parents rather than carers. Foster carers have reported being unsure of their role, with research highlighting variable, even harmful fostering experiences, in some cases (Meakings & Selwyn, 2016). In foster care, children are encouraged to prepare for independent living and exit their placement at age 18, in contrast to adoption which has been shown to provide lifetime

relationships with adoptive parents, siblings and extended family (Neil, Beek, & Ward, 2013). Without the support of reliable adults at 18, young adults may experience a range of difficulties associated with leaving care, such as insufficient employment leading to a low income, inadequate housing, early parenthood, involvement in criminal activities and mental health problems (Del Pozo De Bolger et al., 2018). Selwyn et al., (2015) in their study examining 37,000 adoptions over a 12-year period found that out of all available options, adoptive placements provided the best chance of stability for the child. The cumulative proportion of adoption breakdowns (disruptions) after the adoption order had been made was 3.2%. Furthermore, in addition to child outcomes, successful adoptions also generate substantial cost savings to the public when compared with the cost of long-term foster care (Barth, Lee, Wildfire & Guo, 2006).

However, the idea that adoption is the ‘gold standard’ in long-term placements is not shared by all researchers and professionals. A recent study followed outcomes for a population of children ( $n = 374$ ) under the age of five and in care in Northern Ireland on the 31<sup>st</sup> March 2000 (McSherry, Malet, & Weartherall, 2016). They specifically focused on attachment and self-concept from the perspective of children, and behavioural and emotional function and parenting stress from the perspective of parents. Their results showed no significant placement effect from the perspective of children, and a statistically weak, but descriptively compelling, effect from the perspective of parents. Furthermore, adoption is described as a highly charged controversial public intervention (McGhee et al., 2017), due to the radical discontinuity of relationships and the possibility of a child being adopted without their birth parents’ agreement. This is evidenced by a reluctance by agency decision makers to apply for, and courts to grant, placement orders since 2013 (Rogers, 2018). It is suggested that this downturn was largely attributable to the 2013 Judge Munby ruling, which stated that adoption is an extreme option

and a last resort, and wherever possible local authorities should consider placing children with extended family members rather than adoption (Doughty, 2015).

Despite this, for those children unable to return to their birth families, current policy favours achieving permanence within a permanent family setting, with a particular focus on adoption (DfE, 2016). England and Wales have taken the strongest lead in promoting adoption as the primary route to permanence for looked after children; encouraging local authorities to increase the number of adoptions and to avoid delays by establishing targets, monitoring, concurrent planning and fostering to adopt, and offering funding incentives (Thomas, 2013).

### **Adoption**

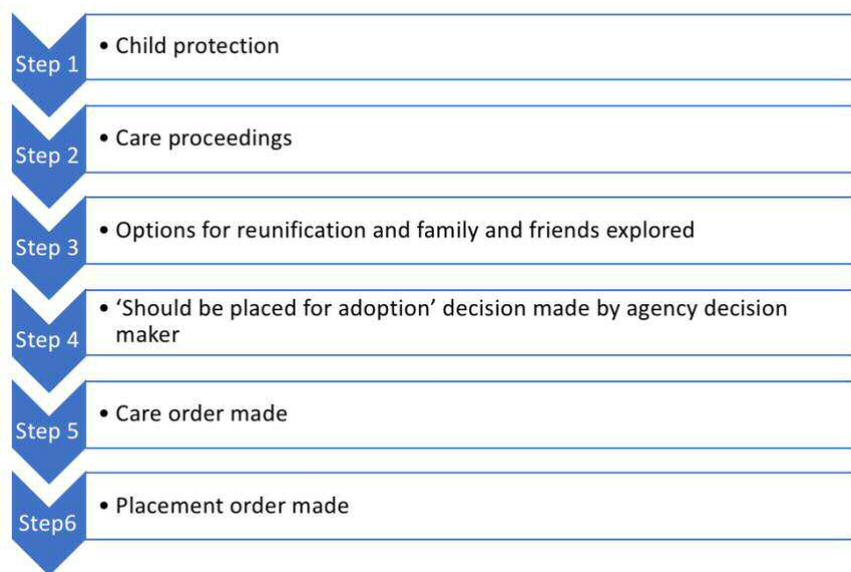
**A brief history of UK adoption law.** The adoption of a child transfers not only parental responsibility from the birth parent(s) to the adoptive parent(s), but also transfers legal parentage, completely severing the legal relationship between the birth parent and child. Full adoption was only introduced into British law after the First World War, through the Adoption of Children Act 1926. Although childless couples had taken in orphaned or abandoned children before then, there were no formal arrangements or legal processes in place (Mignot, 2017). This act contained a number of important provisions: 1) Only in exceptional circumstances could a child be relinquished for adoption without the consent of their parents; 2) Adult individuals as well as married couples could adopt, and 3) Adoption replaced the birth parent tie. Formal adoption in Wales was arranged by largely private agencies until after the Second World War and the introduction of the Children Act 1948, which reorganised children's services into the care of local authorities (Keating, 2013). 1968 saw the peak number of adoptions in England and Wales, however, shortly after this the numbers of children given up for adoption reduced owing to the availability of contraception and abortion and the reduced stigma of being a single mother (Keating, 2013). This resulted in the 'traditional' form of

adoption (i.e. third party adoptions of healthy babies, voluntarily relinquished by birth parents) decreasing in the U.K (O'Halloran, 2006).

As a result, British lawmakers, wishing to protect the best interests of the child, introduced the Children Act 1975, alongside the Adoption Act 1976. This aimed to 'professionalise' and regulate adoption work, with local authorities central to this. The law changes required adoption societies to work closely with local authorities and became subject to stringent approval criteria. It also established that for a child to be given up for adoption either parents or the child's guardian had to consent, or a court could decide to place the child for adoption if the parents had neglected or seriously abused the child. Furthermore, the Act introduced the requirement that local authorities ensure the provision of post-adoption support services and it also gave adopted adults the right to obtain a copy of their original birth certificate. Adoption law was again updated in the 1989 Children Act, which ensured the safeguarding of children through conferring legal duties to local authorities, courts, parents and other agencies. During the 1990s, the Social Services Inspectorate (SSI) raised concerns about adoption policy and practice, such as long waiting lists, extensive delays, poor post-adoption services and failure to monitor cases effectively (Wigfall, Monck & Reynolds, 2006). In 2000, the prime minister led a review of adoption (Performance and Innovation Unit (PIU), 2000), followed by a White Paper (DH, 2000) and the Adoption and Children Bill. The bill was passed into a law in 2002 as the Adoption and Children Act 2002 and enacted in December 2005. The new Act modernised the law regarding adoptive parenting, first and foremost placing the needs and welfare of the child as paramount, as well as enabling more people to be considered as prospective adoptive parents.

Currently in Wales, the Children Act 1989 (UK) and the Social Services and Well-being (Wales) Act 2014 (Welsh Assembly) provide the legal framework for a child being supported within his or her family and community, establishing the local authority's duties and

court powers (National Adoption Service, 2017). The Adoption and Children Act 2002 (UK) (ACA), with some minor amendments, sets out the legal framework for adoption in Wales (National Adoption Service, 2017). This states that once the court has made the care order and accepted the plan for adoption, it will then make a placement order. The placement order signposts that the child is on their way to an adoptive placement, and remains in place through matching, introductions and placement until such time as an adoption order is made. Figure 1.2 highlights the child’s journey to adoptive placement.



*Figure 1.2 A child’s journey to adoptive placement (Source: National Adoption Service, 2017, The legal framework for adoption).*

**Types of adoption.** While the term ‘adoption’ may be universal and seem relatively simple, placements can be diverse. For example, Zamostny, O’Brien, Baden, and Wiley (2003) list international adoptions, private adoptions, foster care adoptions, open adoptions, relative adoptions, special needs adoptions, and transracial adoption as just some of the placement possibilities and these vary greatly between countries (Fall, Roaten, & Eberts, 2012). Whereas approximately 14% of adoptions in the US are domestic private arrangements where the children are voluntarily relinquished (Waid & Alewine, 2018), private adoptions are not used

in the UK. In addition, a minority (approximately 5%) of children in the UK are inter-country adoptions (Mignot, 2017), compared to 26% in the US. Furthermore, pre-conditions of children placed for adoption from care also vary greatly, with the majority (85%) of children in England and Wales adopted by ‘strangers’ (Welsh Government, 2016) compared to the US, where approximately 14% of children are adopted by non-relatives (AFCARS, 2015, as cited in Selwyn, 2017). In addition, in Wales, only 8% of children were adopted by their former foster carer (Welsh Government, 2017a), compared to 52% adopted by a former foster carer in the US (AFCARS, 2015, as cited in Selwyn, 2017). Similarly, in Australia, children removed from their birth parents and placed in the child protection system can only be adopted by their foster carers and only after a stable placement has been achieved (Del Pozo de Bolger et al., 2018).

Due to these different conditions and the varied experiences between birth and placement with an adoptive family, it is very difficult to generalize about adoption experiences from the international literature (Palacios & Brodzinsky, 2010). Many studies have treated adopted children as a homogenous group rather than highlighting the importance of factors such as type of adoption (international vs. domestic, closed vs. open, private vs. looked after) and levels of exposure to adversity and loss prior to being placed for adoption (Grotevant, Ross, Marchel & McRoy, 1999). For example, even US studies with ‘domestic’ samples fail to highlight differences between those children adopted through the foster care system as opposed to private adoptions (Harwood, Feng & Yu, 2013). Currently, most studies investigating the mental health of adopted children are from the US. Whilst these studies are informative, it is problematic to translate international research into the UK context due to the different pre-adoption experiences and processes. Consideration of the context surrounding research studies is essential, as inappropriate comparisons between countries can lead to misleading conclusions and unwise policy change (Tilbury & Thoburn, 2008). In the absence

of UK research, policy, training and support services are being developed without a thorough understanding of the needs of these children and their families.

### **Developmental Psychopathology**

Developmental Psychopathology (DP) emerged as pioneering scientists became interested in the origins of mental health problems, and the significant variability in the development of mental health problems, among children believed to be at risk (Masten & Kalstabakken, 2018). DP strives to understand the complexity of human development, studying “the origins and course of individual patterns of behavioural maladaptation...whatever the causes...and however complex the course of the developmental pattern may be” (Sroufe & Rutter, 1984, p18). DP is considered the dominant approach for understanding the origins of mental disorders among children and adolescents (Cummings & Valentino, 2015). Cummings, Davies, and Campbell (2000) describe four main principles of a DP framework. First, DP emphasizes understanding psychopathology across disciplines and domains from biology and genetics to social ecology and culture. Second, DP is interested in the range of outcomes from normal development to psychopathology. Third, this approach seeks to understand the risk and protective factors that may account for this range of outcomes. Fourth, DP does not view adaptive and maladaptive behavior as static.

**Multiple disciplines.** DP strives to understand the complex interplay among biological, psychological, and contextual aspects of development. It is interdisciplinary, drawing on findings from the medical, biological, psychological, and sociological sciences (Eme, 2017), acting as a framework for understanding developmental processes from multiple perspectives (Cummings & Valentino, 2015). The DP approach emphasises that social-psychological factors on children’s development are not fully separable or independent from a child’s genetics or biology. Whilst genetic and biological risk factors for, and mechanisms to, adoptee

internalizing and externalizing problems will be outlined in this introduction, investigating aspects such as epigenetics and biological changes goes beyond the scope of this thesis. This was due to restrictions in the study method, which meant relying on parental report rather than face to face participation, which may have allowed for assessments of attachment styles and biological changes (e.g. cortisol measures). This thesis focuses on enhancing our understanding of social-psychological factors which may amplify or attenuate the existing vulnerability in the prediction of child adjustment.

**Range of outcomes.** This principle posits that normal and abnormal developmental processes are mutually informative and thus should be considered together. Thus, psychological problems are “diagnosed” when there is evidence of deviations from the normal healthy course of development (Eme, 2017). For example, in the case of physical aggression, Tremblay (2013) suggests that humans spontaneously start such usage towards the end of the first year after birth, when they have acquired the physical coordination to push, hit, kick, etc. Following this, usage peaks in frequency somewhere between 2 and 4 years of age and then begins to decline. This knowledge of the ‘normal’ development of aggression is important in order to understand why some individuals develop chronic physical aggression and to understand how to prevent the development of this disorder.

Within a developmental psychopathology framework, individual development is seen in terms of pathways rather than end points (Cummings et al., 2000), arising from complex interactions across many systems and levels. Developmental psychopathology explores these “pathways in and out of psychopathology over the life course and emphasizes the complexity involved in understanding the dynamics between development and psychopathology” (Woolgar, 2013: p.239). For example, Bowlby (1988) described multiple pathways of development, noting how early experiences can lead a child’s development in deviant directions. This was elaborated by Sroufe (1997), using an organic tree metaphor (see figure

1.3) to show: (A) Continuity of maladaptation, culminating in disorder; (B) Continuous positive adaptation; (C) Initial maladaptation followed by positive change; (D) Initial positive adaptation followed by negative change toward pathology. This metaphor emphasises that neither adaptive or maladaptive behavior is static.



*Figure 1.3.* A schematic representation of developmental pathways (Sroufe (1997)).

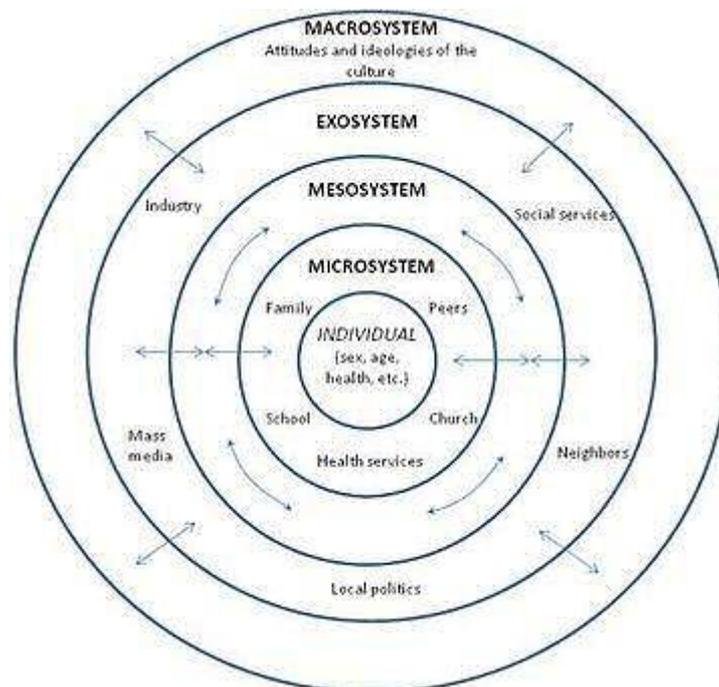
For example, abused children can follow several distinct developmental trajectories (Noll, Trickett, Susman & Putnam, 2005), and children who have experienced seemingly ‘milder’ forms of abuse can appear well following disclosure, but may become more symptomatic later in development (Trickett & Putman, 1998). A key issue of DP is determining when and how the normal processes become disrupted and develop into maladaptive functioning.

**Risk and protective factors.** Cummings and colleagues (2000, p. 138) stated that “Risk, by definition, reflects the notion that children experiencing a particular risk factor have an increased probability of experiencing psychological problems”. Risk refers to any

biological, physical, and/or emotional threat created by the person's environment and/or behaviour and increases the probability of negative outcomes in life situations (O'Dougherty, Wright & Masten, 2005). Developmental psychopathology emphasizes psychobiological vulnerabilities in interplay with environmental risk factors that shape developmental processes involved in psychopathology. Cicchetti (2010) states that studies conducted on individuals at high risk for mental disorders, such as maltreated children, frequently portray the developmental course as deterministic, inevitably resulting in negative outcomes. However, children differ widely in their response to adversities (Rutter, 1985) and not all high-risk children experience the outcomes these studies predict. Those children who fare better than others in the aftermath of abuse and neglect are thought to show resilience (Luthar & Cicchetti, 2000).

Resilience is defined as: "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (Masten, Best and Garmezy, 1990, p. 425). Implicit within this notion are two critical conditions: (1) exposure to significant threat or severe adversity; and (2) the achievement of positive adaptation despite major assaults on the developmental process (Luthar, Cicchetti, & Becker, 2000). Thus, resilience is broadly understood as positive adaptation in circumstances where difficulties are such that the expectation would be for a person's cognitive or functional abilities to be impaired (Rutter, 1985). Rutter argues that a young person's level of resilience is determined by the presence of 'multiple risk and protective factors' (Hannon et al., 2010). Protective factors are defined as characteristics of the child, family, and wider environment that reduce the negative effect of adversity on child outcome (Masten & Reed, 2002). The extent to which the effects of adversity persist over time are influenced by the reduction of risks, in combination with protective factors (Hannon et al., 2010).

**Multiple systems.** Within the concept of risk and protective factors, the DP perspective considers multiple intra- and extra organismic factors as well as person-environment interactions regarding their impact on children’s functioning (Cummings et al., 2000). In order to understand how risk and protective factors can interact to impact upon outcomes, it is useful to consider Bronfenbrenner’s (1979) social ecological theory. His ground-breaking work combined aspects of sociology and developmental psychology, viewing the individual's experience "as a set of nested structures, each inside the next, like a set of Russian dolls" (Bronfenbrenner 1979, p. 22). At the centre is the child, and it is the support of the environment that affects his/her development. According to Bronfenbrenner, the engines of human development are the exchanges of energy between the developing organism and the persons, objects and settings surrounding the child (Evans, Li, & Whipple, 2013). As a child grows and develops, the interactions become more intricate and multifaceted within various environments.



*Figure 1.4* Bronfenbrenner’s Bioecological Model of Human Development (Taken from Bronfenbrenner & Morris, 2006).

Brofenbrenner's four interlocking systems that shape individual development are shown in figure 1.4. *The micro-system* represents interpersonal interactions with the child. The micro-system is the home, involving interactions with immediate family. As the child ages, the microsystem becomes more complex, perhaps involving more people, such as child-care or preschool. *The meso-system* represents the interrelationships among settings (i.e. the home, school and peers). Within this system, the initiatives of the child, and the parents' involvement in linking the home and school for example, play roles in determining the quality of the child's meso-system. *The exo-system* represents aspects in which the child does not participate in, but which have a direct influence on parents and other adults who interact with the child. For example, these include jobs, school boards, and social service agencies. Finally, *the macro-system* represents the broad attitudes and ideological patterns within which the meso- and exo-systems reflect the ecology of human development. For example, economic recession and war may produce such changes. The ecological framework is particularly useful in our understanding of human development because of the complex dynamics of growth and change. The importance of these influential systems changes over the course of development. For example, early childhood constitutes a period of time where experiences with most systems are regulated or mediated by caregiving adults. Various risks can occur on each level, with the potential to affect a child's growth and development. Brofenbrenner's theory (1979) can be used to understand adoptee adjustment. For example, the person potentially faces 1) Individual risks e.g. his or her own genetic and biological risk factors; 2) microsystem risks e.g. the family environment, such as adversity with birth parents, adoptive parent depression or hostility; 3) Mesosystem risks e.g. bullying; 4) Exosystem risks e.g. social services delays or a lack of a strong and healthy support network, and 5) Macrosystem risks e.g. cultural differences regarding childrearing. These risks act individually and in combination to become sources of stress for the child.

## **Child psychopathology**

Common forms of child psychopathology are frequently divided into two broad categories: internalizing and externalizing problems. Internalizing problems appear in the form of withdrawal, anxiety, fearfulness, and depression, (Achenbach, Howell, Quay, & Conners, 1991). Children with high levels of internalizing problems are characterised by anxious, shy, withdrawn and depressed behaviours and are at risk of a range of psychosocial difficulties including peer relations and poor school performance (Zvara, Sheppard & Cox, 2018). In contrast, externalizing problems includes disruptive behaviour characterised by hyperactivity, aggression, defiance, and destructive behavior (Campbell, 1995). Children showing externalizing problems are at risk of outcomes such as academic problems, delinquency, and substance abuse (Campbell, 2002). Internalizing and externalizing problems may develop as early as the second year of life (Gilliom & Shaw, 2004).

Goodman, Lamping & Ploubidis (2010) used data from 18,222 British children to demonstrate the construct validity of the broader ‘internalizing’ and ‘externalizing’ subscales used in the Strengths and Difficulties Questionnaire (SDQ). Based on this, the authors suggested retaining all five subscales when screening for disorder but using the broader internalizing and externalizing SDQ subscales for analyses in research. For this thesis, the decision was made to use the broader ‘internalizing’ and ‘externalizing’ problem subscale scores as variables.

### **Potential Risk Factors Contributing to Adoptee Psychopathology**

Expanding on Brofenbrenner’s (1979) theory, risk factors for child psychopathology in adopted children will be highlighted. Risk factors can be differentiated into two groups: primary vulnerability existing from birth, e.g., prenatal factors and genetic factors, and a secondary vulnerability developing in interaction with the social environment.

**Primary risks: genetics.** There is strong evidence that some child and/or adolescent disorders have been associated with genetics, including depression, psychosis, addiction, and learning difficulties (Rutter, Moffitt & Caspi, 2006), with some children appearing more susceptible to mental illnesses due to genetic transmissions (Butcher & Kendall, 2018). For example, polygenes (gene combinations) have been found to be associated with externalizing problems in youth (Dadds et al., 2014). Furthermore, research has shown that a child's genes can interact with the environment in which a child develops before and after birth to modify genes in certain ways that define how much and when they are expressed. Twin and adoption studies have shown that externalizing problems are influenced by both genetic and environmental factors (Rhee & Waldman, 2002). In a meta-analysis of 103 twin and adoption studies on antisocial behaviour, Burt (2009) found that genetic factors accounted for over half of the total variance in aggressive behaviour.

**Primary risks: Pre-natal experiences.** Research indicates that around 40-60% of adopted children have been born to mothers who misused drugs and/or alcohol during pregnancy (Selwyn et al., 2010). Foetal alcohol spectrum disorders are increasingly recognised in adoptive populations (Phillips, 2015). Furthermore, mothers of children at risk of removal into care may be at increased risk of experiencing stress during pregnancy which can be transmitted to the foetus, through the stress hormone 'cortisol'. This can have implications for children's mental development, for example, Davis and Sandman (2010) found that exposure to elevated concentrations of cortisol early in gestation was associated with a slower rate of development over the first post-natal year, as well as emotional and behavioural adjustment in school.

The course of foetal development is altered as a function of environmental conditions in a way that shapes growth and health outcomes into adulthood (Gartstein & Skinner, 2017). There have been many studies showing associations between pre-natal factors such as maternal

stress, maternal nutrition, child exposure to toxins, prematurity, and low birth weight are associated with a wide range of psychopathology, including depression, schizophrenia and ADHD (Gartstein & Skinner, 2017). Studies have shown that pre-natal experiences are associated with externalizing problems in adopted children, include exposure to nicotine (Simmel, 2007), drugs (Goldman & Ryan, 2011), and alcohol (Eckstrand et al., 2012). However, Thapar and Rutter (2009) highlight the complexities associated with research studies, cautioning that associations do not imply causation, due to the difficulty in separating prenatal risks from genetic confounders and postnatal risks (e.g. parent mental health problems, adversity) for offspring psychopathology.

**Secondary risks: Abuse and neglect.** Although adopted children vary in terms of their pathways to adoption (Grotevant & McDermott, 2014), most children adopted from care will have experienced abuse and/or neglect within their birth family (Simmel, 2007; Selwyn et al., 2015). Compounding this, early adversity is likely to involve any one or all of these sources of risk during crucial developmental stages (Palacios, Román, Moreno, León, & Peñarrubia, 2014). Children who have experienced abuse and neglect are at an increased risk for a number of problematic developmental, health, and mental health outcomes, including learning problems (e.g., problems with inattention and deficits in executive functions), problems relating to peers (e.g., peer rejection), internalizing (e.g., depression, anxiety), and externalizing problems (e.g., conduct disorder, aggression), and posttraumatic stress disorder (Diaz & Peterson, 2014).

**Secondary risks: Experiences whilst in care.** All children placed for adoption experience the loss of their birth parents and potentially extended family, friends, home and community (Bernard et al., 2012). Furthermore, adversity and loss may be compounded by care experience i.e. repeated separations from caregivers and unstable living arrangements. Foster placements in care in Wales are not always secure, with 31% of children having on

average two or more placement moves (Welsh Government, 2017a), associated with poorer outcomes (Simmel, 2007). In addition to ‘official’ recorded moves, placements can be changed on a temporary basis due to foster carers having holidays or requesting respite. Research shows that children in foster care are more likely to endure greater systemic threats to their ‘felt security’ due to the realisation of their carers’ lack of custody rights, and the local authority’s intrusion throughout their childhood (Tarren-Sweeney, 2010). Furthermore, negative labelling and stigma are reported by many looked after children (Holland, Floris, Crowley & Renold, 2010), and this can affect educational (Mannay et al., 2017) and criminal outcomes (Day, 2017).

### **Potential Mechanisms Linking Pre-Placement Experiences to Child Psychopathology**

The biobehavioral mechanisms through which adverse outcomes in maltreated children emerge are unclear (Seltzer, Ziegler, Connolly, Prosofski & Pollak, 2014); however, this next section attempts to highlight some key theories.

**Brain function and physiology.** Many advances in understanding children’s responses to life stress have emerged from studies of the hypothalamic pituitary adrenal (HPA) axis (Seltzer et al., 2014), i.e. our central stress response system. The HPA axis functions as the interface between signals from the external environment and internal, individual biology (Seltzer et al., 2014). One of the end products of HPA activity is the production of the stress hormone ‘cortisol’, which increases or decreases in response to stimuli in an individual’s environment (Gunnar & Quevedo, 2007). Whilst, a certain amount of stress is normal for all children in their daily lives, it has been proposed that experiencing chronic stress (such as abuse and maltreatment) contributes to increased levels of cortisol, associated with illnesses and psychological problems (van der Voort et al., 2014) lasting into adulthood (Kerker et al., 2015). Van der Voort and colleagues (2014) summarised that most studies of previously institutionalised internationally adopted children show that previous experiences of abuse and

neglect affect the diurnal cortisol curve of young children, although results are inconsistent. A review by Koss and Gunnar (2018) also highlighted large variation in cortisol levels in children exposed to adversity, appearing to vary based on the broader social context children live in, such as the age at which children experienced adversity. Heightened responsivity to stress can be adaptive in a dangerous environmental context, helping the individual maintain high levels of vigilance to prepare for future threats (Seltzer et al., 2014), although this exacts a physiological cost such as increased anxiety and fearfulness (Research in Practice, 2014). However, studies are inconsistent, with some studies showing blunted HPA responses to stressors (Carpenter, Shattuck, Tyrka, Geraciotti & Price, 2011), suggesting that less responsivity to stressors is adaptive for individuals living under chronically stressful or unstable conditions (Carpenter et al., 2011). Chronic suppression prepares the child for functioning as well as they can in that environment (Research in Practice, 2014).

Early studies suggest that experiencing acute stress over a sustained period also impacts upon the brain (Woolgar, 2013). A new-born baby has little or no emotional regulation, so the caregiver helps their baby learn to self-soothe by offering reassurance. If the amygdala (associated with emotion) is overstimulated by repeated stress, it can become overactive so that the child is hyper vigilant to interpersonal threat (Evans et al., 2008), and responds in a highly emotional way to minor incidents (Brown & Ward, 2013). For example, children who have been physically abused show greater brain activity for stimuli with angry faces or voices than they do for other emotions (Shackman & Pollack, 2014). These responses can be adaptive in a traumatic environment but, when the child is not in danger these behaviours are maladaptive and can be difficult to change (Terr, 1991). Stress can also impact upon the hippocampus and prefrontal cortex brain regions, which are involved in functions, such as planning and reasoning, self-regulation and mood and impulse control. If these areas are damaged due to

chronic stress this can impede the development of these skills and has consequences for future learning, behaviour and health (Brown & Ward, 2013).

**Attachment.** Babies are born with a biological drive to seek proximity to a protective adult in order to survive (Bowlby, 1969). They are completely dependent on the physical and emotional availability of the key adults who take care of them, who are crucial to the child developing trust in other people, their understanding of relationships generally and their feelings about themselves (Simmonds, 2004). If a mother spends a lot of time cuddling and gazing at her baby, the baby will generally respond by snuggling, babbling and smiling, creating a reciprocal positive feedback loop of pleasure and satisfaction – the ‘maternal-infant dance’ (Schofield & Beek, 2014). In contrast, when the baby feels discomfort and cries, the caregiver is there to tend to their needs in a nurturing manner.

Attachment theory (Bowlby, 1969) stresses the importance of early parent–child relationships for normative development of socio-emotional functioning across the life span (Thompson, 1999). Attachment theory proposes that infants require an emotionally sensitive caregiver who provides consistent, predictable and attuned care throughout their early years (Bowlby, 1982). Bowlby (1982, p.371) stated that, “To say of a child that he has an attachment to someone means that he is strongly disposed to seek proximity to...a specific figure and to do so in certain situations, notably when he is frightened, tired or ill”. When a caregiver is present and responds sensitively to the child, infants develop basic trust in their carer and this allows children to function autonomously with confidence (Sroufe, 2005). Based on the quality of these interactions, infants develop a unique set of expectations or mental representations of themselves and others in attachment relationships (Bowlby, 1969). Ainsworth, Blehar, Waters and Wall (1978) developed an experimental procedure, known as the ‘Strange Situation’, to test the quality of attachment relationships through a series of brief separations and reunions with the primary caregiver. Based on their observations of infants’ responses, four different

attachment patterns were identified (Simmonds, 2004): secure, insecure avoidant, insecure anxious ambivalent and disorganised. Infants with a secure attachment pattern were able to explore their surroundings using their attachment figure as a 'secure base'; they were distressed by separations but easily comforted upon her return. In the case of insecure avoidant attachment, infants explored the environment with little reference to their caregiver; were minimally distressed by separation and avoided or ignored the caregiver on reunion. In contrast, infants with anxious ambivalent attachment patterns, displayed minimal exploration; they were highly distressed by separations and hard to soothe upon the caregivers return. Finally, infants with a disorganised attachment pattern cannot predict how their caregiver will respond to their approach; and consequently, have difficulty regulating their emotions. The distribution of attachment classification in normative samples is 62% secure, 15% avoidant, 9% ambivalent, and 15% disorganized (Van IJzendoorn, Schuengel, Bakermans-Kranenburg, 1999;  $N = 2,104$ ).

The concept of attachment has been shown to be important in aiding understanding of maladjustment in adopted children; embodying a mechanism linking early maltreatment to later psychopathology (Lehmann, Breivik, Heiervang, Havik & Havik, 2016). Many children adopted from care have experienced caregiving in which key nurturing experiences are missing (Howe, 2009). In abusive or neglectful environments, the child's primary attachment figure (usually the parent) is likely to be either unavailable or indeed the cause of fear and distress. A caregiver who is unavailable will lead to an internal working model of the attachment figure as rejecting, the self as unworthy of care and others as not to be relied on for help and support (Schofield & Beek, 2014). Children's expectations of themselves and others can then influence the ways in which other people relate to them. For example, a child who expects rejection and has low self-esteem is likely to signal to other people that they should not come close, which in turn can lead to further rejection (Schofield & Beek, 2014). Previously maltreated children

are likely to have negative expectations of adults; they may find it hard to let adults come close enough to establish trusting relationships, thus displaying difficulties in establishing and sustaining healthy relationships (Del Pozo de Bolger et al., 2018).

Much of the research available among adoptive families in the years following adoption has focused on the prevalence of, and issues associated with, children's attachment difficulties. In 2009, Van den Dries, Juffer, van Ijzendoorn, & Bakermans-Kranenburg, conducted a meta-analysis of 31 studies investigating attachment in adopted children. They found that adopted children showed fewer secure attachments (47%) and more disorganized attachments (31%) than non-adopted children. However, they note that the adoptees compared favorably to children in institutional care. They found that children adopted before 12 months of age were as securely attached as their non-adopted peers, whereas children adopted after 12 months of age were less securely attached than non-adopted children. No attachment pattern differences were found between international and domestic adopted children. In a longitudinal study with children adopted out of Romanian Orphanages, Chisholm (1998) found that the attachment security of 17 to 76 month old adopted children significantly increased in a period of about 20 months from one year after adoption to three years later, with security scores at the second wave comparable to that of normative samples. This is consistent with Bowlby (1969), who believed that attachment modification could occur with changes in caregiving environment, for better or worse. Schofield and Beek, (2014) suggest that warm, consistent and reliable caregiving can change the children's previous expectations of close adults and of themselves, although Dozier, Bick & Bernard (2011) caution that even the most sensitive caregivers may have difficulties understanding their child's needs.

### **Potential Protective Factors**

Like risk factors, protective factors may be assets that reside within the individual, i.e. low emotionality, positive self-esteem, ego resilience, high sociability, coping skills, and

having an engaging temperament, all shown to be associated with better outcomes for abused children at later life stages (Flores, Cicchetti & Rogosch, 2005). There may also be external protective factors, including parental support, adult mentoring, community organisations (Fergus & Zimmerman, 2005), or psychological interventions. Bronfenbrenner (1979) suggested that risks are less likely to have an impact if the child can cultivate alternative proximal process (i.e. a responsive nurturing grandparent). For example, Bolger and Patterson (2001) showed that child abuse victims' resilience was associated with an individual's capacity to form positive and lasting relationships. Thus, Herrenkohl (2013) argues that a stable and nurturing home environment can also improve outcomes for children exposed to adversity. However, resilience is not a fixed quality (Masten, 2011). Lewis (2018) states that, "It is the individual's management of his or reactions to these events, in interaction with the ability of the social and cultural environment to yield assistance and support, that determines the role that early traumatic experiences play in overall development" (Lewis, 2018, p.7). Indeed, Fonagy and colleagues (2017) recently proposed a move towards seeing resilience as an outcome of the quality of the social network surrounding the child and the child's ability to access that network rather than a quality or characteristic of the individual child. A developmental psychopathology approach recognizes the intricate mixture of risk and protective factors that contribute to outcomes, which can aid our understanding of adopted children's adjustment.

### **Adjustment of 'Looked After' and Adopted Children**

Heritable influences coupled with pre-natal and post-natal experiences lead to complex interactions (Tarren-Sweeny, 2008), potentially exacerbating children's physical and mental health problems (Bruskas, 2008). Whilst most looked after children and young people report their experiences of care to be good (Biehal, Cusworth, Wade & Clarke, 2014), and show

satisfaction with their life (Selwyn, Wood & Newman, 2017), studies show that UK children in care have poorer outcomes than their peers in many areas (Teyhan, Wijedasa & Macleod, 2018). A rich literature shows that looked after children do not fare as well as children in the general population in relation to their physical health, cognitive and language skills, and socio-emotional functioning (Harden & Whittaker, 2011), which in turn affects their journey to adulthood (Wade & Dixon, 2006). For example, children in care have lower educational attainment (Fletcher, Strand & Thomas, 2015) and are over-represented in the criminal justice system (Prison Reform Trust, 2016). A prospective longitudinal UK study using the Avon Longitudinal Study of Parents and Children (ALSPAC) (Teyhan et al., 2018) found that, as adults, children previously looked after had increased risk of depression and anxiety, addiction, criminal convictions, and lower social supports relative to not looked after or adopted. This was confirmed in a recent systematic review on the outcomes of children who grew up in foster care (Gypen, Vanderfaeillie, De Maeyer, Belenger & Van Holen, 2017), highlighting that children who leave care continue to struggle in all areas (education, employment, income, housing, health, substance abuse and criminal involvement) compared to their peers from the general population.

Perhaps the most striking outcome for children in care is the higher rates of mental health difficulties (Ford, Vostanis, Meltzer & Goodman, 2007). In a large UK study, Meltzer, Gatward, Corbin, Goodman and Ford, (2003) found that approximately ten per cent of children and young people within the UK have a diagnosed mental health disorder, compared to 50% for those living in foster care and nearly 70% for those in residential care. Indeed, such high levels of difficulties are not confined to the UK care system, as illustrated by a recent review of studies from Europe, North America and Australia (Tarren-Sweeney, 2008). This confirmed that the scale of mental health problems among children in care is exceptional for a non-clinical population, with children in residential care having more mental health problems than those in

family-type foster care. The review (Tarren-Sweeney, 2008) also found that the psychopathology of children in care was complex, characterized by attachment difficulties, relationship insecurity, sexual behaviour, trauma-related anxiety, conduct problems, defiance, and inattention/hyperactivity.

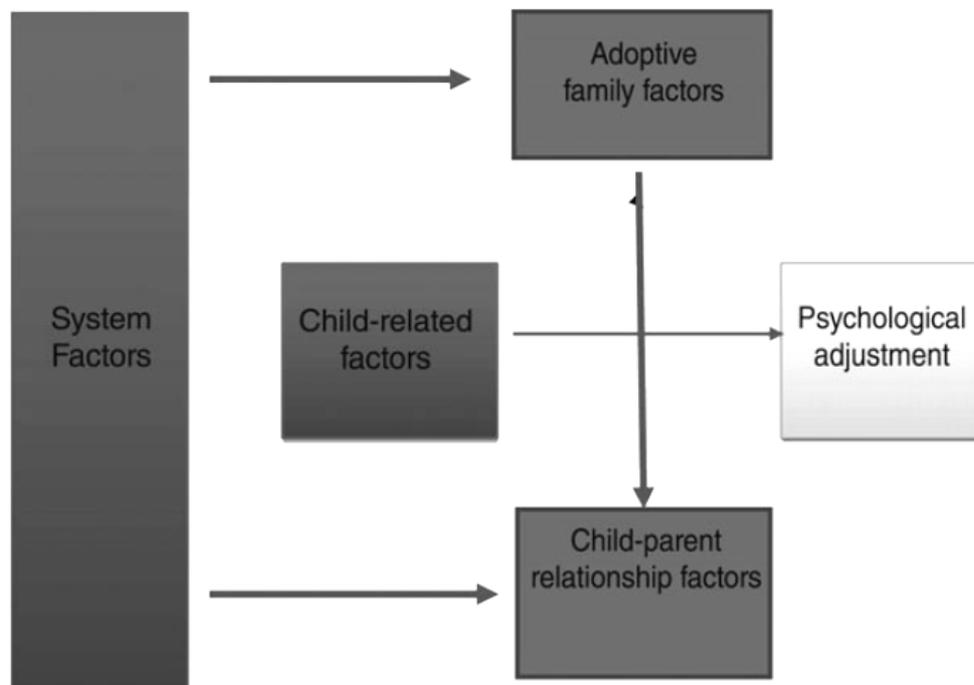
Similarly, consistent findings show that adopted children also have higher rates of psychopathology and maladjustment than their non-adopted peers (Rushton & Dance, 2006; Fisher, 2015). Studies have shown that when compared to their non-adopted counterparts, adoptees are more likely to be in the clinical range for disorders (Brodzinsky, Schechter, Braff, & Singer, 1984; Barth & Miller, 2000). A series of meta-analyses which included 101 studies on total behaviour problems, including more than 25,000 adoptees and more than 80,000 non-adopted comparisons, 64 studies on externalizing problems, and 64 studies on internalizing problems, as well as 36 studies on mental health referrals, including more than 5,000 adopted children and more than 75,000 comparisons across different countries was conducted by Juffer and Van IJzendoorn, (2005). This confirmed a trend among adoptees of having more psychological difficulties than their non-adopted peers, with domestic adoptees experiencing more difficulties than international adoptees. It is worth noting that although domestic (within country) adoptees had more psychological difficulties than their non-adopted peers, effect sizes were small ( $d=0.16-0.24$ ), suggesting that overall, most adoptees are well adjusted. Since the 2005 meta-analysis, studies have continued to show that adopted children are more likely to have mental health problems than their non-adopted peers (Hawk & McCall, 2011; Merz & McCall, 2010; Dekker et al., 2017). In one of the few longitudinal studies following US domestic adoptive families, Simmel, Barth and Brooks (2007) found that eight years post-adoption both internalizing and externalizing problems were observed to be higher for children adopted from foster care than those adopted privately. This finding was replicated by Nadeem et al., (2017), who examined behavioural outcomes among families with children adopted from

foster care ( $N = 82$ ), taking into account environmental and biological risk factors. The study found that a history of abuse/neglect predicted significantly higher externalizing and internalizing problems at a borderline level of statistical significance, and a trend for internalizing and externalizing problems to decline after the transition to an adoptive home. However, the authors stressed that many children adopted from foster care continued to have problems in the clinical or borderline-clinical range. A recent UK study of children adopted from British foster care found that compared to children of a similar age in the general population, the adopted group showed elevated emotional and behavioural difficulties (Wretham & Woolgar, 2017). Furthermore, Ibrahim, Cosgrave and Woolgar (2018) conducted a systematic review highlighting maltreatment as a risk factor for borderline personality disorder features in childhood.

### **Theoretical Model - Psychological Adjustment of Foster Care Adoptees**

Del Pozo de Bolger et al., (2018) suggest a relatively simple conceptual model of psychological adjustment of foster care adoptees based on a scoping review of studies investigating the outcomes of children adopted from care published between 2000 and 2014. The model proposes that while pre-adoption risk factors impact psychosocial adjustment, this relationship can be moderated by adoptive family factors and the child's relationship with both their adoptive and birth family. They explain that this relationship is interactional, in that the child's characteristics can impact the adoptive family and the relationships within it. For example, the child's behaviour can affect family functioning by increasing parental stress, and provoking hostility and sub-optimal parenting as a consequence. They suggest that this may interfere with the quality of the adoptive parent-child relationship and ultimately, can lead to the intensification of problematic behaviour in the child (Simmel, Barth & Brooks, 2007).

Additionally, the authors suggest that system factors (such as support) may indirectly contribute to the child's outcomes.



*Figure 1.5* Overview of the ‘Psychological adjustment of foster care adoptees’ proposed by Bolger et al., 2016.

The authors acknowledge that their model may be an overly simplistic depiction of what is a complex set of psychological phenomena. The model serves to highlight the need for a more sophisticated picture of adoptee adjustment, incorporating the influence of pre- and post-adoptive risk and protective factors.

### **Thesis Aims**

Adoption as a field of academic study transcends disciplines including: child welfare, mental health, medical care, education and social policy (e.g. Toth & Cicchetti, 2013). Much of the UK-based research has evolved from the perspective of social work policy and practice

(e.g. Selwyn et al., 2015), and we know comparatively little about the psychological processes that characterise family formation in the years of a placement or how children fare with respect to their well-being. It appears that adopted children's adaptive or maladaptive developmental pathways are influenced by a complex interplay between various risk and protective factors on different levels. Little is currently known about which factors promote resilience in adoptive children and even less about variables which may moderate the relationship between adversity experienced with birth parents before adoption and later outcomes (Barroso, Barbosa-Ducharne, Coelho, Costa & Silva, 2017). The search for mediating or moderating processes rather than linear causal effects, is important within the developmental psychopathology approach (Cummings et al., 2000). The overarching aim of this thesis was to shed new light on how these psychological processes unfold in families who had recently had a child or sibling group placed with them for adoption.

The research completed and presented in this thesis was based on a prospective, longitudinal study which is described in detail in the following chapter (2). Chapter three highlights the prevalence of internalizing and externalizing problems in the children across the first 2-3 years of an adoptive placement, using normative data to compare to the UK general and looked after populations. In addition, chapter 3 illustrates the prevalence of pre-adoption adversity within a UK sample of children adopted from care and investigates associations between pre-adoption adversity and later internalizing and externalizing behaviour problems. Chapter four investigates adoptive parent depression and anxiety problems as these unfold across the first 2-3 years of adoption. Chapter 4 also investigates parent, child and external predictors of increased depression and anxiety symptom scores.

Chapters 5 and 6 examine associations between family climate and adjustment. In chapter five, the validity of the Preschool Five Minute Speech Sample (PFMSS) was compared to parent report measures of warmth and hostility. In addition, associations between aspects

of the adoptive parent and child relationship and parent and child well-being were examined. Furthermore, the bi-directional nature of warm and hostile exchanges between adoptive family members were investigated. Chapter six is the final empirical chapter and explores if depressive symptom scores in adoptive parents predict greater internalizing and externalizing problems in infants over time, specifically testing if this effect is mediated through parental hostility or warmth. The final analysis investigated if adoptive parent warmth and/or hostility moderated the relationship between pre-placement adversity and later internalizing and externalizing behaviour problems. The discussion chapter aims to present a summary of the derived profile of adoptive family adjustment over the first few years of a placement, set the findings within the context of relevant literature and to consider the implications of the findings for the provision of post-adoption support.

## **CHAPTER TWO**

### **General Method**

---

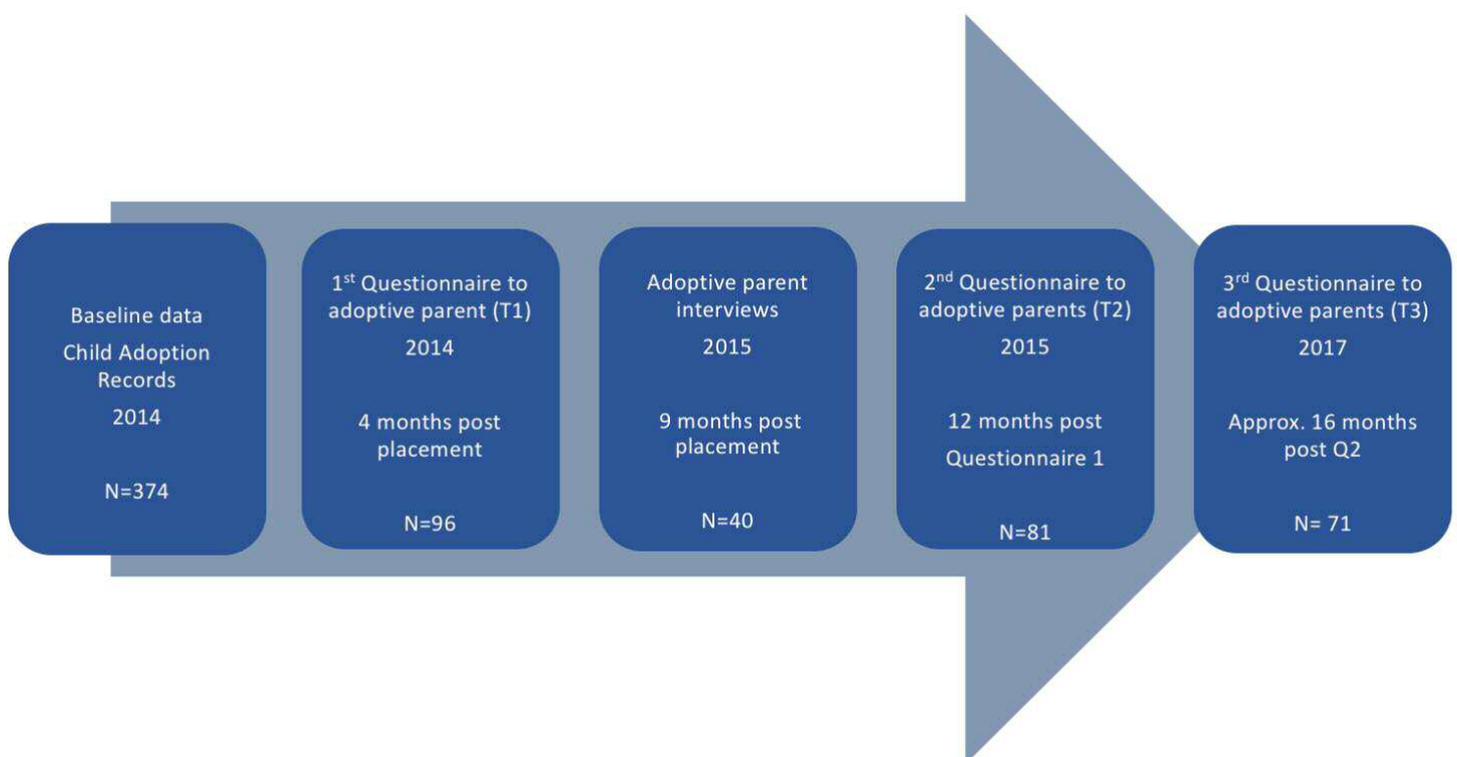
The empirical chapters of this thesis draw on data from the Wales Adoption Cohort Study (WACS). This chapter describes the design, process of ethical approval, participant recruitment and procedure for the study.

#### **Design**

The Wales Adoption Cohort Study is a prospective longitudinal cohort study of a national sample of children placed for adoption in Wales, initiated in 2014. WACS was carried out by an interdisciplinary team of researchers at Cardiff University. The overarching aim was to develop a better understanding of the early support needs and experiences of newly formed adoptive families. The study was funded by Health and Care Research Wales, a Welsh Government body that develops, in consultation with partners, strategy and policy for research in the NHS and social care in Wales (Grant reference: SC- 12-04). Ethical permission for the study was granted by the Research Ethics Committee at Cardiff University, School of Social Sciences (See Appendix 1). Initial permission was obtained from the Welsh Government to access relevant Local Authority data. The Heads of Children's Services and their Senior Adoption managers across Wales were consulted to secure approval to contact social work teams and access records. A multi-disciplinary advisory group for the study provided guidance for developing best practice with respect to the ethics pertaining to safeguarding and data protection.

## Procedure

WACS used a sequential mixed-methods approach. The WACS procedures involved a review of case file records, interviews and questionnaire data at different time points. Data was drawn from case file records, interviews and questionnaires to adoptive families. This thesis uses information derived from each aspect of data collection. Figure 2.1 provides an overview of the study. The following sections provide explanation of each part of data collection.



*Figure 2.1* Overview of the Wales Adoption Cohort Study (WACS) procedure.

## Casefile Data

Within Wales, every Local Authority is mandated to complete a Child Adoption Report (CAR), (previously known as the Child Assessment Report for Adoption), for each child where there is a plan for adoption. The CAR is referred to specifically in the Adoption and Children

Act 2002 Statutory Guidance and must capture all of the information specified in Parts 1 and 3 of Schedule 1 of the Adoption Act Regulations 2005. The CAR reports on children's experiences and needs within the domains of health, education, emotional/behavioural development, self-care skills, identity, family and social presentation. The CAR also provides a record of the characteristics and experiences of the children's birth parents, the given reasons children were removed and subsequently placed for adoption and the actions taken by the Local Authority. CARs are completed by social workers, who record information based on their work with birth parents, contact with foster carers, liaison with other professionals (such as police, health visitors and medical officers) and reviews of historical social services records.

Baseline information was collected from the CARs of all children placed for adoption by Welsh local authorities between 01 July 2014 and 31 July 2015. The researchers worked on site at the Local Authority offices, and to avoid errors in copying, entered data directly into an SPSS database. About two-thirds of the CARs reviewed were in electronic format, whilst the remainder were reviewed from a hard copy of the report. More than 250 discrete pieces of information were sought from each CAR record (See Appendix 2). The CARs provided valuable information about the characteristics, needs and experiences of all children placed for adoption by every LA in Wales over a 13-month period. The information extracted from the CARs was also used to check the extent to which the families who participated in other strands of the study (the questionnaires and interview work), were representative of all children placed for adoption in Wales during the study period.

**Reliability.** A pilot database of variables was created, to include in the study based on previous research, interests of team members and a blank CAR template, to ensure capturing the information was feasible. CAR records used for piloting the database were anonymised as part of the process of collating information for study purposes. The team met at an early stage of data collection and shared their experiences of scrutinising pilot CARs. The database was

amended to include some further variables that team members wanted to capture. Use of the CAR database was piloted on 30 children placed from three local authorities and experiences were fed back to the group. At that point some variables were amended. For example, most variables were initially coded either as 'present' or 'absent', but it was decided that for some variables, such as domestic violence, 'suspected' was added as a data entry option and a notes variable added to explain any uncertainty.

Four research assistants (all female) with backgrounds in psychology ( $n=2$ ) and social work ( $n=2$ ) carried out the data collection across Wales. Researcher A (doctoral candidate) was responsible for most of the CAR data collection (83%,  $n=309$ ), researcher 'B' 9% ( $n=35$ ), 'C' 6% ( $n=21$ ) and 'D' 2% ( $n=9$ ). As more than 250 discrete pieces of information were coded from each CAR, it was logistically impossible to do a 10% reliability check on all variables for all researchers. Researcher A, C and D always worked together on social work premises. The data were therefore entered simultaneously, aiding discussion of any ambiguous variables which could potentially cause confusion. This gave the team confidence that the data was being interpreted with a good degree of consistency. For agreement between researcher A and B, five records were coded blindly upon data collection commencing, and following this regular meetings were held between the researchers to maintain a common understanding of, and consistent approach to coding. The parameters of most variables were unambiguous (for example, demographic details, child prematurity, and birth parent criminality). Those that had the potential to be coded more subjectively (for example, social workers identifying potential attachment difficulties) were thoroughly considered. It was agreed that team members would not make judgements about the existence of factors based on an interpretation of what a social work report suggested, and only coded the presence of a variable if it was stated explicitly in the record. The CAR data collection took place in Local Authority offices located across Wales and took approximately 16 months to complete (September 2014 - December 2015).

## **Questionnaire Data**

Professionals from each authority were provided with study information sheets including a consent form to send out to all the adoptive parents of the children in our sample. These representatives were usually social work managers, adoption social workers or key administrators with responsibility for liaising with adoptive parents. Whilst it was our aim to send an information sheet and consent form to the parents of all children ( $N = 374$ ), as representatives sent these out on behalf of the study we cannot say with certainty that all families were contacted. Families who wanted to take part in the study contacted the research team directly through information on the flyer (See Appendix 3). Those parents that responded stating they would like to take part were then sent out a questionnaire. The questionnaires were aimed at eliciting information about the adoptive placement, from the perspectives of the adoptive parents. The questionnaires included demographic information, measures to assess the child and parents' mental health, the parent's sense of competency and the parent-child relationship (See Appendix 4). In addition, respondents were asked free response questions about what was going well and any problems they were facing. Respondents were asked about pre-adoption experiences and in-depth details about the support they needed/or had received. Adoptive families completed a questionnaire at three time points: approximately three to five months into the adoptive placement (time 1,  $n = 96$ ), 12 months after questionnaire 1 (time 2,  $n = 80$ ) and approximately 16 months after time 2 (time 3,  $n = 71$ ).

## **Interview Data**

Interviews typically took place nine months after the start of the adoptive placement (See consent form, Appendix 5). The interviews were conducted in the adoptive home and lasted, on average, two hours. They were designed to help understand more about the early experiences and support needs of adoptive families from the adoptive parent's perspective.

## Participants

### Case File Data

In total, three hundred and seventy-four Child Adoption Report's (CARs) were reviewed. These comprise a national sample of all children placed for adoption by all local authorities in Wales between 01 July 2014 and 31 July 2015 (See Table 2.1 for regional breakdown of the sample). Whilst all adoptions (i.e. step-parent or intercountry) have some Local Authority involvement, this study only includes children *placed* by local authorities, thus, inter-country or step parent adoptions were not part of the participant pool.

Table 2.1

*Distribution of children placed by each adoption consortium across Wales (N=374)*

Adoption Consortium	Number	Percentage
Vale, Valleys & Cardiff	94	25%
Western Bay	94	25%
South East Wales	83	22%
North Wales	63	17%
Mid & West Wales	40	11%

It is important to note that the study was undertaken during a significant period of change to adoption services in Wales. The National Adoption Service for Wales (NAS) was launched in November 2014 and became operational in January 2015 (Rees & Hodgson, 2017). NAS delivered significant change quickly, including reconfiguring the 22 Local Authority adoption teams into five regional collaborative areas: North Wales; South East Wales; Mid and West Wales; Western Bay; and Vale Valleys and Cardiff. The current model is outlined in Figure 2.2. This change had implications for the study, which involved organising data

collection initially with 22 local authorities, which progressively changed to five regions.

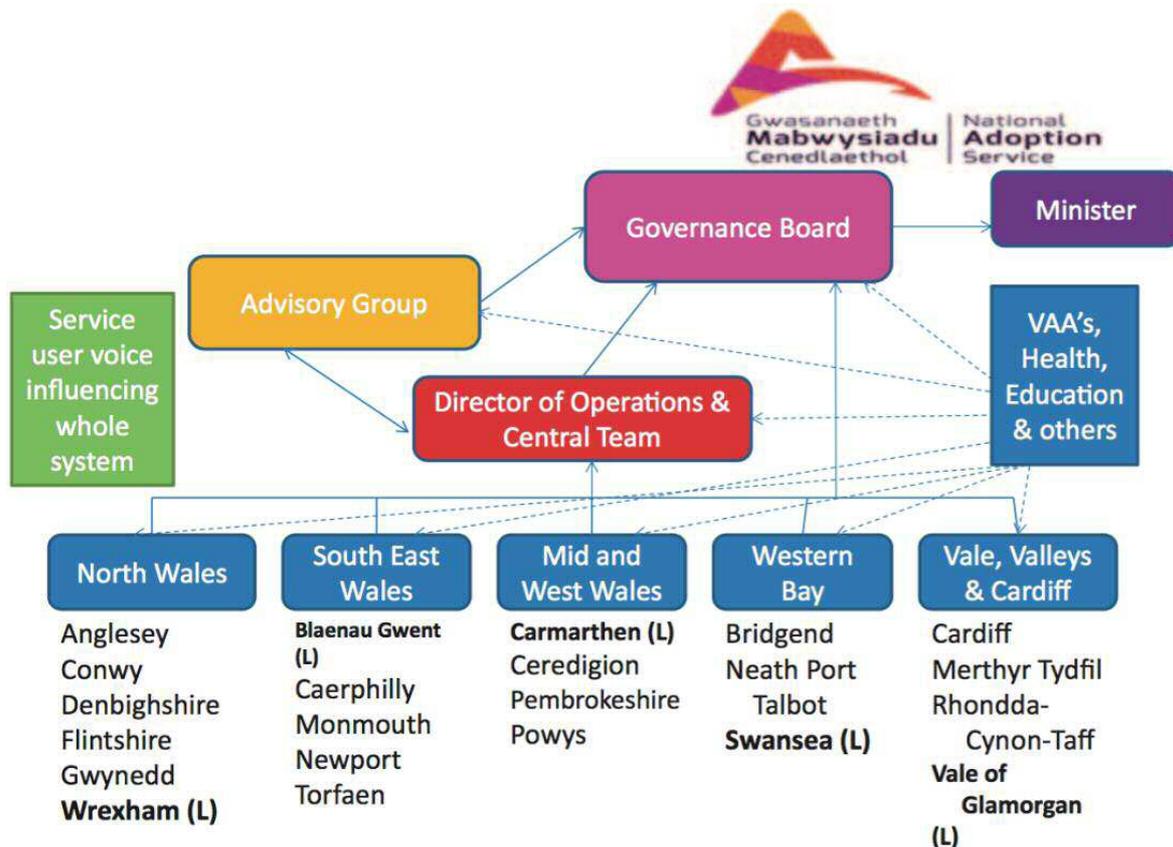
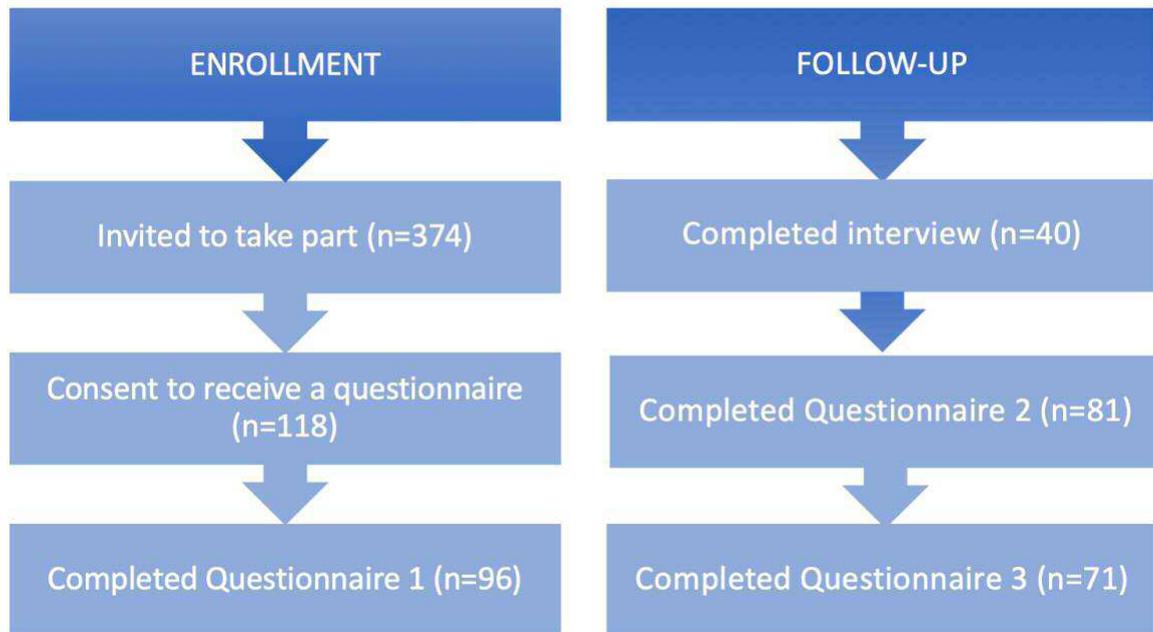


Figure 2.2 National Adoption Service for Wales – Regional Collaborative Model

(Rees & Hodgson, 2017).

### Questionnaire and Interview Data

All adoptive parents of children placed for adoption in Wales between 01 July 2014 and 31 July 2015 were invited to take part in the study. Figure 2.3 provides information on the enrolment and retention rates across the study. In total,  $N = 96$  questionnaires were returned at time one (92% mothers, 8% fathers). In addition, forty (of the 96) adoptive families took part in an interview.



*Figure 2.3* Adoptive parent participant flow diagram.

### **Representativeness**

Background characteristics of the 96 children whose families participated in the study at time one were compared to all Welsh children placed for adoption during the study period ( $N = 374$ ) using independent samples t-tests. The sample of families who responded to the questionnaire were representative of all children placed for adoption during the study window for gender, age and past experiences of abuse/neglect. Our sample of children were slightly older than the mean age (although this was not statistically significantly) because we asked adoptive parents of sibling groups to comment on the eldest child placed for adoption. The National Adoption Performance Framework does not collect data on adoptive parent socio-demographic information, thus, characteristics of the 96 adoptive parents who participated in the study at time one could only be compared to limited Welsh Government data on adoptive parent relationship status and ethnicity. This analysis showed that the parents in our sample were very similar to adoptive parents in general, with the large majority of adopters in Wales in 2014 (90%) White British. In addition, the majority of adopters in Wales in 2014 (88%),

were in a heterosexual relationship, 6% were single adopters and 6% were in a same sex relationship.

### **Attrition**

Respondent attrition is one of the potential problems in longitudinal designs (Zethof et al., 2016). When attrition is random, the smaller sample size will reduce the precision of estimators. But when it is non-random, attrition can change the sample composition and result in biased estimators and undermine the generalizability of research findings (Fitzgerald, Gottschalk & Moffitt, 1998). Within this study, attrition has the potential to introduce biases. A variety of scenarios related to participant dropout are conceivable, with potential implications for study findings. For example, it is possible that parents who adopted younger children were more likely to drop out of the program if their children were doing well, which could be translated into an illusory decrease over time in child mental health scores. Alternately, it is possible that changes in externalizing scores were more apparent and could have a greater impact on willingness to stay in the study than do changes in internalizing scores. Of the original 96 respondents recruited at time one, 83% at time two and 74% participated at time three remained in the study. Demographic differences (gender, age, relationship status, education and incomes) between time points one and three due to attrition were explored using t-tests and chi-square tests. There were no statistically significant differences between time 1 and 3 in terms of demographic characteristics. In addition, there were no statistically significant differences in child internalizing or externalizing problem scores or parental well-being (depression and anxiety scores) for those that participated or did not participate at time three. This analysis suggests that selection bias in time three resulting from attrition is minimal.

## CHAPTER THREE

### Pre-adoption Adversity and Child Mental Health

---

Initial research into the long-term outcomes of childhood maltreatment focused firstly on exposure to abuse, particularly sexual or physical abuse (Browne & Finkelhor, 1986; Dong et al., 2004). Likewise, adverse experiences such as death of a parent, divorce, or poverty have evolved as relatively independent lines of enquiry (McLaughlin, 2016). Yet children's experiences often co-occur (Dong et al., 2004), for example, many children who have been maltreated suffer combinations of different forms of abuse and neglect, and studies have shown that nearly half of childhood abuse survivors (42%) suffered more than one type of abuse (Flatley, 2016). For example, in cases of child maltreatment and domestic violence, an ongoing threat from a perpetrator exists, which may be accompanied by other stressors including substance abuse, poverty and adult mental illness (Furr, Comer, Villodas, Poznanski & Gurtwitch, 2018). Furthermore, children who have been maltreated rarely report a single 'type' of abuse (Villodas et al., 2012). Since the recognition of the co-occurring nature of adverse childhood experiences, we have seen a shift from focusing on single types of adversity to examining multiple adverse childhood experiences. This enables a better understanding of the breadth of childhood adversity and the unfolding relationship between adversity and wellbeing.

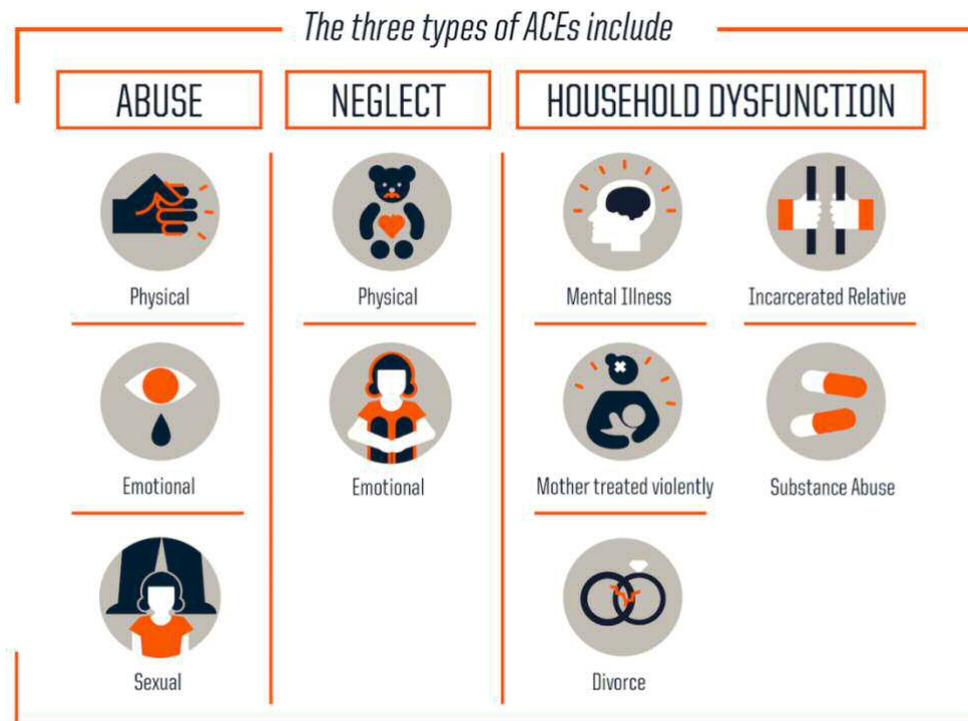
Research on multiple risk factors and child outcomes began with the Isle of White (Rutter, 1979) and Rochester Longitudinal Studies (Sameroff, 2000). Rutter and colleagues (Rutter, 1979) studied the total population of 10-year-old children living on the Isle of Wight and attending local authority schools. They created a cumulative risk index across six factors:

(1) marital discord, (2) low socioeconomic standing, (3) household overcrowding, (4) paternal criminality, (5) maternal psychiatric disorder, and (6) child involvement with foster care. The study found that while no single risk factor significantly increased risk for mental disorder, the presence of two risk factors was associated with a fourfold increase in mental illness for individuals, whilst four risk factors were associated with a tenfold increase. Thus, the increasing number of risk factors yielded a cascading, harmful effect on later developmental outcomes (Appleyard, Egeland, Dulmen & Sroufe, 2005). Similarly, the Rochester Longitudinal Study (RLS) (Sameroff, 2000), examined the intergenerational transmission of mental health between parents with psychiatric diagnoses and their offspring. Risk factors were combined to create a multiple risk score for each child. The risk factors included: (1) history of maternal mental disorder; (2) high maternal anxiety; (3) rigid parental attitudes, beliefs, and values about child development; (4) observations of few positive parent–child interactions; (5) unskilled occupational status; (6) low maternal educational status; (7) disadvantaged minority status; (8) single parenthood; (9) stressful life events; and (10) large family size. Findings from the RLS showed the number of risk factors was associated both with concurrent behaviour problems in preschool (Sameroff, Seifer, Zax & Barocas, 1987) and adolescent mental health, problem behaviour, and academic problems (Sameroff, Bartko, Baldwin, Baldwin & Seifer, 1998). Since then, a great number of studies have found similar results, suggesting that multiple risk factor exposure is detrimental to children, with more risk factors leading to worse physical and mental health outcomes (Evans et al., 2013).

### **Adverse Childhood Experiences (ACEs)**

The now landmark Adverse Childhood Experiences (ACE) study was born out of Vincent Felitti's qualitative investigation to understand from the perspectives of patients why people were dropping out of his weight management clinic, despite successfully losing weight. In 1998, Felitti conducted his seminal study examining childhood adversity as a determinant

of adult physical and mental health study with over 17,000 predominantly middle-class adults (aged 19 to 92 years) in California (Felitti et al., 1998). Participants were asked to retrospectively report adverse experiences they experienced during childhood (ACE) and researchers assessed how the number of adverse experiences they suffered predicted their current health status.



*Figure 3.1 ACE variables used in the original Felitti (1998) study.*

The study found that ACEs were relatively common, given that 67% of the study sample reported exposure to at least one ACE. Felitti et al., (1998) found a graded relationship between the number of categories of childhood exposure and adult physical health issues including ischemic heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease. In addition, persons who had experienced four or more categories of childhood exposure, compared to those who had experienced none, had 4 to 12 fold increased health risks for alcoholism, drug abuse, depression, and suicide attempt; a 2 to 4 fold increase in smoking,

poor self-rated health, 50 sexual intercourse partners, and sexually transmitted disease; and a 1.4- to 1.6-fold increase in physical inactivity and severe obesity.

Since the initial study, results have been supported by many studies. A recent meta-analysis was conducting investigating the association between multiple ACEs and risks of health outcomes (Hughes et al., 2017). The study focused on general populations, excluding high risk or clinical samples and in total 37 studies were included, providing risk estimates for 23 outcomes ( $N = 253,719$ ). Associations were weak or modest for physical inactivity, overweight or obesity, and diabetes (ORs of less than two); moderate for smoking, heavy alcohol use, poor self-rated health, cancer, heart disease, and respiratory disease (ORs of two to three), strong for sexual risk taking, mental ill health, and problematic alcohol use (ORs of more than three to six), and strongest for problematic drug use and interpersonal and self-directed violence (ORs of more than seven). This robust study suggests that experiencing multiple ACE is a major risk for both physical and mental health conditions, and coping behaviours such as problematic alcohol and drug use.

The American Academy of Pediatrics stated that “Children’s exposure to Adverse Childhood Experiences is the greatest unaddressed public health threat of our time” (Block, nd). This has been acknowledged by Public Health Wales (Welsh Government, 2017b), who have committed to placing ACE at the centre of their national strategy for the rest of the decade. Alongside this policy commitment, in 2015, a large study replicating the ‘ACE’ methodology was conducted in Wales, UK (Bellis, Ashton & Hughes, 2016). The study consisted of a national cross-sectional survey of 2,028 adults. Welsh adults were asked about their current health behaviours and their exposure to adversity using an internally validated questionnaire, assessing exposure to maltreatment (sexual, physical and verbal abuse) as well domestic violence, parental separation, mental illness, alcohol abuse, drug abuse and incarceration. Results showed that nearly half the participants (47%) in a general population sample reported

having experienced at least one ACE and 14% of the population reported having experienced four or more ACEs. Results suggested that four or more harmful experiences in childhood increased the chance of high-risk drinking in adulthood by four times, being a smoker by six times and being involved in violence in the last year by around 14 times.

**ACE and the association with childhood health outcomes.** Although most of the cumulative risk and ACE studies focus on adult outcomes, there has been a growing interest in understanding how ACE exposure manifests itself in childhood. This is understandable given that the best predictor of psychiatric disorders in adulthood is psychological disturbance or a psychological disorder in childhood or adolescence (Fryers & Brugha, 2013). Based on a developmental psychopathology framework, it is theorised that ACE has a negative impact on child development due to disruptions in developmental processes that initiate a cascading sequence of changes in emotional, cognitive, and physiological regulatory processes (van der Kolk, Roth, Pelcovitz, Sunday & Spinazzola, 2005). In a longitudinal study, Clark, Caldwell, Power & Stansfeld (2010) found that the association between childhood adversity (any illness in the household, neglected appearance, maternal and/or paternal absence, experiencing care, parental divorce, parental physical abuse and parental sexual abuse) and psychopathology was strongest at 16, but still present at 23 and 45 years.

Flaherty and colleagues (2013) used a sample of 1,041 children aged 4 and 6 years old that were part of the Longitudinal Studies of Child Abuse and Neglect (LONGSCAN) general population study. LONGSCAN was initiated in 1990 at the University of North Carolina Injury Prevention Research Center with the goal to follow the children and their families until the children themselves became young adults. Flaherty and colleagues (2013) found that one index of adversity (psychological maltreatment, physical abuse, sexual abuse, neglect, caregiver's substance use/alcohol abuse, caregiver's depressive symptoms, caregiver treated violently, and criminal behavior by household member) almost doubled children's risk of

overall poor health and four or more adverse experiences tripled the risk of illness requiring medical attention. In the UK, research from the Centre of Longitudinal Studies, using data from the Millennium Cohort Study (Sabates & Dex, 2012) examined the associations of multiple poor risks (parental depression, parental physical disability, substance abuse, domestic violence, financial stress, worklessness, teenage parenthood, basic skills and overcrowding) to later poor outcomes. They found that analysis of child outcomes at ages three and five suggested that exposure to two or more risks in the first years of life was associated with cognitive and behavioural problems during the life course.

A recent systematic review sought to examine and synthesize empirical research on the association between early childhood exposure to multiple adverse childhood experiences (ACEs) and the child's social, behavioural, emotional, or physical developmental wellbeing (Liming & Grube, 2018). In total, only five studies met the predetermined inclusion criteria i.e. secondary data analyses that utilized large, high-risk samples focusing on cumulative ACEs and the social, behavioural, emotional, and/or physical wellbeing outcomes among children up to 6 years of age. Their findings supported a dose–response association between cumulative ACE and both behavioural problems and poor physical health outcomes. Between 12 and 70% of the early childhood samples were exposed to three or more ACEs. Among high-risk samples, exposure to multiple adversities was common.

**‘Looked after’ children’s experience of adversity.** Focusing on studies using a sample of looked after population, Bruska and Tessin (2013) employed a retrospective design to investigate ACE (emotional and physical abuse, physical neglect, witnessing maternal abuse; living with a substance abuser; living with a mentally ill household member; parental loss, and incarceration of a household member) and the psychosocial wellbeing of US women who were in foster care as children. The majority (97%) of their sample reported at least 1 ACE and 70% reported 5 or more. They found that the number of ACEs was associated with

psychological distress, with ACEs reported before foster care associated with low levels of coherence and high levels of distress. This supports the idea that children entering foster care are already vulnerable and at risk of experiencing psychological distress during adulthood.

Kerker and colleagues (2015) used the nationally representative longitudinal National Survey of Child and Adolescent Well-Being study to assess the ACE scores of children under the age of 6 years with child protection involvement. Results showed that ACE scores (as defined in the original Felitti (1998) research) for children who remained at home after child protective investigation were similar to those of children who were removed and placed in foster/kinship care. However, there were differences in the numbers of reported ACEs by children's mental health, chronic medical conditions, and social development, with higher ACE scores associated with more mental health and chronic medical problems. Preschool children with higher ACE scores had lower prosocial scores, suggesting the impact of adverse experiences on behaviour may occur early in the life course.

More recently, Baker, Schneiderman and Licandro (2017) investigated ACE and mental health referrals in a sample of foster care children receiving mental health services in the US ( $N = 156$ ). They collected information about ACEs (physical abuse, sexual abuse, physical neglect, emotional abuse/neglect, parental loss, parental substance abuse, parental mental illness & witnessing/experiencing domestic violence) for all children referred to mental health services through clinician reports. All youth were reported to have experienced at least two adverse childhood events and the average number was 5.1 ( $SD = 2.4$ ). Due to the sample being made up of foster children, the most common adverse childhood experiences were loss of parents (100%), followed by emotional abuse/neglect (71.3%), physical neglect (58.9%) and domestic violence (57.4%). They found associations with age (older youth had experienced a greater number of adverse childhood experiences than younger youth), but not gender.

**Adopted children's experience of adversity.** There is a general agreement that pre-adoption adversities are determining factors for post-adoption adjustment (van Ijzenborg & Juffer, 2006; Balenzano, Coppola, Cassibba & Moro, 2018). Research has tended to focus on individual adversities, rather than the cumulative impact of adversity. For example, pre-adoptive neglect has been shown to predict total and internalizing problem scores, but not externalizing (Tan & Marfo, 2006), whilst physical abuse and maltreatment are associated with externalizing problems (Simmel, Brooks, Barth & Hinshaw, 2001) and anti-social behaviours (Grotevant et al., 2006).

Kriebel and Wentzel (2011) applied a cumulative risk model to the understanding of behavioural adjustment among a study of international, domestic/public and domestic/private adopted children in elementary care ( $N = 70$ ). Cumulative risk was calculated based on a parental questionnaire regarding the child's risks related to birth family history (i.e. Did birth mother have a history of medical problems), prenatal history (i.e. Did birth mother have poor prenatal care?) and pre-adoption history (i.e. Did the adoptee experience documented abuse prior to placement?). The authors found that cumulative risk was associated with behavioural adjustment, as rated by the parents. Of the three risk subscales (i.e. birth family risk, prenatal/perinatal risk and pre-adoption adversity risk), only *pre-adoption* adversity was significantly correlated with behavioural problems (as measured by the Total Problems scale of the Child Behavior Checklist). Although, as noted in the introduction, Thapar and Rutter (2009) caution about the complexities associated with separating prenatal risks from genetic confounders and postnatal risks for offspring psychopathology.

There is a paucity of research and inconsistencies among studies investigating adversity and its association with internalizing and externalizing behaviour problems in samples of children adopted from care. Where research has been conducted, they have generally used single items in the form of adopted parent's suspicion of pre-adoption abuse and/or neglect (e.g.

Tan & Marfo, 2006). We therefore have an incomplete picture of the extent of adversity experienced by children adopted from care and may be underestimating both the prevalence of adversity and the impact of adversity on post adoption psychological health. This is problematic as it may serve to undermine the case for investing in post adoption support for families.

### **Other indicators of adversity**

Research using ‘ACE scores’ has been valuable for documenting the importance of childhood adversity as a risk factor for negative outcomes. However, because cumulative risk reduces adversity variables down to a dichotomous variable (presence/absence), the approach has been criticised due to over-simplifying very complex and challenging issues. The approach leads to a substantial loss of information (including the severity and length of exposure to adversity, as well as who perpetrated the adversity) that can lead to dubious statistical relationships (MacCallum, Zhang, Preacher & Rucker, 2002). In addition, timing may be important, for example, Sroufe, Carlson, Levy & Egeland, (1999) suggest that early experience holds more significance with later outcomes because it sets the course for the child’s subsequent interactions with their environment. From this perspective, the experience of certain risk factors in early childhood may be associated with worse outcomes than the same risk factors experienced in later life. However, studies are inconsistent, with some investigating developmental timing among adolescents suggesting that later cumulative risk exposure is more important than earlier exposure for adolescent outcomes (Josie, Greenley & Drotar, 2007). Thus, both the length and nature of the pre-adoptive environment may impact upon adjustment (Goldberg & Smith, 2013), especially for samples where the children were removed from the environment where they experienced adversity.

Adoption research has shown that in general, children placed before aged one have exhibited better outcomes (Van den Dries et al., 2009). Although, ‘age placed for adoption’ is

an imperfect proxy for early experience (Grotevant & Mcdermott, 2014), it is perhaps the most commonly studied and widely-used pre-adoptive risk factor. Most studies have shown that age at adoption is positively correlated with later internalizing and externalizing behaviour problems and social competencies. For example, in a systematic review of 18 studies with intercountry adoption samples, Hawk and McCall (2010) found that age at adoption was the largest contributor to internalizing, externalizing, and attention problems, likely because age placed for adoption represents a potentially lengthy exposure to early adversity. In a recent longitudinal US study, Nadeem and colleagues (2017) showed that in the initial stages after placement, externalizing problems were significantly higher among children who were 4 years or older at placement versus those who were younger than 4, although differences were no longer significant 5 years post-placement suggesting some recovery. A large UK study (Selwyn et al., 2015) examining risk factors for post-adoption order disruption (defined as legally adopted children who left their families under the age of 18 years old), showed that age placed for adoption predicted later disruption, with children placed aged four or over at placement 13 times more likely to experience a disruption, compared to those placed as infants (0 to 1 years). Furthermore, children placed between 2 and 4 were 6 times more likely to experience a disruption after the adoption order. Studies suggest that problems on entering care are compounded by care experience (for example, number of placements), leading to a complex interaction of past and present experiences (Tarren-Sweeny, 2008).

However, results, are inconsistent, with some studies suggesting that age placed is a powerful predictor only in combination with other risks (Juffer & Van Ijzendor, 2005). In addition, a recent study of adopted Chinese children's behaviour problems over time (Tan & Marfo, 2016) showed that four psychosocial measures of pre-adoption adversity collected during the first three weeks of adoption (physical signs/symptoms of deprivation (e.g., sores), developmental delays, refusal/avoidance behaviours, and crying/clinging behaviours) were

better predictors of behaviour scores (measured by the CBCL) at study entry and the rate of change in subsequent waves compared to age at adoption. However, it is important to note that the measures of pre-adoption adversities used were likely to be early signs of the same behaviours expressed later in childhood. Furthermore, the study used a sample of previously institutionalised children and the authors did not have access to case files detailing the children's pre-placement adversities. Due to these inconsistencies, it is important to investigate other indicators of adversity, such as time with birth parents, time in care and age placed for adoption alongside ACE 'score'.

### **Research Objectives**

Adopted children are a population demonstrated to be more at risk for psychopathology. Chapter 1 highlighted a paucity of research investigating adopted children's experience of adversity prior to being placed for adoption, thus this chapter will highlight the prevalence of adversity within our sample in order to provide a picture of the level of vulnerability. As the literature is unclear as to whether early exposure to multiple stressors has relatively immediate and measurable consequences among young children who have experienced adversity (Kerker et al., 2016), this chapter will investigate associations between pre-adoption adversity and mental health needs during the first years of an adoptive placement. Specifically, this study will investigate if investigating additional risk factors, such as age placed, alongside the ACE score, provides a more complete picture of the associations between early adversity and mental well-being in an adopted sample. As developmental psychopathology is interested in the range of outcomes from normal development to psychopathology, the mental health problem scores of children in our sample will be compared to the general population, as well as the investigation of change over time.

According to the aforementioned considerations, this chapter had three main objectives:

- 1) To investigate the prevalence of pre-adoption adversity in a sample of children adopted from care in Wales.
- 2) To investigate the mental health problem scores within the study sample, in order to make comparisons with looked after children and the general population and examine change over time.
- 3) To investigate the associations between adversity and mental health problem severity during the first years of an adoptive placement.

## **Method**

### **Participants**

To address research objective one; this study collected retrospective information about the child's pre-adoption experiences recorded by social workers in the CAR ( $N = 374$ ). For research question two, this study used data from parent reported questionnaires at time points one ( $n = 58$ ), two ( $n = 77$ ) and three ( $n = 67$ ) to describe child mental health problem severity. As the children's age increased, more children reached the eligibility age (2 years) for parents to complete the mental health measure, there was therefore more data for measures pertaining to the present study at time two even though there was sample attrition between time points. There were twelve cases where the questionnaires returned by adoptive parents could not be matched with a CAR record using the child's date of birth. Thus, the third research aim was addressed using a sample of ( $n = 50$ , T1) two ( $n = 69$ , T2), and three ( $n = 62$ , T3) where both the CAR data and child mental health measure within the questionnaire were available. Reasons for not being able to match the CAR and questionnaire include data entry errors or date of birth not being recorded correctly on the CAR or questionnaires. It may also be due to administrative oversights in regional offices, which may have resulted in some eligible files not being made available to the research team or questionnaires sent out to not eligible parents.

## Measures

**Adverse childhood experiences.** Table 3.1 describes the Adverse Childhood Experiences (ACEs) used for the analysis in this chapter. Whilst previous studies have focused on a narrower range of risk factors, the variables comprising the ‘ACE score’ in this study were matched closely with the original Felitti (1998) study, and included childhood abuse and neglect variables (i.e. emotional abuse, physical abuse, sexual abuse and neglect); and household dysfunction variables (growing up with domestic violence; parental separation, parental drug abuse, parental alcohol abuse; parent mental illness, and parental incarceration). This decision was based on the World Health Organisation suggestion that to “...explore generalizability of the original ACE findings from the US to other settings requires that different surveys employ a core set of standardized ACE questions” (WHO, 2009, p7). Table 1 presents a list of all variables included in the original study (Felitti et al., 1998), alongside equivalent definitions used in this study.

The parental separation and incarceration variables were coded as either absent (0) or present (1). However, coding some variables was not straightforward. For the abuse and neglect variables they were originally coded as either 0 ‘absent’, 1 ‘alleged’, or 2 ‘present’ based on the social worker report in the CAR. Researchers did not make their own judgments as to the child’s exposure to abuse based on the caseworker’s narrative of their home life. The decision was made to include allegations of abuse based on previous findings that children with alleged abuse and substantiated abuse are at a similarly increased risk for mental health and behavioural consequences (Villodas et al., 2016). Thus, abuse and neglect variables were dichotomized from three responses to two: 0 ‘absent’ or 1 ‘suspected/present’. The same approach was taken for domestic violence, alcohol and substance abuse variables. Coding the child’s experience of birth parent mental health illness was also a challenge. For example, it was often not possible to discern from the case files whether birth parents had a clinically

diagnosed mental health condition. Many birth mothers (and some fathers) were described as having mental health problems without accessing medical records; whilst in other cases parents were reported to be taking prescribed medication, but there was no mention of a clinical diagnosis. For the purposes of this study, a decision was made that any reference to birth parent mental illness had the potential to impact upon the child. Therefore, this variable was also dichotomized into: 0 'absent' or 1 'suspected/present'.

**Ace 'score'.** Regarding missing data, the decision was taken that if there was no reference to a particular variable (included in the ACE score) it was unlikely to be present in the home. This is due to the adverse nature of the variables and the social workers' duty to capture *all* of the information specified in Parts 1 and 3 of Schedule 1 of the Adoption Act Regulations 2005. Exposure to ACE is captured in the ACE score. The ACE score is a simple summation (integer count) of exposure to each of 10 different types of adverse experiences during the child's time spent with birth parents before being placed for adoption. Children removed from their parents at birth were coded as 'zero' i.e. not being exposed to any variables. Exposure to any ACE category counts as one point towards the overall score. Additionally, four ACE score categories (ACE= 0, ACEs = 1, ACEs = 2-3 and ACEs>4) were created to enable comparisons with the Bellis and colleagues (2016) Welsh study.

**Number of days spent with birth parents.** The number of days the child spent with their birth parents was calculated by subtracting the child's birth date from the date they were removed from their parents (final time, if reunification had previously taken place).

**Number of days in care.** The number of days the child spent in care was calculated by subtracting the date they were removed from their parents (final time, if reunification had previously taken place) from the date they were placed for adoption.

**Age placed for adoption.** The age the child was placed for adoption (in years) was calculated by subtracting the child's birth date from the date they were placed for adoption.

Table 3.1

*List of ACES definitions and WACS equivalent*

ACES construct	ACES Definition (Felitti et al., 1998)	WACS Study Definition
Emotional abuse	Often or very often a parent or other adult in the household swore at you, insulted you, or put you down and sometimes, often or very often acted in a way that made you think that you might be physically hurt.	Caseworker report of substantiated or allegations of emotional abuse based on evidence of psychological aggression, such as threatening the child or calling him/her names.
Physical abuse	Sometimes, often, or very often a parent or other adult in the household pushed you, grabbed you, slapped you, threw something at you, or ever hit you so hard that you had marks or were injured.	Caseworker report of substantiated or allegations of physical abuse based on evidence of severe assault or physical abuse, such as shaking an infant or hitting an older child.
Sexual abuse	An adult or person at least 5 years older ever touched or fondled you in a sexual way, or had you touch their body in a sexual way, or attempted oral, anal, or vaginal intercourse with you or had oral, anal, or vaginal intercourse with you.	Caseworker report of substantiated or allegations of sexual abuse based on evidence of sexual abuse or forced sex reported by the child or parent.
Neglect	Respondents were asked whether they had enough to eat, if their parents' alcohol drinking interfered with their care, if they ever wore dirty clothes, and if someone was available to take them to the doctor. Respondents were asked whether their families made them feel special and loved, and were asked if their family was a source of strength, support, and protection.	Caseworker report of substantiated or allegations of child neglect based on evidence of parental failure to supervise, protect or provide for the child.
Domestic violence	Mother or stepmother was sometimes, often, or very often pushed, grabbed, slapped, or had something thrown at her and/or sometimes often, or very often kicked, bitten, hit with a fist, or hit with something hard, or ever repeatedly hit over at least a few minutes or ever threatened or hurt by a knife or gun.	Caseworker report of domestic violence based on evidence such as slapping, hitting, or kicking (includes both male and female caregivers who reported domestic violence).
Parental separation	Parents were ever separated or divorced.	Caseworker report of parents ever separated or divorced.
Mental illness	A household member was depressed or mentally ill or a household member attempted suicide.	Caseworker report of either birth parent having mental health issues.
Substance/drug abuse	Lived with anyone who was a problem drinker or alcoholic or lived with anyone who used street drugs.	Caseworker report of evidence of alcohol or drug abuse by either parent.
Incarceration	A household member went to prison.	Caseworker report of evidence of either parent spending time in prison.

**Child mental health.** In this study, adoptive parents completed one of two versions of the SDQ (Goodman, 1997). One version is for 2-4 year olds and another version for 4-18 year olds. The SDQ consists of five subscales, each containing five items. The scales measure emotional symptoms, conduct problems, hyperactivity-inattention, peer relationship problems, and prosocial behaviours. Respondents indicated on a three-point likert-type scale to what extent a symptom applied to them over the last six months, using the options “Not true”, “Somewhat true”, or “Certainly true”. Each of the subscales consists of five items, and scale scores range from 0–10. A higher score is indicative of more problems for all subscales, except for the prosocial scale, where higher scores correspond to strengths in prosocial behaviour. The two versions are identical, except that in the younger version the item on reflectiveness is re-phrased from ‘Thinks things out before acting’ to ‘Can stop and think things out before acting’; and two items on antisocial behaviour are replaced by items on oppositionality: ‘Often argumentative with adults’ replaces ‘Often lies or cheats’ and ‘Can be spiteful to others’ replaces ‘Steals from home, school or elsewhere’. The SDQ total difficulties score, is the sum of the emotional, peer, behavioral and hyperactivity subscales. It has been found to be a psychometrically sound measure of overall child mental health problems in studies from around the world (Achenbach et al. 2008; Goodman & Goodman, 2009), including evidence that the total difficulties score correlates with existing questionnaire and interview measures, differentiates clinic and community samples, and is associated with increasing rates of clinician-rated diagnoses of child mental health disorders (Goodman, Lamping & Ploubidis, 2010).

Within the SDQ, the externalizing score is the sum of the conduct and hyperactivity scales and ranges from 0 to 20. The internalizing score is the sum of the emotional and peer problems scales and ranges from 0 to 20. Goodman and colleagues (2010) demonstrate the construct validity of the broader ‘internalizing’ and ‘externalizing’ subscales and suggested

using the broader internalizing and externalizing subscales when selecting outcome variables for epidemiological studies. Based on this, the decision was made to use ‘internalizing’ and ‘externalizing’ subscales as outcome variables in the remainder of the thesis.

**Reliability.** Reliability, validity, internal consistency, test–retest reliability after 4 to 6 months, and interrater agreement for the SDQ are satisfactory (Goodman, 2001). The SDQ has been deemed an appropriate screening tool for detection of emotional, behavioural, and concentration problems among looked after children (Goodman, Ford, Corbin & Meltzer, 2004). Within the WACS study, most subscales had adequate to good levels of internal consistency (See table 3.2 for full details). However, the peer problems scale had poor levels of internal consistency, as determined by Cronbach’s alphas .463 and .590 across the three time points. These results are similar to results from previous studies (Mieloo et al., 2012) and are likely due the subscales containing a small number of items ( $n = 5$ ), which are generally less reliable than scales with more items.

Table 3.2

*SDQ subscale internal consistency estimates ( $\alpha$ )*

SDQ Subscale	Time 1	Time 2	Time 3
Emotional problems	.664	.722	.769
Conduct problems	.675	.670	.674
Hyperactivity	.743	.737	.829
Peer problems	.590	.463	.589
Prosocial	.744	.739	.713
Internalizing problems	.699	.595	.708
Externalizing problems	.799	.784	.770

## **Missing Data**

Complete information was available for the ACE variables. For the SDQ only two discrete items were missing at time one, twenty-nine at time two and ten at time three. As there was less than 2% missing on the SDQ, missing data was handled by individual mean imputation for each subscale, as recommended in the SDQ manual (Goodman, 1997).

## **Analysis Plan**

Analysis was completed in four stages. First, in line with recommendations by Herrenkohl and Herrenkohl (2009), descriptive statistics were generated for the mental health related measures and adversity indexes, in order to facilitate comparability with other studies. Second, as developmental psychopathology emphasises that normative development provides a crucial and necessary comparison for determining whether behaviour is atypical or problematic, where possible, scores were compared to normative and looked after populations using one sample t-tests. Third, Friedman tests were used to assess change in SDQ problem scores across three time points following placement. Fourth, correlation matrices were used to examine interrelationships between adversity variables and mental health problem severity. Following this, a linear step-wise regression was used to predict internalizing and externalizing problem scores, including covariates in the first block (age placed), and ACE score (0-9) in the second block. Analyses were conducted using SPSS Version 20.0 (IBBM Corp, 2011).

## **Results**

### **Descriptive Statistics**

**Demographics.** Just over half (55%, 204 of 374) of the children in the study were male; the majority were white British (95%, 353 of 374). Most children had no recorded religious orientation (324 of 362); those that did were mainly identified as Christian (36 out of 38). English was the first language for nearly all the children in the study (365 of 362). In terms of pre-natal risk, 11% of children ( $n = 34$  out of 314) had a low birth weight and 12% ( $n = 39$  out

of 317) were born prematurely. Sixteen percent ( $n = 52$ ) had confirmed exposure to drugs at birth, with a further 16% ( $n = 52$  out of 317) potentially exposed. In addition, 13% ( $n = 39$  out of 307) had confirmed exposure to alcohol at birth, with a further 18% potentially exposed (54 out of 307). Most children (92%, 345 out of 374) had been removed from their birth home just once. Over a third of children (41%,  $n = 154$  out of 374) were placed into local authority care at birth, with ten of those relinquished as babies. On average children spent 411 days with their birth parents (range 0 – 2344) and 530 days in care (range 0-2532). The majority of children had one foster placement (238 out of 367) before being placed for adoption (ranged from zero to 8,  $M = 2$ ) and were placed for adoption aged one (96 out of 374) (ranged from zero to 9,  $M = 2$ ). A third (33%) of all children in the sample were placed for adoption as part of a sibling group (125 out of 374).

### Exposure to ACE

Figure 3.2 shows that the number of adversities ranged from zero through to nine. The median number of ACEs the children in our sample had encountered was two, and the mean was three.

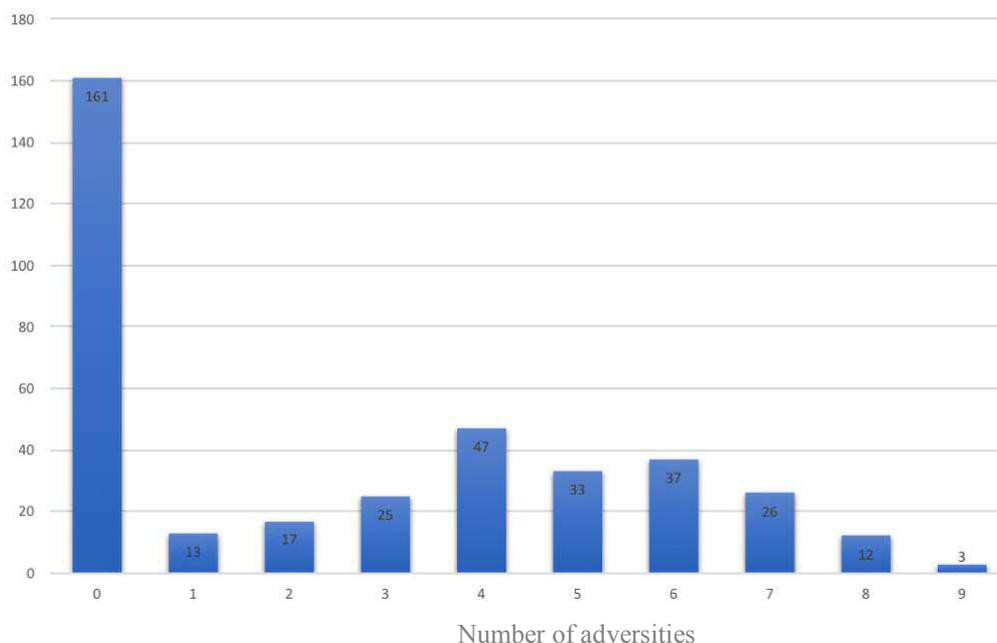


Figure 3.2 Number of ACES children experienced in the care of their birth parents.

Table 3.3 shows that exposure to adversity whilst in the care of their birth parents was common, with over half (54%) of the sample experiencing neglect, 37% being exposed to a domestic violence and 34% being exposed to a parent who abused drugs.

Table 3.3

*Prevalence of each category of Adverse Childhood Experiences (ACEs) and ACE count by age at point of adoption placement*

	Number (%)		
	0-3 years (n=288)	4+ years (n=86)	Total (n=374)
Emotional abuse	42 (15)	42 (49)	85 (23)
Physical abuse	35 (12)	34 (40)	70 (19)
Sexual abuse	3 (1)	11 (13)	14(4)
Neglect	128 (44)	74 (87)	203 (54)
Parental separation	57 (20)	55 (65)	113 (30)
Domestic violence	81 (28)	56 (66)	138 (37)
Mental illness	76 (26)	41 (48)	118 (32)
Alcohol abuse	60 (21)	36 (42)	96 (26)
Drug abuse	80 (28)	45 (53)	126 (34)
Incarceration	43 (15)	30 (35)	74 (20)
0	154 (54)	6 (7)	161 (43)
1	11 (4)	2 (2)	13 (4)
2	14 (5)	3 (4)	17 (4)
3	16 (6)	9 (11)	25 (7)
4+	93 (32)	65 (77)	158 (42)

Table 3.3 also shows that children placed for adoption aged 4 or more years had a higher percentage of exposure to all ACE variables. An independent samples t-test revealed that there

was a statistically significant difference on mean ACE score between ages 0-3 and 4+, with the aged 4+ group ( $M = 4.79$ ,  $SD = 2.25$ ,  $n = 85$ ), having more ACEs than the aged 0-3 group ( $M = 2.07$ ,  $SD = 2.57$ ,  $n = 288$ ,  $t(372) = -9.485$ ,  $p < .01$ ). Independent samples t- tests revealed only one gender difference between ACE variables and ACE count, with females experiencing more sexual abuse than males,  $t(372) = -3.90$ ,  $p < .01$ .

**Comparison with Welsh general population.** As referenced in the introduction, Bellis and colleagues (2016) recently conducted a cross-sectional, face-to-face household surveys examining ACEs suffered in Wales. Table 3.4 shows the difference in the number of adverse experiences the children in our sample had experienced compared to the general population of Wales (Bellis et al., 2016). Similar proportions of children had not experienced any ACEs whilst living with their birth parents, compared to the general population in Wales. However, nearly half (42%) of our sample had experienced 4 or more ACEs whilst living with their birth parents, compared to 14% of the general population in Wales.

Table 3.4

*Adopted children's ACE exposure compared to a universal Welsh population*

Number of ACEs`	Study Sample (N =374)	Welsh general population Sample* (n =7047)
0 ACEs	161 (43%)	53%
1 ACEs	13 (4%)	20%
2-3 ACEs	42 (11%)	13%
4+ ACEs	158 (42%)	14%

\*Bellis et al., 2016.

The relationship between all variables included in the 'ACE score', was assessed using the phi-coefficient (See table 3.5). All maltreatment variables (emotional abuse, physical abuse, sexual abuse and neglect) were correlated with one another ( $p < .01$ ), coefficients ranged from .158 to .421. Sexual abuse was most weakly associated with other maltreatment types. All of the household dysfunction variables were correlated with one another ( $p < .01$ ), coefficients ranged from .200 to .535. Emotional abuse, physical abuse and neglect were all correlated with family dysfunction variables ( $p < .01$ ), coefficients ranged from .175 to .613. Sexual abuse was the only variable not correlated with all household dysfunction variables.

Table 3.5

*Inter-Correlations between ACE variables (n=374)*

Measure	1	2	3	4	5	6	7	8	9	10
1 Emotional abuse	-									
2 Physical abuse	.296**	-								
3 Sexual abuse	.162**	.158**	-							
4 Neglect	.421**	.330**	.181**	-						
5 Parental separation	.435**	.326**	.116*	.510**	-					
6 Domestic violence	.445**	.315**	.141**	.613**	.535**	-				
7 Parental mental health	.305**	.309**	.048	.542**	.393**	.399**	-			
8 Parental alcohol abuse	.309**	.205**	.078	.490**	.400**	.489**	.352**	-		
9 Parental drug abuse	.288**	.267**	-.021	.586**	.332**	.440**	.466**	.501**	-	
10 Parental incarceration	.243**	.175**	-.027	.388**	.243**	.330**	.385**	.200**	.427**	-

Note. \*  $p < .05$  \*\*  $p < .01$

## Child Adjustment

**Comparison with UK populations.** One sample t-tests were used to determine whether the children in our sample had significantly different scores on the SDQ subscales, compared to the general population subscale means (See table 3.6). National SDQ norms are drawn from two sources dependent on average child age at the data collection point. As the mean age placed for adoption of the children in our sample was two years old, means and standard deviations are based on a community sample of 11,592 British parent-completed SDQs for 2 and 3-year-olds in Glasgow (See [sdqinfo.org](http://sdqinfo.org)) at time one and two. For the subsequent data collection time points (T3), means and standard deviations are taken from interviews with the parents of a nationally representative sample of 10,298 pupils aged 5-15 (See Meltzer, Gatward, Goodman & Ford, 2000).

Table 3.6

*Comparison of WACS sample with national UK averages: SDQ subscale means*

Subscale	UK 2-3		UK 5-15		WACS T1		WACS T2		WACS T3	
	years	years	years	years	Mean	SD	Mean	SD	Mean	SD
Emotional	1.1	1.3	1.9	2.0	2.6**	2.1	2.0**	2.0	2.0	2.2
Conduct	2.0	1.8	1.6	1.7	2.7	2.0	2.2	1.6	2.5**	1.7
Hyperactivity	2.9	2.3	3.5	2.6	5.6**	2.0	4.6**	1.9	4.5**	2.0
Peer problems	1.3	1.4	1.5	1.7	2.6**	2.5	1.7*	2.4	1.8	2.5
Prosocial	8.1	1.8	8.6	1.6	6.6**	2.3	7.4**	2.2	7.4**	2.0
Total	7.3	5.0	8.4	5.8	13.6**	6.6	10.6**	6.6	10.8**	5.8

Note. \*\*  $p < .01$

One sample t-tests with a Bonferroni corrected alpha of .01, showed that at time one mean SDQ problem scale scores for the WACS sample were significantly above the national average for 2-3-year olds for emotional, hyperactivity and peer problems, and below the national average for prosocial symptoms. The same pattern of differences was found at time 2, although the differences between groups reduced. At time 3, scores were significantly higher than the national average for conduct problems and hyperactivity and the prosocial score again remained significantly below the national average. Taken together, these results highlight the severity of problem behaviour perceived by adoptive parents.

**Comparison with 'looked after' population.** One sample t-tests with a Bonferroni corrected alpha of .01 were used to determine whether the children in our sample had significantly different scores on the parent reported SDQ total problems score, compared to groups of looked after children (Goodman & Goodman, 2012). The participants in the Goodman and Goodman (2012) study were combined from three nationally-representative surveys (England, Scotland and Wales) of looked after children aged 5-16. In total, the study included 1391 looked after children (595 females) aged 5-16, where parents provided SDQ data. Table 3.6 shows that at time points one and three, SDQ total scores were significantly higher than the UK general population (Time 1=  $t(57)=6.006$ ,  $p<.01$ ; Time 2=  $t(76)=3.436$ ,  $p<.05$ ; Time 3=  $t(69)=3.431$ ,  $p<.01$ ). In contrast, at time 1 (roughly 5 months into the adoptive placement) our study total SDQ score was statistically significantly lower than looked after children living with their parents ( $t(57)=-2.997$ ,  $p<.01$ ), and those in residential care ( $t(57)=-2.997$ ,  $p<.01$ ). However, at time two and three, the WACS sample scores were statistically significantly lower than children in all other types of care.

Table 3.7

*Comparing the mental health of adopted children to looked after and general UK populations using the SDQ total scores*

Sample and sub population	N	SDQ total difficulty score, mean (95% CI)
UK General Population	10,298	8.4
Looked after children		
Foster care	781	15.3 (14.7 – 15.8)
At risk children living with natural parents	190	16.2 (15.0 – 17.3)
Kinship care	165	12.2 (11.0 – 13.4)
Residential care	255	20.0 (19.1 – 20.8)
Wales Adoption Study		
Time 1	58	13.6 (11.87 – 15.43)
Time 2	77	10.6 (9.31 – 11.81)
Time 3	70	10.8 (9.40 – 12.17)

Although SDQ scores can be used as continuous variables, it is sometimes convenient to categorise scores. The initial bandings presented for the SDQ scores were ‘normal’, ‘borderline’ and ‘abnormal’. These bandings were defined based on a population-based UK survey, attempting to choose cutpoints such that 80% of children scored ‘normal’, 10% ‘borderline’ and 10% ‘abnormal’ (Goodman, 1997). More recently a four-fold classification has been created, which renamed the categories and divided the top ‘abnormal’ category into two groups, each containing around 5% of the population. The amended version also changed the cut-points for some scales, to better reflect the proportion of children in each category in the larger dataset. Table 3.8 shows categorical score data for our study sample across the three data collection waves on the measure SDQ, for which normative data as available. Results showed that a larger proportion of children in our study compared to community population norms were classified as being ‘high or very high’ at time one. For total difficulties, 21% (*n*

= 12) were classified as having 'very high' scores and 5% ( $n = 9$ ), compared to the 5% in each suggested within the normative population. The largest differences between our study sample and normative comparison group can be seen in the hyperactivity and prosocial subscales, where approximately half (48 to 51%) were classified as being within the 'normal' range, compared to 80% of the normative population.

Table 3.8 *Categorical SDQ scores*

	<b>Time one (N, %)</b>				<b>Time two (N, %)</b>				<b>Time three (N, %)</b>			
	Close to average	Slightly raised	High	Very high	Close to average	Slightly raised	High	Very high	Close to average	Slightly raised	High	Very high
Total	34 (59)	7 (12)	5 (9)	12 (21)	50 (66)	15 (20)	6 (8)	5 (7)	48 (72)	6 (9)	7 (10)	6 (9)
difficulties												
Emotional problems	39 (67)	5 (9)	7 (12)	7 (12)	55 (72)	11 (15)	5 (7)	5 (7)	51 (76)	3 (5)	7 (10)	6 (9)
Conduct problems	36 (62)	6 (10)	7 (12)	9 (16)	60 (79)	5 (7)	5 (7)	6 (8)	43 (64)	10 (15)	8 (12)	6 (9)
Hyperactivity	29 (51)	13 (23)	3 (5)	12 (21)	50 (66)	13 (17)	5 (7)	8 (11)	47 (70)	6 (9)	5 (8)	9 (13)
Peer problems	38 (67)	10 (18)	3 (5)	6 (11)	54 (71)	13 (17)	4 (5)	5 (7)	47 (70)	5 (8)	9 (13)	6 (9)
Prosocial	28 (48)	8 (14)	10 (17)	12 (21)	46 (60)	5 (7)	10 (13)	16 (21)	37 (55)	8 (12)	11 (16)	11 (16)

\*Percentages have been rounded up

### Child Adjustment across Time

Friedman tests were used to determine if there were differences in scores on the SDQ subscales across time ( $n = 38$ ). The Friedman test was chosen (rather than the one-way repeated measures ANOVA), as exploratory analysis revealed that scores on the SDQ subscales were not normally distributed at each time point, as assessed by Shapiro-Wilk's test ( $p < .05$ ). For the SDQ prosocial scale, scores initially increased from Time 1 ( $Mdn = 7$ ) to Time 2 ( $Mdn = 8$ ), but then remained stable ( $Mdn = 8$ ), these differences approached significance,  $\chi^2(2) = 5.397, p = .067$ . For 'conduct problems' subscale scores decreased from Time 1 ( $Mdn = 2.5$ ) to Time 2 ( $Mdn = 2$ ), then again remained stable from time 2 to time 3 ( $Mdn = 2$ ), these differences were not statistically significant,  $\chi^2(2) = 1.776, p = .412$ . For emotional problems, scores reduced from Time 1 ( $Mdn = 2$ ) to Time 2 ( $Mdn = 1$ ), remaining the same at time 3 ( $Mdn = 1$ ), the differences were not statistically significant,  $\chi^2(2) = 1.115, p = .573$ . For hyperactivity, scores reduced from Time 1 ( $Mdn = 5$ ) to Time 2 ( $Mdn = 4$ ), and then remained stable ( $Mdn = 4$ ), these differences approached statistical significance,  $\chi^2(2) = 5.376, p = .068$ . For peer problems, scores reduced from Time 1 ( $Mdn = 2$ ) to Time 2 ( $Mdn = 1$ ), and then increased at time 3 ( $Mdn = 1.5$ ), these differences were statistically significant,  $\chi^2(2) = 7.764, p = .021$ . Pairwise comparisons were then performed (SPSS Statistics, 2012) with a Bonferroni correction for multiple comparisons. The peer problem score was statistically significantly different between T1 and T2 ( $p < .05$ ). See Figure 3.4 for an illustration of scores across time. Results from the Friedman tests support the observations in Table 3.8, whereby the numbers of children classified as 'high' or 'very high' appear to reduce substantially between time one and time two, with a slight rise or stability from time two to time three.

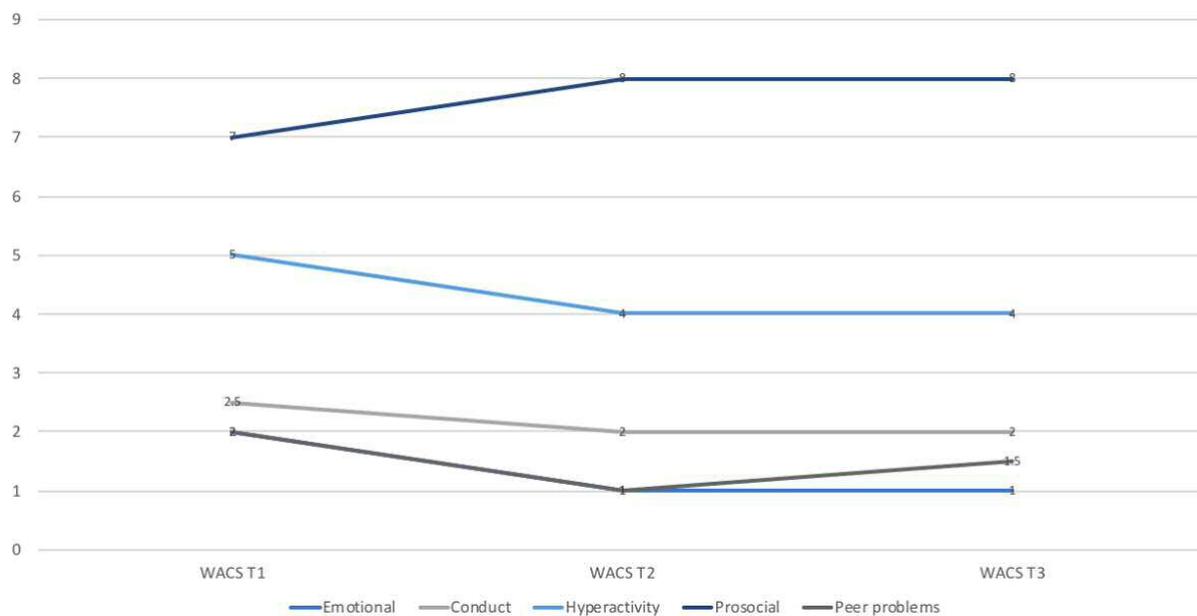


Figure 3.3 SDQ subscale median scores across three time points.

### Associations between Early Adversity and Child Mental Health

**Part one: Correlations.** Previous research has highlighted that boys tend to have higher scores for externalizing behavioural problems (Verhulst, Althaus & Versluis-Den Bieman, 1990), thus the association between gender and adversity was investigated. In addition, associations between ethnicity and adversity were investigated, however, due to the large number of White British children in our sample, ethnicity was dichotomised into ‘White’ and ‘any other ethnicity’ to ensure anonymity. Point-biserial correlations showed no statistically significant correlations between gender or ethnicity and SDQ scores (See table 3.9).

Preliminary analyses showed the relationships between adversity variables and child mental health to be linear and there were no outliers. As not all variables were normally distributed, as assessed by Shapiro-Wilk’s test ( $p < .05$ ) and a visual inspection of Normal Q-Q Plots, Spearman’s rank-order correlations were used to assess the relationship between

adversity and child mental health (See table 3.9). There were positive associations between the number of days children spent with their birth parents and internalizing scores at time points two and three (T2  $r_s(69) = .308, p < .05$ , T3  $r_s(62) = .266, p < .05$ ), and externalizing scores at time one  $r_s(50) = .285, p < .05$ ). There was an association between the number of days children spent in care and internalizing scores at time three ( $r_s(62) = .289, p < .05$ ). There were positive associations between age placed and internalizing scores at all time points (T1  $r_s(50) = .315, p < .05$ , T2  $r_s(69) = .292, p < .05$ , T3  $r_s(62) = .363, p < .01$ ), and externalizing scores at time one  $r_s(50) = .338, p < .05$ . ACE score was only associated with internalizing problems at time three  $r_s(62) = .257, p < .05$ .

There were positive associations between number of days children spent with their birth parents and their ACE score ( $r_s(373) = .617, p < .001$ ) and time in care ( $r_s(373) = .275, p < .001$ ). There were positive associations between number of days children spent in care and their ACE score ( $r_s(373) = .322, p < .001$ ). Additionally, there was a strong positive association between ACE score and age placed for adoption  $r(373) = .615, p < .001$ .

Table 3.9

*Correlations between co-variates, adversity and child adjustment across three time points*

Measure	Internalizing behaviour			Externalizing behaviour		
	T1	T2	T3	T1	T2	T3
Gender	-.179 (50)	-.000 (69)	-.078 (62)	-.153 (50)	-.121 (69)	-.005 (62)
Ethnicity	-.044 (50)	-.116 (69)	-.079 (62)	-.079 (50)	-.026 (69)	.032 (62)
No. days with birth parents	.223 (50)	.308* (69)	.266* (62)	.285* (50)	.185 (69)	.159 (62)
No. days in care	.117 (50)	.111 (69)	.289* (62)	.121 (50)	.080 (69)	.029 (62)
Age placed for adoption	.315* (50)	.292* (69)	.363** (62)	.338* (50)	.203 (69)	.153 (62)
ACE score	-.103 (50)	.173 (69)	.257* (62)	-.108 (50)	.106 (69)	.133 (62)

*Note.* \*  $p < .05$  \*\*  $p < .01$ , number of participants is shown in brackets below the correlation.

**Part two: Externalizing problems.** A hierarchical multiple regression was used to determine if the addition of ACE score improved the prediction of externalizing problems over and above age placed for adoption. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.003. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. Due to multicollinearity issues, days with birth parents and days in care were removed and ‘age placed’ remained as a proxy encompassing time with birth parents and time in care. As there were no statistically significant correlations between gender or ethnicity and SDQ scores, sociodemographic covariates were not retained for further analysis, as recommended by Frigon

and Laurencelle (1993). After removal, the variance inflation factor value (VIF, (1.21) and tolerance value (0.83) suggested the absence of multicollinearity (Bowerman & O'Connell, 1990). The full model of age placed and ACE score to predict externalizing problems at time one was statistically significant,  $R^2 = .161$ ,  $F(2, 47) = 4.505$ ,  $p = <.05$ , adjusted  $R^2 = .125$ . The addition of ACE score to the prediction of T1 externalizing problems led to an increase in  $R^2$  of .022, although this was not statistically significant,  $F(1, 47) = 1.23$ ,  $p = .272$ .

For time three, there was independence of residuals, as assessed by a Durbin-Watson statistic of 1.938. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. The variance inflation factor value (VIF, 1.93) and tolerance value (0.52) suggested the absence of multicollinearity. The full model of age placed and ACE score to predict externalizing problems at time three was not statistically significant,  $R^2 = .026$ ,  $F(2, 59) = .775$ ,  $p = .465$ , adjusted  $R^2 = -.007$ . The addition of ACE score to the prediction of T3 externalizing problems led to an increase in  $R^2 = .002$ ,  $F(1, 59) = .113$ ,  $p = .738$ . A final model of age placed, time one externalizing problems and ACE score was used to predict externalizing problems at time three controlling for externalizing behaviour at time one. This model was again not statistically significant,  $R^2 = .190$ ,  $F(3, 29) = 2.270$ ,  $p = .101$ , adjusted  $R^2 = .106$ . The addition of T1 externalizing problems to the prediction of T3 externalizing problems led to a significant increase in  $R^2 = .169$ ,  $F(1, 29) = 6.068$ ,  $p = .020$ . See Table 3.10 for full details on each regression model predicting externalizing behaviour problems.

**Part two: Internalizing problems.** A hierarchical multiple regression was used to determine if the addition of ACE Score improved the prediction of internalizing problems over and above child gender, ethnicity and age placed for adoption. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.858. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted

values. The variance inflation factor value (VIF, 1.207) and tolerance value (0.829) suggested the absence of multicollinearity. The full model of age placed and ACE score to predict internalizing problems at time one was not statistically significant,  $R^2 = .082$ ,  $F(2, 49) = 2.418$ ,  $p = .100$ , adjusted  $R^2 = .055$ . The addition of ACE score to the prediction of T1 internalizing problems led to an increase in  $R^2$  of .012, although this was not statistically significant,  $F(1, 47) = .603$ ,  $p = .441$ .

An additional hierarchical multiple regression was used to predict time three internalizing problems. There was independence of residuals, as assessed by a Durbin-Watson statistic of 2.156. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. The variance inflation factor value (VIF, 1.932) and tolerance values (0.518) suggested the absence of multicollinearity. The full model of age placed and ACE score to predict internalizing problems at time three was statistically significant,  $R^2 = .099$ ,  $F(2, 59) = 3.226$ ,  $p = <.05$ , adjusted  $R^2 = .068$ . The addition of ACE score to the prediction of T3 internalizing problems led to a non-significant increase in  $R^2 = .006$ ,  $F(1, 59) = .405$ ,  $p = .527$ . A final model of age placed, time one internalizing problems and ACE score was used to predict internalizing problems at time three controlling for internalizing behaviour at time one. This model was again not statistically significant,  $R^2 = .066$ ,  $F(3, 29) = .688$ ,  $p = .673$ , adjusted  $R^2 = -.030$ . The addition of Time 1 internalizing problems to the prediction of T3 internalizing problems led to an increase in  $R^2$  of .022, although this was not statistically significant,  $F(1, 29) = .697$ ,  $p = .411$ . See Table 3.11 for full details on each regression model predicting internalizing problems.

Table 3.10

*Hierarchical multiple regression predicting externalizing behaviour at two time points from age placed and ACE score*

Externalizing problems										
Variable	Time One				Time Three					
	Model 1		Model 2 (n = 50)		Model 1		Model 2 (n = 62)		Model 3 (n = 33)	
	B	$\beta$	B	$\beta$	B	$\beta$	B	$\beta$	B	$\beta$
Constant	5.246**		6.795**		6.478**		7.125**		5.180**	
Age placed	.771**	.373	.911**	.440	.235	.154	.171	.112	-.554	-.285
ACE			-.238	-.163			.078	.060	.298	.218
T1 Externalizing									.457*	.459*

*Note.* \*  $p < .05$  \*\*  $p < .01$

Table 3.11

*Hierarchical multiple regression predicting internalizing behaviour problems at two time points from age placed and ACE score*

Internalizing behaviour problems										
Variable	Time One				Time Three					
	Model 1		Model 2 (n = 50)		Model 1		Model 2 (n = 62)		Model 3 (n = 33)	
	B	$\beta$	B	$\beta$	B	$\beta$	B	$\beta$	B	$\beta$
Constant	3.117**		3.407**		2.949**		2.897**		3.591*	
Age placed	.520*	..286	.609*	.335	.382*	.304	.286	.228	-.127	-.086
ACE			-.152	-.118			.117	.109	.245	.234
T1 Internalizing									.131	.151

*Note.* \*  $p < .05$  \*\*  $p < .01$

## Discussion

The chapter adds to a relatively small literature on the impact of ACE in childhood and presents a portrait of the psychological functioning of adopted children across different mental health domains. Results highlight that children placed for adoption in Wales have experienced many adverse experiences prior to placement. Adoption research is known to be flawed by “methodological challenges” (Siegel, 2012, p. 133), including treating samples as homogeneous despite participants varying in pre-adoption risk factors and age at the time of adoption (Grotevant et al., 1999). This study goes some way to show the variation in pre-adoption experiences, including experience of adversity. Nearly half the children in our sample had experienced four or more ACEs, which is a similar profile to other studies with looked after children (Kerker et al., 2015; Baker et al., 2017). It is worth noting that our study captures the ACE exposure during a very small window of time (the average age of children on entry into care was one year and two months), therefore the children in our study had a lower likelihood of exposure to variables than methodologies utilizing retrospective data based on adult recall.

The mental health profiles of children in this study are consistent with the domestic and international literature showing that adopted children have high levels of problem behaviours (e.g. Juffer & van Ijzendoorn, 2005; Simmel, 2007; Goodman & Goodman, 2012). It is worth noting that care experienced or adopted children may be included in the comparison group. This has the potential to reduce any apparent difference between the groups because these children would be expected to be among the most vulnerable, thus any difference between adopted and non adopted may be slightly underestimated. However, due to the size of the comparison group this is unlikely to be an issue. Our findings are inconsistent with some studies findings that adopted children display more pro-social behaviours than their non-adopted peers (Sharma, McGue & Benson, 1996) hypothesised to be due to having experienced what may be

interpreted as initial rejection, the children strive to overachieve so as to avoid future abandonment (Gleitman & Savaya, 2011). Within this study, SDQ subscale scores generally reduced from time one and then stabilised. Friedman tests used to investigate change over time showed stability in SDQ subscale scores, although it is worth noting that some subscales were approaching statistically significant differences, thus caution should be exercised due to small sample sizes. These findings are similar to findings from the longitudinal US study (Nadeem et al., 2017), finding a trend for internalizing and externalizing problems to decline after the transition to an adoptive home. However, this is inconsistent with research from Colvert and colleagues (2008), who found that adoptees emotional difficulties generally increased over time. It is important to note that on average the children in our sample were aged five at time three, compared to 11 years in the Colvert and colleagues (2008) study. Comparing rates of probable disorder with a UK sample of looked after children revealed that, by time three, the children in our sample had lower levels of problem behaviours than children in other placement types, suggesting partial recovery.

Against expectations, ‘ACE score’ was only associated with internalizing problems at time three. These findings support a study by Grotevant and colleagues (1999) who found no relationship between early risk and later health outcomes for children adopted privately as infants. It is also similar to a study investigating the length of exposure to ACE during childhood conducted by Thompson and colleagues (2015), using the LONGSCAN data. In this study, ACE variables included maltreatment (physical abuse, sexual abuse, psychological maltreatment and neglect) and maltreatment (caregiver substance abuse, caregiver depressive problems, intimate partner violence and criminal activity in the home). The authors created three groups of ACE experience: early ACEs (whereby the children experienced high levels of ACEs early in life, but few later); limited ACEs (consistently few ACEs) and chronic ACEs (experienced high levels of ACEs throughout their childhood). They found that those in the

chronic ACEs group were significantly more likely to be worried about their physical health/have sought medical care than any other group. There was no relationship between ACE and later health among those who experienced early ACEs, but few later. Thus, our findings may reflect the developmental psychopathology view that, “one is not doomed to a poor developmental outcome as a function of early adversity” (Toth & Cicchetti, 2013, p.2). For the WACS sample, the addition of ‘ACE score’ did not significantly improve the prediction of increased internalizing or externalizing problems over and above age the child was placed for adoption at all time points. This finding is also similar to other studies using samples of children who range widely in age (Averett, Nalavany & Ryan, 2009; Gunnar & Van Dulmen, 2007). Within the context of adoption, ‘age placed’ may represent a more complete picture of pre-adoption risk and risks during time in care, such as number of moves, carers, losses and instability. ACE research suggests that individuals are most likely to thrive in an environment where toxic adversity and risk factors for problem behaviours are minimized, and where the development of prosocial behaviour is enhanced (Biglan, Van Ryzin & Hawkins, 2017). The extreme nature of adoption as an intervention is based on the argument that adoption provides such an environment.

However, that withstanding, it is important to consider that, as advocated in chapter one, children can appear well following disclosure, but may become more symptomatic later in development (Trickett & Putman, 1998). Thus, these findings may be due to the young age of the children in our study, when diagnoses are rare. Therefore, the full degree to which associations between pre-adoption adversity and post-adoption family climate predict mental health diagnoses may not yet be known. Furthermore, differences may arise as a function of using independent reports from social work records rather than retrospective self-report to capture indices of adversity and risk.

## Strengths

A World Health Organisation report (2009) stated that “the ideal methodology for measuring ACEs and their effects has yet to be designed” (WHO, 2009, p.5). Widom, Raphael and DuMont (2004) argue that researchers need to be encouraged and supported to find creative ways to develop techniques to obtain information about maltreatment histories in as accurate and valid a way as possible. Most studies measuring ACE rely on retrospective adult recall (e.g. Bellis et al., 2016; Felitti et al., 1998). Although prior work suggests that reports of ACEs are reliable (Dube, Williamson, Thompson, Felitti & Anda, 2004) there is evidence that adult recall of childhood abuse experiences is poor (Widom, Raphael, & Dumont, 2004). Hardt and Rutter (2004), note that the accuracy of retrospective reports of childhood events can be influenced by any number of factors; including how old an individual was when an adversity was encountered and what has transpired in the individual’s life since the encounter. For example, later occurring life transitions and events, may change how an individual remembers their childhood and what remains salient in the memories that an individual shares (Herrenkohl et al., 2016). In addition, further factors that may influence the accuracy of retrospective reports include memory problems, lack of rapport with the interviewer, a desire to protect parents, or a desire to deny or forget the past (Della, Yeager & Lewis, 1990). In addition to this, most studies assess adversity at the same time as psychopathology, increasing the chance that recall is biased by current psychological state (Brown & Harris, 1978; Clark et al., 2010). Although Hardt and Rutter (2004) found a substantial rate of false negatives, and substantial measurement error in retrospective reports, they argue that such issues are not sufficient to invalidate retrospective studies of adversity. Within adoption research, most studies assessing risk in adopted samples have relied upon adoptive parent’s second-hand information about their child’s pre-adoptive history. These may be flawed as previous studies have shown that professionals have failed to share, or actively withheld, information about their adopted

children (Selwyn et al., 2015). This highlights the need for researchers to gain access to accurate information regarding children pre-adoption histories to avoid underestimation of adversity variables (Kriebel & Wentzel, 2011).

Based on this, the WACS study took a unique methodological approach to previous ACE studies. This study analysed adversity retrospectively based on independent social worker reports of the children's experiences before being placed for adoption. Information from the Child Adoption Reports for a national sample of children placed for adoption in Wales over a 13-month period, from 1st July 2014 to 31st July 2015 was analysed in this thesis. Thus, this study provides important evidence about the characteristics and pre-placement experiences of a national sample of children recently placed for adoption in the UK.

In addition, this study used a prospective longitudinal design, adding to the relatively few prospective studies on child abuse consequences (Greenfield, 2010). A prospective design could be used with this sample, as they had already been removed from this risk. Studies seeking to use a prospective longitudinal study design to investigate ACE would have to register adversities as they occur, leading to an ethical imperative to intervene where adversity is disclosed, thus precluding examination of the effects of unmitigated exposure.

### **Limitations**

General limitations of the thesis including sample size and the use of parent report measures are discussed in the final chapter. As ACE information was derived from independent reports rather than personal recall, we believe it is likely to be more accurate than second hand adoptive parent reports. However, it is important to note that some ACE variables such as abuse may be underestimated. For example, social workers may have been suspicious about sexual and physical abuse occurring but without evidence may not have included it in the case files. Ultimately, no evaluation or assessment by a practitioner can establish absolutely if a child was abused, and in most circumstances only the victim and the perpetrator

know, children will often only divulge information relating to maltreatment at an older age (London, Bruck, Wright & Ceci, 2008). In addition, the use of information contained within case file records encompasses difficulties, for example, Quinton (2012) and Farmer and Dance (2015) observed that information is sometimes missing or inaccurate and relies on social workers to interpret and make sense of very complex information, which may not be within their field of expertise (for example, medical and psychological information). Future studies should collect primary data on more wide-ranging adversity variables, where possible, from hospitals, paediatricians, and schools and teachers, to provide external validation of the data drawn from the social services case files (CAR).

Whilst using an ACE approach as an organising principle to highlight children's experience prior to being removed from their parents' fits with current agenda within Wales, using ACE as a conceptual framework has limitations. As highlighted in the introduction, the approach has been criticised due to over-simplifying very complex and challenging issues. The approach leads to a substantial loss of information (including the severity, timing and length of exposure to adversity, as well as who perpetrated the adversity). For this thesis, the 'ACE' score was based an analogue of the original lists of ACEs proposed by Felitti and colleagues (1998). Although the ten ACE measures used in the present study were selected to be consistent with previous validated research, they fail to index all significant early adversities and other variables collected from the casefile data could have additionally been used (See Appendix 2). Alternative lists of ACEs have also been proposed (Finkelhor, Shattuck, Turner & Hamby, 2013). The ACE variables in this chapter fail to capture prenatal experiences, despite a rapidly expanding research literature claiming that prenatal factors have long-lasting consequences on later mental health (Swanson & Wadhwa, 2009). For the families most at risk the child protection/adoption processes often begin during pregnancy due to identified risks (i.e. parental mental health, substance misuse problems, domestic violence, risk of sexual

abuse). Many children entering care have been exposed to risks prenatally, for example, poor nutrition or exposure to toxins such as drugs, alcohol or tobacco (Woolgar, 2013). Also, children may have been exposed to maternal stress, which can be transmitted to the foetus by stress hormones, with implications for children's behavioural and emotional adjustment (O'Connor et al., 2005).

Furthermore, the ACE variables in this study do not capture children's experience in the period between being removed into state care and placed for adoption. Each child entering care will experience the loss of their family, their home and their possessions. While this specific experience is not recorded in the original ACE categories, it would likely be experienced as a significant adverse experience. In addition, during this period, children will potentially contend with: (1) moves between foster parents, (2) separation from foster parents (with whom some children have lived for significant periods of time) and (3) changes to their social and physical environment (e.g. school). As highlighted in the introduction, the infant's attachment to a primary caregiver who is predictably available is a vital element in a child's development (Bowlby, 1969). So, whilst taking an 'ACE score' approach to contextualising children's pre-adoption experience is helpful to aid comparisons, the approach likely represents an underestimate of the cumulative effects of adversity in the context of children adopted from care.

### **Chapter Summary and Next Directions in the Thesis**

The findings reported in this chapter highlight the multiple stressors that many children placed for adoption have experienced. The size of the sample and use of independent reports provided an opportunity to explore adopted children's experience of adversity with some measure of confidence. The mental health of children in our sample was significantly worse than the UK general population at all three time points, highlighting the need for support

services for families who are adopting children from foster care. This is especially important given that the existence of externalizing problems in early childhood (3 or 4 years) are strongly associated with a sustained pattern of behaviour problems into adulthood (Campbell, Shaw & Gilliom, 2000). The ‘ACE score’ was only associated with internalizing problems at time three and did not significantly improve the prediction of internalizing or externalizing problems at any time point. Thus, this chapter suggests that whilst policy, training and service design should be ‘informed by’ ACE, other aspects of a child’s history such as the length of exposure to adversity and the age they were placed may provide a broader picture of potential risk. The findings from this chapter also suggest heterogeneity in children’s outcomes and the value of capturing stability or change over time. Diversity in process and outcome is a key tenet of developmental psychopathology (Cicchetti & Rogosch, 1996); therefore, moving forward, understanding processes such as relational health, which help or hinder adoptees recovery is crucial to promote the well-being of children adopted from care.

**Key points**

- The mental health of children in the Wales Adoption Cohort Study was significantly worse than the UK general population at all three time points.
- Nearly half the children in the sample had experienced four or more adverse childhood experiences.
- A child’s ‘ACE score’ was only associated with internalizing problems at time three and did not significantly improve the prediction of increased adjustment problems over and above the age at which the child was placed for adoption.
- Other aspects of a child’s history, such as the length of exposure to adversity and the age they were placed for adoption may provide a broader picture of potential risk.

Despite the relatively high number of pre-placement adverse experiences contended with by children and higher than average mental health symptom scores, adoptive parents are expected to be able to meet these complex needs, often with little formal support post-placement (Meakings, Shelton, & Coffey, 2016; Selwyn et al., 2015). In addition to examining aspects of the pre-adoptive context in predicting child adjustment, it is important to consider psychological features of the adoptive family context in which the child is being raised (Bronfenbrenner, 1979). Thus, chapter four moves to an investigation of adoptive parent's wellbeing to provide a more complete picture of family functioning and adaptation.

## CHAPTER FOUR

### Transition to Parenthood: The Mental Health of Adoptive Parents

---

Because the predominant focus of adoption literature has been on the outcomes of adopted children, the psychological outcomes of adoptive parents has been somewhat neglected (McKay, Ross & Goldberg, 2010). Becoming a parent, either biologically or through adoption, is a major life transition and even when desired, is typically stressful (Judge, 2003; Goldberg & Smith, 2013). Cowan and Cowan (1995) note, “The transition to parenthood constitutes a period of stressful and sometimes maladaptive change for a significant proportion of new parents” (p. 412). It is a time of upheaval physically, psychosocially, emotionally, and financially (Foli, Hebdon, Eunjung & South, 2017). Research has highlighted that the arrival of a first child can be marked by a range of stressors for biological parents, such as a decline in economic wealth (Cowan & Cowan, 1995), increased marital conflict (Demo & Cox, 2000), increased anxiety and low-mood (Cowan & Cowan, 1995) and a re-positioning of support and familial relationships (Hansen & Jacob, 1992). Adoptive parents share stressors that any new parent faces, including but not limited to role changes, increased levels of stress, lack of sleep, and alterations in their intimate partner relationships (Foli, South, Lim, & Hebdon, 2012). However, despite these similarities, there are important differences between birth and adoptive parents. For example, low family income and occupational status, depression during pregnancy, and pregnancy and delivery complications are important stressors for depression among birth mothers (O’Hara & Swain, 1996). In comparison,

adoptive parents are generally characterized by a high occupational status and income level (Mott, Schiller, Richards, O'Hara & Stuart, 2011) and do not experience pregnancy or delivery complications, or biological changes associated with giving birth, which may contribute to the onset of postnatal depression (Bloch et al., 2000). Furthermore, research has suggested that adoptive parents may be better equipped as parents due to learning effective coping responses to overcome significant psychological and interpersonal adversity associated factors such as infertility and miscarriage, (Levy-Shiff, Bar & Har-Even, 1990) or coming out as gay.

However, there are unique challenges for adoptive parents which may make adjustment especially difficult. For example, whereas biological parenthood follows a predictable timeline from conception to birth, the timeline for adoptive parents is unpredictable, as a child of any age may be placed in the home with only a few weeks' notice. Adoptive parents become parents often very suddenly, which is associated with an increase in stress (Goldberg, 2010). In addition, adoptive parents not only have to adapt to the presence of a new child, but they may encounter delays associated with court applications and hearings and ultimately they face the possibility that their application may be contested and the child may not be relinquished by birth parents (Doughty, Meakings & Shelton, 2017; Foli et al., 2012). Prior to the adoption, parents have gone through agency evaluations of parental fitness, which Daniluk and Hurtig-Mitchell (2003) described as 'psychologically surviving the uncertainties of adoption screening' and the uncertain wait to be matched with a child. A UK sample of adoptive parents ( $N= 27$ ) highlighted the challenges encountered in adopting, from parents' initial application to finally being selected, a process that on average took around 2 years to complete (Dance & Farmer, 2014). Furthermore, parents may have experienced infertility and grieved the loss of a hoped-for birth child (Tasker & Wood, 2016), which is associated with depressive symptoms among women (McQuillan, Greil, White & Jacob,

2003). Brinich's (1990) psychoanalytic approach contends that adoptive parents who experienced infertility frequently neglect to truly mourn their losses (Kriebel & Wentzel, 2011), thus, dealing with this grief and loss may continue during the post adoptive period (Mott et al., 2011).

Rushton's (2003) review highlighted three main sets of issues encountered by adoptive parents of children adopted from care: children's challenging internalizing and externalizing problems; children's special educational needs; and trying to establish an emotional relationship with a child who has often not had a positive past experience of family life. This is reflected by findings in the previous chapter, which showed that children in the WACS sample experienced a host of adversities, and their parent rated behaviour problems were significantly worse than the general population. A recent study showed that parents of preschool-aged children who exhibited irritability, oppositionality, aggression, and ADHD-type symptoms were significantly more likely to report depressive symptoms than parents whose children did not exhibit those behaviour problems (Fallucco, Greco, Bolanos, Leung & Blackmore, 2017). Many adoptive parents report high levels of stress and describe feeling ill-equipped to manage their children's behaviour (Brodzinsky, 2013). Potentially compounding this is the finding from a UK study that mental health professionals were perceived as not recognising the extent of the parenting challenge presented, leading parents to feel blamed for their children's continuing problems and a sense of guilt and failure (Rushton, 2003). In addition, adoptive parents may feel pressure to be outstanding (Daniluk & Hurtig-Mitchell, 2003), reflected in a study of adoptive parents who perceived their anxiety to be greater than that experienced by biological parents, due to the pressure of raising someone else's child, and the need to excel in parenting standards (McKay & Ross, 2010). Thus, adoptive parents are confronted by unique challenges that might further complicate the more universal parenting tasks faced by other adults in their parenthood transition (Brodzinsky &

Schechter, 1990). Because of the potential stressors adoptive parents face, they are vulnerable to increased anxiety and low mood. Although there are hundreds of research papers on the adjustment to parenthood of biological parents, research into the experiences of adoptive parents over this transition is sparse (McKay & Ross, 2010). For example, in their systematic review, McKay, Ross & Goldberg (2010) only found 11 papers concerned with adjustment to adoptive parenting. Of those 11 papers, only one study used a UK sample, with the majority conducted in the US.

### **Perinatal depression**

Perinatal depression is a clinical term referring to a major depressive episode associated with pregnancy and child birth. The Diagnostic and Statistical Manual of Mental Disorders (DSM V) does not recognize perinatal depression as being diagnostically different from other major depressive disorders, except for the postnatal-onset specifier, which denotes onset of depression during pregnancy or the first 4 weeks postpartum (American Psychiatric Association, 2013). Symptoms significantly affect functioning, for example, suicide, which commonly has its origins in depression, is the second most frequent cause of maternal mortality in high-income countries (Stein et al., 2018). Many mothers require treatment by a mental health professional (Howard, Megnin-Viggars, Symington & Pilling, 2014). Depression is one of the most common complications of motherhood; for example, a meta-analysis found that postnatal depression affects 10–15% of mothers in high-income countries (Howard, Megnin-Viggars, Symington & Pilling, 2014). Most studies on parental mental health have restricted their focus to the perinatal period (O’Hara & Swain, 1996), however, findings from a recent large Australian pregnancy cohort study ( $N = 1507$ ) showed that maternal depression is more common at 4 years postpartum than at any

time in the first 12 months postpartum (Woolhouse, Gartland, Mensah & Brown, 2014). Indeed, perinatal depression can lead to a chronic or recurring depressive course throughout a woman's life (Goodman, 2004).

Internationally, there is increasing recognition that maternal depression is a major public health issue, due to the potential long-term consequences for women's health and the health of her child (Wisner, Chambers & Sit, 2006). The negative impacts of perinatal depression on child development have been extensively studied and widely documented (Spieker, Oxford, Fleming & Lohr, 2018). Perinatal depression limits a mother's ability to function effectively in the parenting role, due to the potential impact of maternal depressive symptoms on parenting self-efficacy, and maternal sensitivity (Lovejoy, Graczyk, O'Hare, & Neuman, 2000). Infants of depressed mothers show impairments in social engagement and emotional regulation (Feldman et al., 2009) and an increased risk of difficult temperament (Schupay, 2013). Research shows significant negative effects of depression on outcomes beyond infancy, including associations with children's internalizing (Goodman et al., 2011) and externalizing symptoms (Mantymaa, Puura, Luoma, Lalva, Salmelin, & Tamminen, 2012). Two systematic reviews reported additional increased risks of asthma, language problems, cognitive difficulties, and emotional-behavioral difficulties through to adolescence (Kingston & Tough, 2013; Kingston, Tough, & Whitfield, 2012).

Although the risk that maternal depression poses for offspring's development has been extensively studied, the effect of paternal depression has only recently received more attention (Ramchandani & Psychogiou, 2009). There is some indication that men also experience depression after the birth of a child (Goodman, 2004). As fathers are increasingly involved in care-giving activities (Cabrera, Tamis-LeMonda, Bradley, Hofferth & Lamb, 2000) it is important to examine the impact of both maternal and paternal depression on children's development. A

meta analysis estimated depression rates in community based samples of fathers during the first postpartum year from 1·2% to 25·5% (Goodman, 2003). It has been suggested that in mothers depression usually begins in the early postpartum period, compared to later in men (Matthey et al., 2000). A recent systematic review of the effects of paternal depression on child and adolescent outcomes found that paternal depression (present in the antenatal and postnatal stages and during offspring adolescence) negatively impacts upon offspring development (Sweeney & MacBeth, 2016). The authors found that the strength of this association was mediated through paternal negative expressiveness, hostility and involvement and marital conflict.

### **Perinatal anxiety**

The literature on the prevalence, predictors and impact of postnatal wellbeing on child development has predominantly focused on perinatal depression. However, Bina and Harrington (2017) suggest that perinatal anxiety is as prevalent and disruptive as postnatal depression, although less commonly addressed. A recent meta-analysis found that an estimated 8.5% of postpartum mother's experience one or more anxiety disorders (Goodman, Watson & Stubbs, 2016). Children of parents with high levels of anxiety symptoms are more likely to show high levels of negative affect (Rosenbaum et al., 1988) and to develop behaviour problems than are the children of non-anxious parents (Weissman et al., 1984). A systematic review of the impact of postnatal maternal anxiety on child development (Glasheen, Richardson & Fabio, 2009), showed that the strongest evidence for the impact of postnatal maternal anxiety exposure was on children's somatic and psychological outcomes, including emotional difficulties. A further systematic review was conducted to summarise the empirical evidence regarding the impact of maternal prenatal *and* postnatal anxiety on children's emotional outcomes (Rees, Channon & Waters, 2018). The review

found that whilst both maternal prenatal and postnatal anxiety have a small adverse effect on child emotional outcomes, the evidence appears stronger for the impact of prenatal anxiety.

### **Post adoption well-being**

The term ‘post-adoption depression’ was first noted in 1995 by June Bond, an adoption professional (Bond, 1995; as cited in Foli, 2016). The first attempt to quantify depression in adoptive parents occurred in 1999 when an internet survey was posted inquiring about post-adoption depression among adoptive families that completed international adoptions (McCarthy, 2005). Of the 145 adoptive parents that responded, over 65% of the parents reported experiencing depression after the adoption of their children. Although McCarthy’s findings appear to support the existence of post adoption depression, the representativeness of her findings are questionable since only adoptive parents of foreign children (mostly from Russia) were surveyed.

Since that time, several research groups have attempted to measure the frequency of depression in parents who adopt. As noted previously, investigators estimate rates of postpartum depression at around 13%, whereas rates of depression in adoptive families are as high as 26% but vary greatly across studies (Fields, Meuchel, Jaffe, Jha & Payne, 2010; Foli, et al., 2012; Senecky, et al., 2009). In addition, depression in adoptive parents has been found in adoptive fathers, with one study demonstrating rates of depressive symptoms at 11% as measured by the EPDS (Foli et al., 2012). In the first study to use a comparison group design, Dean, Dean, White & Liu (1995) using a UK sample, found no difference in lifetime prevalence of psychiatric disorder between birth and adoptive mothers and a nonsignificant trend for women who had born children to have had a major depressive episode during their lifetime. This was replicated in the US by Senecky et al., (2009) using a sample of mostly children adopted from abroad ( $n = 39$ ), who found no

significant differences in the incidence of depression between adoptive and birth mothers, as measured by the Edinburgh Postnatal Depression Scale (EPDS). The authors suggest that their findings refute the widespread assumption that postnatal depression is a direct consequence of the physiological changes that occur during pregnancy and delivery. Following on from this, a US study assessed prevalence of post adoption depression using a matched control design, (Mott et al., 2011). The authors found similar rates across groups, with 7.5% of birth mothers ( $n = 147$ ) compared with 8.8% of adoptive mothers ( $n = 147$ ) screening positive for depressive symptoms, again measured by the EPDS. The systematic review conducted by McKay and colleagues (2010) found that overall adoptive parents had lower rated levels of distress compared to biological parents, but depression was fairly common. A recent UK study investigating adoption disruptions, found that adoptive parents had more symptoms of depression than the normative population (as measured by the Hospital Anxiety and Depressive Scale), even in the group of parents where the adoption was classified as 'going well' (Selwyn et al., 2015).

The literature investigating post-natal anxiety in adoptive parents is very sparse. However, the few studies that have investigated anxiety have found lower rates of anxiety compared to birth parents/general population. For example, in a study of parental mental health, Mott and colleagues (2011) found that adoptive mothers experienced significantly fewer symptoms of anxiety, including social anxiety, panic, and traumatic intrusions, and experienced greater well-being than the birth mothers. In addition, in the Selwyn and colleagues (2015) study, they found that adoptive parents were less anxious than people in the general population. As few studies have investigated anxiety in adoptive parents (Mott et al., 2011), assessment of both depression and anxiety is warranted.

Due to the shortage of, and complexities associated with research in this area, such as the

intertwining of genetic and environmental pathways, little is known about how adoptive parent well-being affects child development. However, a fairly recent meta-analysis of the impact of being raised by depressed parents (Natsuaki et al., 2014), only included genetically sensitive studies of associations between parental depression and child outcomes. The meta-analysis found that maternal depression was consistently associated with a wide array of child outcomes beginning in early childhood, including child psychiatric disorders (e.g., depression, anxiety, conduct disorders), adjustment problems (internalizing and externalizing problems), academic and peer problems, and early correlates of psychopathology (attention control, fussiness, vulnerability to stress) beginning as early as 9 months of age. As the studies controlled for potential genetic and prenatal confounds, results indicate that maternal depression is associated with children's outcomes through environmental pathways. In addition, research has shown that post adoption depression has been found to be associated with adoptive placements disrupting (Selwyn et al., 2015), which may have long-lasting, negative consequences for children due to a lack of stability and continuity.

Most studies investigating the well-being of adoptive parents to date have used a cross-sectional design. For example, Farr, Dietz, O'Hara, Burley & Ko (2014) utilized a cross-sectional design in which most of the children had been placed for several years at the time they were studied. Goldberg and Smith (2014) examined parental stress with families in a longitudinal study but the time period only included the first year postplacement. The first study to look at adoptive parent wellbeing over a substantial amount of time was carried out in the US in 2014 (Lavner, Waterman & Peplau, 2014). The study investigated adoption satisfaction, depressive symptoms, parenting stress, and social support in 82 parents adopting children from foster care in Los Angeles County at 2, 12, and 24 months postplacement. Results showed that on average, parents reported

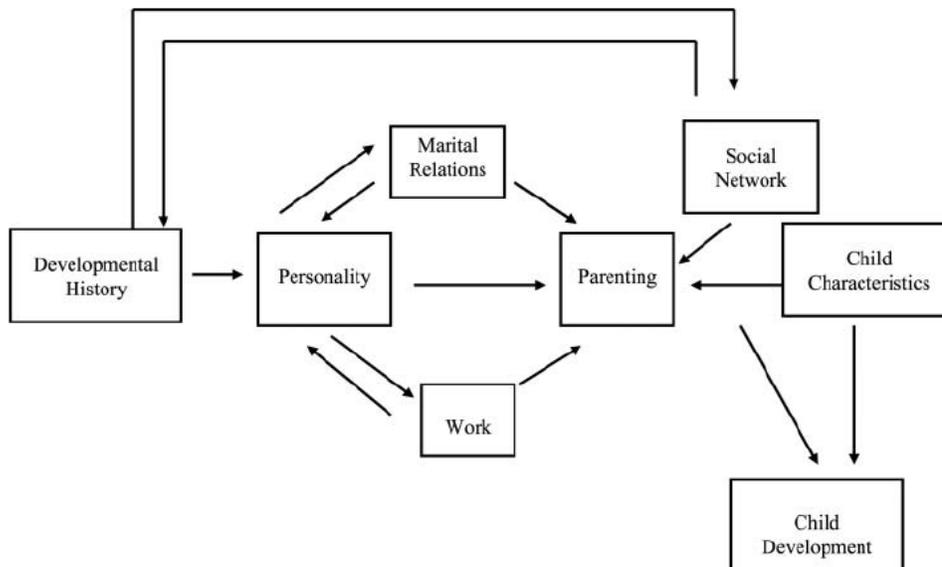
significant increases in adoption satisfaction and maintained low, non-clinical levels of depressive symptoms and parenting stress over time. Across all family types, greater parenting stress was associated with more depressive symptoms and lower adoption satisfaction. Following this, in a US study by Foli, et al., (2016), assessments were performed at three time points before and after placement of an adopted child with the family: 4–6 weeks pre- placement and 4–6 weeks and 5–6 months post-placement ( $N = 129$ ). The authors found that the percentage of parents who screened above the threshold for depressive symptoms ( $CES-D \geq 16$ ) was highest immediately after placement of the child. Using latent class growth analysis, five classes of depressive symptom trajectories were established. Most parents (71%) belonged to a class with low levels of depressive symptoms across time. However, two classes of parents were above the threshold for depressive symptoms at placement, and three classes of parents were above the threshold at 6 months post-placement. Foli's (2010, 2012, 2016, 2017) steady stream of research has highlighted both the trajectories of adoptive parent's depression symptoms and factors associated with post adoption depression, however, this research has been conducted in the US with mostly private international adoptions. Very little is known about the normative trajectories of anxiety symptoms in adoptive families (Brooker et al., 2015), however in their study of US domestic adoptions (placed with families before 6 months of age) they found that levels of anxiety symptoms in adoptive parents declined over time.

### **Determinants of parent mental well-being**

A large body of research has been conducted examining risk factors of postpartum, summarised in two key meta-analyses. O'Hara and Swain (1996) revealed the strongest predictors of postpartum depression were a history of psychological problems, poor marital relationship, limited social support, and stressful life events. Similarly, Beck (1996) found moderate to large

effect sizes between eight predictors of postpartum depression: history of prior depression, prenatal depression, prenatal anxiety, maternity blues, child care stress, life stress, lack of social support, and marital dissatisfaction. In 2001, Beck updated the original meta-analysis, which indicated that self-esteem and infant temperament also had a moderate effect (Beck, 2001). In addition, low maternal income, self-esteem, and self-efficacy have been shown to predict parental anxiety (Sayil, Güre & Uçanok, 2006). It is likely that some of the predictors of poor mental well-being between birth and adoptive parents overlap, however, due to the differences outlined earlier, there may also be factors that are unique to adoptive parents.

A child's home environment and the parenting they receive have the most significant impact on their psychological development and later life outcomes (Hannon et al., 2010). Bronfenbrenner's ecological theory (1979) proved a useful starting point for models of parenting, such as Belsky's determinants of parenting model (1984). Belsky's process model of the determinants of parenting represents the multiple psychosocial determinants of parenting that influence child development (see Figure 4.1). It has been widely adopted as a theoretical framework for research on parenting and child development. His model focused on factors affecting parental behaviour and how such factors affect child-rearing, which in turn influences child development. At the family level, Belsky's interest, similar to Bronfenbrenner's, is focused primarily on the interpersonal interactions between parent and child. This theoretical model presumes that child development is predicted by parenting that is directly determined by three determinants of influence: 1) characteristics of the parent and their psychological resources, 2) child characteristics such as temperament, and 3) contextual sources of stress and support that impact the parent-child relationship such as the parent's social network and work commitments.



*Figure 4.1* Belsky's (1984) process model of the determinants of parenting.

Belsky suggested, however, that parental characteristics, such as parents developmental history, personality and psychological well-being are the most important factors in buffering the parent-child relationship from threats to its integrity that could negatively impact child development (Morse, 2010). When two of three determinants are in the stressful situation, he suggested that parental functioning is most protected when parental personality and psychological well-being still function to promote sensitive caring. In other words, optimal parenting can still occur even when the personal psychological resources of parents are the only determinant remaining in positive mode. The Belsky process model does not specifically define the child's developmental outcome, defined as 'competent offspring', without any further explanation. Belsky's process model theorizes that the transition to parenthood may be predicted by characteristics of the parent and their psychological resources, child characteristics, and contextual sources of stress and support. For example, he emphasized aspects of the child (e.g., behaviour problems), intrapersonal factors (e.g., parents' well-being), interpersonal factors (e.g., parents'

relationship status), and social-contextual factors (e.g., support), in studying adaptation to parenthood. Thus, it is important to consider numerous risk factors which could impact upon the parent's well-being and potentially the child's overall development.

### **Parent factors.**

***Demographics.*** Given the limited research using parental demographics as predictors of parent well-being, age, gender and if they were a first-time parent were included in this exploratory analysis.

***Education & Income.*** Within Belsky's model, no special attention is given to the importance of the family's material resources, while the family's social resources are the main subsystem of support. However, studies have shown that low socio-economic status is consistently associated with a higher prevalence of depression (Lorant et al, 2003). In contrast, adoption research in the US, found that higher educational level and higher family incomes are associated with higher rates of disruption and lower parent-child relationship satisfaction (Berry, Propp & Martens, 2006; McDonald, Propp & Murphy, 2001; Ryan, Hinterlong, Hegar & Johnson, 2010). Given the sparsity and conflicting findings of research in this area, education and income levels will be included.

***Relationship status.*** Some research has suggested that married adoptive parents tend to report more positive adjustment than single parents (McDonald et al., 2001). However, Selwyn and colleagues (2015) found no statistical difference in the likelihood of an adoption disrupting due to placement with a single adoptive parent. Again, as research in this area is inconsistent, adoptive parent relationship status will be included.

***Parental sense of competence.*** The concept of parent efficacy is a derivative of self-efficacy, meaning to have self-belief in our competence (Bandura, 1977). Parent efficacy refers

to parents' internal feelings rather than their outward behaviours toward their children, however, research has shown that parent efficacy tends to be associated with sensitive parent-child interactions (Leerkes & Crockenberg, 2002; Teti & Gelfand, 1991), and parent-child attachment (Spieker & Booth, 1988). Parenting self-efficacy has been strongly associated with parenting competence, i.e. when parents feel confident in their ability to parent, they are likely to use more effective parenting practices which promote positive developmental outcomes for their child (Jones & Prinz, 2005). In contrast, research has shown that parents who report lower self-efficacy experience increased levels of parenting related stress and emotional arousal in challenging parenting situations; thus, they are less able to put parenting knowledge into action, and do not show persistence in parenting tasks (Mash & Johnston, 1983). Additionally, parents who feel less in control of their children's behaviour are more likely to use negative parenting strategies (e.g. Teti & Gelfand, 1991). As parents gain experience with raising children, their self-efficacy usually increases, but persistence of difficult behaviours can impact upon parents' assessments of their abilities (Maniadaki, Sonuga-Barke, Kakouros & Karaba, 2005).

Parental sense of competence reflects both a parent's perception of their skills, the pleasure or motivation derived from parenting, and their satisfaction with the role (Johnson & Mash, 1989). Very few studies have focused on the role of self-efficacy in adoptive parents, however, an early study by Tizard (1977) identified that parental satisfaction and efficacy were important predictors of successful adoption. Research in the field of foster parents has found that foster parent competence is associated with greater satisfaction in their parenting role (Denby, Rindfleisch & Bean, 1999) and their intention to continue foster parenting (Whenan, Oxlad & Lushington, 2009).

**Child factors.** A large body of research has examined maternal depression and children's outcomes under the premise that effects are predominantly unidirectional, with parenting leading

to the development of poor outcomes in children. However, Bell (1968) suggested that conceptualizations accounting only for parent-based effects on children's risk for behaviour problems overlook the child as a potential part of the environment. For example, transactional models of socialization suggest that the nature of processes between child and parent can have long-term effects on parents as well (Sameroff, 1975). It is suggested that a child is not just a passive receiver of parenting and is instead engaged in a "continuous co-regulation process with significant others characterised by the co-creation of meanings and mutual affective attunement" (Piermattei, Pace, Tambelli, ONofrio & Di Folco, 2017, p. 2115). Within Bronfenbrenner's (1979) ecological theory, the direction of effects between a developing person and their environment varying over time is a central tenet of his model. He suggested that the relationship between the levels can be defined as bi-directional, meaning that influence between the levels occurs both ways (Ryan, 2001). This bi-directionality was emphasised in Belsky's (1984) landmark paper on the determinants of parenting, which highlighted that characteristics of both the parent and child contribute to adaptive and dysfunctional parenting. This model of child development describes the ongoing interaction of child and environment and places equal emphasis on the bi-directional effects of the child and of the environment working together (Sameroff & Mackenzie, 2003).

Since that time there has been a growing consensus that parent and child characteristics interact with one another to contribute to shape future adjustment (e.g., Lengua & Kovacs, 2005) and empirical studies have started to test this bidirectional viewpoint (Pardini, 2008). Thanks to the development of advanced longitudinal modelling techniques, more evidence on the existence of bidirectional effects between parents and children has been produced, showing that parenting is not just directed at children, but also elicited from them. The idea of bi-directionality in adoption was summarised by Amatruda and Baldwin in 1951, "adoption affects intimately the child's entire

emotional, mental, social, and personality development. The adopted child can also profoundly change the behaviour and development of the adopting family” (p. 208). Given that adopted children have typically experienced a range of adversities pre-adoption and their association with behaviour problems post placement, it may be even more likely that child effects are present in adoptive family homes i.e. “the possibility that any family risk factors present were a consequence, rather than a cause, of the adopted child’s problems” (Rutter, Sonuga Barke, & Castle, 2010a, p.168). In addition, within our study, the mean age of children placed for adoption was two years, which may be uniquely challenging for parents in itself. Because toddlers have a lack of expressive language and reasoning skills coupled with a new found physical mobility and increasing oppositionality, parents face particular challenges that are anchored in a strong sense of efficacy and well-being (Teti & Gelfand, 1991).

***Child demographics.*** Results of the Selwyn (2015) study showed no statistical difference in the likelihood of an adoption disrupting due to child gender, but children who were aged four or older at placement were 13 times more likely to have a disruption compared with those who were infants at placement. Children who are adopted when they are older are more likely to have experienced prior abuse and/or neglect, and multiple placements, which are strong predictors of behavioral, emotional problems (Dance, Rushton & Quinton, 2002; McMillen et al., 2005; Simmel, 2007; Berry & Barth, 1989). The adoptive parents of older placed children with an increased risk of psychopathology, and attachment problems (van den Dries et al., 2009), may make them particularly vulnerable to parenting stress (Harris-Waller, Granger & Gurney-Smith, 2016).

***Child behaviour.*** Chapter three demonstrated that children placed for adoption have higher levels of internalizing and externalizing behaviour problems than the general population. Both

foster and adoptive parents consistently rank children's behaviour problems as the most difficult challenge (Atkinson & Gonet, 2007; Barnett, Clearly, Butcher & Jankowski, 2018). Severity of emotional and behavioural issues among children are associated with higher levels of caregiver strain and parenting stress (Brannan & Heflinger, 2006; Judge, 2003; Vaughan, Feinn, Bernard, Brereton & Kaufman, 2013). In addition, externalizing symptoms have been positively correlated with the breakdown of adoptive placements (Sempik, Ward & Darker, 2008). Results from the first national study of adoption disruptions in the UK (Selwyn et al., 2015), found similar results, with high levels of social, emotional, and behavioural difficulties in adopted children, with aggression and violence to parents associated with placements breaking down.

High levels of children's behaviour problems may also threaten parent's sense of competency (Latham, Mark & Oliver, 2017). For example, mothers who perceive their children as more difficult (i.e. higher levels of child non-compliance) have been shown to exhibit lower feelings of parenting efficacy than mothers who do not (Gross, Conrad, Fogg & Wothke, 1994; Leerkes & Crockenberg, 2002). A longitudinal study examined trajectories of child negative emotionality, parenting efficacy, and over reactive parenting among 382 adoptive families (reflecting the full range of adoptions operating in the US) during infancy and toddlerhood (Lipscomb et al., 2011). The authors found increases in child negative emotionality were associated with decreases in maternal efficacy and led to parent over reactivity. Furthermore, exposure to offspring psychopathology can also increase parental depressive symptoms (McAdams et al., 2015). For example, Gross, Shaw, Burwell & Nagin (2009) found higher levels of child non-compliance at 18 months of age predicted more chronic and elevated trajectories of maternal depression across 8 years compared to lower levels of non-compliance. In addition, child oppositional behaviours and early externalizing symptoms (such as frequent tantrums,

aggressiveness, and impulsivity) have been associated with an increase in mothers' depressive symptoms (Choe, Shaw, Brennan, Dishion & Wilson, 2014). It has been suggested that if these behaviours challenge parents and they don't know how to respond, this can have negative repercussions for their well-being (Cantero-Garcia & Alonso-Tapia, 2018).

Within adoption research, only a small number of studies have investigated bi-directionality between child and parent and its association with psychopathology. For example, Brooker et al., (2015) showed that in addition to parent to child effects of parent anxiety, more infant negative affect at child age 9 months predicted more anxiety symptoms in adoptive parents 18 months later. In addition, Roben and colleagues (2015) conducted a study with US domestic adoptive families placed before 3 months of age using contingency analysis of second-by-second behavioural data to analyse bi-directionality in adoptive families through parent-child processes. They found that adoptive mother depressive symptoms at 9 months increased the likelihood that, at 18 months, children reacted negatively to their mother's negative behaviour, which in turn predicted higher levels of adoptive mother depression symptoms at 27 months.

***Sibling group.*** Adoptive parents may be parenting sibling groups rather than just one child, which results in potential challenges (Tasker & Wood, 2016; Meakings, Sebba & Luke, 2017). Current legislation encourages placing siblings together unless their separation can be suitably justified (DfE, 2012). However, research findings on the impact of sibling placements are inconsistent. Adoption of siblings has been associated with lower levels of family functioning (Erich & Leung, 2002) and greater likelihood of placement disruption. Selwyn (2015) found that a range of systemic factors correlated with disrupted placements, including difficult relationships with siblings, although there was no statistical difference in the likelihood of an adoption disrupting due to being placed as part of a sibling group. Tasker and Wood's (2016) found that

the stories of couples who had adopted two children contained glimpses of fulfilment, but overall conveyed a sense of being extremely busy which obscured some of their joy as parents. Furthermore, a study showed that adoptive caregivers are more likely to be distressed if they've adopted multiple children and older youth (Bird, Peterson & Miller 2002). In contrast, a review conducted by Hegar (2005) observed that children tend to fare at least as well, or better, when placed with siblings. Despite these inconsistencies, Jones (2016) concluded that the evidence supports the call for policy makers and practitioners to continue developing and maintaining sibling placements, when it is in the best interest of children.

### **Contextual factors.**

***Social support.*** In general, studies have shown that support from family and friends has been consistently associated with positive outcomes. For example, a study from 500 in-depth interviews adoptive families showed that actively seeking social support from family members and other adoptive parents was associated with family integrity and cohesion (Atkinson & Gonet, 2007). In addition, a study of international adoptions illustrated that perceptions of support and help from family and friends significantly predict lower parenting stress 6 months after adoption (Viana & Welsh, 2010). Families where the adoption was accepted and parents achieved recognition in their role as carers, family and friends supported the development of family cohesion (Daniluk & Hurtig-Mitchell, 2003). Furthermore, Rosnati & Marta (1997) showed that higher levels of perceived parental supports were shown to decrease adopted children's risk for maladjustment. Similarly, a lack of support from family and friends and subsequent conflict represented the biggest threat to the stability of the placement (Foli, 2010; Linville & Lyness, 2007).

## **Research Objectives**

The objectives of the current chapter were fourfold:

- (1) To profile depression and anxiety symptoms in adoptive parents and make comparisons to normative data.
- (2) In the absence of a nuanced understanding of adoptive parent well-being over time, the third objective was to plot trajectories of depression and anxiety symptoms in adoptive parents during the first three years of a placement.
- (3) Guided by Belsky's (1984) process model of the determinants of parenting, to investigate which parent, child and external factors predicted adoptive parent depression and anxiety symptom scores.

## **Method**

### **Participants**

This study used data from parent rated questionnaires at time points one (T1 - approximately 4 months into placement,  $n = 96$ ), two (T2 - approximately 16 months into placement,  $n = 81$ ) and three (T3 - approximately 32 months into placement,  $n = 71$ ) to investigate adoptive parent well-being.

### **Measures**

All the following measures were administered at all three time points, except for the parents and child's demographic measures and social support, which were taken at T1.

## **Outcomes variable.**

*Parent well-being.* Hospital Anxiety and Depression Scale (HADS) is a brief 14-item self-report measure of anxiety and depression developed by Zigmond and Snaith (1983). Higher scores on the scale represent more distress (maximum score is 21 on each scale). It was originally developed for use in general medical out-patient clinics but is now widely used in clinical practice and research (Herrmann, 1997). The measure asks about feelings in the previous week and focuses on identifying treatable depression and omits concepts such as low self-esteem (Selwyn et al., 2015). Zigmond and Snaith (1983) recommended that, for the Anxiety and Depression scales alike, raw scores of between 8 and 10 identify mild cases, 11–15 moderate cases, and 16 or above, severe cases. The HADS has good discriminant validity, internal consistency, and concurrent validity (Bjelland, Dahl, Haug & Neckelmann, 2002). Within this study, both the depression and anxiety scales had good levels of internal consistency, as determined by Cronbach's alphas between .808 and .837 (anxiety) and .780 and .798 (depression) across the three time points. The two scales have shown a stable two-factor structure in numerous studies (Bjelland et al., 2002; Martin, 2005). The two HADS scales have reasonable sensitivity and specificity, which have averaged 0.80 across multiple studies in identifying unspecified anxiety or depressive disorders (Bjelland et al., 2002). The anxiety scale mainly focuses on the restlessness-tension and worry-panic dimensions of anxiety (e.g. "I feel tense and wound up"). The depression scale mainly focuses on anhedonia, a main feature of depressive states (e.g. "I have lost interest in my appearance" (Herrmann, 1997). The HADS has been validated against 'gold-standard' clinical interviews for use in community samples and with various age groups (Spinhoven et al., 1997).

## **Predictor Variables.**

*Parent demographics.* Parent gender was included as a predictor. Sex was coded 0 for males and 1 for females. Parent age, in years, was included as a predictor. Parent's relationship status (i.e. single/couple) was included. Parent's income band and education level was also included.

*Parent self-efficacy.* The Parenting Sense of Competence (PSOC) measure (Gibaud-Wallston & Wandersman, 1978) was used to investigate self-efficacy in adoptive parents. In a recent review of the role of parental self-efficacy, Jones and Prinz (2005) identified the PSOC scale as the most commonly used tool for measuring parental self-efficacy. The PSOC is a 17-item scale designed to measure parents' satisfaction with parenting and their self-efficacy in the parenting role. However, in this study, (as in commonplace in other studies; Gilmore & CusKelly, 2009) the final item of the scale was omitted as it did not load on any factor in the analysis reported by Johnston and Mash (1989). PSOC items are appropriately phrased for the parent completing the questionnaire (e.g. My mother/father was better prepared to be a good mother/father than I am). Parents indicate their level of agreement with each item by circling a number between 1 (strongly agree) and 6 (strongly disagree). Eight items (1, 6, 7, 10, 11, 13, 15, 17) are reverse scored so that high scores indicate positive parental experience. Acceptable levels of internal consistency (range 0.75–0.88) have been reported for the PSOC in a number of studies including Johnston and Mash (1989). Within this study, PSOC had excellent levels of internal consistency, as determined by Cronbach's alphas between .839 and .860 across the three time points.

*Child demographics.* Child gender was included as a predictor. Sex was coded 0 for boys and 1 for girls. Child age at placement, in years, was included as a predictor. Placement as a sibling group (singleton; one sibling, two siblings) was also included.

**Child behaviour.** As explained in Chapter three, adoptive parents completed one of two versions of the Strengths and Difficulties Questionnaire (SDQ), (Goodman, 1997). Internalizing and externalizing symptom scores were utilised for this chapter.

**Social support.** Social support was assessed at time one by asking two questions “1) How many family members (not living in household) could you count on for support if needed? And 2) How many friends could you count on for support if needed? (e.g. babysitting, help with practical tasks such as laundry, shopping, someone to talk to/confide in). The variable was a simple count.

### **Missing Data**

Missing data imputation was carried out using two different methods. First, for the HADS measure, only three discrete items were missing at time one, two at time two and five at time three. For the PSOC measure, only four discrete items were missing at time one, three at time two and eight at time three. As there was less than 2% of items missing, missing items were handled by mean imputation, as recommended by Widaman (2006). As this is a longitudinal study, it is usual to expect some ‘drop out’ of participants across time. For objective three (depression and anxiety scores across time), attrition was handled in MPlus (Muthén & Muthén, 2015) using the robust maximum likelihood estimator (MLR). This estimator corrects fit indices and standard errors to account for non-normality in the data, equivalent to the Yuan-Bentler T2\*test statistic (Wilson, Samuelson, Staudenmeyer & Widom, 2015). Furthermore, it allows for the inclusion of participants with missing data on the outcome, based on the assumption that data is missing at random. Little’s test indicated that the data was completely missing at random in the case of depression,  $\chi^2 (5) = 3.076, p > .05$ , and anxiety  $\chi^2 (5) = 9.030, p > .05$ .

## Analysis Plan

Analysis was completed in four stages. First, descriptive statistics were generated for the parent mental health related measures, in order to facilitate comparability with other studies and UK general populations. Where possible, scores were compared to normative and parent populations using one sample t-tests. Second, correlations were conducted among variables of interest. The first and second objectives were completed using SPSS version 20.0 (IBM, 2011). Third, to investigate the onset and change in parent depression and anxiety across the three time points, two methods were used. Firstly, Friedman tests were conducted in SPSS version 20.0 to determine if there were differences in scores on the HADS subscales across three time points following adoptive placement. Although analysis such as repeated measure ANOVA or non-parametric alternatives such as Friedman tests have been traditionally used to assess change, they require equal numbers and intervals of assessment. Without meeting the standard requirements, the subsequent potential substantial loss of information may result not only in a lowering of statistical power but also in a potentially biased subsample used in the final analyses (Chen & Cohen, 2006). Due to this, in addition to Friedman tests, growth curve models were produced. Growth curve modeling is a broad term referring to a wide array of statistical models for repeated measures data (Bollen & Curran, 2006). Growth curve models allow for the estimation of inter-individual variability in intra-individual patterns of change over time (e.g., Bollen & Curran, 2006). Specifically, growth curve models allow for the estimation of within-subject trajectories of change (growth curve) for a variable, described by two parameters: an intercept (initial level of the variable) and a slope (rate of change over time). Both analytical and simulation results show that growth models are typically characterized by higher levels of statistical power than comparable traditional methods applied to the same data (Muthén & Curran, 1997).

A critically important first step in any growth model is the identification of the optimal functional form of the trajectory over time (Curran et al., 2010). The most basic form of growth is a random intercept-only model; this implies that the repeatedly measured construct over time is stable (i.e. flat) and individuals vary randomly around this overall level at any given time point. This intercept-only model can then be expanded in a variety of directions, including a straight line (linear increase or decrease in symptom scores), a quadratic curve (where the quadratic term represents change in the *rate of change*), or piecewise linear modeling (which involves two or more linear trajectories joined together). At this point in the WACS study, identification of the optimal functional form of the trajectory over time were restricted to linear trajectories by the number of time points available. With four or more time points, quadratic or piecewise patterns could be modelled, which may have resulted in a better fit (Wickrama, Lee, O’Neil, & Lorenz., 2016). For example, piecewise linear modeling could investigate if initial scores reduced from time one to time two, followed by an increase from time three onwards or if scores reduced from time one to time two and then plateaued.

All Growth curve analysis was carried out in Mplus version 7. Manifest variables were used due to sample size concerns (Glazer & Beehr, 2005). Goodness-of-fit of the models was evaluated on the following fit indices: a good fit is generally indicated by a nonsignificant chi-square ( $\chi^2$ ), a Comparative Fit Index (CFI) and a Tucker-Lewis Index (TLI) equal to (or above) 0.95 (Bentler, 1990), as well as Root-Mean Square Error of Approximation (RMSEA) and Standardised Root Mean Square Residual (SRMR) below .05 and .08, respectively (Marsh, Hau & Wen, 2004; Raykov & Marcoulides, 2006). Following this, multiple regression was carried out in MPlus version 7 (Muthén & Muthén, 2015) to investigate which structural and psychosocial factors predicted initial levels of anxiety and depression scores.

## Results

### Descriptive Statistics

The sample sizes, means, and standard deviations for study variables are presented in Table 4.1. The majority of respondents were female (92%,  $n = 87$  out of 95, one person did not respond). The mean age was 41 (ranged from 23 to 62). The majority (98%,  $n = 94$  out of 96) were White British. The majority of respondents were in a heterosexual relationship (82%,  $n = 79$  out of 96), a small percentage (5%,  $n = 5$ ) were in a same sex relationship and 13% ( $n = 12$ ) were single adopters. Most of the sample (70%,  $n = 67$  out of 96) adopted one child, whilst 27% ( $n = 26$ ) adopted two children together and 3% ( $n = 3$ ) adopted a group of three. The gross family income was substantially more than the UK average, with 13% ( $n = 12$  out of 96) earning more than £75,000 per year. Over half of the respondents (54%,  $n = 52$  out of 96) worked full time. In terms of education, our sample was noticeably more educated than the UK average, with 29% ( $n = 28$  out of 96) having undergraduate degrees and 37% ( $n = 35$ ) having postgraduate degrees. There were strong positive correlations between depression and anxiety scores at all three time points, ( $T1 = r(96) = .612, p < .01$ ;  $T2 = r(78) = .693, p < .01$ ;  $T3 = r(71) = .669, p < .01$ ).

### Mental Health Compared to a Normative UK Population

One sample t-tests were used to determine whether the parents in our sample had significantly different scores on the HADS, compared to the general population means, as defined in table 4.1. Population norms were drawn from a sample of 1,792 members of the general adult population (females = 978, males = 810) in the UK (Crawford, Henry, Crombie & Taylor, 2001). The authors found the Anxiety scale mean score was 6.14 ( $SD = 3.76, median = 6$ ); and Depression was 3.68 ( $SD = 3.07, median = 3$ ). Similar to our sample, visual inspection of the distributions of raw scores revealed that both scales were positively skewed. In addition, Kolmogorov–Smirnov

tests confirmed that the distributions deviated highly significantly from a normal distribution.

One sample t tests with a Bonferroni corrected alpha of .01, revealed that at time one, mean depression score for the WACS sample were statistically significantly higher by 1.04 (95% CI, .34 to 1.73) than the UK average,  $t(95) = 2.965, p = .004$ . At time two, mean depression score for the WACS sample were statistically significantly higher by 1.25 (95% CI, .45 to 2.05) than the UK average,  $t(77) = 3.435, p = .001$ . At time three, mean depression score for the WACS sample were again statistically significantly higher by 1.49 (95% CI, .62 to 2.35) than the UK average,  $t(70) = 3.113, p = .003$ . At time one, mean anxiety score for the WACS sample were lower than the UK average by -.036 (95% CI, -.74 to .67), however this difference was not statistically significant  $t(95) = -.101, p = .920$ . At time two, mean anxiety score for the WACS sample were higher than the UK average by .514 (95% CI, -.39 to 1.42), however this difference was not statistically significant  $t(77) = 1.126, p = .263$ . At time three, mean anxiety score for the WACS sample were again higher than the UK average by .437 (95% CI, -.42 to 1.30), however this difference was also not statistically significant  $t(70) = 1.016, p = .313$ .

Table 4.1

*Comparison of WACS sample with the national UK average: HADS*

Subscale	UK National		WACS Time 1		WACS Time 2		WACS Time 3	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Depression	3.68	3.07	4.72**	3.43	5.17**	3.82	4.93**	3.38
Anxiety	6.14	3.76	6.10	3.48	6.65	4.03	6.58	3.63

Note. \*  $p < .05$  \*\*  $p < .01$

In addition to providing mean score norms, Crawford and colleagues (2001) converted raw scores on each of the HADS scales to percentiles. The results for the depression scale suggested using clinically derived cut-off's (e.g. a raw score of 11 or more) to screen respondents for probable disorder. Based on their normative UK sample, 3.6% were classified as abnormal, broadly consistent with epidemiological estimates of depression (Horwaith & Weissman, 1995). For anxiety, 12.6% of the Crawford and colleagues (2001) sample met the criteria for 'abnormal'.

Table 4.2

*Prevalence of depression and anxiety in adoptive parents*

	Depression (% , N)			Anxiety (% , N)		
	Time one	Time two	Time three	Time one	Time two	Time three
Normal (0-7)	79 (76)	74 (58)	80 (57)	74 (71)	65 (51)	68 (48)
Borderline (8-10)	14 (13)	14 (11)	13 (9)	16 (15)	18 (14)	17 (12)
Abnormal (11-21)	7 (7)	12 (9)	7 (5)	10 (10)	17 (13)	16 (11)

Table 4.2 shows that a higher percentage of adoptive parents are classified as having 'abnormal' depression scores than UK general population norms at all time points. For anxiety, a lower percentage of parents were classified as having 'abnormal' scores than the general population norms for time one and time three, and a similar percentage at time two. For both depression and anxiety, the percentage categorised as 'abnormal' tends to increase from time one to time two and then reduce by time three.

### **Mental health compared to parent populations**

In addition to UK general populations, one sample t-tests with a Bonferroni corrected alpha of .01, were used to determine if the parents in our sample had significantly different scores on the HADS compared to other samples of parents. Rimehaug & Wallander (2010) compared anxiety and depression prevalence between parents and non-parents in a large Norwegian community sample (Aged 30 – 49, N= 24,040). At all-time points, mean depression scores for the WACS sample were statistically significantly higher than the Norwegian community sample of parents, (T1  $t(95) = 4.249$ ,  $p = .000$ , T2  $t(77) = 4.475$ ,  $p = .000$ , T3  $t(70) = 4.234$ ,  $p = .000$ . A similar result was found for anxiety, at all time points, mean anxiety score for the WACS sample were statistically significantly higher than the Norwegian community sample of parents, (T1  $t(95) = 4.037$ ,  $p = .000$ , T2  $t(77) = 4.349$ ,  $p = .000$ , T3  $t(70) = 4.430$ ,  $p = .000$ . Rimehaug & Wallander (2010) also used cut-off's for depression and anxiety using a score of 8 or more. Prevalence estimates were 9.2% for depression and 15.6% for anxiety. For comparison using the same cut-off's, table 4.2 shows that between 14% to 20% of adoptive parents across time points in the study would be classified as depressed and between 23% and 27% would be classified as anxious, a greater percentage than the Norwegian parents.

Fishburn and colleagues (2017) investigated mind-mindfulness in parents of looked after children, which included an assessment of parent mental health using the HADS measure ( $n = 36$  adoptive parents). Their sample has similar characteristics to the WACS sample - the children were adopted from care, the mean child age at placed for adoption was 41.65 months and children had been placed for at least five months before the measures were completed. At all time points, mean depression score for the WACS sample were not statistically significantly different than this comparison sample of adoptive parents, (T1  $t(95) = -.717$ ,  $p = .475$ , T2  $t(77) = .454$ ,  $p = .651$ , T3

$t(70) = -.101, p = .920$ . A similar result was found for anxiety: at all time points, mean anxiety score for the WACS sample were not statistically significantly different than the comparison sample of adoptive parents, (T1  $t(95) = .378, p = .707$ , T2  $t(77) = 1.499, p = .138$ , T3  $t(70) = 1.411, p = .163$ . Fishburn and colleagues (2017) did not provide prevalence estimates for depression and anxiety for their sample, so comparisons were not possible.

### **Predictors of parent mental health**

Preliminary analyses showed the relationships between child, family and parent variables and parent mental health to be linear with no outliers. As not all variables were normally distributed, as assessed by Shapiro-Wilk's test ( $p < .05$ ) and a visual inspection of Normal Q-Q Plots, Spearman's rank-order correlations were used to assess the relationship between potential risk factors for parent mental health. Table 4.2 shows correlations between all the potential predictors of parent mental health. Point-biserial correlations were used to investigate associations between dichotomous variables and internalizing and externalizing scores measured by SDQ.

Correlations showed that the child being older at placement was associated with having an older aged adoptive parent, being placed in a sibling group, having more externalizing behaviour problems, less support from family and less parental competence. Internalizing behaviour problems at time one was associated with externalizing behaviour problems. Income was positively correlated with being in a relationship. Having more support from family was associated with being a younger adoptive parent and additionally, having more support from friends. Parent sense of competency was positively associated with family support but negatively associated with child age of placement, being placed as part of a sibling group and adoptive parent age.

Table 4.3 shows correlations between predictor variables and parental depression and anxiety scores across three time points. Results showed that parent age, support from friends, and education were not associated with parent depression or anxiety at any time point. Child age was positively associated with parent depression at time one and three, and parental anxiety at time one. Child internalizing behaviour was positively associated with parent depression at time one and three, and time three anxiety. Externalizing problems were associated with parental depression at all three time points, and anxiety at time two and three. Being part of a sibling group was positively associated with parental depression at all three time points, and anxiety at time one and two. Family support was negatively associated with depression at time one and three, and anxiety at time one. Parent sense of competency was negatively associated with depression and anxiety at all three time points.

Table 4.3

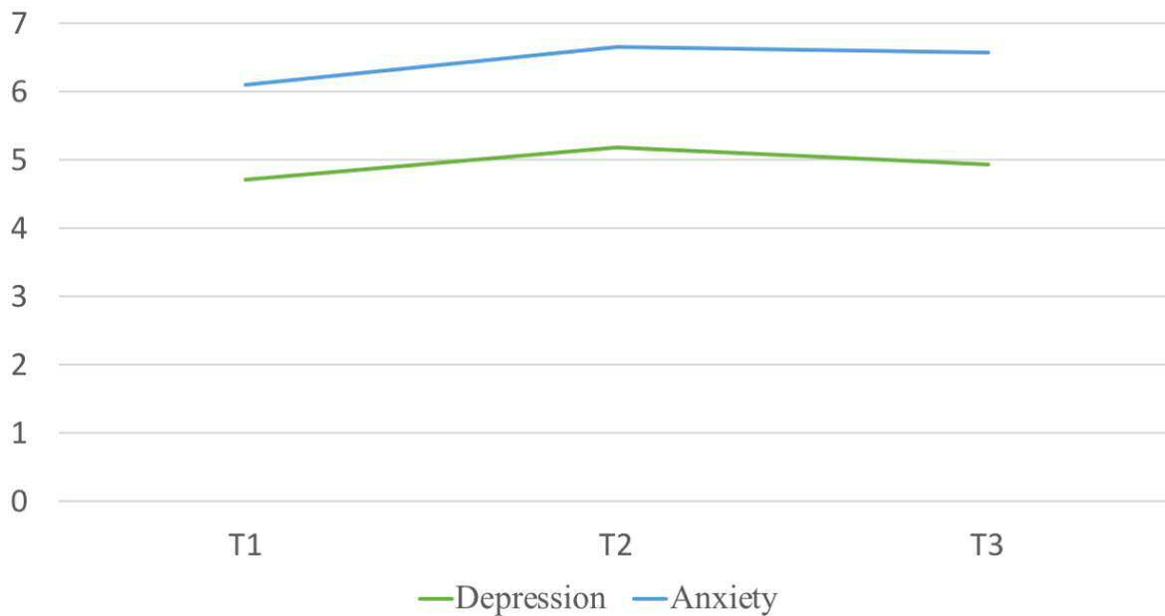
*Pairwise within time correlations between risk factors and parental mental health across three time points*

		Parent Depression			Parent Anxiety		
		Time 1	Time 2	Time 3	Time 1	Time 2	Time 3
Child	Child gender	-.109 (96)	-.172 (78)	-.074 (68)	-.011 (96)	-.086 (78)	.057 (68)
	Child age at placement	.254* (84)	.210 (70)	.284* (63)	.252* (84)	.132 (70)	.120 (63)
	Child internalizing behaviour	.340** (58)	.087 (46)	.197 (40)	.209 (58)	.045 (46)	.036 (40)
	Child externalizing behaviour	.321* (58)	.066 (46)	.092 (40)	.153 (58)	.168 (46)	.064 (40)
Family	Sibling group adoption	.343** (96)	.258* (78)	.140 (68)	.179 (96)	.102 (78)	-.167 (68)
	Single/couple adopter	.044 (96)	.017 (78)	.015 (68)	.027 (96)	.109 (78)	.105 (68)
	Family income	.079 (96)	-.093 (78)	-.121 (68)	-.031 (96)	.032 (78)	.015 (68)
	Family support	-.331** (90)	-.116 (76)	-.345** (69)	-.259* (94)	-.181 (76)	-.122 (69)
	Friend support	-.185 (90)	.012 (73)	.008 (64)	-.144 (90)	-.106 (73)	.097 (64)
Parent	Parent gender	.060 (95)	.048 (77)	.124 (67)	.030 (95)	.036 (77)	.119 (67)
	Parent age	.084 (67)	.039 (52)	.117 (44)	.139 (67)	.041 (52)	.096 (44)
	First time parent	.061 (91)	.011 (74)	-.027 (64)	-.022 (91)	-.063 (74)	-.119 (64)
	Education level	-.053 (96)	-.110 (78)	-.039 (68)	.016 (96)	-.143 (78)	-.035 (68)
	Sense of Competency	-.562** (94)	-.367** (76)	-.376** (69)	-.531** (94)	-.357** (76)	-.286** (69)

*Note.* \*  $p < .05$  \*\*  $p < .01$ , number of participants is shown in brackets

### Well-being over time

Friedman tests were used to determine if there were differences in scores on the HADS subscales across time ( $n = 69$ ). The Friedman test was chosen (rather than the one way repeated measures ANOVA), as exploratory analysis revealed that scores on the HADS subscales were not normally distributed at each time point, as assessed by Shapiro-Wilk's test ( $p < .05$ ).

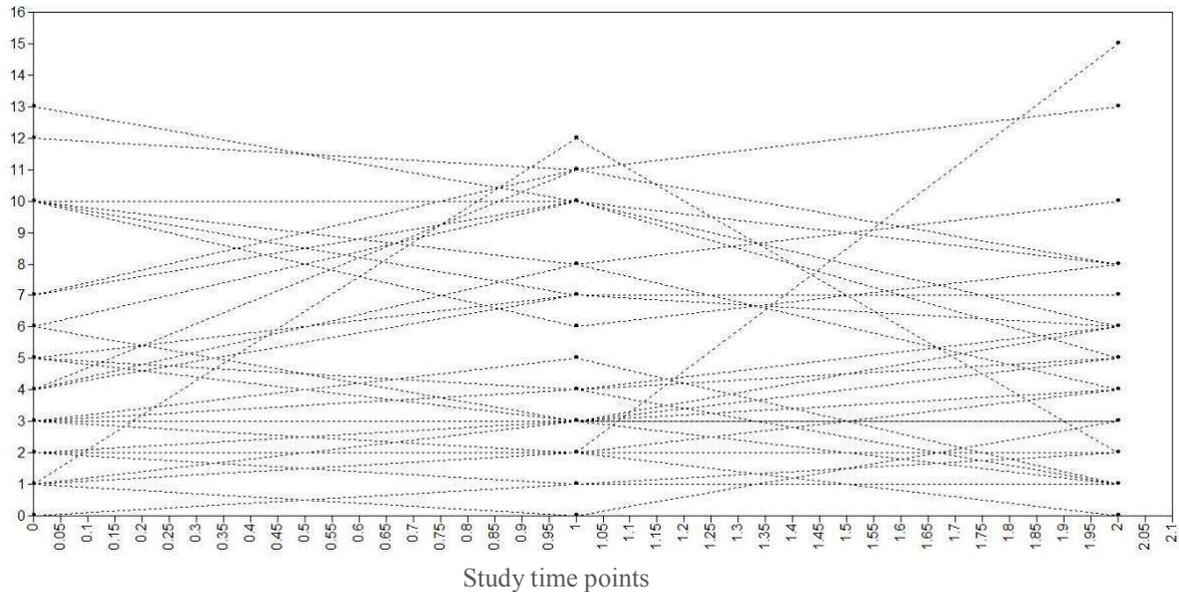


*Figure 4.2* Mean scores for depression and anxiety across time.

Figure 4.3 shows the mean scores for depression and anxiety across the three time points. For depression, scores remained stable across time (Mdn = 4),  $\chi^2(2) = .830$ ,  $p = .660$ . For anxiety, pairwise comparisons were performed (SPSS Statistics, 2012) with a Bonferroni correction for multiple comparisons. Anxiety scores were statistically significantly different between time points,  $\chi^2(2) = 7.73$ ,  $p < .05$ . Post-hoc analysis revealed statistically significant differences in anxiety scores from T1 to T3 ( $p < .05$ ).

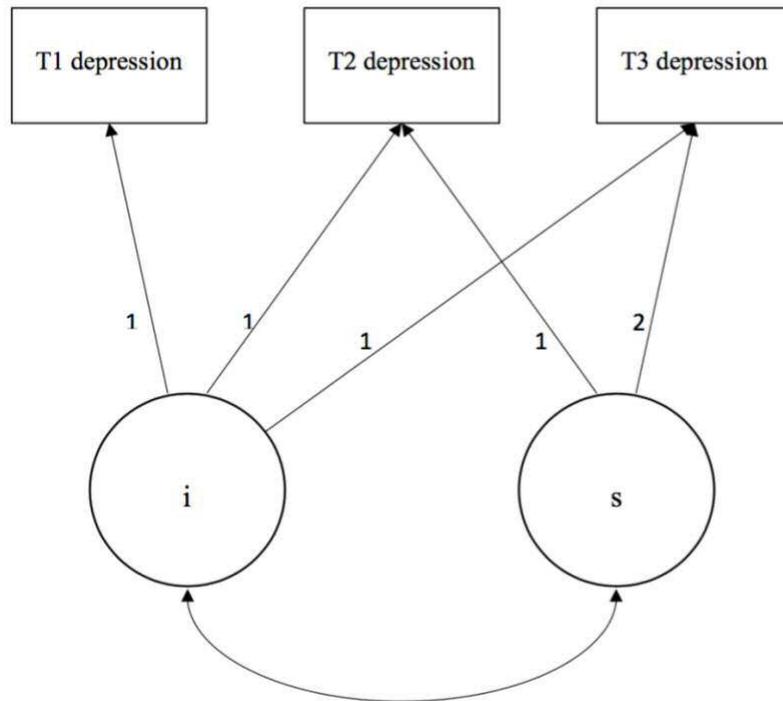
## Parental Depression

Additional analysis were completed to (1) Model the form of change in depression over time, and (2) relate mean initial levels and changes in depression to predictors. Figure 4.3 shows the manifest depression symptom trajectories for a random sample of  $n = 25$  adoptive parents over three time points.



*Figure 4.3.* Individual growth curve trajectories of depression for a random sample of  $n = 25$  adoptive parents over three time points.

First, I fitted a random intercept-only model for depression scores. This is the most basic form of growth and implies that there is a stable overall level of depression over time and individuals vary randomly around this overall level at any given time point (Curran, Obeidat & Losardo, 2010). Although, the fit indices for the intercept-only model were good (See Model 1, Table 4.4) it is important to expand this model in order to identify the optimal functional form of the trajectory over time. An unconditional linear growth curve was then fitted for depression (See Figure 4.4 for a path diagram for depression measured on 3 occasions).



*Figure 4.4* Path diagram for an unconditional linear model of depression over time.

The fit indices for this model were good, indicating the model fits the data well. The strictest fit index (the  $\chi^2$ ) was smaller than the ‘intercept-only’ model ( $\chi^2(1) = 1.081, p < .05$ ), and in addition the Akaike (AIC) values indicate that the intercept-only model (AIC = 1282.483) had a worse fit than the linear growth curve model (AIC = 1276.400). Hence, linear change is marginally preferred over the assumption of no change.

Table 4.4.

*Fit indices for all models showing change in depression measures over time (n=96)*

Model		$\chi^2$	df	RMSEA	SRMR	TLI	CFI	AIC
M1	Baseline (intercept only)	2.883	4	0.000	0.055	1.035	1.000	1282.483
M2	Unconditional linear	1.081	1	0.029	0.025	0.996	0.999	1276.400

Note: df= degrees of freedom; RMSEA = root mean square error of approximation; SRMR = Standardised Root Mean Square Residual; TLI = Tucker Lewis Index; CFI = Comparative Fit Index (CFI), BIC = Bayesian Information Criterion. For descriptions of models, see text.

Results from the linear model (Model 2) indicate that the mean initial level of depression is significantly different from zero ( $M_{\text{INTERCEPT}} = 4.760$ ,  $Z = 13.889$ ,  $p < .001$ ). There also is significant variability in the initial depression scores ( $Var_{\text{INTERCEPT}} = 8.695$ ,  $Z = 2.573$ ,  $p < .05$ ). With regards to the slope, on average there is a linear incline in depression scores across time, although this was small and non-significant ( $M_{\text{LINEAR}} = 0.152$ ,  $Z = 0.728$ ,  $p = .467$ ) suggesting that overall depression scores remained stable across time. In addition, there was not a significant amount of individual differences in the slope values around the mean growth curve ( $Var_{\text{LINEAR}} = 1.220$ ,  $Z = 0.875$ ,  $p = .382$ ). This suggests that the parents differ in their initial depression scores, but not in their trajectories over time. In our model, the intercept and slope factors are significantly negatively correlated ( $r = -.0547$ ,  $Z = -2.948$ ,  $p < .01$ ), suggesting that parents with larger initial scores tend to show smaller increases over time. Furthermore, the  $r^2$  values show us that between 45 and 75% of observed individual differences are accounted for by the growth factors.

An important task in growth curve modelling is establishing whether variability in the growth curves is present and only if the model shows significant variability can it be expanded to include predictors (DeLucia & Pitts, 2005). Results so far have shown non-significant variability in participants depression score trajectories over time, thus model 2 was not expanded to include

predictors of variability. Instead, using the variables that were significantly associated with T1 depression scores in the correlation analysis ( $p < 0.05$ ), a multiple regression model was conducted in MPlus to examine the relative role of factors associated with T1 depression scores. The variance inflation factor values (VIF, 1.22 to 2.24) and tolerance values (0.45 to 0.81) suggested the absence of multicollinearity (Bowerman & O'Connell, 1990). Results showed that age the child was placed for adoption, adopting a sibling group and reduced sense of competency added statistically significantly to the prediction of time one depression,  $p < .05$ . Regression coefficients and standard errors can be in found in table 4.5.

Table 4.5

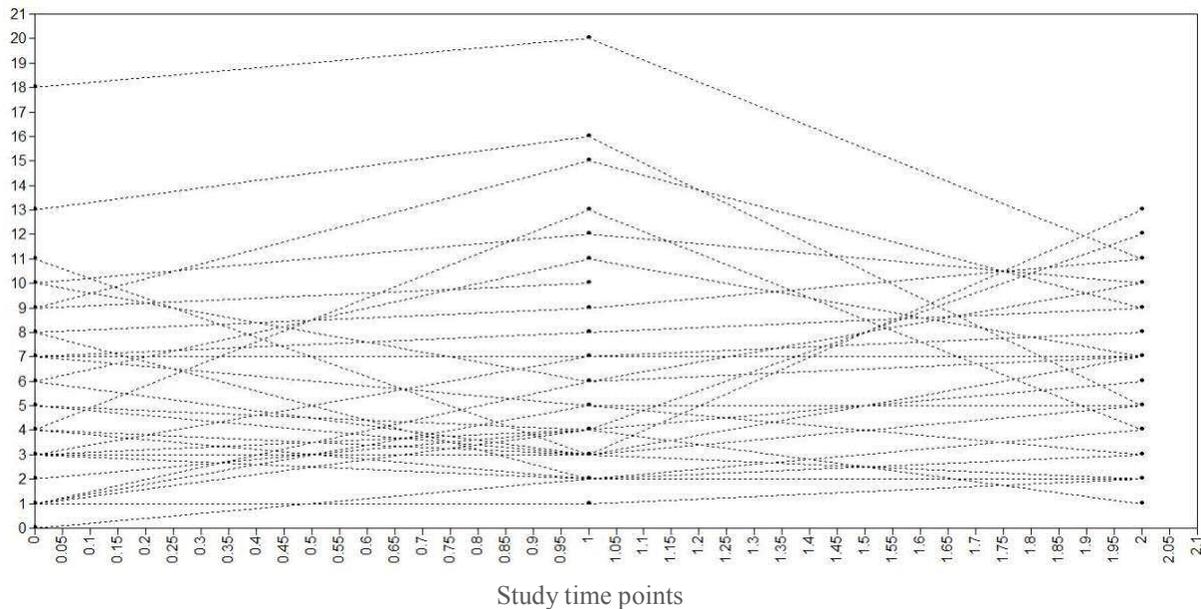
*Multiple regression analysis of risk factors predicting T1 depression and anxiety scores*

Variable	Depression (n = 49)			Anxiety (n = 81)		
	B	SE <sub>B</sub>	β	B	SE <sub>B</sub>	β
Intercept	20.13	3.45	5.51**	14.98**	2.15	4.77**
Age placed	-0.54**	0.19	-0.27**	0.08	0.13	0.06
T1 Int	0.25	0.16	0.23			
T1 Ext	0.00	0.13	0.00			
Sibling group	3.99*	1.97	0.26*			
Family support	-0.10	0.18	-0.07	-0.01	0.03	-0.01
T1 Sense of competency	-0.19**	0.04	-0.58**	-0.12**	0.03	-0.04**

*Note.* \*  $p < .05$  \*\*  $p < .01$ , B = unstandardized regression coefficient; SE<sub>B</sub> = Standard error of the coefficient; β = standardized coefficient

## Parental Anxiety

Figure 4.5 shows the depression trajectories for a random sample of  $n = 25$  adoptive parents over three time points. As with the depression models, first, a random intercept-only model was fitted for anxiety scores. The fit indices for the intercept-only model were mediocre (See Model 1, Table 4.6), thus this was followed by an unconditional linear growth curve model. The fit indices for this model were good, indicating the model fit the data well.



*Figure 4.5* Individual growth curve trajectories of anxiety for a random sample of  $n=25$  adoptive parents over three time points.

Results from the linear model (Model 2) indicate that the mean initial level of anxiety is significantly different from zero ( $M_{\text{INTERCEPT}} = 6.095$ ,  $Z = 17.559$ ,  $p < .001$ ). There also is significant variability in the initial anxiety scores ( $Var_{\text{INTERCEPT}} = 12.553$ ,  $Z = 2.984$ ,  $p < .01$ ). With regards to the slope, on average there is a linear incline in anxiety scores across time, although this was not significant ( $M_{\text{LINEAR}} = 0.351$ ,  $Z = 1.641$ ,  $p = .101$ ), suggesting that overall anxiety scores remained stable across the adoptive placement. In addition, there was not a significant amount of

individual differences in the slope values around the mean growth curve ( $Var_{LINEAR} = 2.393$ ,  $Z = 1.775$ ,  $p = .076$ ). This suggests that whilst the parents differed in their initial anxieties scores, they did not differ in their trajectories over time (although it is worth noting this was approaching significance). In our model, the intercept and slope factors are significantly negatively correlated ( $r = -0.602$   $Z = -3.213$ ,  $p < .01$ ), suggesting that parents with larger initial scores tended to show smaller increases over time. Furthermore, the  $r^2$  values show us that between 53 and 68% of observed individual differences are accounted for by the growth factors.

Table 4.6.

*Results of growth curve model analysis showing change in anxiety measures over time (n=96)*

Model	$\chi^2$	df	RMSEA	SRMR	TLI	CFI
M1 Baseline (intercept only)	7.427	4	0.094	0.121	0.960	0.947
M2 Unconditional linear	1.081	1	0.029	0.025	0.999	0.996

Note: df = degrees of freedom; RMSEA = root mean square error of approximation; SRMR = Standardised Root Mean Square Residual; TLI = Tucker Lewis Index; CFI = Comparative Fit Index (CFI), BIC = Bayesian Information Criterion. For descriptions of models, see text.

As results showed non-significant variability in participant's anxiety score trajectories over time, model 2 was again not expanded to include predictors of variability. Instead, a multiple regression model was conducted in MPlus to examine the relative role of factors associated with T1 anxiety scores using the variables significantly associated with T1 anxiety scores in the correlation analysis ( $p < .05$ ). The variance inflation factor values (VIF, 1.16 to 1.38) and tolerance values (0.73 to 0.87) suggested the absence of multicollinearity. Results showed that a reduced time one sense of competency predicted time one anxiety,  $p < .05$ . Regression coefficients and standard errors can be found in table 4.5.

## Discussion

This study adds to the growing literature on the prevalence of depression and anxiety symptoms in adoptive families. The parents in our sample had depression scores statistically significantly higher than the UK general population at all three time points. This is in line with research by Sewlyn and colleagues (2015), using a similar sample of UK parents adopting children from care. The estimated prevalence of ‘probable’ depression within our sample was 7% at time one, 12% at time two and 7% at time three. These results are similar to both Foli et al., (2012), which suggested around 11% of their sample of US parents had depression and slightly higher than Mott et al., (2011). At all time points this is higher than the 3.6% UK prevalence estimate based on a normative samples using the HADS. The parents in our sample had anxiety scores similar to the UK population at all three time points, supporting Mott and colleagues (2011), and Sewlyn (2015). The estimated prevalence of ‘probable’ anxiety within our sample was 10% at time one, 13% at time two and 11% at time three. At all time points this is lower or similar to the UK 12.6% prevalence estimate based on a normative samples using the HADS. Growth curve analysis revealed significant variability in initial depression and anxiety scores but overall scores remained stable across the adoptive placement. Results suggested that parents with larger initial (T1) depression and anxiety scores showed less of an increase in symptom scores over time but those who started lower had more of an increase over time. Findings from this study differ from Foli and colleagues study (2016), which found that depressions scores were highest after the child was placed for adoption and then reduced. This may be due to the sample, which was made up primarily of private infant adoptions.

By examining predictors of adoptive parents’ anxiety and depression, we can better understand which families may be struggling. Results showed that neither adoptive parent gender

nor age were associated with parent depression or anxiety at any time point. In contrast with McDonald and colleagues (2001) but in line with Selwyn (2015), adoptive parent relationship status (i.e. single or couple) was not associated with parent depression or anxiety at any time point. Although previous research has found associations between higher educational level and family income and lower parent-child relationship satisfaction (Ryan et al., 2010), this study did not replicate these findings for depression or anxiety at any time point. In our study, lower sense of parent competence was associated with higher depression and anxiety scores. Given the challenges adoptive parents face, this finding may be especially important considering Bandura's (1977) self-efficacy theory, which suggests that an individual's perceived ability to achieve a desired outcome through their actions will motivate their efforts and promote persistence (Latham, Mark, & Oliver, 2018).

Child gender was not associated with depression and anxiety at any time point, however, child age at placement was associated with initial parent depression and anxiety. Results showed that child internalizing and externalizing problems were associated with higher levels of adoptive parent depression and anxiety, theorised to be due to increased caregiver strain and parenting stress (Brannan & Heflinger, 2006; Brannan, Heflinger & Bickman, 1997; Vaughan et al., 2013). Similar to findings from Erich and Leung (2002) this study showed that adopting a sibling group was negatively associated with parental depression and anxiety. Adopting a sibling group may present a particular challenge since the adoptive parents need to adapt not only to the needs of each child but also to the inclusion of a pre-formed sibling subsystem. Tasker and Wood (2016) found powerful adopted sibling dynamics and suggested that these clashed with the couples own expectations of a sharing and caring family. For example, children were sometimes fiercely competitive for parental affection or even food.

In terms of contextual factors, a lack of support from family was associated with increased depression and anxiety scores, similar to previous studies (Foli, 2010; Linville & Lyness, 2007). However, it is interesting to note that this finding was not replicated for support from friends, suggesting the importance of family within this specific sample. Regression results showed that in terms of predictor variables, parental sense of competency showed the strongest effect size for both parental initial depression and anxiety. Results are in line with Belsky's (1984) model suggesting that child characteristics would have less of an impact on parenting than characteristics of the parents themselves (i.e. their sense of competency) and the characteristics of the caregiving context (i.e. family support, sibling group).

### **Strengths and Limitations**

To date, what we know about adoptive parenting well-being comes largely from qualitative data in the US. This chapter used standardised measures with parents of children adopted from foster care, in order to expand upon previous research and contribute to social work practice. Furthermore, to the best of our knowledge, this study represents the first UK study investigating the longitudinal course of risk factors associated with the mental wellbeing of parents adopting children from care.

Limitations of the study include that parents were invited to take part once a child had been placed with them through the local authority agency. This meant baseline measures of parent depression and anxiety were not obtained until approximately 4 months after the children were placed in their adoptive homes. It is possible that child effects took place quite early (i.e., the effect of children's pre-adoptive factors on T1 parenting behaviours) and did not continue to impact parenting change post adoption, or that the lag between parenting and child behaviour may

be longer than the interval we measured in the current study. Furthermore, we did not collect any pre-adoption measure of parent depression or anxiety diagnoses or symptoms. It is possible that selection effects may be operating in the context of contemporary adoption and parents with heightened symptoms of depression and/or anxiety may be entering adoption. For example, we know that parents may have experienced infertility (Tasker & Wood, 2016), associated with depressive symptoms (McQuillan, Greil, White & Jacob, 2003).

Another limitation was the use of self-report measures of parental well-being. A prospective, longitudinal UK study using both self-report and interview measures at three months postpartum showed that accurate detection of post-natal depression was better achieved by face-to-face clinical interview than through the use of a self-report measure (Pawlby, Sharp, Hay & O'Keane, 2008). In addition, the study used parental self-report measures to assess depression and anxiety symptoms, parental sense of competency and child behaviour. Shared method variance may be a factor in confounding the pattern of associations noted between parent-reported well-being, sense of competency and children's behaviour. Previous authors have pointed out that as parents stress levels increase their perceptions of current child behaviour diminish in accuracy, with parents more likely to focus on negative aspects (Morgan, Robinson & Aldridge, 2002).

Analysis was based on a modest sample size, which precluded the possibility of addressing more nuanced research questions, for example, some researchers have previously reported that sex differences may exist in the association between parental depression and offspring psychopathology (Davies & Windle, 1997), and may have resulted in limited power to detect significant associations. Furthermore, consistent with restriction of range in the environment that is common of adoptive families (Stoolmiller, 1999), the parents in our sample were generally well educated with high incomes. Prior research suggests that restriction of range in adoptive families

may not be problematic for the examination of behavioural outcomes (McGue et al., 2007), however, it remains unclear whether the current findings extend to more disadvantaged families.

### **Implications for Policy and Practice**

Researchers have long recognized the impact of the transition point from non-parent to parent for birth parents. Postnatal depression has gained a lot of attention not only because of the rising incidence worldwide, but also because of the serious negative impact on personal, family and child developmental outcomes (Shrivastava, Shrivastava & Ramasamy, 2015). This study adds to previous studies suggesting depression is as common if not more prevalent in adoptive families compared to biological families (Dean, White & Liu, 1995; Senecky et al., 2009; Mott et al., 2011; McKay et al., 2010). Growth curve analysis revealed that depression scores remained relatively stable across the first few years of an adoptive placement. Furthermore, results suggest that many parents are starting the adoption with increased depression symptom scores but those who start lower experience a larger increase over time. Many researchers and organizations, including the National Institute for Health and Care Excellence, recommend universal screening for postpartum depression (Smith, Gopalan, Glance & Azzam, 2016), in order to provide appropriate support. However, this is not the case in adoptive families. This study supports the need to extend surveillance of parental mental health to cover the early years of parenting proposed by Woolhouse, Gartland, Mensah & Brown, (2014), and for this monitoring to include adoptive parents.

Professionals should be aware that parents who adopt older children, sibling groups, and those with less support from families, may be more at risk for poor mental well-being. Furthermore, those parents who are expressing concerns about their competence or satisfaction in their role as a parent may be at additional risk and should be targeted for a follow-up assessment of

their well-being. These findings are important to note alongside results from a recent UK study analysing 600 posts made by waiting adopters on publicly available online adoption forums in 2015 (Rogers, 2018). The study found that a long waiting time to adopt had led adopters to widen their original preferences in order to increase their chances of being matched with a child, for example being willing to adopt older children or considering siblings when they had previously only felt able to adopt one younger child. It may be especially important to monitor and support those families who have ‘stretched’ their initial preferences as they may be more likely to start the placement with a lower sense of competence than if they had ‘stuck to’ their initial preferences, based on the intensive home study process. In addition, UK research revealed significant gaps between the perspectives of professionals and prospective adopters surrounding the information about their children, with some adoptive parents believing that professionals failed to share, or actively withheld, important information about their children (Selwyn et al., 2015). The Selwyn (2015) study found that parents commonly reported feeling their children’s needs were downplayed by professionals during matching. This mismatch between children’s needs and parent’s expectations could reduce their parental sense of competency, associated with depression and anxiety symptoms.

Dozier and colleagues (2014) suggest that parents should also have access to practical help as required, including respite and day care. In addition, the findings of this thesis suggest the need for interventions targeting parental mental well-being, to help reduce the development and impact of parental depression and anxiety given the associations with externalizing (Essex, Klein, Miech & Smider, 2001; Campbell, Morgan-Lopez, Cox & McLoyd, 2009), and internalizing problems in children (Bureau, Easterbrooks & Lyons-Ruth, 2009). If interventions are available, adoptive parents would be likely willing to take part, evidenced by research showing that adoptive parents’

thresholds to seek help are lower than birth parents, which may reflect their sensitivity, awareness, emotional investment and willingness to partake in treatment (Ratnayake, Bowlay-Williams & Vostanis, 2014).

Given that child behaviour a few months into placement was associated with poorer parental well-being, more support is needed directed at reducing the child's internalizing and externalizing problems. Many studies have previously highlighted that adoptive parents have been disappointed with the response they receive from mental health services (Howe, 2003). For example, in a reasonably small study investigating parenting an adopted child with mental illness, ( $N = 24$  US adoptive parents), a major finding was a feeling that the system had failed them, for example, one-to-one support for the child was often lacking. Similarly, UK research showed that many families had to wait for more than a year to receive support for the family or child, and nearly half of those did not feel that their needs had been met (Monck & Rushton, 2009).

### **Future Studies**

Belsky (1984) suggested many factors which affect parental behaviour and how such factors can affect parenting, in turn influencing child development. This study has attempted to investigate the association between a number of parent, child and broader social context factors and parent well-being. Despite this, some measures were somewhat problematic, for example, Belsky suggested that the development of a young child is fostered by a high frequency of adult contact involving a small number of adults. This study found that a lack of support from family was associated with increased initial depression and anxiety scores, however, family support was assessed using a crude measure asking how many family/friends they could count on for support. Future studies should measure family and friend support using a more sophisticated approach,

capturing quality and frequency of support. In addition, this study did not find any associations between education or income and parent well-being at any time point, however, job *influences* (not just income, but also work stress and time spent at work) could have an impact and future studies should address this.

Given Belsky's (1984) theory that parental personality and psychological wellbeing were the most influential determinants of parenting, future studies should expand our findings by assessing aspects such as parent fatigue and vicarious trauma in adoptive parents. Furthermore, in biological parenting, a more difficult period of adjustment for parents has been found where there are discrepancies between parent's expectations and their experience (Kalmuss, Davidson & Cushman, 1992). Foli's stream of studies have examined in detail parent's expectations surrounding adoption, showing similar findings in adoptive parents, which led to depressive symptoms. This thesis has not examined the pre-adoption expectations of parents; therefore, future studies should aim to examine the expectations of UK parents adopting children from care and the association with depression and anxiety.

### **Chapter summary and Next Directions in the Thesis**

Most studies on adoptive families have focused primarily on the adjustment of the adoptee, rather than how adoptive parents cope during the transition to adoptive parenting (Schupay, 2013). This chapter focused on parental mental well-being and examined pathways from risk factors such as parental support, sense of competency and child behaviour to parent psychopathology. This chapter showed that adoptive parents had depression scores significantly higher than the UK population, advocating the use of mental health screening post adoption to ensure support is available and directed to those that could benefit most.

**Key points**

- Adoptive parents had depression scores statistically significantly higher than the UK general population at all three time points. The estimated prevalence of ‘probable’ depression within our sample ranged from 7% to 12% across time points.
- Growth curve analysis revealed significant variability in initial depression scores but overall scores remained stable. Many parents started the adoption with high depression symptom scores and those who start lower showed larger increases over time.
- This study advocates the use of mental health screening post adoption to ensure support is available and directed to those that could benefit most.

Thus far, the thesis has not included any assessment of family processes or the quality of the parent-child relationship. As studies in the context of foster care (Schofield, Beek & Ward, 2012) found that the most important factor for adopted children’s positive outcomes was most likely to be the quality of the family experience, chapter five introduces data assessing the family climate. Specifically, adoptive parent and child relational subsystems have been shown to impact child well-being (Reitz & Watson, 1992; Goldberg & Smith, 2013), therefore dynamics of family climate (i.e. warmth and hostility) were assessed using both observational and self-report measures and results will additionally address the reliability of parental self-reports.

## CHAPTER FIVE

### Parent-child Relationship Quality among Adoptive Families

---

Within the field of adoption, research has predominantly focused on the pre-adoptive context than the post-adoptive context (Goldberg & Smith, 2013). Where researchers have examined family processes (Palacios & Brodzinsky, 2010), they have mainly investigated child-to-parent effects, applying the stress-coping model to understand children's and families' adoption adjustment (Berry, 1990; Brodzinsky, 1990). However, based on Bronfenbrenner's ecological theory (1979), parenting represents an important proximal process during early childhood and it may be especially important for those children who have experienced previous adversity. Baumrind, (1978) stated "there is no way in which parents can evade having a determining effect upon their children's personality, character, and competence" (Baumrind, 1978, p.239). To parent a child means to ensure the physical wellbeing of that child, stimulate the child intellectually, encourage socially acceptable and responsible behaviour, provide emotional security and give moral direction (Baumrind, 1978). Important examples of proximal processes are demonstrated by the relationship between child and parent, which may involve warmth and affection, use of discipline, attitudes towards learning and shared aspirations towards the child's future (Hannon et al., 2010). Parents, in their behaviours and relationships with their children, can have a profound influence on their children's learning, interactions with their environment, and their expectations of self and others (Collins & Laursen, 1999).

Parenting styles vary greatly and have been described in terms of a continuum, with affectionate, accepting and warm at one end, and rejecting and hostile at the opposite end (Santos-Nunes, Narciso, Vieira-Santos & Roberto, 2017). Extensive research in normative populations has demonstrated the robust influence of parenting on child outcomes. Parental influences including how parents interact with their children has been associated with child adjustment in multiple domains of functioning, including the development and/or maintenance of child psychopathology (Gardner & Shaw, 2009; Miner & Clarke-Stewart, 2008). Positive aspects of parenting such as warmth and supportiveness predict both concurrent and later social competence in children (Eiden, Colder, Edwards, & Leonard, 2009; Lengua, Honorado & Bush, 2007). In adulthood, recalling parental warmth is associated not only with psychological health and well-being (Rohner, Khaleque & Cournoyer, 2005), but also physical health (Russek & Schwartz, 1997). Parent sensitivity (e.g. the ability to respond promptly and effectively to a child's needs and distress) has been shown to be a key mediating process linking parenting behaviour to child adjustment (Cox & Harter, 2003; Bakermans-Kranenburg, van IJzendoorn & Juffer, 2003). Warm responsive parenting is associated with less internalizing and externalizing problems (Zvara et al., 2018). Parenting lower in warmth and nonresponsive is a predictor of subsequent externalizing problems (Bayer, Sanson & Hemphill, 2006). In contrast, parenting that is harsh, unsupportive, hostile or rejecting are associated with increased aggression in childhood (Carson & Parke, 1996; Chang, Schwartz, Dodge & McBride-Chang, 2003).

### **Parenting in Adoptive Families**

Brodzinsky (1993) highlights the importance of familial, interpersonal and societal factors on children's post adoption adjustment. Of these factors, he suggests that the family environment is the most influential factor affecting adoptee adjustment. Being an adoptive parent involves

balancing multiple responsibilities, including meeting the child's daily physical, social, and emotional needs; nurturing a relationship; and responding to behaviours appropriately. Furthermore, it may include engaging the youth's biological or previous foster family; providing transportation to appointments; and communicating with social workers (Chipungu & Bent-Goodley, 2004). Brodzinsky (1987) suggests that heightened anxiety or a mismatch between the mother's expectations and the infant's characteristics can lead to low warmth or heightened intrusiveness. Conversely, if the mother provides an atmosphere of warmth and low anxiety she is more likely to meet her infant's needs in ways that will promote a sense of security. Several authors have highlighted the important role of 'supportive parenting' in the development of positive parent-child relationships. For example, a meta-analysis investigating associations between various types of parenting behaviours and relational aggression demonstrated that more positive parenting was associated with less relational aggression in children (Kawabata, Alink, Tseng, Van IJzendoorn & Crick, 2011).

Studies have shown that adoptive parents are more 'invested' (i.e. provide more economic, cultural, interactional, and social capital resources) than birth parents (Hamilton, Cheng & Powell, 2007; Werum, Davis, Cheng & Browne, 2018). This refutes kin selection theories that suggest that biological parents invest more heavily into children who carry their genetic code (Amato, 2005; Biblarz & Raftery, 1999). Reasons for this may include adoptive parents waiting longer and perceiving the process of becoming a parent more difficult than biological parents. For example, Suwalsky and colleagues (2012) found that the time that elapsed between the decision to start a family and the arrival of the child was over 4 years on average, substantially longer than the 21 months of biological parents. However, studies comparing the parenting practices and family relationships of adoptive and non-adoptive parents have produced inconsistent findings. For

example, Cohen, Coyne and Duvall (1996) found stronger parent-child relationships in adoptive families relative to non-adoptive. This was also suggested in a study by Suwalsky, Hendricks and Bornstein (2008), who found that adoptive mothers fed and patted their infants more than birth mothers did and speculated that close, nurturing interactions may be particularly satisfying for adoptive mothers. Other within-group studies of adoptive families have generally found positive parent-child relationships (Whitten & Weaver, 2010; Tienari et al., 2004), although some have found no differences between the two groups (Dhavale, Bhagat & Thakkar, 2005). This was further supported in a recent study by Lawler, Koss and Gunnar (2017), showing no mean-level differences in parent sensitivity/responsiveness or structure/limit-setting between parents who adopted children internationally and birth parents. However, adoption context (such as type of adoption) may be important, as Levy-shiff, Zoran, and Shulman (1997) found that parents of internationally adopted children were more overprotective, intrusive, and controlling than other adoptive parents. In addition, a large US study reflecting all forms of adoption in the US conducted by Santos-Nunes and colleagues (2017) found that although adoptive and birth parents showed similar scores for control attempts and rejection, adoptive parents revealed less emotional warmth than the control group of birth parents.

The effects of parenting on adopted children's adjustment has been investigated in a small number of studies. For example, using a longitudinal adoption design, O'Connor, Deater-Deckard, Fulker, Rutter and Plomin (1998) classified adopted children into children predisposed and not predisposed for anti-social behaviour based on their biological mothers' self-report history of antisocial behaviour collected prior to the birth of the child. Adoptive mothers reported on parenting strategies over six years. It was found that negative parenting was associated with externalizing behaviour, even after controlling for genetic predisposition. Similarly, Tan, Camras,

Deng and Lu (2012) investigated parenting style and found that in both adoptive and non-adoptive families, negative parenting (defined by authoritarian and permissive patterns) was positively associated with children's externalizing problems, while authoritative parenting had a negative relationship with this outcome. Furthermore, Elam and colleagues (2014) examined the influence of adoptive parent to child hostility as a predictor of disruptive peer behaviour during early childhood in a sample of adoptive children and their families. Parental hostility was measured at 27 months, whereas adoptive parent-report child behaviour was assessed at four years of age. It was found that high adoptive parent-child hostility predicted children's later disruptive peer behaviour.

Clarke and Clarke (2001) found that the key elements in successful adoptions were adoptive parent expressed warmth, emotional involvement and sensitivity and the way in which these were combined. Tiernari and colleagues (2004) conducted a landmark study investigating whether certain family environments can protect from the development of psychopathology. The sample included children who had been born to mothers with schizophrenia and then adopted early by non-relatives. The authors found that for the adoptees, compared to the control group, the type of family they were adopted into was very important. Over a third (34%) of adoptees raised in a dysfunctional family environment showed signs of schizophrenia at adulthood, compared to only 7% of those raised in a healthier environment, highlighting the idea of differential susceptibility and the potential protective role played by the family. In a longitudinal study (Jaffari-Bimmel, Juffer, Van IJzendoorn, Bakermans-Kranenburg & Mooijaart, 2006), 160 early internationally adopted children were followed from infancy to adolescence to assess the influence of previous and concurrent factors on the children's social development. Results showed that quality of the early parent-child relationship was indirectly associated with social development in adolescence

through the influence on social development in middle childhood. Maternal sensitivity in middle childhood and in adolescence partly buffered the negative effects of difficult temperament on social development in adolescence. Expanding on this, Whitten and Weaver (2010) used a risk and protective perspective to analyse the data of 701 adolescents and their adoptive parents. They showed that the quality of the parent-child relationship was significantly associated with reduced odds of skipping school, being suspended and reporting substance abuse or trouble with the police after controlling for demographics variables and pre-placement abuse/neglect. Despite the variation in the quality of post-adoption care children receive relatively little is known about post-adoption family climate and its contribution to recovery (Garvin, Tarullo, Van Ryzin & Gunnar, 2012).

### **Bi-directionality in Adoptive Families**

Lansford, Ceballo, Abbey and Stewart (2001) found that adoptive mothers reported more parent-child disagreements than non-adoptive mothers. In addition, Rueter, Keyes, Iacono, and McGue (2009) investigated differences in relationship quality using self-report and independent observer methods; some of the parents in this study had both adopted and biological children, enabling comparisons of the parent's relationship with each child. They found that the adoptive parents rated children's behaviour as less warm and more conflictual. In addition, families with both adopted and biological children reported more conflict in the relationship with the adopted than with the biological child. However, there were no differences in the observed behaviours of the parents and their adolescents. Likewise, Walkner and Rueter (2014) found that adoptees and adoptive parents reported higher levels of relationship conflict, and adoptees were observed to be more conflictual than their biological counterparts. Adoptees and adoptive parents also reported lower levels of closeness than did biological parents and children. Furthermore, a child's

emotional availability (i.e. their ability to respond to a parent's biddings and involve them in activities) has been shown to be affected by their history of adversity, so that they may present as non-responsive with their new parents (Piermattei et al., 2017; Gunnar, Bruce & Grotevant, 2000). This non-responsiveness may indicate difficulties in their attachment style, for example previously maltreated children may expect rejection and signal to other people that they should not come close, leading to further rejection (Schofield & Beek, 2014), as outlined in the introduction. In addition, in a sample on internationally adopted children, Tan, Major, Marn, Na and Jackson (2015) found that being a boy, being older when placed for adoption and having special healthcare needs predicted a lower quality parent-child relationship.

Although the parent may be the dominant force in shaping children's behaviour in early childhood (Zvara et al., 2018), some studies have reported that child behaviours exert a greater influence on parenting behaviours than vice versa from childhood to adolescence (Huh, Tristan, Wade & Stice, 2006; Zvara et al., 2018). For example, Barber (1994) found that adolescent personality characteristics (i.e. 'difficult' temperaments) and history of externalizing problems were more likely to engage in conflictual parent-child interactions. Koh and Rueter (2011) hypothesise that children with negative emotionality traits (such as aggressive tendencies) may be more likely to initiate conflict with their parents and this in turn may contribute to adoptive parent stress. Adoptive parents have been reported to have significantly higher parenting stress than biological parents, and analyses showed that this difference in parenting stress levels was accounted for by adoptive children's behaviour difficulties (Harris-Waller et al., 2016). Parenting stress in turn can relate to the use of more negative and less positive parenting practices and worsen such problems (e.g. Boivin, Vitaro & Poulin, 2005; Forget-Dubois et al., 2007; Barry, Dunlap, Lochman & Wells, 2009). The way parents respond to such problems shapes one aspect of the

‘family climate’ (Cantero-Garcia & Alonson-Tapia, 2018), with children’s behaviours and adjustment eliciting complementary parenting behaviours (Bell & Chapman, 1986; Croft, O’Connor, Keaveney, Groothues & Rutter, 2001; Wang, Christ, Mills-Koonce, Garrett-Peters, & Cox, 2013).

Overall, relatively little empirical knowledge exists on the associations between adoptive family environment and the outcomes of adoptees (Ji, Brooks, Barth & Kim, 2010) and even less is known about the bidirectional effects of parent and child characteristics in post adoption families (Lawler et al., 2017). As adoptive children’s vulnerability to internalizing and externalizing problems may be exacerbated or protected by aspects of parenting, research investigating relationships in adoptive families is needed. Arguably the best-established and most researched construct for measuring the emotional relationship is expressed emotion (EE) (Hastings & Lloyd, 2007).

### **Expressed Emotion**

The Five Minute Speech Sample (FMSS) procedure was developed by the psychoanalyst and researcher Louis Gottschalk and colleagues (Gottschalk, Gleser, Daniels & Block, 1958). The researchers argued that asking respondents to talk for five uninterrupted minutes about important life experiences would be more likely to present evidence of internal psychological states rather than reactions to interviewer cues (Sher-Censor, 2015). It was used to examine relationships between one person, usually one family member, towards another, who is usually a relative with a disorder (Barrowclough & Hooley, 2003). Gottschalk analysed the FMSS using a content coding scheme, which consisted of scales such as: Anxiety (e.g., descriptions of occurrence or threat of death, separation, guilt or shame), Hostility (i.e., hostile-aggressive feelings and actions), and Hope (optimism that a favourable outcome is likely). Gottschalk showed that the FMSS content scores

correlated with psychiatrists' ratings of adults' symptoms and differentiated between psychotic and non-psychotic adults (Gottschalk & Gleser, 1969). Furthermore, the FMSS content scores predicted reaction to treatment (Sher-Censor, 2015). For example, higher scores on the hope scale were associated with increased likelihood that psychiatric patients would follow their treatment recommendations and show improvement (Gottschalk, 1974).

At a similar time point, Brown and Rutter (1966) observed that schizophrenic patients were more likely to suffer a relapse when they returned home to live with caregivers who were highly emotionally involved with them and/or highly critical of them. The researchers were interested in assessing if the environment at home could be measured through interviews with the patients caregivers. They suggested that what caregivers say about their relative during an interview may indicate how they treat the relative. To assess EE, Brown and Rutter developed the Camberwell Family Interview (CFI; Brown & Rutter, 1966). The CFI is a 1- to 2-hour semi-structured interview in which a caregiver is asked about the patient's psychiatric difficulties, specific symptoms, how the caregiver deals with difficult situations involving the patient, and how the two of them get along together (Hooley, 2007). The EE coding system emphasizes specific elements of caregivers' speech and vocal tone and includes assessments of: Criticism (i.e. dislike or disapproval of the patient's behaviour); Hostility, (i.e. generalized dislike and rejection of the patient) and Emotional Over involvement (EOI) (i.e. overprotective attitudes and/or extreme emotional distress during the interview). Coders classified caregivers are classified as high in EE if they make an above-threshold number of critical comments, express hostility, or score high on the EOI construct. Coders also rate the number of positive comments and how much warmth the caregiver expresses about the patient. Contrary to its name, EE is not a measure of the emotional expressiveness by caregivers; it is a measure of the extent to which a caregiver talks about a patient

in a critical or hostile manner or with significant emotional over-involvement or over-concern (Hooley & Gotlib, 2000).

High EE is associated with negative observed behaviours of caregivers and adult patients. EE has been shown to increase over time, and is associated with various psychiatric disorders and relapse (Hooley, 2007). Researchers suggested that caregivers characterised as having ‘High EE’ experience difficulties accommodating to the adult patient’s behavioural difficulties and may respond in a resentful, intrusive, or overprotective manner. Such an emotional climate can be stressful to the patient. In contrast, Low EE relatives were described as tolerant, sensitive and non-intrusive towards their relative (Vaughn & Leff, 1976). EE is a well-established index of the family environment of adults with psychiatric disorders, for example, a meta-analysis on 27 studies examining EE to predict psychiatric relapse by Butzlaff and Hooley (1998) concluded that the weighted mean effect size for the association between EE and relapse was a  $r$  of .31. In addition, a recent  $p$ -curve analysis (conducted in light of concerns about selective reporting and “ $p$  hacking”) showed that EE is unbiased and has integrity, concluding that EE is a robust and valuable predictor of symptom relapse in schizophrenia (Weintraub, Hall, Carbonella, Weisman de Mamani & Hooley, 2017). Despite the CFI being regarded as the gold standard form of EE assessment (Weidemann, Rayki, Feinstein, & Hahlweg, 2002), the administration and scoring of the CFI has been described as cumbersome and costly (Hooley, 2007). In response to this, Magaña-Amato and colleagues (Magaña et al., 1986) suggested that Gottschalk’s FMSS could provide a brief and cost effective procedure to assess EE. They used a modified version of the EE coding system to fit five-minute speech samples. Studies using the FMSS-EE have since extended research beyond schizophrenia, to a range of disorders including eating disorders, mental illness, bipolar illness, depression, head injury, epilepsy, Alzheimer’s disease and adults with learning disabilities.

**Expressed emotion and childhood.** Given that many forms of mental health difficulties begin in childhood and psychopathology research is interested in the emotional relationship between children and their parents, child psychiatry, paediatric and developmental researchers have been investigating EE for nearly 30 years (Sher-Censor, 2015). Due to the predictive power and the cost and time savings associated with using the FMSS-EE procedure, this has often been used as the measure of expressed emotion. In healthy youth, the rate of high EE in families (as measured by the FMSS) varies greatly, between 20 and 40% (Peris & Miklowitz, 2015). These variations are most likely due to sampling differences (e.g. inpatient vs outpatient samples). In addition, how EE is measured, scored and reported varies across studies, with one study showing that the FMSS protocol established by Magana and colleagues (1986) identified high EE less frequently than the original Camberwell Family Interview (Leff & Vaughan, 1985). EE has been examined as a correlate of psychological adjustment among youth across the full developmental spectrum (toddlers through to adolescents), using samples from community, clinic, and inpatient settings, and across a range of conditions including self-harming adolescents, adolescents with social anxiety disorder, separate/divorced families, mothers and children with anxiety disorders, homeless families, children experiencing parental violence, children with asthma, children with attention deficit hyperactivity disorder, children with behavioural difficulties, children with depressive disorders, children with gender identity disorder, children with intellectual disabilities and disadvantaged children and children with obsessive-compulsive disorder (For a full review see Sher-Censor, 2015).

In general, high parental EE is associated with internalizing and externalizing problems in child and adolescent community and clinical populations (Sher-Censor, Shulman & Cohen, 2018; Narayan, Cicchetti, Rogosch, & Toth, 2015; Psychogiou, Daley, Thompson & Sonuga-Barke,

2007). In addition, numerous studies have shown an association between EE and ADHD (Musser, Karalunas, Dieckmann, Peris & Nigg, 2016; Cartwright et al., 2011). Furthermore, Hooley and colleagues (2009) found that formerly depressed students who heard audiotapes of their mothers criticising them showed greater amygdala activation and less dorsolateral prefrontal cortex activation during fMRI than healthy students. The same was not found in response to maternal praise, thus suggesting that the criticism dimension of EE affects vulnerable individuals at the neural level. However, many studies have found that expressed warmth (associated with praise) is associated with fewer behaviour problems in children (Herbers, Cutuli, Kolarova, Albu & Sparks, 2017; Narayan, Sapienza, Monn, Lingras & Masten, 2015; Tully, Arsenaault, Caspi, Moffitt & Morgan, 2004). Table 5.1 provides details of previous research examining the association between FMSS/PFMSS and child psychopathology.

In addition, EE has been found to vary across cultures, with EE negative comments associated with more externalizing problems only among White and Black mothers, not Hispanic, although there is a paucity of research in this area (Sher-Censor & Yates, 2015). Longitudinal studies have also produced mixed results concerning the stability of EE over time (Peris & Baker, 2000; Hale et al., 2011). In an assessment of the psychometric properties of measuring EE in parents of young children (Daley, Sonuga-Barke & Thompson, 2003) suggested low stability of EE over periods of six months or longer. Parental EE is not only associated with child psychopathology, but has additionally been linked to elevated rates of psychopathology in parents (Rogosoch, Cicchetti & Toth, 2004; Tompson et al., 2010), and disrupted attachment patterns (Jacobsen, Hibbs & Zeigenhain, 2000).

The attributional model framework put forward to aid our understanding of EE suggests that critical comments stem from attributions that caregivers make about the causes of undesirable

behaviours (Hooley, 1987; Barrowclough & Tarrier, 1984). For example, if the parent believes the child is in control and responsible for their behaviour this leads to high levels of criticism, whereas, if the parent believes that external factors (such as illness) are responsible for the behaviour, this leads to more neutral or low EE responses. The attributional model framework has been supported by a considerable amount of research with adult populations (Peris & Miklowitz, 2015) and a small number of studies in child samples investigating OCD (Peris, Yadegar, Asarnow & Piacentini, 2013) and clinic-referred youth with externalizing problems (Bolton et al., 2003).

### **Expressed emotion in adoptive families.**

A thorough literature review was conducted (see Appendix 9 for search strategy) and only one study was identified that had used the five minute speech sample methodology with adoptive families. This study was conducted by Rutter and colleagues (2010b) and investigated deprivation-specific psychological (DSPs) patterns in children adopted from Romania using detailed interview and observation measures, together with psychometric assessments, over a 10-year follow-up period. Rutter and colleagues (2010b) found that high expressed emotion (measured by the number of negative comments or the general level of negativity), applied to only a minority of families. They found that the mean number of negative comments was 1.67 and 1.26 for overall negativity for the group of children with deprivation-specific psychological patterns (DSPs) who experienced institutional care beyond six months. The EE scores did not differentiate the DSP and non-DSP groups. However, more negative comments and higher negativity of adoptive parents at age 4–6 were associated with less positive parental evaluation of the adoption and increased conduct disturbance, emotional problems, and peer problems of the child at age 11.

Table 5.1

*Methods and measures used in previous research examining the association between FMSS/PFMSS and child psychopathology<sup>4</sup>*

Author	Age of children	N	Study design	Variables of assessment	Summary of findings
Sher-Censor, Shulman & Cohen (2018)	19 to 46 months ( <i>M</i> = 28.25)	55	Cross-sectional	FMSS – criticism, positive comments and coherence	Parenting stress was associated with maternal criticism and fewer positive comments, but not coherence. Parenting stress, criticism and lower coherence associated with externalizing. Only parenting stress and coherence associated with internalizing behaviours.
James, Woody, Feurer, Kudinova & Gibb (2017)	7 to 11 years	396	Cross-sectional	FMSS - EE	Exposure to parental criticism moderated the relationship between a child's history of suicidal injuries and their heart rate variability to the discussions.
Moroney, Tung, Brammer, Peris & Lee (2017)	5 – 10 years	230	Longitudinal	FMSS – EE facets (Criticism and emotional over-involvement)	Parental ADHD symptoms were a time-varying predictor of worsening youth ADHD and OCD. EE facets (i.e. criticism, emotional over-involvement) did not mediate the effect from parent to youth ADHD, however negative parenting (assessed using the Alabama Parenting Questionnaire) did.
Musser, Karalunas, Dieckmann, Peris & Nigg (2016)	7 to 13 years	515	Longitudinal	FMSS - EE	Parent-rated high persistent hyperactive group was more likely than the other ADHD groups to have parents with stable high criticism (34.6%, <i>p</i> < .001). Parental criticism was associated with divergent developmental trajectories among children with ADHD in addition to those associated with ODD symptoms.

<sup>4</sup> Note that studies were included if they 1) assessed the emotional climate of parent–child relationships using either the FMSS or PFMSS, 2) examined associations with child psychopathology, and 3) sample was made up of children (pre-adolescent).

Herbers, Cutuli, Kolarova, Albu, Sparks (2017)	8–11 years	19	Longitudinal	FMSS – warmth and negativity	The number of children demonstrating resilience with respect to mental health increased significantly over the course of 1 month. Fewer parents reported clinical levels of distress after 1 month, suggesting that some are adapting well despite homelessness. Both executive functioning and parents expressed warmth towards their children predicted fewer externalizing behaviour problems at T2.
Hughes, Aldercotte, & Foley (2016)	Age 6 at time one	116	Longitudinal	FMSS – coded for mind-mindedness and positivity	Family adversity, child gender and low maternal monitoring, mothers' mind-mindedness (but not positivity) predicted unique variance in disruptive behaviour at age 12.
Rea, & Shaffer (2016)	<i>M</i> = 9.48	64	Cross-sectional	FMSS - EE	Criticism and emotional over-involvement are related to observed and self-reported parenting behaviours, though emotional over-involvement appears to be an aspect of positive parenting in this youth sample. All subtypes of maltreatment were correlated with significantly less emotionally supportive behaviours, but not with more unsupportive behaviours. Higher levels of emotional over-involvement significantly mediated the relationship between a history of sexual abuse and supportive and unsupportive parenting practices.
Roskam, Stievenart & de Mol (2016)	Aged 4 at wave one	117	Longitudinal	FMSS – all constructs	The results provided no evidence for a transactional process between the relationship with caregivers and externalizing behaviours. The results suggest the singularity of each interactional systems.
Sher-Censor & Yates (2015)	<i>M</i> = 49.14 months	212	Cross-sectional	FMSS – Positive and negative comments	EE positive comments were related to mother ratings of fewer overall behaviour problems, whereas narrative coherence was associated with observer ratings of fewer behaviour problems. EE negative comments was associated with mother-ratings of more behaviour problems, but only among White and Black mothers, not Hispanic.

Schloss, Schramm, Christiansen, Scholz, Schuh, Doepfner, Becker, Pauli-Pott (2015)	4 to 5 years	114	Cross-sectional	FMSS – all constructs		Most of the PFMSS scales showed the expected associations with maternal sensitivity, ADHD, and ODD symptoms of the child. The German PFMSS thus validly captures significant components of an inadequate mother-child relationship within the context of preschool externalizing behaviour problems
Narayan, Sapienza, Monn, Lingras & Masten (2015)	4 to 6 years	138	Cross-sectional	FMSS criticism, negativity warmth	– &	An interaction of Exposure to parental violence (EPV) and warmth, consistent with a moderating effect of expressed emotion for EPV and peer relations, although no interactions were found for criticism or negativity. Observed harshness directly predicted worse peer relations. Parental warmth may be protective for positive peer relations among impoverished families with high levels of EPV.
Khafi, Yates & Sher-Censor (2015)	<i>M</i> = 49.08 months	223	Longitudinal	FMSS – criteria	– EOI	Both the self-sacrifice/overprotection (SSOP) and Statements of Attitude (SOAs) FMSS-EOI criteria predicted externalizing problems. Excessive detail and exaggerated praise were not related to externalizing behaviour problems. None of the FMSS EOI criteria variables were associated with internalizing behaviour problems.
Narayan, Cicchetti, Rogosch, & Toth (2015)	<i>M</i> = 8.01 years	123	Cross-sectional	FMSS – EE-crit		Maltreatment is a direct risk factor for children's externalizing behaviour and separation/divorce is a vulnerability factor for externalizing behaviour in family contexts with high maternal EE-Criticism.
Lancaster, Balling, Hastings, & Lloyd (2014)	4 to 9 years	27	Cross-sectional	FMSS criticism warmth	– and	Mothers typically made attributions that were internal to the child, controllable by the child, personal to the child and stable for the child. Maternal attributions of being able to control the child's behaviour were associated with high maternal criticism and low warmth. Maternal depression was more strongly associated with the child's

					externalizing problems when mothers were coded as high in criticism or low in warmth.
Han & Shaffer (2014)	8 and 11 years	60	Cross-sectional	FMSS - EE	Maternal expressed criticism toward the child was positively associated with child externalizing problems through its relation to increased child emotion dysregulation, whereas maternal emotional over-involvement was negatively associated with child externalizing problems through its negative relation to child emotion dysregulation
Sellers, Harold, Elam, Rhoades, Potter, Mars, Craddock, Thapar & Collishaw, (2014)	9 to 17 years at baseline	299	Longitudinal	FMSS	Maternal antisocial behaviour predicted both maternal hostility and low warmth, maternal hostility predicted offspring disruptive behaviour disorder symptoms, but not depression, and maternal warmth was not associated with either child outcome.
Psychogiou, Netsi, Sethna, Ramchandani (2014)	1 year old	163	Longitudinal	FMSS - EE	Regression analyses showed that depression and couple relationship significantly predicted EE in mothers, but not fathers.
Waller, Gardner, Dishion, Shaw, Wilson, (2012)	2 and 3 years	731	Cross-sectional	FMSS – coded using Family Affective Attitude Rating Scale (FAARS)	Affective attitudes were related to mothers' perceptions of their daily hassles, their reports of conflict with their child, and observed measures of positive and harsh parenting.
Burkhouse, Uhrlas, Stone, Knopik & Gibb (2012)	8 to 12 years	100	Longitudinal	FMSS EE-Crit	EE crit latent class membership predicted children's depression onset over the subsequent 14 months, even after controlling for mothers and children's depressive symptoms during initial 6 months follow up.

					Maternal depression did not moderate the link between EE-crit and childhood depression onset.
Gravener, Rogosch, Oshri, Narayan, Cicchetti & Toth (2012)	Approx 20 months	198	Cross-sectional	FMSS – self and child criticism	Maternal depression was linked with high EE and child functioning. Child-criticism was linked with child internalizing and externalizing problems. Child criticism mediated the link between maternal depression and child externalizing and internalizing behaviours.
Tompson, Pieee, Boger, McKowen, Chan & Freed (2010)	8 to 12 years	171	Cross-sectional	FMSS – EE	History of maternal depression was associated with high maternal EE and the combination of maternal depression history and maternal EE was associated with children’s own reports of higher depressive problems. History of maternal depression and a rating of high or borderline critical EE were independently associated with children’s depression diagnoses.
Cartright, Bltsakou, Daley, Gramzow, Psychogiou, Siminoff, Thompson, Edmund & Sonouga-Barke (2011)	5 to 17 years	60 sibling pairs	Cross-sectional	FMSS – initial statement, relationship warmth, critical comments and positive comments	Higher levels of maternal expressed emotion towards the group of children with ADHD. For relationship, positive comments and critical comments this effect was explained by comorbid child conduct problems rather than ADHD. Only low warmth was associated with child ADHD itself. Low warmth was related to variations in more general family characteristics, especially levels of maternal depression.
Raishevich, Kennedy & Rapee (2010)	35 and 59 months	157	Cross-sectional	FMSS – EE	Mothers of behaviourally inhibited children demonstrated significantly higher levels of emotional over-involvement and self-sacrificing/overprotective behaviour. There was no significant relationship between inhibition status and maternal criticism. Child temperament, but not maternal anxiety, was a significant predictor of both EOI and SS/OP.

Gar & Hudson (2009)	6 to 14 years	48	Cross-sectional	FMSS – EE	Significant decrease in the proportion of mothers who expressed high levels of criticism and emotional overinvolvement from pre-treatment to posttreatment. Interventions aimed at reducing symptoms of child anxiety can result in a decrease of maternal expressed emotion.
Silk, Ziegler, Whalen, Dahl, Ryan, Dietz, Birmaher, Alexson & Williamson (2009)	8 to 19 years	109	Longitudinal	FMSS – EE	Mothers of children with a current or remitted episode of major depressive disorder (MDD) or high risk of MDD were more likely to be rated high on criticism than mothers of controls. Higher initial critical EE was associated with a greater likelihood of having a future depressive episode in high-risk and depressed patients.
Psychogiou, Daley, Thomson & Sonuga-Barke (2007)	<i>M</i> = 7.96	100	Cross-sectional	FMSS – crit and EOI	Significant positive correlations between criticism and child ADHD, conduct and emotional symptoms. Significant negative correlations between EOI and ADHD and conduct problems.
Calam & Peters (2006)	3 to 10 years	75	Longitudinal	FMSS – EE	Common behaviour problems were significantly lower in families classified as low EE compared to high using the Camberwell Family Inventory or the FMSS.
Tully, Arseneault, Caspi, Moffitt & Morgan (2004)	5 year olds	2,232	Cross-sectional	FMSS – warmth	Significant interaction between children’s birth weight and maternal warmth in predicting ADHD, but not IQ. The effect of birth weight on their ADHD symptoms can be moderated by maternal warmth.
Caspi, Moffitt, Morgan, Rutter, Taylor, Arseneault, Tully, Jacobs, Kim-Cohen & Polo-Tomas (2004)	Age 5 at time one	565	Longitudinal	EE – positive comments, negative comments, negativity, warmth	Maternal expressed emotion at age 5 predicted children’s antisocial behaviour problems at age 7, even after controlling for behaviour problems at age 5. Differences in maternal expressed emotion predicted differences between genetically identical MZ twins. Maternal emotional attitudes toward children may play a causal role in the development of antisocial behaviour.

McCarty, Lau, Valeri & Weisz (2004)	7 to 17 years	252	Cross-sectional	FMSS – Crit and EOI	High critical parents showing more antagonism, negativity, disgust, harshness, and less responsiveness, compared to parents who scored in the low or borderline ranges. No behaviours were related to EOI.
Daley, Sonuga-Barke & Thompson (2003)	34 – 39 months	100	Cross-sectional	PFMSS	High EE was associated with less affection and greater maternal direction during play interaction and discriminated between the parents of ADHD and non-ADHD children. With the exception of emotional over involvement, the PFMSS demonstrated acceptable code-recode and inter-rater reliability, and adequate test-retest reliability.
Peris & Hinshaw (2003)	6 to 12 years	131	Cross-sectional	FMSS – EE	High parental EE was associated with both ADHD and aggression. The EE component of aggression as opposed to EOI showed the stronger associations for both constructs.
Jonn-Seed & Weiss (2002)	A few days after birth	83	Longitudinal	R-FMSS (revised)	Infant temperament contributed the most variance to the development of internalizing and externalizing problems. Negative EE was most substantial for infants who adapted readily to the demands of their environments and who had difficulty persisting with a task or activity. Positive EE did not influence the incidence of problems for children in general, it did appear to reduce the likelihood of developing internalizing problems for more persistent children.
Baker, Heller & Henker (2000)	3 to 5 years	112	Longitudinal	FMSS – EE	At preschool, the proportion of high EE increased significantly, however, preschool EE was not predictive of subsequent child status at 1 <sup>st</sup> grade.
Peris & Baker (2000)	M = 6.8 years at first grade	91	Longitudinal	FMSS – EE	The stability of the EE rating over the 2-year period was statistically significant although modest. At 1 <sup>st</sup> grade, EE ratings were related to the extent of externalizing behaviours. Controlling for parenting stress levels, preschool EE ratings predicted classification of ADHD over 4 years later.
Hirshfeld, Biederman, Brody, Faraone,	4 to 10 years	30	Longitudinal	FMSS – EE	In the at-risk sample, child behavioural inhibition was associated with high/borderline maternal criticism. In general, high/borderline maternal criticism was associated with child externalizing behaviours

& Rosenbaum  
(1997)

and the number of mood and behaviour disorders. Emotional overinvolvement was significantly associated with child separation anxiety disorder in the at-risk sample.

Although EE's focuses on the attitudes and emotions expressed by caregivers, Peris and Miklowitz (2015) state that despite claims to the contrary (Strachan, Goldstein & Miklowitz, 1986), the construct of EE does not ascribe parents a causal role in their child's mental illness. Whilst EE could play a directly causal role, it may be that children have some characteristics (severe symptoms) that result in their families being more critical of them (Hooley & Miklowitz, 2018). Hooley and Gotlib (2000) support the notion that high EE may be due to bi-directionality between parent and child, stating that EE is "almost certainly a product of the interaction of both patient and relative characteristics" (p.139). In a recent longitudinal study utilising the FMSS as a measure of emotional climate, Sher-Censor, Shuman and Cohen (2018), found that parenting stress was associated with internalizing and externalizing problems in the child, greater maternal criticism and fewer positive comments.

One explanation for the process of bi-directionality resulting in high EE is based on genetic susceptibility and states that within biological families, child temperament in early childhood (i.e. behavioural inhibition, irritability, etc.) may reflect the child's underlying genetic vulnerability to psychiatric illness, shared by one or more of the parents. As the parents have a genetic vulnerability this could lead to maladaptive patterns of responding with hostile, critical or overprotective behaviours, which in turn contribute to poor future adjustment for the child. However, this bi-directional effect has also been found among foster care samples (where genetic vulnerability is not shared). For example, in a longitudinal study of 49 foster mothers and their school-aged foster children, children's internalizing and externalizing problem behaviours were reported to have direct negative effects on self-reported parenting and led to less support and more negative control two years later (Vanderfaeillie, van Holen, Trogh & Andries, 2012). In addition, studies have found an association between child temperament and parent conflict, and in turn

parent conflict is associated with child adjustment (Eisenberg et al., 2008). Hooley and Gotlib (2000) state that coping with a child's mental illness requires an unusual set of skills and a great deal of trial-and-error learning. If parents' efforts fail to bring about the changes they desire, they must learn to manage their frustrations, and if unable to do this criticism and blame is likely to be the result.

**FMSS reliability compared to observational methods.** Direct observation is considered the 'gold standard' for assessing parenting and parent-child dynamics (Hawes, Dadds & Pasalich, 2013), due to showing how behaviour is influenced by aspects such as behavioural triggers of others (Gardner, 2000) and how it can unfold over time. Some researchers believe that direct observation is less biased, with research showing that even when instructed to deliberately modify "bad" behaviours, participants in observed interactions are unable to do this (Johnson & Bolstad, 1975). Furthermore, the parenting processes captured by direct observation may often be difficult for participants to self-evaluate, given that parenting often involves highly overlearned patterns of behaviour enacted outside of conscious awareness (Gardner 2000; Hawes et al. 2013).

However, tasks used in observational research require the willingness of both parents and children to participate in what is sometimes a staged, artificial environment (Yelland & Daley, 2009). Mark, Pike, Latham & Oliver (2017) argue that researchers may not capture a typical encounter, since they only tend to observe parent-child dyads for five to ten minutes on a particular day. In addition, Mark and colleagues (2017) highlight that speech (in the case of the FMSS) may be less affected by rater bias, is less obtrusive, and may reflect more how parents behave toward their children on a daily basis, than observational measures. Furthermore, the complexity and expense associated with direct observation can be a major obstacle to its use in both clinical assessment and research. Weston, Hawes and Pasalich (2017) conducted a systematic review

investigating the associations between FMSS and observed parent-child interactions. They supported the validity of FMSS, showing that in 21 of the 25 included studies (84%) assessing EE-criticism using the FMSS measure, there were significant associations between FMSS ratings and observational indices of parent-child interactions (such as levels of criticism and anger towards). These associations were apparent in all age groups examined. Weston and colleagues (2017) concluded that their findings support the use of the FMSS as a brief but richly informative tool to index parent-child interactions. Whilst this review confirmed associations between FMSS ratings and observational indices of parent-child interactions, it remains currently unclear if FMSS ratings are associated with parent-reported measures of parent-child dynamics. While direct self-report measures are easy to administer and a common measurement strategy, particularly when examining parenting in early childhood, they may be subject to various biases, including recency and social desirability effects (De Los Reyes & Kazdin, 2005; Morsbach & Prinz, 2006; Paulhus & Vazire, 2007). Although some studies find significant relations between observational and self-report measures of the same constructs (Arnold, O'leary, Wolff & Acker, 1993; Webster-Stratton, 1998), many have found only modest or low levels of convergence i.e. correlations less than  $r = .3$  (Deater-Deckard, Dodge, Bates & Pettit, 1996).

**Pre-School Five Minute Speech Sample.** While generally successful in capturing the emotional climate of parent-child relationships and predicting child adjustment (e.g., McCarty et al., 2004; Peris & Baker, 2000), the transition from adult populations to parent-child relationships raised conceptual questions and methodological challenges (Daley et al., 2003). For example, Daley and colleagues (2003) suggested that FMSS was not sensitive enough to identify EOI in parents of younger children, where a higher level of EOI may be developmentally appropriate and normal. Additionally, the FMSS does not code for warmth and it is not sensitive to the function of

changes in parent-child relationships during different stages of development. This led to Daley and colleagues (2003) creating the Pre-school FMSS (PFMSS) to account for the developmental differences evident in parents when talking about younger children. Further details on PFMSS coding and the differences between FMSS and PFMSS is given in the methods section.

### **Research Objectives**

While considerably less research has been devoted to environmental factors in adoptive families, the higher rates of psychopathology underscore the importance of identifying risk or protective factors that may influence the development and/or maintenance of internalizing and externalizing problems, because these could provide targets for intervention. In addition, little is known about the bidirectional effects of parent and child characteristics in post-adoption families that may facilitate or impede changes in children's behaviour (Lawler et al., 2017). With this in mind, this present chapter has the following objectives:

- 1) To test associations between parental warmth/criticism and child characteristics such as age placed, gender, internalizing and externalizing problems, as well as parental depression and anxiety.
- 2) To investigate rates of high EE in adoptive families and examine differences in child mental health among parents classified as high or low EE.
- 3) To compare the validity of PFMSS to a parent rated questionnaire measure of warmth/hostility.
- 4) To examine the bi-directional nature of both warm and hostile exchanges between adoptive family members.

## Participants

Of the 96 families who took part in the study and completed time one questionnaires, 40 parents were selected to take part in an interview, which included the PFMSS measure. These participants were selected purposefully, choosing those who could best inform the research questions and enhance understanding of the phenomenon under study (Creswell, 2009). Thus, our sample represents participants with different family types (i.e. single/couple/same sex/heterosexual), sibling groups, geographical spread and diversity (gender, age, ethnicity, other background). The characteristics of the 40 parents who participated in the PFMSS were compared to the characteristics of parents who completed the questionnaire at time one ( $n = 96$ ) using independent samples t-tests and chi-square tests. There were no statistically significant differences between the interview participants ( $n = 40$ ) and those in the main study. In addition, there were no statistically significant differences in child or parent outcome measures.

## Measures

**Family Climate.** The Preschool Five Minute Speech Sample (PFMSS) was used to capture the family environment in adoptive families. Parents were given instructions “I’d like to hear your thoughts and feelings about [child’s name], in your own words and without me interrupting you with any questions or comments. When I ask you to begin, I’d like you to speak for 5 minutes, telling me what kind of a person [child’s name] is and how you get along together. After you’ve started speaking I prefer not to answer any questions. Are there any questions you would like to ask me before we begin?” (See Appendix 6). This sample was audio-taped and transcribed by a paid transcriber with no vested interest in the study or its findings. This speech sample was then analysed, according to the PFMSS coding manual (Daley et al., 2003, See Appendix 7). The verbal and vocal aspects of the speech sample were coded, scoring the narrative for the initial statement,

warmth, critical comments, positive comments, EOI and the quality of the relationship (See Appendix 8 for coding frame).

It is important to note some major changes for the coding of the five minute speech sample based on the PFMSS coding manual rather than the original coding frame (Magana et al., 1986). For example, warmth was included due to a small body of literature demonstrating the importance of warmth in the pre-school period and the need to include more positive aspects of EE when devising a pre-school version, where the internalizing and externalizing problems are likely to be less serious than for older children. Warmth is defined as the intensity of sentiment or feeling which parents express about their child and is rated as high, moderate or low. Warmth is coded from the parent's tone of voice, spontaneity, concern and empathy. Relationship is a global rating of the quality of relationship and joint activities undertaken between parent and child over the previous six months, and is rated as positive, neutral or negative. The initial statement is defined as the first thought expressed by the parent specifically about their child and is scored on a global rating, rated again as positive, negative or neutral. Emotional over-involvement assesses the level of emotional relationship between parent and child and is rated as high, borderline or low. It is scored based on self-sacrificing/overprotective behaviour and/or a lack of objectivity. Another change for the PFMSS is that the tally of critical comments includes critical phrases without content-based criticism. General use of descriptive words indicative of a negative trait which the child has (with or without tone) are counted. Also included are descriptions of the child's behaviour accompanied by a negative tone, for example, "he spits at me". Positive comments are statements of praise, approval or appreciation. The majority are descriptive words which indicate a positive trait but can also be based on tone, such as, "Jack is very intelligent".

Due to the extensive changes made to the scoring of the FMSS, it would not be possible to use the same rubric for devising high and low EE groups. On the PFMSS, high EE results from *at least* one negative or low global category *and* more critical than positive comments. This new rubric has not been extensively tested, however results from a study of 133 children with pre-school AD/HD and 20 non AD/HD pre-school children found that EE was reliably measured in the preschool population using the PFMSS (Daley et al., 2003). Daley and colleagues (2013) coded speech samples twice within a three month period and reported good code-recode reliability for the initial statement (.82) and relationship (.80), acceptable reliability for warmth (.66) and poor reliability for EOI (.21). They found good association between code-recode for critical comments (.77) and positive comments (.68). Inter-rater reliability for warmth (.82) was good, acceptable for initial statement (.73) and relationship (.73) and poor for EOI (.19). Given the poor reliability and evidence suggesting that emotional over-involvement does not relate to child and adolescent mental health outcomes (Peris & Miklowitz, 2015), this aspect is not analysed in this thesis.

Within this study, the lead author was trained to code the PFMSS by the developer. Inter-rater reliability was tested by comparing the author's scores for all aspects of the PFMSS from a random sample of 10 (25%) PFMSS speech samples with another trained coder's scores using 2-way mixed absolute agreement intra-class correlation for frequency data and Cohen's kappa for categorical variables. Cohen's  $\kappa$  was used to determine if there was agreement between the two coders on the initial statement, warmth, and relationship. A kappa of .60 or above is considered substantial inter-rater agreement and .40 to .60 is considered moderate agreement (Portney & Watkins, 2009). There was substantial agreement between the two coders for the initial statement, ( $\kappa = .100$  (95% *CI*, .000),  $p < .0005$ ), warmth ( $\kappa = .600$  (95% *CI*, .000),  $p = .058$ ) and relationship

$\kappa = .615$  (95% *CI*, .000),  $p < .05$ . Intra-class correlation revealed excellent associations between the raters for critical comments (.889) and positive comments (.932).

**Parental warmth and hostility.** Either mother or father (likely the parent who completed the PFMSS) completed a scale from the Iowa Family Interaction Rating Scales (Melby et al., 1993) that measured parent report of the quality of the relationship. At time points two and three parents completed a 10-item questionnaire containing two subscales: hostility (4-items) and warmth (6-items) towards the child. Adoptive parents reported on their own warmth toward their child on a 7-point scale ranging from never to always with high scores indicating greater warmth (e.g. “Let him/her know you really care about him/her,” “Act loving and affectionate towards him/her,” and “Tell him/her you love him/her.”) The hostility subscale consisted of 4 items that measured how frequently parents’ behaved in a hostile manner during parent-child interactions. Adoptive parents reported on their own hostility toward their child on a 7-point scale ranging from never to always with high scores indicating greater hostility (e.g. “Get angry at him/her,” and “Shout at him/her when you disagreed about something,”). Parental warmth was internally consistent, ranging from .938 to .948 across the two time points. Parental hostility was also internally consistent, ranging from .848 to .882 across the two time points.

**Child behaviour.** As explained in Chapter three, adoptive parents completed the Strengths and Difficulties Questionnaire (Goodman, 1997).

**Child warmth and hostility.** Either mother or father completed a scale from the Iowa Family Interaction Rating Scales (IFYP, Melby et al., 1993) that assessed parents’ perception of their child’s behaviour towards them during recent interactions. At time points two and three parents completed a 10-item questionnaire containing two subscales: child hostility (4-items) and warmth (6-items) towards themselves. Adoptive parents reported on their child’s warmth toward

them during the last month on a 7-point scale ranging from never to always with high scores indicating greater warmth. For example, parents rated how often their child “Acted loving and affectionate towards them,” and “Told you they loved you”. The hostility subscale consisted of 4 items that measured how frequently children behaved in a hostile manner during interactions. Adoptive parents reported on their child’s hostility toward them on a 7-point scale ranging from never to always with high scores indicating greater hostility (e.g. “Got angry at you,” and “Shouted at you because he/she was upset with you,”). Child warmth was internally consistent, ranging from .926 to .944 across the two time points. Child hostility was also internally consistent, ranging from .802 to .896 across the two time points.

**Parent well-being.** As explained in Chapter four, parents completed the Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983).

### **Missing data**

Missing data for child and parental well-being measures has been described in chapters three and four. In terms of parent reported warmth and hostility measures, there was less than 2% missing, therefore missing data was handled by individual mean imputation, as recommended by Widaman (2006).

### **Analysis Plan**

Analysis was completed in two stages. Firstly, descriptive statistics and bivariate correlations (Pearson coefficient) were conducted among variables of interest using SPSS version 20.0. Second, to evaluate the direction of effects of the child-parent relationship, a series of ‘cross-lagged’ (manifest autoregressive) models were conducted in Mplus version 7 (Muthén & Muthén,

1998-2012) using parent reported measures. The analyses were fitted using the robust maximum likelihood estimator (MLR). This estimator corrects fit indices and standard errors to account for non-normality in the data, equivalent to the Yuan-Bentler T2\*test statistic (Wilson, Samuelson, Staudenmeyer & Widom, 2015). Due to the simple nature of the models, they were both saturated ( $\chi^2(0) = 0.00$ ), therefore model fit statistics were not reported. Although this procedure is employed frequently, the debate on the question of whether saturated models should be interpreted was acknowledged, thus Muthen's recommendation that significance of pathways within the model can be interpreted without fit indices was followed, for a discussion see: <http://www.statmodel.com/discussion/messages/11/2127.html?1397836729>).

## **Results**

### **Descriptive statistics**

Most parents began the PFMSS with a neutral comment, usually stating the length of time the child had been placed with them (see table 5.4 for examples). A large majority of parents were rated as showing high warmth towards their children and experiencing a positive relationship. The mean number of positive comments was five, compared to a mean of two for critical comments.

Table 5.2

*Descriptive data for the PFMSS assessment of the parent–child relationship*

Construct	Number	% (Percentages have been rounded up)
Initial statement		
Negative	2	5
Neutral	21	53
Positive	17	43
Warmth		
Low	2	5
Moderate	12	35
High	26	65
Relationship		
Negative	1	3
Neutral	13	33
Positive	26	65
Expressed emotion		
High	1	3
Low	39	98
	Mean (SD)	Range
Critical comments	2.05 (1.88)	0 – 7
Positive comments	5.25 (3.02)	0 - 14

Table 5.3

*Quotations to illustrate PFMSS coding<sup>5</sup>*

Variable	Example
Initial Statement	
Positive	“Our lives have just been transformed, in a really good way”
Neutral	“We adopted Lucas when he was ten months old”
Negative	“We are struggling”
Warmth	
High	“It’s 9 months today since Noah was placed with me...since he came home for good”
Moderate	“She seems to really like it here...but we’re struggling with her behaviour”
Low	“In December I became a bit more wary of Logan, and how he was fitting in with our family”
Relationship	
Positive	“She’s completed our family...we had an immediate connection, that I didn’t expect to have”
Neutral	“I wouldn’t say we’ve had problems attaching with Olivia”
Negative	“We haven’t really attached to Emma”
Critical comment	“Within the first week he had hit a child at school” (with negative tone)
Positive comment	“He’s such a happy and sociable little boy”

<sup>5</sup> *pseudo names replace real names*

### **Associations between PFMSS and Child Behaviour problems**

Preliminary analyses showed the relationships between PFMSS and parent reported internalizing and externalizing problems to be linear and there were no outliers. As not all variables were normally distributed, as assessed by Shapiro-Wilk's test ( $p < .05$ ) and a visual inspection of Normal Q-Q Plots, Spearman's rank-order correlations were used (See Table 5.5). Previous studies have found that older age at placement (Harwood, Feng & Yu, 2013; Tan et al., 2015) was associated with less positive parent-child relationships. In addition, some research has suggested that compared with boys, girls are more attuned to and affected by family relationships (Davies & Lindsay, 2004; Lippold, Hussong, Fosco & Ram, 2018), thus child gender and age placed were also included.

Results showed that child gender was not associated with any relationship variables measured by the PFMSS. The age the child was placed was associated with lower relationship quality ( $r_s(36) = -.397, p < .05$ ) and more negative comments ( $r_s(36) = .484, p < .01$ ). Results showed that parental warmth was associated with less child internalizing problems at time one ( $r_s(22) = -.446, p < .01$ ). Relationship quality was also associated with fewer internalizing problems at time two ( $r_s(31) = -.463, p < .01$ ) and three ( $r_s(28) = -.485, p < .01$ ). Positive comments were associated with fewer internalizing problems at time one ( $r_s(22) = -.469, p < .01$ ) and time two ( $r_s(31) = -.399, p < .01$ ) and externalizing behaviours at time two ( $r_s(31) = -.520, p < .01$ ). Negative comments were associated with more externalizing problems at time one ( $r_s(22) = .526, p < .01$ ) and time two ( $r_s(31) = .694, p < .01$ ). Furthermore, negative comments were associated with more internalizing problems at time one ( $r_s(22) = .541, p < .01$ ) and time two ( $r_s(31) = .564, p < .01$ ).

Table 5.4

*Correlations between the emotional climate of parent–child relationships and child internalizing and externalizing problems*

Measures	Warmth	Relationship	Positive comments	Negative comments
Gender	.017 (40)	-.212 (40)	.093 (40)	.030 (40)
Age placed	-.289 (36)	-.397* (36)	-.118 (36)	.484** (36)
T1 internalizing	-.446* (24)	-.315 (24)	-.469** (24)	.541** (24)
T1 externalizing	-.275 (24)	-.383 (24)	-.259 (24)	.526** (24)
T2 internalizing	-.244 (33)	-.463** (33)	-.520** (33)	.564** (33)
T2 externalizing	-.048 (33)	-.329 (33)	-.399** (33)	.694** (33)
T3 internalizing	-.353 (30)	-.485** (30)	-.241 (30)	.327 (30)
T3 externalizing	.011 (30)	.245 (30)	-.066 (30)	.325 (30)

*Note.* \*  $p < .05$  \*\*  $p < .01$  Sample size is shown in brackets.

### **Associations between FMSS and Parent Well-being**

Preliminary analyses showed the relationships between PFMSS and parent reported well-being to be linear with no outliers. As not all variables were normally distributed, as assessed by Shapiro-Wilk's test ( $p < .05$ ) and a visual inspection of Normal Q-Q Plots, Spearman's rank-order correlations were used (See Table 5.5). In terms of adoptive parent well-being, there were no

associations between variables measured by the PFMSS and parental anxiety or depression at any time point. See table 5.6 for full details.

Table 5.5

*Correlations between the emotional climate of parent–child relationships and adoptive parent well-being*

Measures	Warmth	Relationship	Negative comments	Positive comments
T1 depression	.049 (40)	-.019 (40)	-.038 (40)	-.013 (40)
T1 anxiety	-.145 (40)	-.275 (40)	.243 (40)	-.050 (40)
T2 depression	-.206 (34)	-.048 (34)	.032 (34)	-.111 (34)
T2 anxiety	-.308 (34)	-.095 (34)	.077 (34)	-.171 (34)
T3 depression	.055 (31)	-.041 (31)	.077 (31)	.124 (31)
T3 anxiety	.115 (31)	-.084 (31)	.169 (31)	.112 (31)

*Note.* \*  $p < .05$  \*\*  $p < .01$  Sample size is shown in brackets.

### **Differences in Child Mental Health among Parents with High or Low EE**

Table 5.3 demonstrated that within our sample, only one parent was assessed as having high expressed emotion based on the coding criteria. This meant the planned between group comparison analysis was unsuitable given the small numbers; however, given the large variability of EE rates across most studies, the finding that only one parent was assessed as having high expressed emotion is important.

### **Comparison between PFMSS and a Parent Reported Measure of Warmth/Hostility**

Preliminary analyses showed the relationships between PFMSS and parent self-reported warmth and hostility to be linear and there were no outliers. As not all variables were normally distributed, as assessed by Shapiro-Wilk's test ( $p < .05$ ) and a visual inspection of Normal Q-Q Plots, Spearman's rank-order correlations were used to assess the relationship between PFMSS and parent self-reported warmth and hostility (See Table 5.6). Parental warmth as measured by the PFMSS correlated with warmth measures by the parent reported questionnaire measure ( $r_s(38) = .387, p < .05$ ). Parent-child relationship quality moderately correlated with parent to child warmth ( $r_s(32) = .592, p < .01$ ) and child to parent warmth ( $r_s(24) = .471, p < .05$ ). As anticipated, the frequency of critical comments correlated with less parent to child warmth ( $r_s(32) = .358, p < .05$ ) and less child to parent warmth ( $r_s(24) = .388, p < .05$ ). In addition, critical comments moderately correlated with more parent to child hostility ( $r_s(32) = .503, p < .01$ ) and moderately correlated with more child to parent hostility ( $r_s(24) = .766, p < .01$ ).

Table 5.6

*Correlations between aspects of the PFMSS and parent self-reported warmth and hostility*

Measure	Variable	Mean	SD	Range	1	2	3	4	5	6	7	8	9
PFMSS	1. Initial statement	1.38	.59	0-2	-								
	2. Warmth	1.60	.59	0-2	.298 (40)	-							
	3. Relationship	1.63	.54	0-2	.293 (40)	.581** (40)	-						
	4. Critical comments	2.05	1.88	0-7	.273 (40)	-.268 (40)	-.502** (40)	-					
	5. Positive Comments	5.25	3.02	0-14	.200 (40)	.567** (40)	.530** (40)	-.319* (40)	-				
IYFP rating scales	6. T2 parent to child warmth	38.24	4.44	18-42	.141 (34)	.387* (34)	.592** (34)	-.358* (34)	.191 (34)	-			
	7. T2 parent to child hostility	9.86	3.70	4-20	-.253 (34)	-.273 (34)	-.326 (34)	.503** (34)	-.195 (34)	-.454** (34)	-		
	8. T2 child to parent warmth	31.45	7.71	13-4	.070 (26)	.362 (26)	.471* (26)	-.388* (26)	.196 (26)	.578** (26)	-.269* (26)	-	
	9. T2 child to parent hostility	12.65	4.91	4-24	-.297 (26)	-.137 (26)	-.348 (26)	.766** (26)	-.220 (26)	-.351** (26)	.556** (26)	-.278* (26)	-

*Note.* \*  $p < .05$  \*\*  $p < .01$  Sample size is shown in brackets.

### The Bi-directional Nature of Warmth and Hostility in Adoptive Family Members

Given that the significant relations between the PFMSS and self-report measures all had moderate to high levels of convergence (correlations more than  $r = .3$ ), cross-lagged models of parent to child and child to parent hostility were conducted using the self-report measures. Parental warmth ( $B = .61, SE = .12, \beta = .65, p = .00$ ) and child warmth were highly stable across time points ( $B = .41, SE = .15, \beta = .40, p = .00$ ). Parent to child warmth at time two predicted child to parent warmth at time three ( $B = .41, SE = .18, \beta = .40, p = .00$ ). Child to parent warmth at time two did not predict later parent to child warmth ( $B = .03, SE = .08, \beta = .05, p = .74$ ). The correlations between the residual variances at time three were statistically significant ( $r_s = .61, p_s < .00$ ). The  $R^2$  values indicate that overall, 45% of individual differences in parent to child warmth and 52% of child to parent warmth were explained at time three. See Figure 5.1 for details.

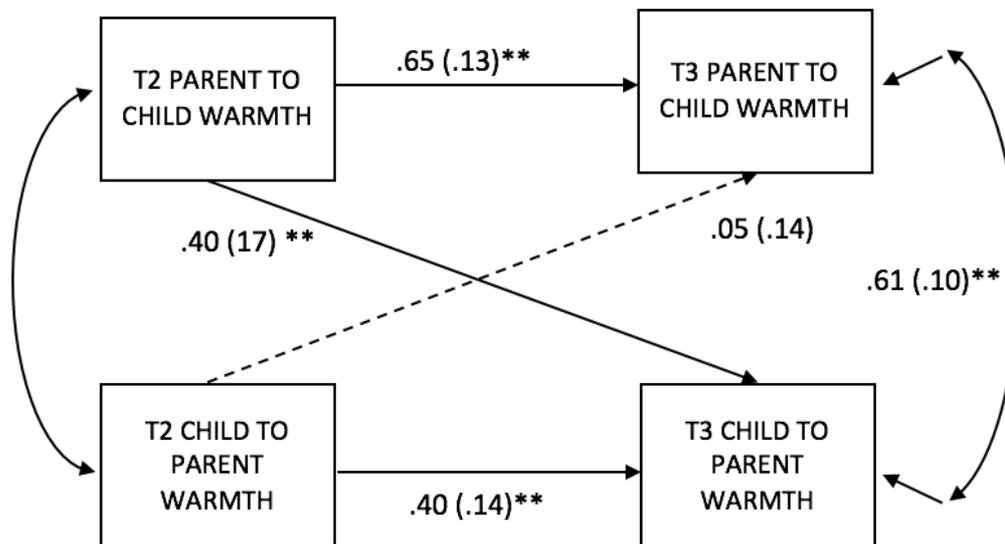


Figure 5.1 Manifest autoregressive model of parent to child warmth and child to parent warmth across two time points ( $n = 51$ ).

Parental hostility was stable across time points ( $B = .50, SE = .08, \beta = .62, p = .00$ ). Child hostility was also stable across time points ( $B = .48, SE = .14, \beta = .48, p = .00$ ). Parent to child

hostility at time two did not predict child to parent hostility at time three ( $B = .07$ ,  $SE = .23$ ,  $\beta = .05$ ,  $p = .78$ ), nor did child to parent hostility predict later parent to child hostility ( $B = .03$ ,  $SE = .08$ ,  $\beta = .05$ ,  $p = .71$ ). The correlations between the residual variances at time three are statistically significant ( $r_s = .44$ ,  $p_s < .00$ ). The  $R^2$  values indicate that overall, 42% of individual differences in parent to child hostility and 27% of child to parent hostility can be explained at time three. See Figure 5.2 for details.

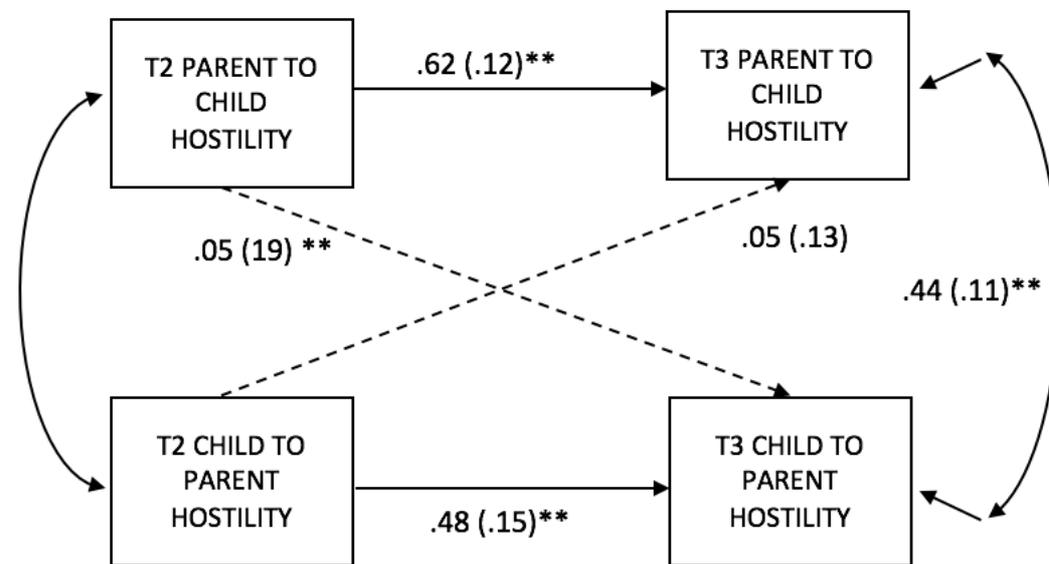


Figure 5.2 Manifest autoregressive model of parent to child hostility and child to parent hostility across two time points ( $n = 51$ ).

### Discussion

The review of studies using the PFMSS or FMSS with children previously or currently in care revealed a paucity of research investigating the parent-child relationship of families where the child is likely to have experienced early adversity. This chapter has attempted to place the adopted child within the context of a parent-child relationship, rather than discussing the child's level of functioning

only in the context of pre-adoption risk. This chapter has highlighted substantially lower levels of EE for adoptive parents than previous studies using the PFMSS with clinical ADHD populations (Daley et al., 2003) and community samples (Psychogiou, et al., 2014), whilst highlighting the similarities to one previous study using the FMSS with internationally adopting parents (Rutter et al., 2010b). Although, this resulted in intended between-group comparison analyses not being investigated (given the small numbers), the fact that the majority of parents had low EE is encouraging. Based on the attributional model framework, this may be because the adoptive parent believes that external factors (the child's prior adversity) are responsible for their problems, rather than the child being in control and responsible for their behaviour. In this regard, findings from this chapter support the potential value of using the FMSS as a relatively quick and simple assessment of the adoptive environment. For example, if the FMSS highlighted high parental EE or poorer quality relationships within the family, this could indicate early intervention with the family as a *whole* may be beneficial, rather than interventions to improve the child's difficulties directed at the child.

The majority of parents were rated as showing high warmth towards their children and a positive relationship. Given that adoptive parents go through a rigorous approval process for adoption, and are often trained to be a protective resource for their children (Whitten & Weaver, 2010) this may not be surprising. This also supports previous studies, which have found strong parent-child relationships in adoptive families (Cohen, Coyne & Duvall, 1996; Suwalsky et al., 2008; Whitten & Weaver, 2010). Furthermore, although previous studies have found an association between EE and parental psychopathology (Hibbs et al., 1991; Rogosoch, Cicchetti & Toth, 2004; Tompson et al., 2010), in this study there were no associations between variables in the PFMSS and parental anxiety or depression at any time point. This is likely associated with the low levels of EE in the WACS sample, thus EE may be a more powerful predictor of parent psychopathology than any of the individual categories assessed by the FMSS. Although it is also possible that adoptive parents of young children

may be less likely to make critical comments, alternatively, these findings may be related to sample characteristics not typical of other studies, i.e. being on average of higher socio economic status and educational level.

Parent reported child internalizing problems measured approximately 5 months before the PFMSS were associated with less parental warmth, less positive comments and more critical comments during the PFMSS. A poorer quality parent-child relationship measured by the PFMSS was associated with later parent reported child internalizing problems. In addition, more critical and less positive comments measured by the PFMSS were associated with increased internalizing and externalizing problems at time two, but not time three. These findings suggest that child factors (i.e. internalizing problems) may play a role in contributing to parent-child warmth early in the placement and relationship quality in the longer term. Chapter three illustrated the high levels of internalizing and externalizing problems children show soon into the adoptive placement. Given that the PFMSS criteria for coding negative comments was 'relaxed' compared to the FMSS, so that descriptions of the child's behaviour are counted, it would be anticipated that critical comments are associated with more internalizing and externalizing problems.

Cross-lagged models showed that parent reported parent and child warmth were highly stable across time points. More parent to child warmth measured at time two predicted increases in child to parent warmth at time three, a finding which was not replicated in child to parent warmth. As warm, consistent and reliable caregiving has been associated with changing the children's previous expectations of close adults (Schofield & Beek, 2014) and contributing to attachment modification (Bowlby, 1969), this may be an especially important finding. These findings suggest the importance of parental warmth in building positive parent-child relationships, based on mutual warmth. From an attachment perspective, the reparative effect of a placement may be associated with a positive parent-child relationship, which in turn may enable the child to develop better templates for other

relationships in life (Del Pozo de Bolger et al., 2018). Although parental and child hostility was also highly stable across time, results did not show any reciprocal relationships for hostility.

Although ideally observational methods would be used to assess parenting and parent–child dynamics, this is not always possible within research studies, especially those involving larger sample sizes. Parental warmth as rated by the PFMSS correlated with parent reported warmth in the questionnaire measure. In addition, parent-child relationship quality correlated with both parent to child warmth and child to parent warmth. As anticipated, the frequency of critical comments correlated with less parent to child and child to parent warmth and more parent to child and child to parent hostility. Significant relations between the PFMSS and self-report measures all had moderate to high levels of convergence (correlations more than  $r = .3$ ). These findings support the use of the warmth and hostility measures as brief, easy to administer but richly informative tools to measure parental reports of the quality of the relationship.

### **Strengths and limitations**

As will be discussed in detail in chapter seven, the sample size although typical for a study with adoptive families, is small. The results must be treated with caution as some null findings (for example the link between PFMSS and parental psychopathology) may be due to a lack of power. It is important to note that whilst these findings support the use of the parent-reported warmth and hostility measures of family climate they were only based on the parent’s perspective. Research has shown that child and parent perceptions can differ, and both perceptions should be studied if possible (Cantero-Garcia & Alonso-Tapia, 2017). Furthermore, despite children having valid views of their adoption experiences, little is known about adopted children’s perception of their relationship with their adoptive parents. In addition, the present study was based on EE assessed at one time point and did not examine its stability over time. This may be especially important as studies show mixed results regarding the stability of EE over time (Peris & Baker, 2000; Hale et al., 2011), with Daley et

al., (2003) suggested low stability of EE over periods of six months or longer in young children. Furthermore, although the FMSS has been widely used in research with children, the PFMSS has only been used in a handful of studies. In the present study, higher values of reliability coefficients were desirable for parental warmth and relationship. However, the Cronbach's alpha values were in line with the recommended limits, suggesting that especially for smaller studies, a kappa of .60 or above is considered substantial inter-rater agreement and .40 to .60 is considered moderate agreement (Portney & Watkins, 2009).

### **Conclusion and Next Steps in the Thesis**

This chapter adds to our understanding of the parent-child emotional climate and relationships in adoptive families. Most parents were rated as showing high warmth towards their children and experiencing a positive relationship. Child internalizing problems at time one were associated with poorer quality parent-child relationship, less parental warmth, and more critical comments, suggesting a role in relationship quality in the long term. In contrast to other studies, no associations between PFMSS and parental anxiety or depression were found. Findings from this chapter support the use of parent-reported warmth and hostility self-report measures. Findings suggest the importance of parental warmth in building positive parent-child relationships, based on mutual warmth.

#### **Key points**

- The majority of parents were rated as showing high warmth towards their children and experiencing a positive relationship.
- Adoptive parents had substantially lower levels of expressed emotion than previous studies with clinical and community samples.
- Parent to child warmth predicted increases in later child to parent warmth, suggesting the importance of parental warmth in building positive parent-child relationships.
- Findings support the use of parent-reported warmth and hostility self-report measures.

The final empirical chapter of this thesis builds on these findings to consider the role of parent-child warmth and hostility, in the relationship between adoptive parent psychopathology, pre-placement adversity and later child internalizing and externalizing problems.

## CHAPTER SIX

### Family processes in adoptive families

---

Whilst it is important to investigate the association between children's pre-adoption adversity and later adjustment, the potential role of previously established predictors of child well-being, such as parent psychopathology (Cummings & Davies, 1994) should not be ignored. Aspects of the post-adoption family environment (including parental psychopathology and warmth and hostility) may protect from or amplify child internalizing and externalizing problems (Schleider & Weisz, 2017).

As outlined in Chapter four, the negative impacts of postnatal depression on child development in general population samples have been extensively studied, widely documented (Spieker et al., 2018), and replicated in samples with adopted children (Elliott & McMahon, 2011; Pemberton et al., 2010; Goldberg & Smith, 2013). Indeed, Foli (2010) suggests that children who are adopted may be at a higher risk for adverse outcomes of parental depression due to their experience prior to placement. This may be especially relevant given the theory of differential susceptibility, suggesting that a proportion of children with underlying vulnerabilities would go on to have either the best or worst developmental outcomes, dependent on the quality of their early family environment. For example, in a study examining patterns of anxiety among young children adopted from China by Australian families ( $N = 59$ ), Elliott & McMahon (2011), found that parents scores on the Depression, Anxiety, and Stress Scale (DASS; Lovibond & Lovibond, 1995) predicted child anxiety. Pemberton and colleagues (2010) examined the influence of parental depressive symptoms on adopted toddler behaviours using a longitudinal, prospective US study ( $N = 351$ ). The authors found that adoptive mothers' depressive symptoms contributed to toddlers' externalizing problems

regardless of the timing of the depressive symptoms during the infancy to toddler period. In their genetically sensitive study, they also found that a genetic effect may indirectly influence toddler problems through prenatal pregnancy risk. More recently, a US study undertaken by Goldberg & Smith (2013) investigated predictors of child psychological adjustment in early placed adopted children in 40 female same-sex, 35 male same-sex, and 45 different-sex adoptive parent families. They found that lack of parental preparation for the adoption, and parental depressive symptoms, were associated with higher parent-reported levels of both externalizing and internalizing problems.

Chapter four showed that the parents in our sample had higher depression scores than general population samples, which may have implications for their child adjustment. Depression in adoptive parents could impact upon child adjustment through many mechanisms that are not mutually exclusive: the symptoms that manifest when parents interact with their children (e.g., emotional unavailability); the effect of symptoms on parenting abilities (Cummings & Davies, 1994; Burt et al., 2005; Elgar, Mills, McGrath, Waschbusch & Brownridge, 2007); and/or via learning processes such as imitation or modelling (Bandura, 1977). In addition, Gagnon-Oosterwaal and colleagues (2012) found that internationally adopted children's pre-adoption adversity (measured using children's condition at arrival i.e. neurological signs, medical data such as height, weight and head circumference, developmental delay) was significantly related to externalizing problems at school-age, and adoptive parent maternal stress was found to be an important mediator of this relationship.

### **Impact of Adoptive Parent Warmth and Hostility on Children's Adjustment**

Whilst negative dimensions of parenting processes have received the majority of attention in the literature, positive dimensions of parenting may also act as a protective factor for children's adjustment (Boeldt et al., 2012; Gardner, 1994). For example, resilience research, has identified several protective factors, such as parenting quality, intellectual functioning, socioeconomic status (SES), and positive self-perceptions, that help to buffer children against the harmful effects of risk (Masten, 2001). Specifically, parenting that involves warmth, responsiveness, and appropriate

discipline is associated with positive outcomes for child mental health and positive parent–child relationships are considered the most robust protective factor in a variety of adverse circumstances (Masten, 2014). The effects of early adversity may be moderated by a wide range of factors from individual level factors, such as genes and parenting, to community level processes, including social support (Yonas et al., 2010).

Chapter three showed an association between age placed and child behaviour problems at time one, but not time three. This may be due to the age of the child and their ability to adapt, but it may also reflect aspects of the adoptive family home moderating this link. Research suggests that individuals are most likely to thrive in an environment where toxic adversity is minimised, where the development of resilient and prosocial behaviour is enhanced and where influences on problem behaviours are minimised (Biglan et al., 2017). Thus, the potential of the adoptive experience has been highlighted as a protective factor for children who have been maltreated or abused (Beijersbergen, Juffer, Bakermans-Kranenburg & van IJzendoorn, 2012; van der Voort et al., 2014; Van IJzendoorn & Juffer, 2006). Adoptive parents are approved for adoption on the basis of an assessment that seeks to rule out major environmental risks for the adopted child (Rutter et al., 2010a). They are required to undergo a home study by a social worker to determine if they can be approved as adoptive parents and which child(ren) should be placed with them (Crea, Barth & Chintapalli, 2007). Within the home study, the parent and couple subsystems are considered in social workers' formal assessments of the suitability of the prospective adoptive family (Crea et al., 2007). Whilst this screening is never going to eradicate all risk, the range of environmental risks within adoptive families tends to be much narrower than in biological families (Stoolmiller, 1999), and Rutter (2006) showed that adoptive parents were far less likely to have seriously adverse features such as antisocial behaviour or substance misuse problems.

An early study of international adoptive families by Croft and colleagues (2001) found no evidence that variation in positive or negative adoptive parenting behaviour influenced child

outcomes. Subsequently, Rutter (2006) concluded that the post adoption environment had a very limited effect on CAPA-rated child psychopathology in a sample of children who had experienced extreme privation early in life. Rutter argued that this did not mean the post-adoption environment is not important for child development but suggest that the cessation of institutional deprivation, rather than the quality of the adoptive homes, is more important. Previous studies have also shown that poverty-related stress is associated with a variety of psychological problems (Santiago, Wadsworth & Stump, 2011) and financial hardship in childhood is predictive of the onset of all classes of disorder across development (McLaughlin et al., 2011). Thus, it has been hypothesised that positive outcomes for adopted children may be due to the more affluent circumstances of adoptive families and their willingness to access and investment in support services (Lloyd & Barth, 2011).

In contrast to this, others believe that adoption is more than minimising risks and describe it as an ‘intervention’, a protective factor against the setbacks of the pre-adoption past (Van IJzendoorn & Juffer, 2006). Indeed, adoptive parents are often trained to be a protective resource for their children (Whitten & Weaver, 2010). Within adoption research, there is a small but growing body of evidence that parent-child relationship quality in adoptive families may nurture healthy development and protect against risk factors. For example, a study of 70 international, domestic/public and domestic/private adopted children (Kriebel & Wentzel, 2011) investigated the impact of five dimensions of parenting on child adjustment, including child-centeredness, psychological intrusiveness, permissiveness, harsh discipline and inconsistent. They found that only child-centeredness (reflecting the extent to which parents are involved with and express warmth toward their children) moderated the effects of risk on behaviour, such that children with the highest risk seemed to benefit the most from child-centred parenting. In addition, Garvin and colleagues (2012) found that parent emotional availability soon after adoption predicted children’s emotional understanding 18 months post-adoption in a sample of institutional adoptees. In addition, in Garvin (2012) study, higher quality parenting also moderated the relationship between poor initiation of joint

attention and disinhibited social engagement one year later. A further US study of domestic children adopted within 3 months of birth (Reuben et al., 2016) found that adoptive mothers' warm parenting at 27 months predicted lower levels of child externalizing problems at ages 6 and 7. In addition, they found that maternal warmth served as a protective factor against the risk of externalizing problems for children with low levels of effortful control. More recently, Balenzano and colleagues (2018) found that the perceived quality of adoptive family relationships moderated the impact of birth family contact on child distress and well-being.

Understanding what enables adoptee recovery is crucial to promote the well-being of children adopted from care and to support adoptive families in their parenting role. Although developmental psychopathology prioritises understanding factors and processes underlying typical and atypical development, Rutter, (2012) states that the field continues to identify risk factors and their outcomes without effort to understand processes. Thus, adoption research must better address processes of development (Palacios & Brodzinsky, 2010). Furthermore, Goldberg and Smith (2013) state the need for future research with adoptive families to assess parenting practice in relation to child outcomes, as well as interactions between the pre and post-adoption contexts. Building on these suggestions, this chapter will investigate two aspects of the family climate and their impact on child outcomes, investigating the following hypotheses.

#### **Research hypotheses:**

- 1) Baseline adoptive parental anxiety and depression symptoms will predict increases in child internalizing and externalizing problems at time three.
- 2) The association between adoptive parent depression and anxiety and child externalizing behaviour and internalizing problems will be partially mediated by parent-to-child hostility.

- 3) Parental warmth will moderate the relationship between pre-placement adversity and later child internalizing and externalizing problems.

## **Method**

### **Participants**

This chapter uses case file data and parent questionnaire data at all three time points post-adoption, as described in previous chapters.

### **Measures**

This chapter uses the Hospital Anxiety and Depression Scale (Zigmond & Snaith, 1983), described in detail in chapter four, IOWA warmth and hostility scales (Melby et al., 1993), described in detail in chapter five, and the Strengths and Difficulties Questionnaire (Goodman, 1997), described in detail in chapter three. In addition, it uses the ACE score and age placed variables collected and coded from the case file data described in chapter three.

### **Analysis Plan**

Analysis was completed in three stages. First, preliminary analysis using bivariate correlations (Pearson coefficient) were performed to assess relations among relevant study variables using SPSS (IBBM Corp, 2011). Second, path analysis was used to assess the mediating role of parent-child hostility on the relationship between parent depression and later child internalizing and externalizing problems. Mediation refers to a model where change in an independent variable X causes change in an outcome variable Y through a third intervening or mediating variable M (See Figure 6.1). Mediation is distinct from moderation, where the magnitude and sign of the effect of X on Y are dependent on the value of the third variable (Fritz, Cox & MacKinnon, 2015). Although there are many methods available for testing hypotheses about intervening variable effects, the most widely-used method is the causal steps approach popularized by Baron and Kenny (1986), however,

Hayes (2013) suggests that this idea is outdated and suggests alternatives tests of indirect effects, including bootstrapping.

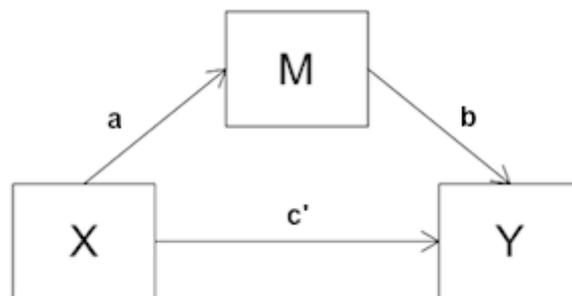
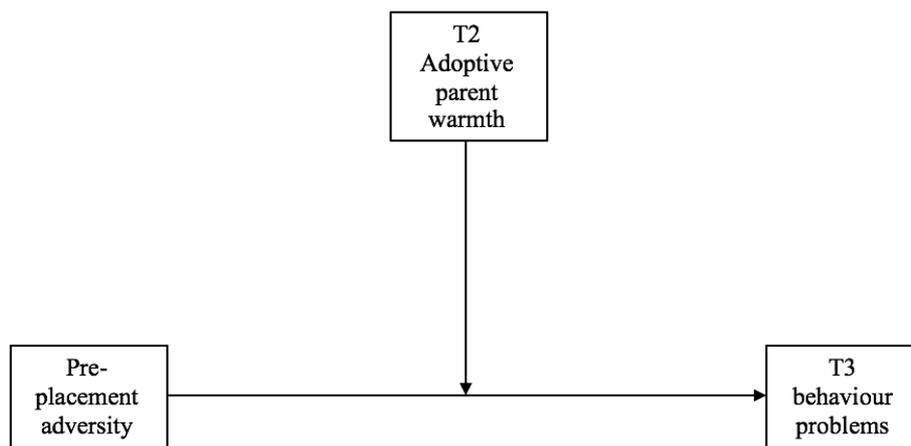


Figure 6.1 Simple mediation model.

The hypothesised model was tested in Mplus version 7 (Muthén & Muthén, 1998-2012), using path analysis (with manifest variables) instead of a full structural latent model due to sample size concerns (Glazer & Beehr, 2005). The analyses were fitted using the robust maximum likelihood estimator (MLR). This estimator corrects fit indices and standard errors to account for non-normality in the data, equivalent to the Yuan-Bentler T2\*test statistic (Wilson et al., 2015). Bootstrapping was used to test indirect effects, which involves generating a series of data sets that resemble the observed data by random sampling with replacement from the original sample and creating a large number of datasets of the same size (Harwood et al., 2013). The indirect effect is estimated from each of the bootstrap samples, and the confidence interval is determined by the distribution of the indirect effects based on all bootstrap samples. Simulation research shows that bootstrapping is a valid and powerful method to test specific indirect effects; it offers high statistical power while allowing reasonable control over the type I error rate (Williams & MacKinnon, 2008). Mediation was tested using bias-corrected bootstrapped model constraint statements (10,000 times). Due to the simple nature of the models, they were both saturated ( $\chi^2(0) = 0.00$ ), therefore model fit statistics were not reported.

For the final analysis, moderation was conducted due to the inconsistent relations between adversity variables and child behaviour problems at time three (see table 6.1), as suggested by Baron and Kenny (1986). All variables were measured on continuous scales, thus regression procedures retained the continuous nature of the variables over using cut points (e.g., median splits) to create artificial groups to compare correlations between groups or examine interaction effects using ANOVA (MacCallum et al., 2002). Simulation studies have shown that regression procedures that retain the true nature of continuous variables result in fewer Type I and Type II errors for detecting moderator effects relative to procedures that involve the use of cut points (Mason, Tu & Cauce, 1996). For the moderation analyses, multiple regression analysis (with manifest variables) were used to test the direct effects of adversity and parental warmth/hostility, and their interactions on later child problems (See figure 6.2). These were entered simultaneously and interaction terms were calculated by multiplying the mean-centred variables in the term. The robust maximum likelihood estimator (MLR) was again used, which corrects fit indices and standard errors to account for non-normality in the data, equivalent to the Yuan-Bentler T2\*test statistic (Wilson et al., 2015).



*Figure 6.2* Graphic representation of the proposed model for T2 parental warmth (approx. 16 months into placement) moderating the association between child age placed and T3 (approx. 32 months into placement) internalizing and externalizing problems.

## Results

### Correlations

As not all variables were normally distributed, as assessed by Shapiro-Wilk's test ( $p < .05$ ) and a visual inspection of Normal Q-Q Plots, Spearman's rank-order correlations and point-biserial correlations were used to investigate associations (See Table 6.1). Child gender was not associated with any other variables of interest. Child age placed was associated with increased child to parent hostility at time two and internalizing problems at time two and three. Furthermore, age placed was associated with reduced parent to child warmth and increased hostility at time two.

Table 6.1

#### *Inter-Correlations between variables of interest*

Measure	1	2	3	4	5	6	7	8
1 Child gender	-							
2 Child age at placement	-.07 (373)	-						
3 ACE Score	-.09 (374)	.62** (373)	-					
4 T3 Child Externalizing	-.01 (62)	.15 (62)	.14 (62)	-				
5 T3 Child Internalizing	-.08 (62)	.36** (62)	.26* (62)	.48** (70)	-			
6 T1 parent depression	-.08 (84)	.25* (84)	.23* (84)	.33** (70)	.15 (70)	-		
7 T2 parent warmth	-.12 (72)	-.48** (72)	-.32** (72)	-.45** (69)	-.49** (69)	-.10 (80)	-	
8 T2 parent hostility	-.09 (72)	.56** (72)	.47** (72)	.16 (69)	.24* (69)	.42** (80)	-.45** (80)	-
Mean (SD)	.52 (50)	2.32 (2.23)	2.65 (2.82)	6.98 (3.61)	3.80 (3.07)	4.71 (3.43)	38.24 (4.43)	9.86 (3.70)

Note. \*  $p < .05$  \*\*  $p < .01$ , number of participants is shown in brackets

### Adoptive Parent Well-being and Later Child Adjustment

**Child externalizing problems.** Correlations (See table 6.1) showed that time one parental depression was associated with increased parent to child hostility at time two ( $r_s(78) = .42, p < .01$ ) and child

externalizing problems at time three ( $r_s(68) = .33, p < .01$ ). However, time one parental depression was not associated with time two warmth ( $r_s(78) = -.10, p = .38$ ). Time two parental warmth but not hostility was associated with child externalizing problems at time three ( $r_s(67) = -.45, p < .01$  and ( $r_s(67) = .16, p = .16$ ) respectively).

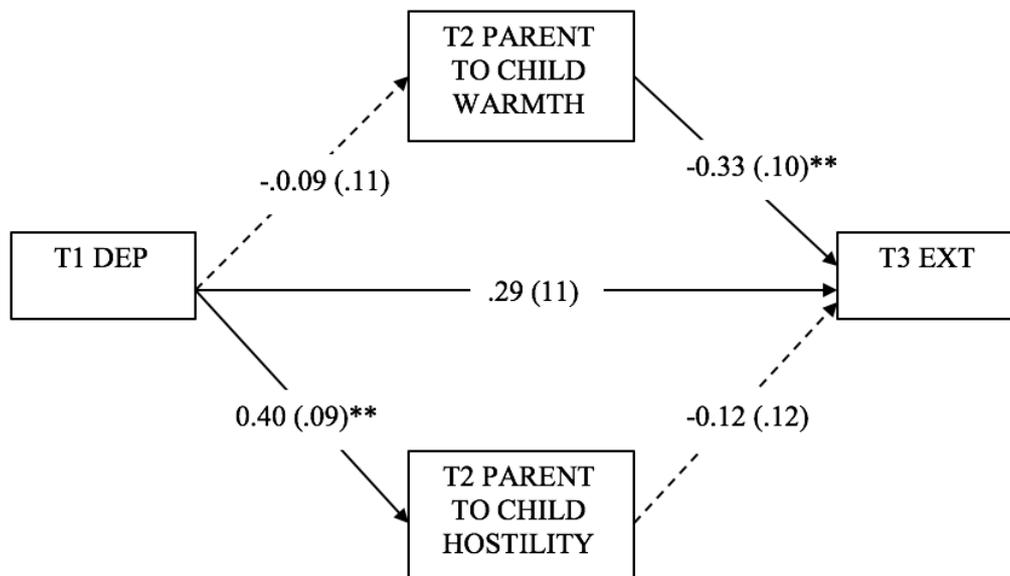


Figure 6.3 Standardised parental warmth and hostility as mediators between time one parent depression and time three child externalizing problems ( $n = 71$ ).

Path analysis (figure 6.3) showed a direct effect between time 1 depression score and T3 externalizing behaviours ( $0.30, \text{Est./S.E.} = 2.73, p < .01, (\text{standardized} = 0.29)$ ). T1 depression was not observed to be related to T2 parent to child warmth ( $-0.11, \text{Est./S.E.} = -0.80, p = .42, (\text{standardized} = -0.09)$ ). However, T2 parent to child warmth was negatively related to T3 child externalizing problems ( $-0.27, \text{Est./S.E.} = -2.47, p < .05, (\text{standardized} = -0.33)$ ). T1 depression was positively related to T2 parent to child hostility ( $0.42, \text{Est./S.E.} = 3.97, p < .01, (\text{standardized} = 0.40)$ ). However, T2 parent to child hostility was not observed to be related to T3 externalizing problems ( $-0.12, \text{Est./S.E.} = -0.96, p = .34, (\text{standardized} = -0.12)$ ). Within the present model, approximately 1% of the variability in parent to child warmth ( $R^2 = .01$ ), 16% of the variability in parent hostility ( $R^2 = .16$ ) and 19% of the variability in

externalizing behaviours ( $R^2 = .19$ ) can be explained. The bias corrected bootstrap 95% confidence interval for parental warmth as a mediator was -0.017, 0.034 confirming no indirect effect of T1 depression scores on time three externalizing problems through T2 parental warmth. The bias corrected bootstrap 95% confidence interval for parental hostility as a mediator was -0.046, 0.019 indicating no indirect effect of T1 depression scores on time three externalizing symptoms through T2 parental hostility.

**Child internalizing problems.** Correlations (See table 6.1) showed that time one parental depression was not associated with child internalizing problems at time three ( $r_s(68) = .15, p = .23$ ). Time two parental warmth ( $r_s(67) = -.49, p < .01$ ) and hostility ( $r_s(67) = .24, p < .05$ ) were associated with child internalizing behaviour problems at time three. Path analysis showed a similar pattern of results (see figure 6.3) to externalizing, however, a direct effect between time 1 depression score and T3 internalizing behaviours was not observed (0.10, Est./S.E. = 1.18,  $p = .24$ , ( $\text{standardized} = .012$ )). T2 parent to child warmth was negatively related to T3 child internalizing problems (-0.30, Est./S.E. = -2.47  $p < .05$ , ( $\text{standardized} = -0.42$ )). However, T2 parent to child hostility was not related to T3 internalizing problems (-0.09, Est./S.E. = -0.97  $p = .33$ , ( $\text{standardized} = -0.10$ )). Within the present model, approximately 20% of the variability in internalizing problems ( $R^2 = .19$ ) can be explained. The bias corrected bootstrap 95% confidence interval for parental warmth as a mediator was -0.037, 0.180 confirmed no indirect effect of T1 depression scores on time three internalizing symptoms through parental warmth. The bias corrected bootstrap 95% confidence interval for parental hostility as a mediator was -0.137, 0.038 indicating no indirect effect of T1 depression scores on time three internalizing symptoms through parental hostility.

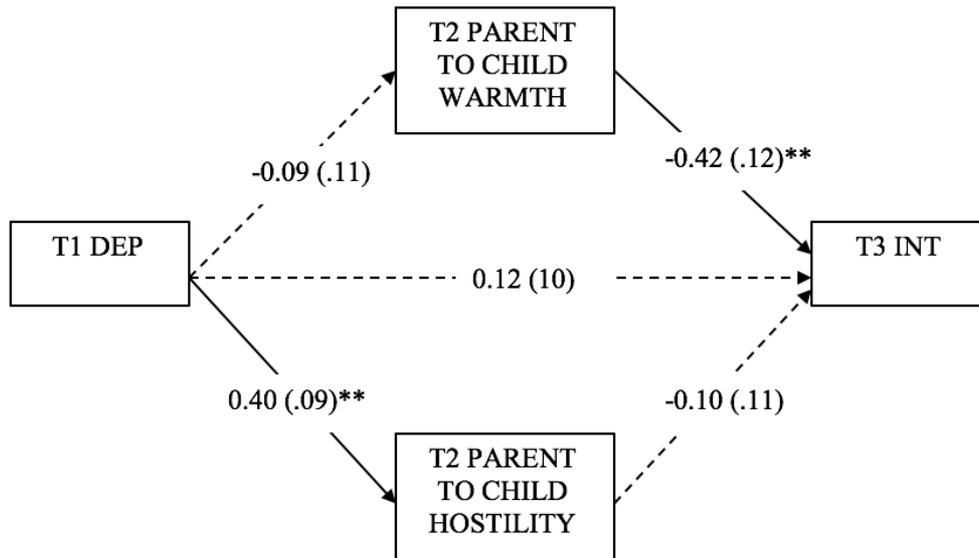


Figure 6.4 Standardised parental warmth and hostility as mediators between time one parent depression and time three child internalizing problems ( $n = 71$ ).

#### Adoptive Parent Warmth as a Moderator between Age Placed and Adjustment

Correlations (See table 6.1) showed that age placed was associated with child internalizing ( $r_s(60) = .36, p < .01$ ), but not externalizing problems at time three ( $r_s(60) = .15, p = .24$ ). Age placed was also associated with reduced parent to child warmth ( $r_s(70) = -.48, p < .01$ ) and increased hostility ( $r_s(70) = .56, p < .01$ ) and at time two. Time two parent to child warmth was associated with fewer child internalizing ( $r_s(67) = -.45, p < .01$ ) and externalizing problems ( $r_s(67) = -.49, p < .01$ ) at time three. Time two parent to child hostility was associated with more child internalizing problems ( $r_s(67) = .24, p < .05$ ) but not externalizing problems ( $r_s(67) = .16, p = .20$ ) at time three.

Table 6.2

*Regression coefficients testing the direct and interaction effects of age placed and parenting on children's internalizing and externalizing problems (n = 71)*

		T3 Internalizing problems			T3 Externalizing problems		
		B	SE	$\beta$	B	SE	$\beta$
Warmth models	Age placed	0.26	0.18	0.21	0.08	0.20	0.05
	T2 parental warmth	-0.15	0.13	-0.23	-0.26*	0.12	-0.33*
	Age placed $\times$ parental warmth	0.02	0.04	0.07	0.08*	0.04	0.23*
Hostility models	Age placed	-0.26	1.06	-0.21	-0.96	1.05	-0.63
	T2 parental hostility	-0.15	0.13	-0.23	0.03	0.10	0.03
	Age placed $\times$ parental hostility	-0.02	0.04	0.40	0.03	0.03	0.77

*Note.* \*  $p < .05$  \*\*  $p < .01$

Due to sample size restrictions, four multiple regression models were tested examining the moderating impact of parental warmth and hostility separately in the relationship between age placed and T3 child internalizing and externalizing problem scores. Table 6.2 shows the results of all four models in one table to aid understanding. Results from the regression analysis showed a direct effect between T2 parental warmth and T3 externalizing behaviours (-0.262, Est./S.E. = -2.121,  $p = 0.034$ , (standardized = -0.33). Furthermore, there was an interaction between aged placed for adoption and T2 parental warmth on T3 externalizing behaviours (0.075, Est./S.E. = 1.988,  $p = 0.047$ , (standardized = 0.036), suggesting the relationship between age placed and T3 child externalizing problems was moderated by adoptive parent warmth to the child.

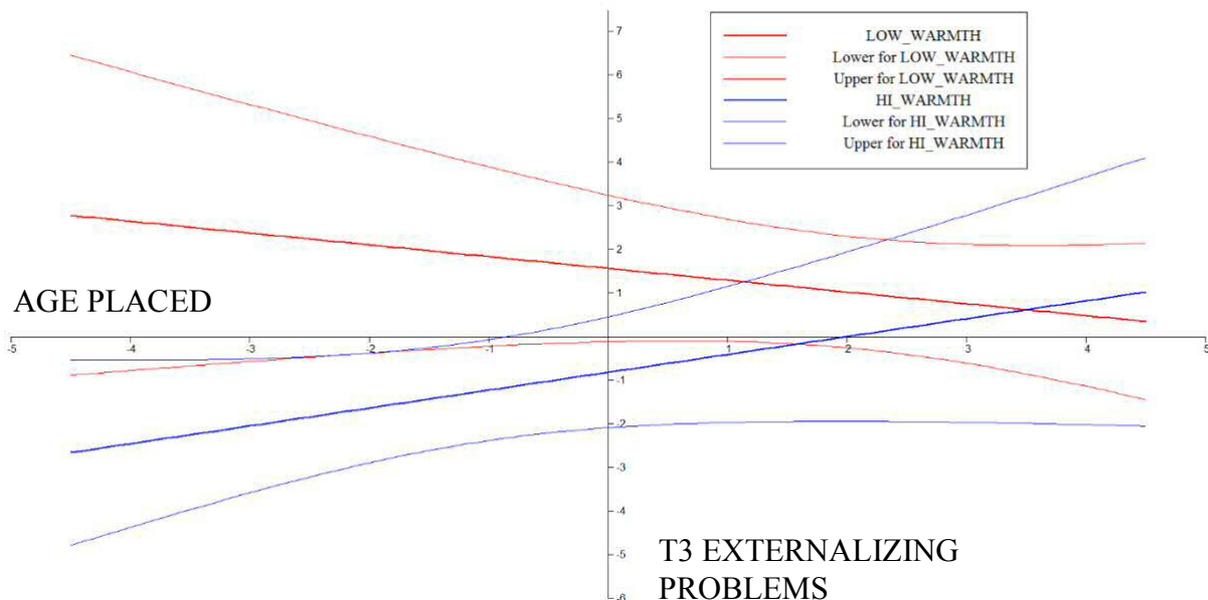


Figure 6.5 The moderating role of parental warmth ( $\pm 1$  SD) in the relationship between age placed for adoption and T3 externalizing problems.

In order to investigate and plot this interaction, two levels of parental warmth i.e. high (one standard deviation above the mean age), and low (one standard deviation below the mean age) were defined. Figure 6.5 shows the effect of age placed on Children's T3 externalizing problems at 1 SD below and 1 SD above the zero mean of parental warmth measured at time two, plotted over the full range of ACE and externalizing problems. 95% confidence bands are provided within the diagram. Figure 6.5 showed that children who experienced lower parental warmth had higher externalizing problems. Those children with the lowest levels of externalizing problems were placed earlier and experienced higher parental warmth. Unexpectedly, age placed was positively related to externalizing problems for children whose parents demonstrated higher warmth.

### **Adoptive Parent Warmth as a Moderator between ACE and Adjustment**

Correlations (See table 6.1) showed that ACE score was associated with child internalizing ( $r_s(68) = .26, p = <.05$ ), but not externalizing problems at time three ( $r_s(68) = .15, p = .29$ ). ACE

score was also associated with reduced parent to child warmth ( $r_s(78) = -.32, p < .01$ ) and increased hostility ( $r_s(78) = .47, p < .01$ ) at time two. As with age placed, the moderating impact of adoptive parent warmth and hostility was investigated in the relationship between ACE and later child adjustment. Again, four separate multiple regression models were tested examining the moderating impact of parental warmth and hostility in the relationship between ACE and T3 child internalizing and externalizing problem scores. Table 6.3 shows the results of all four models in one table to aid understanding. Results from the regression analysis showed a direct effect between ACE and T3 internalizing problems within the hostility model (0.31, Est./S.E. = 2.392,  $p = 0.017$ , (standardized = 0.029). In addition, a direct effect was found between T2 parental warmth and T3 internalizing behaviours (-0.174, Est./S.E. = -2.636,  $p = 0.008$ , (standardized = -0.267). Furthermore, there was an interaction between ACE score and T2 parental warmth on T3 internalizing behaviours (-0.056, Est./S.E. = -2.641,  $p = 0.008$ , (standardized = -0.231). Within this model, approximately 17% of the variability in T3 internalizing behaviours ( $R^2 = .171$ ) was explained.

Table 6.3

*Regression coefficients testing the direct and interaction effects of ACE and parenting on children's internalizing and externalizing problems (n = 71)*

		T3 Internalizing problems			T3 Externalizing problems		
		B	SE	$\beta$	B	SE	$\beta$
Warmth	ACE	0.13	0.11	0.12	0.10	0.16	0.08
models	T2 parental warmth	-0.17**	0.07	-0.27*	-0.17	0.10	-0.21
	ACE × parental warmth	-0.06**	0.02	-0.23*	0.01	0.04	0.02
Hostility	ACE	0.31*	0.13	0.29*	0.15	0.14	0.11
models	T2 parental hostility	-0.05	0.08	-0.06	0.08	0.09	0.08
	ACE × parental hostility	-0.01	0.03	-0.04	0.05	0.05	0.11

*Note.* \*  $p < .05$  \*\*  $p < .01$

As indicated by the significant interaction term, the nature of the relationship between ACE and T3 child internalizing problems was moderated by adoptive parent warmth to the child. Figure 6.6 shows the effect of ACE on Children's T3 internalizing problems at 1 SD below and 1 SD above the zero mean of parental warmth measured at time two, plotted over the full range of ACE and internalizing problems. The faded lines above and below low and high warmth show the 95% confidence bands. For internalizing problems, ACE was unrelated to internalizing problems at higher levels of parental warmth (-0.11, Est./S.E. = -0.78,  $p = 0.440$ ), although children who experienced higher levels of maternal warmth had lower internalizing problems.

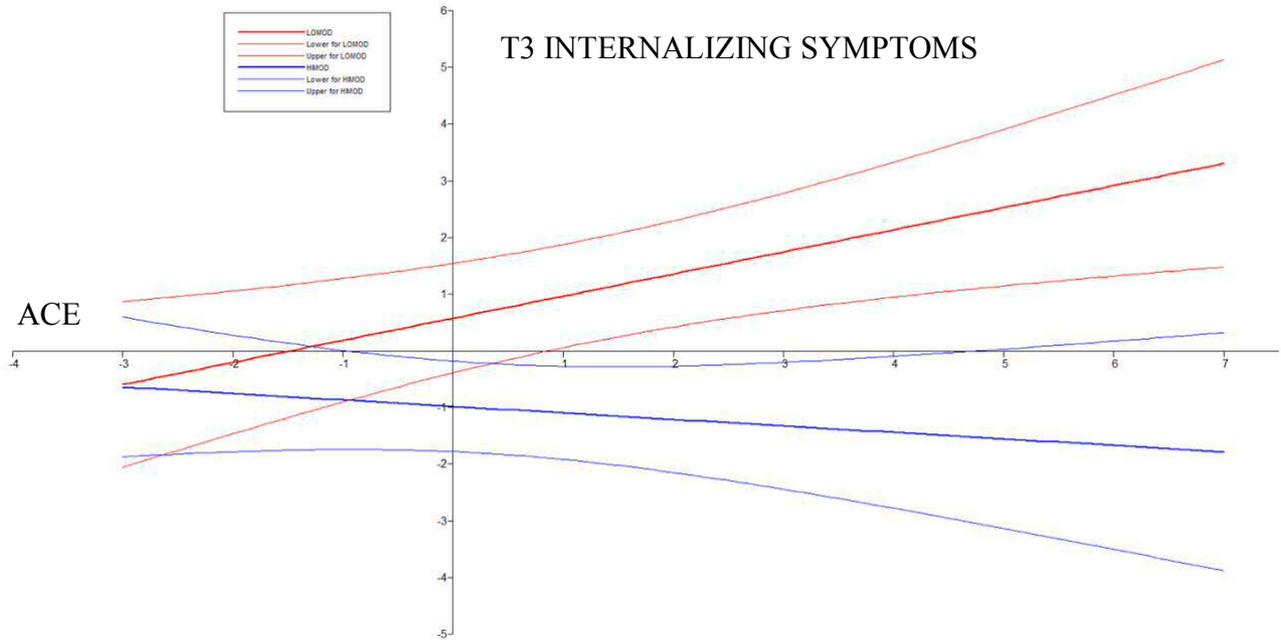


Figure 6.6 The moderating role of parental warmth ( $\pm 1$  SD) in the relationship between ACE and T3 internalizing problems.

In contrast, ACE was significantly positively related to internalizing problems for children whose parents demonstrated lower levels of warmth (0.390, Est./S.E. = 2.802,  $p = 0.005$ ).

## Discussion

This chapter highlights the impact of the caregiving environment for child psychopathology. Results supported the hypothesis that parental depression symptoms predicted more hostility to the child at follow up. In addition, depression at time one predicted parent rated increased externalizing problems at time three. This finding is inconsistent with prior work finding stronger links between parental depressive symptoms and children's internalizing problems than externalizing problems (Gravener et al., 2012; Leckman–Westin, Cohen & Stueve, 2009). Against expectations, the relationship between parental depression and later externalizing behaviours was not mediated by parental hostility, suggesting that an unmeasured aspect of the parent may further mediate this relationship. Although parental hostility did not predict later child internalizing or externalizing

problems, it may play a role in relationship forming. For example, depressive symptoms may compromise parents' emotional availability, which can contribute to child adjustment problems (Cummings & Davies, 1994), especially in situations where the child may have previous experience of rejection (such as maltreated children). However, it is also important to note that depression may lead to more negative perceptions of children (Gartstein, Bridgett, Dishion & Kaufman, 2009). For example, more depressed parents tend to view their children as having more problems in part because of a negative outlook on reality (Gartstein et al., 2009). It may be that parental depression leads to self-criticism and child criticism, which leads to higher levels of parent-reported child externalizing and internalizing behaviours (Gravener et al., 2012). This chapter further supports the importance of assessing parental well-being post adoption and providing non-judgemental support to those in need, given the association with child internalizing problems. In addition, this chapter recommends that independent observations of children's behaviour be used in research due to problems of shared variance, as addressed in chapter four.

Results from this chapter support previous studies suggesting that warm parenting is associated with less internalizing and externalizing problems (Zvara et al., 2018), extending findings to a group of UK children adopted from care. Parental warmth appears to be a key factor in children's adjustment, building on the work of Bayer and colleagues (2006). Within this study, parental hostility did not predict later child internalizing and externalizing problems, in contrast to Elam and colleagues (2014), who found that high adoptive parent-child hostility predicted children's later disruptive peer behaviour. This further supports Clarke and Clarke (2001) suggestion that key elements in successful adoptions were adoptive parent expressed warmth, emotional involvement and sensitivity, and the way in which these were combined. Results suggest that prevention efforts and interventions directed at warm parenting are a promising avenue for improving child behaviour problem trajectories (Smith et al., 2014). Interestingly, models of warmth as a moderator showed different impacts dependent on the adversity measure used. In the context of age placed as a predictor, children who were placed

earlier and experienced higher parental warmth had the lowest levels of externalizing problems. However, unexpectedly, older placed children whose parents demonstrated higher warmth had the highest levels of externalizing symptoms. This result is very similar to a recent study by Ruberry, Klein, Kiff, Thompson and Lengua (2018), who investigated parenting as a moderator on the effects of cumulative risk on children's adjustment in a normative population. Unexpectedly, the authors found that in the presence of higher cumulative risk, higher warmth was positively related to total problem behaviours (as rated by the CBCL). The authors suggested that this may be due to warmth alone not being enough in the presence of high cumulative risk. The same hypothesis could be applied to our study findings, adding to practice experience and the voices of adoptive families which recognises that 'love is not enough' (Selwyn, 2017) and that the effects of deprivation, maltreatment and trauma can be long-lasting for some children. Social work professionals have previously highlighted that some parents struggle to accept that their child has significant difficulties that cannot be resolved by loving parenting (Selwyn et al., 2015). Based on this, this chapter theorises that adoptive parents may be 'showering' their children with love based on their knowledge of the child's past, potentially neglecting to set appropriate boundaries, which may be needed with older placed children.

In the context of ACE score as a predictor, again children who had lower ACE scores and experienced higher parental warmth had the lowest levels of internalizing problems. However, simple slopes analysis demonstrated that against expectations it was low warmth that moderated the relationship between ACE and behaviour, such that those children with a higher number of ACEs and low warmth had the higher internalizing scores. Interestingly, only less parental warmth (rather than hostility) moderated the relationship between adversity and child behaviour. Again, strengthening the idea that parental warmth is a key factor in children's adjustment. This may be due to child effects, such as adopting sibling groups or those with externalizing problems leading parents to feel stressed and overwhelmed, which could impact upon their emotional availability and ability to show

warmth. Another possible explanation for this is that, due to social desirability, parent's reports of hostility may be somewhat lower than actual practices. However, results of chapter five showed moderate correlations between parent reports of warmth and hostility and warmth and criticism as captured by the FMSS, which has, in turn, been validated to correlate with direct observational research, giving some confidence to the accuracy of parental reports.

### **Strengths and Limitations**

Larger samples are recommended to enable more robust procedures, such as structural equation model analysis (SEM), to be used with confidence. For example, Kline (1998) recommends that the lower bound of total sample size should be at least 200. Structural equation models have the capability to deal with latent variables, i.e. non-observable quantities like true-score variables or factors underlying observed variables (Nachtigall, Kroehne, Funke & Steyer, 2003). In addition, due to the small sample size, a number of separate models were conducted rather than a model which simultaneously estimated the relationship between parental warmth and hostility and children's behaviour. Although, this is a common approach, the correlation between the outcomes is effectively ignored which could result in a loss of efficiency in the analysis leading to less power to detect effects (Teixeira-Pinto, Siddique, Gibbons & Normand, 2009). Larger samples would also enable investigations of the impact of multiple aspects of the environment on children's outcomes. As Bronfenbrenner (1979) pointed out, any given context (i.e. parental depression) has multiple dimensions, and these dimensions are likely to interact with one another in etiologically important ways.

Baseline measures of parent depression and anxiety were not obtained until approximately 5 months after the children were placed in their adoptive homes. It is possible that children's behaviour and temperament elicited parent behaviours that became established as forms of interaction quite early in the placement and did not continue to impact parenting change, or that the lag between

parenting and child behaviour may be longer than the interval we measured in the current study. Furthermore, the study used parental self-report measures to assess depression and anxiety symptoms, warmth and hostility, and child behaviour. Thus, shared method variance may be a factor in confounding the pattern of associations noted between parent-reported well-being, sense of competency and children's behaviour.

Furthermore, this chapter fails to simultaneously consider a wider range of potential moderators of cumulative adoption risk. For example, it does not consider parenting style (i.e. authoritative) or parent's attachment style. In addition, it does not explore the effect of post-adoption support services or the openness of the adoption, that is, whether members of the adoptive family maintain contact with members of the birth family after the adoption (Siegel, 2003), which may be important given that the majority of children in this study have indirect contact with birth parents via letter. Results as to the impact of open adoption on child adjustment are inconsistent. For example, although the bulk of the literature suggests many benefits (Agnich, Schueths, James & Klibert, 2016), the Agnich and colleagues (2016) study found that youth in 'open' foster care adoptions were more likely to have an attachment disorder diagnosis than those in closed foster care adoptions. Future studies should consider the specific factors of foster care adoptions, such as contact arrangements and the 'openness' of adoptions.

**Key points**

- Warm parenting was associated with fewer internalizing and externalizing symptoms, extending previous findings to a group of UK children adopted from care.
- Children with a higher number of ACEs coupled with low adoptive parent warmth had higher internalizing scores.
- Older placed children whose parents demonstrated higher warmth had the highest levels of externalizing symptoms.
- This study advocates that interventions to encourage parental warmth, as well as supporting parents to use effective structure/limit-setting skills, may be helpful in enabling children's recovery.

## **CHAPTER SEVEN**

### **General Discussion**

---

This thesis aimed to contribute to knowledge of child and parent well-being and the psychological processes that characterise family formation in the early years of an adoptive placement. Specifically, this thesis aimed to investigate the impact of adoptive parent factors (psychopathology; parental warmth and hostility) in promoting resilience in children. The conceptual model of foster care adjustment proposed by Del Pozo de Bolger and colleagues (2018) will be used to illustrate findings from this thesis. Figure 7.1 shows how findings from this thesis were incorporated into this model.

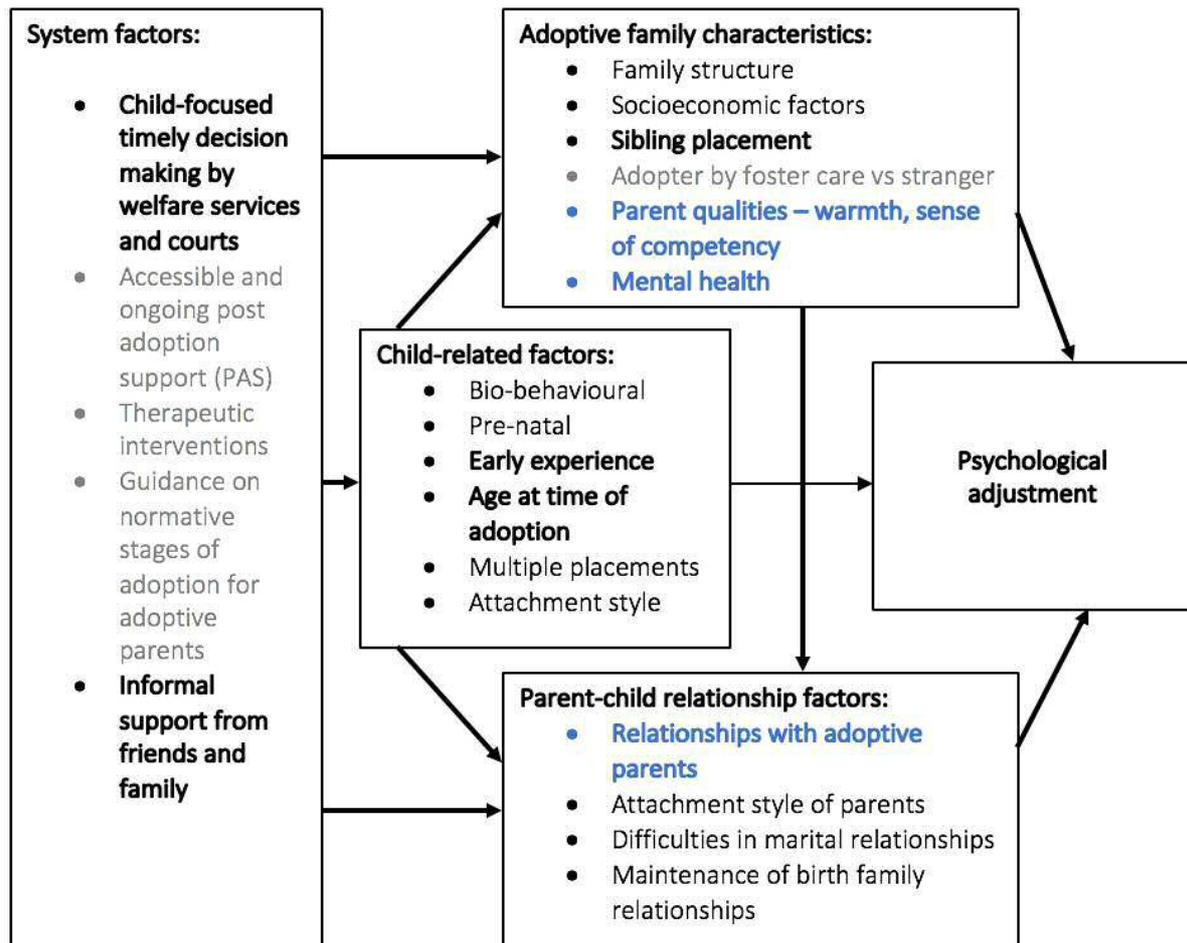


Figure 7.1 The psychological adjustment of foster care adoptees – modified model based on thesis findings<sup>6</sup>.

<sup>6</sup> Note. ‘grey’ factors were included in the original model but not investigated in this thesis. ‘Bold’ factors were included in the original model and further supported in the context of UK adoptive families using results from this thesis. ‘Blue’ factors were not included in the original model but identified in this thesis as potentially relevant to understanding adoptee adjustment.

## **Child Factors**

Chapter three highlighted that children placed for adoption from care in Wales have higher levels of problem behaviours than the UK general population, in line with previous studies (Rushton & Dance, 2006; Fisher, 2015; Wretham & Woolgar, 2017). Whilst behaviour problem scores generally reduced from 5 months to 32 months' post placement (although this was not a statistically significant trend), SDQ scores remained higher than the general population. It is important to note that at T3 (approx. 32 months' post-placement), behaviour problem scores were lower than looked after children in other types of care placement, suggesting adoption as an intervention may be beneficial in aiding recovery from early experiences. However, it may also be possible that relatively less vulnerable children, such as younger children and those showing lower levels of adjustment problems are the children placed for adoption.

Chapter three highlighted that children adopted from care suffered many adverse experiences with their birth parents prior to placement, with nearly half experiencing four or more adverse childhood experiences. Against expectations, based on the vast number of research studies showing an association between ACE and poor outcomes, 'ACE score' was only associated with internalizing problems at time three. This may be due to adoption providing an environment where toxic adversity and risk factors for problem behaviours are minimized. This finding may be especially important for adoptive parents to appreciate the impact they can have in aiding their child's recovery. If parents view their child's behaviour as being predetermined by their experiences prior to adoption, it is likely that they will feel less effective in their parenting; this, in turn, may increase parenting stress and parent-child conflict. However, it is also important to note the young age of the children, where clinical diagnoses are rare and links between ACE and psychopathology may not yet be present.

## **System Factors**

Chapter three highlighted strong associations between the time children spent with their birth parents exposed to adversity and post adoption behaviour problems. Time spent in care was also associated with internalizing symptoms at time three. The findings presented in this thesis suggest that ‘age placed for adoption’ may represent a good proxy for the potential impact of adversity, encompassing a more complete picture of pre-adoption risk that includes experiences in care such as number of moves, carers, losses and instability.

## **Adoptive Family Factors**

Results from chapter four add to previous studies suggesting depression is as common if not more prevalent in adoptive families compared to biological families (Dean, White & Liu, 1995; Senecky et al., 2009; Mott et al., 2011; McKay et al., 2010). Growth curve analysis revealed that depression scores remained relatively stable across the first few years of an adoptive placement. Furthermore, results suggest that many parents are starting the adoption with increased depression symptom scores but those who start lower have a larger increase over time. Adoptive parent relationship status (i.e. single or couple) was not associated with parent depression or anxiety scores. In terms of contextual factors, a lack of support from family was associated with increased depression and anxiety scores. Results from chapter four highlighted child effects, with child age at placement and severity of child internalizing and externalizing problems associated with increased initial parent depression and anxiety. In addition, adopting a sibling group was negatively associated with parental depression and anxiety. Within this study, a reduced parental sense of competency showed the strongest effect size for parental initial depression and anxiety scores. Given the challenges adoptive parents face, this finding may be especially important considering Bandura’s (1977) theory, which proposes that an individual’s perceived ability to achieve a desired outcome will motivate their efforts and promote persistence (Latham et al., 2018).

Chapter five highlighted substantially lower levels of expressed emotion for adoptive parents in the WACS study than previous studies using the Pre-school Five Minute Speech Sample (PFMSS) with clinical ADHD and community populations. Although previous studies have found associations between high EE and parental psychopathology, this thesis did not find any associations between variables capturing the emotional climate of the home (using PFMSS) and parental depression or anxiety at any time point. Results from chapter six showed that parental depression symptoms at time one predicted more hostility to the child and parent perceived increased externalizing problems at time three, highlighting the importance of assessing parental well-being post-adoption and providing non-judgemental support to those in need. This study advocates that support should mirror current practice in relation to screening and treatment for perinatal depression with biological parents. Furthermore, this study supports the need to extend surveillance of parental mental health to cover the early years of parenting proposed by Woolhouse, Gartland, Mensah & Brown, (2014). Path analysis in chapter six revealed that the link between parental depression and later child externalizing behaviours was not mediated through parental hostility.

### **Child-Parent Relationship Factors**

Chapter five highlighted that the majority of parents were rated as showing high warmth towards their children and experienced a positive relationship with their child. Where parents experienced a poorer quality parent-child relationship (measured by the PFMSS) this was associated with later parent-reported child internalizing problems. Chapter five highlighted that more critical and less positive comments measured by the (PFMSS) were associated with increased child internalizing problems at 16 months, but not later into the placement (32 months). These findings suggest that child behavioural factors may play a role in contributing to parent-to-child warmth early in the placement and relationship quality in the longer term. Cross-lagged models in chapter five showed that parent-to-child warmth measured at time two predicted increases in child-to-parent

warmth at time three, suggesting the importance of parental warmth in building positive parent-child relationships based on mutual warmth.

Chapter six highlighted the impact of the caregiving environment for child psychopathology. Overall, children who were placed earlier or experienced less adversity and who experienced higher parental warmth had the lowest levels of behavioural problems at follow up. However, in the model using age placed as a proxy of adversity, age placed was positively related to externalizing problems for children whose parents demonstrated higher warmth, suggesting that for some older placed children 'love is not enough' (Selwyn, 2017). It is also possible that adoptive parents may be 'showering' their children with love, potentially overlooking the setting of appropriate boundaries. In the model using ACE as a proxy of adversity, parental warmth moderated the relationship between ACE and behaviour, such that those children with a higher number of ACEs experiencing low warmth had the highest internalizing scores. Interestingly, only low parental warmth (rather than hostility) moderated the relationship between adversity and child behaviour, highlighting the importance of differentiating between parental behaviours, when examining the development of internalizing and externalizing problems in this population.

### **Implications for Policy and Practice**

It has been noted previously that psychologists and behaviour geneticists who study adopted children primarily do so to answer questions pertaining to the nature of child development and psychopathology (e.g. Leve et al., 2018), not typically to influence social policy. In contrast, social work researchers have been more concerned with policy and practice (Selwyn et al., 2015). In considering implications for policy and practice, this thesis will attempt to highlight issues relevant to both social work and psychology.

Results from chapter three showed that across all time points the children in our study had behavioural problem scores (as measured by the SDQ) above the general population, with scores remaining fairly stable across time. This is important as studies have shown that an existence of

externalizing problems in early childhood (3 or 4 years) is strongly associated with a sustained pattern of behaviour problems into adulthood (Campbell, Shaw & Gilliom, 2000), including academic failure, peer rejection, and juvenile delinquency (Campbell et al., 2009). The failure to meet the complex needs of children who have experienced adversity has been recognised and identified as a public health concern (Sara & Lappin, 2017). For example, the latest Child Abuse and Neglect Guidelines (NICE, 2017) recommend compulsory assessments of childhood abuse as part of mental health services. In addition, there are proposals for further research into the value and accuracy of new diagnoses based on children's experience of adversity, such as 'developmental trauma disorder' (DTD) (Bethell et al., 2017) and complex PTSD (Bransford & Blizard, 2017). Results from chapter three suggest that whilst an 'ACE score' may be useful in assessing their previous maltreatment, it has some serious limitations and should be used alongside consideration of other aspects of a child's history, such as the length of exposure to adversity and the age they were placed, which may provide a broader picture of potential risk. Screening for previous adversity only has any real benefit to a child when there are established interventions that mitigate some potential harmful outcome that the screening identifies (Stoto, Almario & McCormick, 1999). This is echoed by The Royal College of Paediatrics and Child Health (RCPCH) in their suggestion that with the vast amount of evidence showing an association between adversity and negative outcomes available, research should move towards developing and testing interventions that support resilience and promote healthy childhood experiences (RCPCH, 2017).

Results from chapter four showed that children's internalizing and externalizing problems a few months into placement were associated with parental depression symptoms, which was associated with more hostility and less warmth towards the child. Thus, whilst findings from chapter six suggest that aspects of the adoptive placement (e.g. parental warmth) may be a key factor in reducing child behavioural problems, this may be problematic for some families given the prevalence of depression and interventions with the child and family may be beneficial.

## **Intervention**

Recent years have seen the rise of the ‘evidence-based program’ (EBP) in Children's Services (Axford & Morpeth, 2013). These are specific interventions that have been shown to have positive effects on outcomes through rigorous evaluations. This is important as despite good intentions, some treatments that have claimed to improve the parent-child relationship in adoptive families have actually caused serious harm or death (e.g. holding therapy; Chaffin et al., 2006). Grotevant, Lo, Fiorenzo and Dunbar (2017) highlighted the importance of effective interventions that are sensitive to the needs of adopted children, particularly those who have been exposed to adversity as a key need for children’s service providers and parents. Furthermore, looked after and adopted children have been highlighted as requiring interventions to be developed or adapted to address their specific needs (Hambrick, Oppenheim-Weller, N’zi & Taussig, 2016), due to their potential to support children’s development and the stability of the placement. Whilst looked after and adopted children benefit most from mental health services adapted specifically to their needs (Pinto & Woolgar, 2015), this is not always possible. Thus, this next section will provide some examples of interventions, which have been shown to be effective in improving child well-being.

### **Pre-placement intervention.**

*Interventions with foster parents.* Studies focusing on the experience of foster parents, have identified a number of perceived needs: including more skills training, accurate information about the child, clearly defined roles, increased support and respect from their agency, community support, foster family networking, respite care, crisis intervention and monetary compensation (Cooley & Petren, 2011). NICE (2017) recommends that all foster carers of children under five who have been abused or neglected should be offered interventions that improves their understanding of what their child’s behaviour means, how to respond positively to cues and behave in ways not frightening to the child and improves how they manage their own feelings when caring for the child. For example, studies have shown that most foster parent training focus on practical behavioural management rather

than helping parents to understand the emotional needs that form the basis of their children's behaviour (Suchman, Mayes, Conti, Salde & Rounsaville, 2004). Speltz (1990) suggests that the issues behind children's behaviour include children not feeling emotionally or physically safe, needing reassurance or acceptance in their relationship. There are several interventions for children in foster care, although the strength of the evidence varies and most do not currently have a sufficient evidence base. Promising results show that where therapeutic foster care interventions have been offered, positive outcomes include improvements in conduct disorder (Fonagy et al., 2015), improved self-esteem, identity and personal growth (Colton, 1990), and cost savings (Chamberlain & Weinrott, 1990). 'Fostering changes' is an intervention which has been evaluated using a randomised controlled trial (RCT) methodology. This intervention has been disseminated to all local authorities in England and aims to build positive relationships, encourage positive behaviour and set appropriate boundaries. A RCT evaluation found it improved disruptive behaviour, attachment security and carer efficacy (Briskman et al., 2012).

***Interventions with adoptive parents.*** In addition to child focused interventions, many adoptive parents report they do not feel prepared for the challenges associated with adopting a child from care, especially when it comes to the child's emotional and psychological problems (O'Dell, McCall & Groark, 2015). Ensuring the availability of high quality pre-adoption services (Lee, Kobulsky, Brodzinsky & Barth, 2018) and continuity of services in the years following adoption have been shown to be important considerations for ensuring successful family adjustment over time (Waid & Alewine, 2018). Dozier and colleagues (2014) states that parents need to understand their child's behaviour in the context of their early experiences and adapt their parenting to meet their child's particular needs. This is reflected by studies showing that adoptive parents feeling more prepared prior to adoption is associated with parental life satisfaction, a better parent-child relationship, lower stress levels (Sar, 2000), a decrease in child externalizing problems and placement stability (Barth & Miller, 2000; White, 2016). This preparation includes more information about the adoption process,

what the family may face post-adoption, and more support. Pre-adoptive preparations may help establish realistic expectations of adoption and help parents learn to use the support available within and outside their own family (Wind, Brooks & Barth, 2005).

Drozd, Bergsund, Hammerstrøm, Hansen and Jacobsen (2018) conducted a systematic review designed to identify, quality appraise, and synthesize the results of comparative studies on the effects of education, training, and other supportive interventions for adoptive parents physical and mental health. The authors found a clear lack of studies on pre-adoption interventions. Of the 10 included studies, they report that all studies were associated with a high risk of bias and unclear reporting. Out of eight studies examining intervention effects related to interpersonal functioning, three found positive effects. In addition, out of three studies investigating effects on parenting and stress, only one demonstrated effects on parenting and none on parental stress (See Drozd et al., 2018 for more information). Chapter four showed that a reduced parental sense of competency emerged as an important predictor of depression and anxiety symptoms, thus ensuring adoptive parents feel adequately prepared for the realities, with ongoing support available, may help improve their feelings of self-competence, which has been shown to be associated with motivating their efforts and promoting persistence (Latham et al., 2018). This may be especially important for those with little support from family, and those adopting older age children and sibling groups, due to results from chapter four showing their associated risks with parental depression.

***Availability of interventions.*** Despite all the benefits of intervening early, due to a lack of funding and investment, cuts have been made within children's services (e.g. Health visitors and school nurses) across the UK (Royal College of Paediatrics and Child Health, 2018). Furthermore, funding has shifted from early intervention to late interventions, in direct contradiction to research evidence (Action for Children, 2017). This is demonstrated within the current mental health model, whereby children must reach certain thresholds for symptoms of ill health before they are eligible for treatment or care. Mental health services in the UK are largely under-resourced and therefore unable

to provide early intervention programmes (RCPCH, 2017). The recent Care Crisis Review (Thomas, 2018) stated that many professionals described the frustration they feel at, “working in a sector that is overstretched and overwhelmed and in which, too often, children and families do not get the direct help they need early enough to prevent difficulties escalating” (Thomas, 2018, p.5). In addition, Toth and Cicchetti (2013) state that far more evidence-based models are available for treating the aftermath of maltreatment than preventing it. This point was emphasised in the Centre for Mental Health’s Missed Opportunities report (Khan, 2016), which acknowledged the critical importance of parenting interventions in children’s mental health.

### **Post placement intervention.**

*Support services.* Although rare, adoptive placements do breakdown and when this happens, it is devastating for all members of the family (Schofield, Beek, & Ward, 2012; Selwyn et al., 2015). Post-adoption support is delivered through local authority social care services, independent and voluntary organisations, and child and adolescent mental health services (Fox & Arhcard, 2018). For the first three years after an adoption order has been approved, the local authority who placed the child takes responsibility for statutory assessment for post-adoption support. After this time, the responsibility is transferred to the local authority where the family live. Legally, a local authority is only obliged to carry out an assessment of need, with subsequent support at the discretion of the local authority (Department for Children, Schools and Families, 2008).

In Wales, research from the Wales Adoption Study (Meakings et al., 2018) highlighted the universal need for some form of support in every family. The main support needs identified were: promoting children’s health and development; strengthening family relationships; fostering children’s identity; managing contact with birth parents and significant others; and financial and legal assistance. This need for support services has been recognised in Wales through the National Adoption Service (NAS), regional collaboratives and all local authorities. Work is currently underway, through NAS and the ‘Framework for adoption support’, to provide easily accessible,

consistent and well-resourced adoption support services across Wales (National Adoption Service[NAS], 2017). In England, a new means of commissioning support work with families was piloted in 2013 named ‘the Adoption Support Fund’. This centrally-based fund was created to enable access to therapeutic services, if an assessment by the local authority suggested that families would benefit from intervention. In the first 18 months £23 million was allocated, 4,500 children received support and there was an average spend of £5,000 per child (King, Gieve, Iacopini, Hahne, & Stradling, 2017). The evaluation by King and colleagues found that families accessing the Fund had profound and long-standing needs, and that the ASF had made a positive impact. However, the evaluation highlighted challenges and areas for improvement, including further work to strengthen multi- agency collaboration. Furthermore, studies still suggest a mismatch between adoptive family’s needs and professional input (Fox & Archard, 2018) and the Care Crisis Review further indicated wide variation in the quantity and quality of available support. Despite the Adoption Support Fund developing a list of approved therapeutic interventions, there appears to be a lack of trained therapists in the approved therapies and local authority adoption support professionals raised quality concerns with interventions often not based on evidence (King, et al. 2017). The Care Crisis Review explained that “the majority of children placed away from home are likely to have high levels of need, or newly emerging needs, that require support and help, sometimes on a long-term basis” (Thomas, 2018, p.39). The children in our study had behavioural problem scores higher than the general population at all time points, adding further support to this proposition.

*Assessment.* One important aspect is the quality of assessment prior to intervention. For example, Green (2016) states that families need an assessment process that is skilful enough to be able to sort out the different components of the problem and prioritise elements for intervention. This was further supported by Pinto and Woolgar (2015), stating that professionals often formulate problems as ‘attachment difficulties’ or ‘emotional’ difficulties, overlooking common childhood mental health problems (such as ADHD, conduct, etc.) due to the shocking nature of the adversities

the children experienced. Waid and Alewine, (2018) suggest that post-adoption service providers should have a deep understanding of the effects of trauma, attachment disruption and reformation, adoption related grief and loss, and identity formation processes. This was echoed in the recent NICE guidelines (NICE, 2017), which suggest that clinical services may be particularly beneficial when provided by mental health professionals who specialize in working with adoptive family systems.

***Interventions.*** Models of developmental psychopathology (Cicchetti & Rogosch, 2002) point to integrated treatments that address child, parent, and family problems at biological, cognitive, and affective levels. This view is supported by Cohen (2010), who suggests that on average, the inclusion of parents and other key caregivers in the treatment of trauma-exposed children is associated with superior outcomes relative to treatments only working with the child. NICE (2017) recommend an attachment-based parent-child psychotherapy intervention based on the Cicchetti model (Cicchetti et al., 2006), for children under five. This involves directly observing child-parent interactions, explores the parental understanding of the child's behaviour and the relationship between the parent's reactions to the child's behaviour and perceptions of the child and parent's own childhood experience. A randomised controlled trial (RCT) that compared its effectiveness with a psychoeducational parent intervention for one year old infants in maltreating families found substantial increases in secure attachment in both groups, but one year later the psychotherapy programme had more sustained efficacy than the psychoeducational programme (Fonagy, Sled & Baradon, 2016). The children who received the psychotherapy programme had higher rates of secure attachment (55.6%) at the 12 month follow-up than children in the psychoeducational programme (22.7%) and the community standard control (12.2%). As results from chapter four showed the high prevalence of depression in adoptive families and the later associations with hostility towards the child, interventions which include the parent may be especially important to support family life. Whilst assessing attachment relationships was not possible as part of this thesis, chapter five showed that parent to child warmth at time two predicted child to parent warmth at time three, and mutual warmth was associated with a more

positive relationship (measured by the PFMSS). This may be an indicator of attachment modification (Bowlby, 1969), which may enable the child to develop better templates for other relationships in life (Del Pozo de Bolger et al., 2018). Given that findings from chapter six highlighted parental warmth as a key factor in moderating the impact of children's pre-placement adversity, integrated treatments which include the adoptive parent such as attachment-based parent-child psychotherapy may be beneficial in increasing parental empathy, sensitivity and warmth.

There are many other interventions well supported by research evidence (i.e. tested using RCT methodologies) including attachment and biobehavioural Catch-up (ABC); Eye Movement Desensitization and Reprocessing for Children and Adolescents (EMDR); Trauma-Focused Cognitive Behavioural Therapy (TF-CBT); Parent-Child Interaction Therapy (PCIT); and Video-feedback intervention to promote Positive Parenting (VIPP), See Selwyn (2017) for a review. For older children, NICE (2017) recommend comprehensive parenting interventions such as SafeCare (Churchill, 2015) or multi-systemic therapy (Heneggeler & Lee, 2003). Additionally, Dyadic Developmental Psychotherapy, Circle of Security (COS), Theraplay and Nurturing Attachments Groupwork Programme have been highlighted as showing promise (Selwyn, 2017). Similarly, AdOPT, a group parenting programme incorporating additional components to reflect the differences in parenting a child with a history of adversity and potential disrupted attachments has recently been evaluated (Harold, Hampden-Thompson, Rodic & Sellers, 2017). Whilst, the AdOpt parenting programme was shown to improve parents' sense of competency and parental monitoring, analysis of primary child outcomes demonstrated that it was effective only in reducing conduct problem scores.

In conclusion, the diverse and overlapping nature of difficulties presents challenges in deciding on interventions and the best way to support families (Selwyn, 2017). Toth and Cicchetti (2013) highlight that although progress has been made in identifying evidence-based models of intervention for maltreated children, further development and evaluation of interventions should be

carried out as research continues to find different pathways to positive outcomes. The authors stress that research funding should continue to support the development and evaluation of new interventions. However, it is important to note that in a special edition of *Child and Adolescent Mental Health* focused on looked after children, the authors concluded that looked after children benefit most from mental health services specifically adapted for them, considering the child's needs and views (Pinto & Woolgar, 2015).

### **Strengths of the thesis**

There are a number of strengths of this thesis, including the sample, which represents a national sample of children placed for adoption from care in Wales over a one-year period. The majority of the published literature on adoption is from the United States and not always applicable to the UK context, given the significant differences in population demographics, societal structures and social care systems, outlined in the introduction. In addition, most studies on adoptive families use samples where children were adopted as infants (e.g. Rutter et al., 2010a). These studies may not accurately reflect the challenging issue of children who experienced a longer period in adverse environments with their birth parents and/or subsequent time in care. Studies using samples of children adopted at birth are important in order to aid our understanding about gene-environment interaction. They do this by controlling for shared genes through passive genotype-environment correlations (rGE), whilst testing direct effects of adoptive parenting behaviours (Plomin, DeFries & Loehlin, 1977). However, using samples of children adopted at birth does not reflect the current reality of domestic adoption in the UK, where the majority of children are adopted from care and the average age of adoption is three years (Welsh Government, 2017). In addition, given that modern adoption arrangements often include some contact among children and their birth parents, it remains possible that birth parents may continue to impact their children via environmental mechanisms (Kerr et al., 2013).

A second significant strength of this thesis is that whereas most other studies rely on adoptive parent's second-hand information reports about their child's pre-adoptive history, (Melina, 1997), this thesis explores the link between adversity and adjustment in a sample where children's histories are accurately represented, as recommended by Logan, Morrall and Chambers (1998). Most studies measuring ACE rely on retrospective adult recall (e.g. Bellis et al., 2016; Felitti et al., 1998) and there is evidence that adult recall of childhood abuse experiences is poor (Widom, Raphael, & Dumont, 2004). Hardt and Rutter (2004), note that the accuracy of retrospective reports of childhood events can be influenced by any number of factors; including how old an individual was when an adversity was encountered and what has transpired in the individual's life since the encounter. For example, later occurring life transitions and events, may change how an individual remembers their childhood and what remains salient in the memories that an individual shares (Herrenkohl et al., 2016). In addition to this, most studies assess adversity at the same time as psychopathology, increasing the chance that recall is biased by current psychological state (Brown & Harris, 1978; Clark et al., 2010).

Furthermore, most studies are cross-sectional (Dumaret, Coppel-Batsch & Couraud, 1997; Logan et al., 1998) and a frequently mentioned need for future research in adoption is to undertake more longitudinal studies. Although within the time period of a PhD, this thesis only investigated outcomes up to three years post adoption, it addresses gaps previously highlighted, including identifying factors that may protect from or add to previous risk (Bethell et al., 2017). Within this design, measurement of parenting and child outcome in the thesis are longitudinally separated, giving some indication of possible direction of effects between child and parent (Loeber, Burke & Pardini, 2009). However, it is important to note that baseline measures were not obtained until the children had been placed in the adoptive family home for approximately five months, thus some adjustment may have already taken place prior to the study. Taken together, because this thesis uses a prospective, population sample, it provides a rich picture of the overall functioning of a group of children adopted from foster care.

## **Limitations of the thesis**

Whilst using an ACE approach as an organising principle to highlight children's experience prior to being removed from their parents' fits with current agenda within Wales, using ACE as a conceptual framework has limitations. The 'ace score' methodology has been criticised due to homogenising risk and lacking specificity. The approach leads to a substantial loss of information (including the type, severity, timing and length of exposure to adversity, as well as who perpetrated the adversity). For this thesis, the 'ACE' score was based an analogue of the original lists of ACEs proposed by Felitti and colleagues (1998). Although the ten ACE measures used in the present study were selected to be consistent with previous validated research, they fail to index all significant early adversities. In particular, the ACE variables in this chapter fail to capture prenatal experiences, despite a rapidly expanding research literature claiming that prenatal factors have long-lasting consequences on later mental health (Swanson & Wadhwa, 2009). For the families most at risk the child protection/adoption processes often begin during pregnancy due to identified risks (i.e. parental mental health, substance misuse problems, domestic violence, risk of sexual abuse). Furthermore, the ACE variables in this study do not capture children's experience in the period between being removed into state care and placed for adoption. Each child entering care will experience the loss of their family, their home and their possessions. While this specific experience is not recorded in the original ACE categories, it would likely be experienced as a significant adverse experience. In addition, during this period, children will potentially contend with: (1) moves between foster parents, (2) separation from foster parents (with whom some children have lived for significant periods of time) and (3) changes to their social and physical environment (e.g. school). So, whilst taking an 'ACE score' approach to contextualise children's pre-adoption experience is helpful to aid comparisons, the approach likely represents an underestimate of the cumulative effects of adversity in the context of children adopted from care.

Although sizable for a study of children adopted from foster care, the sample size was small, which may undermine the internal and external validity of a study, limiting the power available to detect significant relationships (Faber & Foncesca, 2014). Underpowered studies can cause misleading or conflicting results; thus, caution must be exercised in not placing too much emphasis on non-significant results (Fritz et al., 2015). This issue was especially pertinent for assessing the profile of child mental health information, where scores were only available for children age two and over from the sample of  $N = 96$  parents who responded to the first questionnaire. For the mediation and growth curve models especially, larger sample sizes are recommended in order to enable more robust procedures, such as structural equation model analysis (SEM).

The present study was limited to the use of parent reports of child psychological well-being, this was due to the young age of the children when placed for adoption, which precluded using teacher or child reports of difficulties. The self-report nature of family process risk factors (i.e. parental depression and hostility) may lead to biased results, which could be a particular confound for adoptive parent risk factors as they also rated child problem behaviour. A large number of studies have documented only modest agreement between parents and adolescents in terms of children's behaviour adjustment (Roskam et al., 2017). Typical child development entails children at times being anxious, shy, happy to approach new people, independent, overly sensitive, argumentative, verbally challenging, and aggressive (Fishburn et al., 2017). It has been suggested that adoptive parents may pay greater attention to their children's adjustment due to the knowledge that the child may be at a greater risk of poor outcomes (Juffer & van IJzendoorn, 2005), thus amplifying 'typical' behaviours. However, this idea was examined in a study of cross-informant rating of adolescent's behaviour in a sample of adoptive and birth families across six countries (Roskam et al., 2017). They showed that both the magnitude of agreement and the direction of the discrepancies in internalizing and externalizing symptoms (as rated by the CBCL) did not depend on whether the adolescents were adopted or not. Furthermore, they found that compared with their parents, adolescents reported

greater problems across both groups, suggesting that adoptive parent ratings are unlikely to be overestimated. However, studies should aim for multi-informants where possible, and those including teacher ratings are always preferable (Stone, Otten, Engels, Vermulst, & Janssens, 2010).

Based on the young age of the children in our study, when diagnoses are rare, the full degree to which associations between pre-adoption adversity and post-adoption family climate predict mental health diagnoses may not yet be known and following this sample for longer during transitions such as school, adolescence and into adulthood would be desirable. In addition, the research design meant our sample of children ranged widely in age at the time of placement which added another level of complexity to understanding children's adjustment. Furthermore, although the SDQ is an instrument widely used in research and proven to be reliable for the study of child outcomes, it may not be the best measure to capture the complexities of difficulties associated with this sample. In addition, within this study, higher values of reliability coefficients were desirable for the SDQ subscales.

Due to developmental psychopathology's aim to focus on both normal and abnormal developmental processes, this thesis would have profited from the use of a comparison group of non-adopted children. However, McCall (2011) cautions that a non-adopted peer group cannot be considered a suitable benchmark, while comparison groups (Family foster care, residential care) are not always comparable in terms of pathways to, and features of, experience. In addition, a key component of developmental psychopathology involves understanding psychopathology across disciplines and domains, from biology to genetics. Toth and Cicchetti (2013) state that in order to understand the emergence of psychopathology and resilience in maltreated children, all levels of analysis (i.e. genetic, biological, attachment) must be integrated. This is evidenced by literature reviews often calling for a better understanding of the mechanisms underlying the relationship between adversity and negative long-term outcomes (Fonagy, 2017). For example Toth and Cicchetti (2013) call for research examining biological and psychological systems concurrently over

time. Putative mechanisms including epigenetic changes and biological stress response, were described briefly in the introduction, however investigating these aspects went beyond the scope of this thesis.

Adoptive children's attachment has been widely studied, with research now showing increases in secure attachment behaviours and more positive representations of relationships in adoptive samples (Santos-Nunes et al., 2017). We did not collect information about attachment behaviour as part of the WACS, limited as we were to questionnaires completed by parents at home without face-to-face support from clinical researchers. We did not feel a parent self-report measure would be an adequate assessment of attachment, based on Van den Dries (2009) meta-analysis which suggested that self-report measures may not be as sensitive as observational measures in revealing a clinically meaningful effect.

### **Future studies**

Despite the significant adversities many adopted children have experienced, there has been little UK research assessing the impact of adversity on adopted children's wellbeing. This thesis has shown significantly higher levels of problem behaviours in our sample of children adopted from care in comparison to the UK general population. Whilst the mental health of children adopted from care is of great importance, there has been sparse research conducted into other areas of functioning including neurodevelopment. To my knowledge, only one UK study to date has looked at executive functioning and its role in the social and academic development of British children adopted from care, which showed that compared to children in the general population, adopted children performed less well on executive functioning tests (Wretham & Woolgar, 2017). Assessment of children's strengths and areas for improvement across a wide range of domains including language, cognition, emotional processing, social processing and motor skills would be beneficial, particularly because advocacy groups continue to bring the support needs of adopted children in education settings to the fore

(Brown, Waters & Shelton, 2018). In addition, further work investigating potential post-adoption mediators and moderators of child adjustment, such as parent relationship quality, parenting and attachment styles, as well as adoption communicative openness could highlight areas for possible intervention. Further studies could also use a more nuanced approach to analysing adversity, such as identifying if there are meaningful clusters of individuals with similar experiences of adversity to examine associations between adversity ‘groups’ and child outcomes. Findings from this study also support developing and evaluating interventions that support resilience in adopted children.

### **Summary**

The promotion of psychological well-being is of utmost importance for creating healthy behaviours, and this is particularly relevant in the case of adoptive children who have generally experienced adversity. Along with the contribution that this thesis makes to the adoption literature, the results may have some important implications for clinical settings, pre- and post-adoption services, and adoption policies. Practitioners should be aware of the potential of warm caregiving practices of adoptive parents to protect against child behavioural problems. Previous findings have been associated with international adoption and extreme deprivation, so this finding represents a useful contribution to researchers and clinicians working with adoptive families. Practitioners should also be aware of the prevalence of depression in adoptive parents, taking into account situations where families may be at risk, such as adopting older children, sibling groups, having a lack of family support and a reduced parental sense of competency. Consideration of these factors may be especially relevant for assessing risk for family crisis and disruption. This thesis highlights difficulties characterising many adoptive families, supporting the need for the provision of effective support services, with professionals and adoptive families working together to prepare for and face the challenges that may arise. Although this thesis highlights difficulties faced by adoptive families, it also recognises the potential of adoption to aid children’s recovery and their capacity to thrive.

## References

- Achenbach, T., Becker, A., Döpfner, M., Heiervang, E., Roessner, V., Steinhausen, H., & Rothenberger, A. (2008). Multicultural assessment of child and adolescent psychopathology with ASEBA and SDQ instruments: research findings, applications, and future directions. *Journal of Child Psychology and Psychiatry*, 49(3), 251-275.
- Achenbach, T. M., Howell, C. T., Quay, H. C., & Conners, C. K. (1991). National survey of problems and competencies among four- to sixteen- year-olds. *Monographs of the Society for Research in Child Development*, 56, 1-94.
- Action for Children. (2017). *Turning the tide*. Retrieved April 29, 2018, from <https://www.actionforchildren.org.uk/media/9883/turning-the-tide-report-web.pdf> [Accessed].
- Agnich, L., Schueths, A., James, T., & Klibert, J. (2016). The effects of adoption openness and type on the mental health, delinquency, and family relationships of adopted youth. *Sociological Spectrum*, 36(5), 321-336.
- Ainsworth, M.D.S., Blehar, M.C., Waters, E., Wall, S. (1978). *Patterns of attachment: assessed in the Strange Situation and at home*. Erlbaum, Hillsdale, NJ.
- Amato, P. (2005). The impact of family formation change on the cognitive, social, and emotional well-being of the next generation. *The Future of Children*, 15(2), 75-96.
- Amatruda, C., & Baldwin, J. (1951). Current adoption practices. *The Journal of Pediatrics*, 38(2), 208-212.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Washington, DC: Author.

- Anthony, R., Meakings, S., Doughty, J., Ottaway, H., Holland, S., & Shelton, K. (2016). Factors affecting adoption in Wales: Predictors of variation in time between entry to care and adoptive placement. *Children and Youth Services Review*, 67, 184-190.
- Appleyard, K., Egeland, B., Dulmen, M., & Alan Sroufe, L. (2005). When more is not better: The role of cumulative risk in child behavior outcomes. *Journal of Child Psychology and Psychiatry*, 46(3), 235-245.
- Arnold, D., O'leary, S., Wolff, L., & Acker, M. (1993). The Parenting Scale: a measure of dysfunctional parenting in discipline situations. *Psychological Assessment*, 5(2), 137.
- Atkinson, A., & Gonet, P. (2007). Strengthening adoption practice, listening to adoptive families. *Child Welfare*, 86(2), 87.
- Averett, P., Nalavany, B., & Ryan, S. (2009). An evaluation of gay/lesbian and heterosexual adoption. *Adoption Quarterly*, 12(3-4), 129-151.
- Axford N., & Morpeth, L. (2013). 'Evidence-based programs in children's services: A critical appraisal' *Children and Youth Services Review*, 35, (2) 268-277.
- Baker, B., Heller, T., & Henker, B. (2000). Expressed emotion, parenting stress, and adjustment in mothers of young children with behavior problems. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41(7), 907-915.
- Baker, A, Schneiderman, M., & Licandro, V. (2017). Mental health referrals and treatment in a sample of youth in foster care. *Children and Youth Services Review*. 78; 18-22.
- Bakersman Kranenburg, M., van Ijzendoorn, M., & Juffer, F. (2003). Less is more: Meta analyses of sensitivity and attachment interventions in early childhood. *Psychological Bulletin*, 129, 195–215.
- Balenzano, C., Coppola, G., Cassibba, R., & Moro, G. (2018). Pre-adoption adversities and adoptees' outcomes: The protective role of post-adoption variables in an Italian experience of domestic open adoption. *Children and Youth Services Review*, 85, 307-318.

- Bandura, A. (1977). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191.
- Barber, B. (1994). Cultural, family, and personal contexts of parent-adolescent conflict. *Journal of Marriage and Family*, 56, 375–386.
- Barnett, E. R., Cleary, S. E., Butcher, R. L., & Jankowski, M. K. (2018, May 3). Children's Behavioral Health Needs and Satisfaction and Commitment of Foster and Adoptive Parents: Do Trauma- Informed Services Make a Difference? *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication.  
<http://dx.doi.org/10.1037/tra0000357>
- Baron, R., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.
- Barroso, R., Barbosa-Ducharne, M., Coelho, V., Costa, I., & Silva, A. (2017). Psychological Adjustment in Intercountry and Domestic Adopted Adolescents: A Systematic Review. *Child and Adolescent Social Work Journal*, 34(5), 399-418.
- Barrowclough, C., & Hooley, J. (2003). Attributions and expressed emotion: A review. *Clinical Psychology Review*, 23(6), 849-880.
- Barrowclough, C., & Tarrrier, N. (1984). 'Psychosocial' interventions with families and their effects on the course of schizophrenia: a review. *Psychological Medicine*, 14(3), 629-642.
- Barry, T. D., Dunlap, S. T., Lochman, J. E., & Wells, K. C. (2009). Inconsistent discipline as a mediator between maternal distress and aggression in boys. *Child & Family Behavior Therapy*, 31(1), 1-19.
- Barth, R. P., Lee, C. K., Wildfire, J., & Guo, S. (2006). A comparison of the governmental costs of long-term foster care and adoption. *Social Service Review*, 80(1), 127-158.

- Barth, R. P., & Miller, J. M. (2000). Building Effective Post Adoption Services: What is the Empirical Foundation? *Family Relations*, 49(4), 447-455.
- Baumrind, D. (1978). Parental disciplinary patterns and social competence in children. *Youth & Society*, 9(3), 239-267.
- Bayer, J. K., Sanson, A. V., & Hemphill, S. A. (2006). Parent influences on early childhood internalizing difficulties. *Journal of Applied Developmental Psychology*, 27(6), 542-559.
- Beck, C. T. (1996). A meta-analysis of predictors of postpartum depression. *Nursing Research*, 45(5), 297-303.
- Beck, C. T. (2001). Predictors of postpartum depression: an update. *Nursing Research*, 50(5), 275-285.
- Beijersbergen, M. D., Juffer, F., Bakermans-Kranenburg, M. J., & van IJzendoorn, M. H. (2012). Remaining or becoming secure: Parental sensitive support predicts attachment continuity from infancy to adolescence in a longitudinal adoption study. *Developmental Psychology*, 48(5), 1277.
- Balenzano, C., Coppola, G., Cassibba, R., & Moro, G. (2018). Pre-adoption adversities and adoptees' outcomes: The protective role of post-adoption variables in an Italian experience of domestic open adoption. *Children and Youth Services Review*, 85, 307-318.
- Bell R Q. (1968). A reinterpretation of the direction of effects in studies of socialization. *Psychological Review*, 75, 81-95.
- Bell, R. Q., & Chapman, M. (1986). Child effects in studies using experimental or brief longitudinal approaches to socialization. *Developmental Psychology*, 22(5), 595.
- Bellis, M.A., Ashton, K., Hughes, K. et al. (2016). Adverse Childhood Experiences (ACEs) in Wales and their impact on health in the adult population. *The European Journal of Public Health*, 26(suppl 1), ckw167–009.
- Belsky, J. (1984). The determinants of parenting: A process model. *Child Development*, 83-96.

- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107(2), 238.
- Berlin, M., Vinnerljung, B., & Hjern, A. (2011). School performance in primary school and psychosocial problems in young adulthood among care leavers from long term foster care. *Children and Youth Services Review*, 33(12), 2489-2497.
- Bernard K, Dozier M, Bick J, Lewis-Morrarty E, Lindheim O, Carlson E. (2012). Enhancing attachment organization among maltreated children: Results of a randomized clinical trial. *Child Development*, 83, 623–636.
- Berry, M. (1990). Preparing and supporting special needs adoptive families: A review of the literature. *Child and Adolescent Social Work*, 7, 403-419.
- Berry, M., & Barth, R. P. (1989). Behavior problems of children adopted when older. *Children and Youth Services Review*, 11(3), 221-238.
- Berry, M., Propp, J., Martens, P. (2006). The use of intensive family preservation services with adoptive families. *Child and Family Social Work*, 12, 43–53.
- Bethell, C. D., Carle, A., Hudziak, J., Gombojav, N., Powers, K., Wade, R., & Braveman, P. (2017). Methods to assess adverse childhood experiences of children and families: toward approaches to promote child well-being in policy and practice. *Academic Pediatrics*, 17(7), S51-S69.
- Biblarz, T. J., & Raftery, A. E. (1999). Family structure, educational attainment, and socioeconomic success: Rethinking the "pathology of matriarchy". *American Journal of Sociology*, 105(2), 321-365.
- Biehal, N., Cusworth, L. S., Wade, J., & Clarke, S. E. (2014). *Keeping children safe: allegations concerning the abuse or neglect of children in care*. (Impact and Evidence Series). London: NSPCC.

- Biglan, A., Van Ryzin, M. J., & Hawkins, J. D. (2017). Evolving a more nurturing society to prevent adverse childhood experiences. *Academic Pediatrics, 17*(7), S150-S157.
- Bina, R., & Harrington, D. (2017). Differential Predictors of Postpartum Depression and Anxiety: The Edinburgh Postnatal Depression Scale Hebrew Version Two Factor Structure Construct Validity. *Maternal and Child Health Journal, 21*(12), 2237-2244.
- Bird, G. W., Peterson, R., & Miller, S. H. (2002). Factors associated with distress among support seeking adoptive parents. *Family Relations, 51*(3), 215-220.
- Bjelland, I., Dahl, A. A., Haug, T. T., & Neckelmann, D. (2002). The validity of the Hospital Anxiety and Depression Scale: an updated literature review. *Journal of Psychosomatic Research, 52*(2), 69-77.
- Bloch, M., Schmidt, P. J., Danaceau, M., Murphy, J., Nieman, L., & Rubinow, D. R. (2000). Effects of gonadal steroids in women with a history of postpartum depression. *American Journal of Psychiatry, 157*(6), 924-930.
- Block, (nd). Trauma advocacy fact sheet. Retrieved from <http://www.childrennow.org/files/8314/2905/3814/trauma-advocacy-fact-sheet.pdf>
- Boeldt, D. L., Rhee, S. H., DiLalla, L. F., Mullineaux, P. Y., Schulz Heik, R. J., Corley, R. P., ... & Hewitt, J. K. (2012). The association between positive parenting and externalizing behaviour. *Infant and Child Development, 21*(1), 85-106.
- Boivin, M., Vitaro, F., & Poulin, F. R. A. N. Ç. O. I. S. (2005). Peer relationships and the development of aggressive behavior in early childhood. *Developmental Origins of Aggression, 376-397*.
- Bolger, K. E., & Patterson, C. J. (2001). Developmental pathways from child maltreatment to peer rejection. *Child Development, 72*(2), 549-568.
- Bollen, K. A., & Curran, P. J. (2006). *Latent curve models: A structural equation perspective* (Vol. 467). John Wiley & Sons.

- Bolton, C., Calam, R., Barrowclough, C., Peters, S., Roberts, J., Wearden, A., & Morris, J. (2003). Expressed emotion, attributions and depression in mothers of children with problem behaviour. *Journal of Child Psychology and Psychiatry*, 44(2), 242-254.
- Bowerman, B. L., & O'Connell, R. T. (1990). *Linear statistical models: An applied approach*. Brooks/Cole.
- Bowlby, J. (1988). *A Secure Base: Clinical Applications of Attachment Theory*. London: Routledge.
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry*, 52(4), 664-678.
- Bowlby, J. (1969). *Attachment and loss*. New York: Basic Books.
- Brannan, A. M., & Heflinger, C. A. (2006). Caregiver, child, family, and service system contributors to caregiver strain in two child mental health service systems. *The Journal of Behavioral Health Services & Research*, 33(4), 408-422.
- Brannan, A. M., Heflinger, C. A., & Bickman, L. (1997). The Caregiver Strain Questionnaire: Measuring the impact on the family of living with a child with serious emotional disturbance. *Journal of Emotional and Behavioral Disorders*, 5(4), 212-222.
- Bransford, C. L., & Blizard, R. A. (2017). Viewing psychopathology through a trauma lens. *Social Work in Mental Health*, 15(1), 80-98.
- Brinich, P. M. (1990). Adoption from the inside out: A psychoanalytic perspective. *The Psychology of Adoption*, 42-61.
- Briskman, J., Castle, J., Blackeby, K., Bengo, C., Slack, K., Stebbens, C., Scott, S. (2012). *Randomised controlled trial of the fostering changes programme*. London: Department for Education (Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/183398/DFE-RR237.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183398/DFE-RR237.pdf)).

- Brodzinsky, D. (2013). *A need to know: Enhancing adoption competence among mental health professionals*. New York, NY: Donaldson Adoption Institute.
- Brodzinsky, D. M., & Schechter, M. D. (1990). *The Psychology of Adoption*. Oxford University Press.
- Brodzinsky, D. M., Schechter, D. E., Braff, A. M., & Singer, L. M. (1984). Psychological and academic adjustment in adopted children. *Journal of Consulting and Clinical Psychology*, 52(4), 582.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Harvard university press.
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In *W. Damon (Series Ed.) & R. M. Lerner (Vol. Ed.), Handbook of child psychology: Theoretical models of human development (pp. 793–828)*. New York, NY: Wiley.
- Brooker, R. J., Neiderhiser, J. M., Leve, L. D., Shaw, D. S., Scaramella, L. V., & Reiss, D. (2015). Associations between infant negative affect and parent anxiety symptoms are bidirectional: evidence from mothers and fathers. *Frontiers in Psychology*, 6, 1875. doi: 10.3389/fpsyg.2015.01875
- Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the literature. *Psychological Bulletin*, 99, 66-77.
- Brown, G. W., & Harris, T. (1978). Social origins of depression: a reply. *Psychological Medicine*, 8(4), 577-588.
- Brown, G. W., & Rutter, M. (1966). The measurement of family activities and relationships: A methodological study. *Human Relations*, 19(3), 241-263.
- Brown, R. and Ward, H. (2012). *Decision-Making within a Child's Timeframe*, London, Childhood Wellbeing Research Centre.

- Brown, A., Waters, C. S., & Shelton, K. H. (2017). A systematic review of the school performance and behavioural and emotional adjustments of children adopted from care. *Adoption & Fostering*, 41(4), 346-368.
- Bruskas, D. (2008). Children in foster care: A vulnerable population at risk. *Journal of Child and Adolescent Psychiatric Nursing*, 21(2), 70-77.
- Bruskas, D., & Tessin, D. H. (2013). Adverse childhood experiences and psychosocial well-being of women who were in foster care as children. *The Permanente Journal*, 17(3), e131.
- Bureau, J. F., Easterbrooks, M. A., & Lyons-Ruth, K. (2009). Maternal depressive symptoms in infancy: Unique contribution to children's depressive symptoms in childhood and adolescence? *Development and Psychopathology*, 21(2), 519-537.
- Burkhouse, K. L., Uhrlass, D. J., Stone, L. B., Knopik, V. S., & Gibb, B. E. (2012). Expressed emotion-criticism and risk of depression onset in children. *Journal of Clinical Child & Adolescent Psychology*, 41(6), 771-777.
- Burt, S. A. (2009). Rethinking environmental contributions to child and adolescent psychopathology: A meta-analysis of shared environmental influences. *Psychological Bulletin*, 135(4), 608.
- Burt, K. B., Van Dulmen, M. H., Carlivati, J., Egeland, B., Alan Sroufe, L., Forman, D. R., ... & Carlson, E. A. (2005). Mediating links between maternal depression and offspring psychopathology: The importance of independent data. *Journal of Child Psychology and Psychiatry*, 46(5), 490-499.
- Butcher, J. N., & Kendall, P. C. (2018). *APA handbook of psychopathology: Vol 2. Psychopathology of children and adolescents*. Washington, DC: American Psychological Association.
- Butzlaff, R. L., & Hooley, J. M. (1998). Expressed emotion and psychiatric relapse: a meta-analysis. *Archives of general psychiatry*, 55(6), 547-552.

- Cabrera, N., Tamis LeMonda, C. S., Bradley, R. H., Hofferth, S., & Lamb, M. E. (2000).  
 Fatherhood in the twenty first century. *Child Development*, 71(1), 127-136.
- Calam, R., & Peters, S. (2006). Assessing expressed emotion: comparing Camberwell Family  
 Interview and Five minute Speech Sample ratings for mothers of children with behaviour  
 problems. *International Journal of Methods in Psychiatric Research*, 15(3), 107-115.
- Campbell, S. B. (1995). Behavior problems in preschool children: A review of recent research.  
*Journal of child Psychology and Psychiatry*, 36(1), 113-149.
- Campbell, S. (2002). *Behaviour problems in preschool children: Clinical and developmental  
 issues (2nd ed.)*. New York: Guilford Press.
- Campbell, S. B., Shaw, D. S., & Gilliom, M. (2000). Early externalizing behavior problems:  
 Toddlers and preschoolers at risk for later maladjustment. *Development and  
 Psychopathology*, 12(3), 467-488.
- Campbell, S. B., Morgan-Lopez, A. A., Cox, M. J., & McLoyd, V. C. (2009). A latent class analysis  
 of maternal depressive symptoms over 12 years and offspring adjustment in  
 adolescence. *Journal of Abnormal Psychology*, 118(3), 479.
- Cantero-García, M., & Alonso-Tapia, J. (2018). Brief Resilience Scale in front children's Behavior  
 Problems (BRS-BP). *Annals of Psychology*, 34(3), 531-535.
- Carpenter, L. L., Shattuck, T. T., Tyrka, A. R., Geraciotti, T. D., & Price, L. H. (2011). Effect of  
 childhood physical abuse on cortisol stress response. *Psychopharmacology*, 214(1), 367-  
 375.
- Carson, J. L., & Parke, R. D. (1996). Reciprocal negative affect in parent child interactions and  
 children's peer competency. *Child Development*, 67(5), 2217-2226.
- Cartwright, K. L., Bitsakou, P., Daley, D., Gramzow, R. H., Psychogiou, L., Simonoff, E., ... &  
 Sonuga-Barke, E. J. (2011). Disentangling child and family influences on maternal

- expressed emotion toward children with attention-deficit/hyperactivity disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 50(10), 1042-1053.
- Caspi, A., Moffitt, T. E., Morgan, J., Rutter, M., Taylor, A., Arseneault, L., ... & Polo-Tomas, M. (2004). Maternal expressed emotion predicts children's antisocial behavior problems: using monozygotic-twin differences to identify environmental effects on behavioral development. *Developmental Psychology*, 40(2), 149.
- Chaffin, M., Hanson, R., Saunders, B. E., Nichols, T., Barnett, D., Zeanah, C., ... & LeTourneau, E. (2006). Report of the APSAC task force on attachment therapy, reactive attachment disorder, and attachment problems. *Child maltreatment*, 11(1), 76-89.
- Chamberlain P, Weinrott M (1990), Specialized foster care: treating seriously emotionally disturbed children. *Children Today*, 19, 24-27.
- Chang, L., Schwartz, D., Dodge, K. A., & McBride-Chang, C. (2003). Harsh parenting in relation to child emotion regulation and aggression. *Journal of family psychology*, 17(4), 598.
- Chen, H., & Cohen, P. (2006). Using individual growth model to analyze the change in quality of life from adolescence to adulthood. *Health and Quality of Life Outcomes*, 4(1), 10.
- Chipungu, S. S., & Bent-Goodley, T. B. (2004). Meeting the challenges of contemporary foster care. The future of children. *Children, Families, and Foster Care*, 14, 75–93.
- Chisholm, K. (1998). A three year follow up of attachment and indiscriminate friendliness in children adopted from Romanian orphanages. *Child Development*, 69(4), 1092-1106.
- Choe, D. E., Shaw, D. S., Brennan, L. M., Dishion, T. J., & Wilson, M. N. (2014). Inhibitory control as a mediator of bidirectional effects between early oppositional behavior and maternal depression. *Development and Psychopathology*, 26(4pt1), 1129-1147.
- Churchill, G. (2015). SafeCare: evidence from a home-based parenting programme for neglect. London: NSPCC.

- Cicchetti, D. (2010). Resilience under conditions of extreme stress: a multilevel perspective. *World Psychiatry*, 9(3), 145-154.
- Cicchetti, D., & Hinshaw, S. P. (2002). Prevention and intervention science: Contributions to developmental theory. *Development and Psychopathology*, 14(4), 667-671.  
DOI: 10.1017/S0954579402004017
- Cicchetti, D., & Rogosch, F. A. (1996). Equifinality and multifinality in developmental psychopathology. *Development and Psychopathology*, 8, 597-600.
- Clark, C., Caldwell, T., Power, C., & Stansfeld, S. A. (2010). Does the influence of childhood adversity on psychopathology persist across the lifecourse? A 45-year prospective epidemiologic study. *Annals of Epidemiology*, 20(5), 385-394.
- Clarke, A., & Clarke, A. (2001). Early adversity and adoptive solutions. *Adoption & Fostering*, 25(1), 24-32.
- Cohen, J. A. (2010). Practice parameter for the assessment and treatment of children and adolescents with posttraumatic stress disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(4), 414-430.
- Cohen, N. J., Coyne, J. and Duvall, J. 1996. Parents' sense of entitlement in adoptive and non-adoptive families. *Family Process*, 34: 441-456.
- Collins, W.A., & Laursen, B. (Eds.). (1999). *Minnesota Symposia on Child Psychology: Vol. 30. Relationships as developmental contexts*. Hillsdale, NJ: Erlbaum.
- Colton, M. (1990). Specialist foster family and residential child care practices. *Community Alternatives*, 2(2), 1-20.
- Colvert, E., Rutter, M., Beckett, C., Castle, J., Groothues, C., Hawkins, A., ... & Sonuga-Barke, E. J. (2008). Emotional difficulties in early adolescence following severe early deprivation: Findings from the English and Romanian adoptees study. *Development and Psychopathology*, 20(2), 547-567.

- Cooley, & Petren. 2011. Foster parent perceptions of competency: Implications for foster parent training. *Children and Youth Services Review*, 33 (2011), pp. 1968-1974
- Cowan, C. P., & Cowan, P. A. (1995). Interventions to ease the transition to parenthood: Why they are needed and what they can do. *Family Relations*, 412-423.
- Cox, M. J., & Harter, K. S. (2003). "Parent-child relationships". In *Well-being: Positive Development Across the Life Course*, ed. M. Bornstein (Mahwah, NJ: Lawrence Erlbaum Associates), 191-204.
- Crawford, J. R., Henry, J. D., Crombie, C., & Taylor, E. P. (2001). Normative data for the HADS from a large non clinical sample. *British Journal of Clinical Psychology*, 40(4), 429-434.
- Crea, T. M., Barth, R. P., & Chintapalli, L. K. (2007). Home study methods for evaluating prospective resource families: History, current challenges, and promising approaches. *Child Welfare*, 86(2), 141.
- Creswell, J. W. (2009). Mapping the field of mixed methods research. *Journal of Mixed Methods Research*, 3(2), 95–108.
- Croft, C., O'Connor, T. G., Keaveney, L., Groothues, C., & Rutter, M. (2001). Longitudinal change in parenting associated with developmental delay and catch-up. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, 42(5), 649-659.
- Cummings, E. M., & Davies, P. T. (1994). Maternal depression and child development. *Journal of Child Psychology and Psychiatry*, 35(1), 73-122.
- Cummings, E.M., Davies, P.T., & Campbell, S.B. (2000). New directions in the study of parenting and child development. In E.M. Cummings, P.T. Davies, & S.B. Campbell (Eds.), *Developmental Psychopathology and Family Process* (pp. 200–250). New York: Guilford.
- Cummings, E. M., & Valentino, K. (2015). Developmental psychopathology. *Handbook of Child Psychology and Developmental Science*, 1-41.

- Curran, P. J., Obeidat, K., & Losardo, D. (2010). Twelve frequently asked questions about growth curve modeling. *Journal of Cognition and Development, 11*(2), 121-136.
- Dadds, M. R., Moul, C., Cauchi, A., Dobson-Stone, C., Hawes, D. J., Brennan, J., ... & Ebstein, R. E. (2014). Polymorphisms in the oxytocin receptor gene are associated with the development of psychopathy. *Development and Psychopathology, 26*(1), 21-31.
- Daley, D., Sonuga Barke, E. J. S., & Thompson, M. (2003). Assessing expressed emotion in mothers of preschool AD/HD children: Psychometric properties of a modified speech sample. *British Journal of Clinical Psychology, 42*(1), 53-67.
- Dance, C., & Farmer, E. (2014). Changing lives and changing minds: the experiences of adoptive parents from application to approval. *Adoption & Fostering, 38*(2), 101-114.
- Dance, C., Rushton, A., & Quinton, D. (2002). Emotional abuse in early childhood: Relationships with progress in subsequent family placement. *Journal of Child Psychology and Psychiatry, 43*(3), 395-407.
- Daniluk, J. C., & Hurtig Mitchell, J. (2003). Themes of hope and healing: Infertile couples' experiences of adoption. *Journal of Counseling & Development, 81*(4), 389-399.
- Davies, P. T., & Lindsay, L. L. (2004). Interparental conflict and adolescent adjustment: Why does gender moderate early adolescent vulnerability? *Journal of Family Psychology, 18*(1), 160.
- Davies, P. T., & Windle, M. (1997). Gender-specific pathways between maternal depressive symptoms, family discord, and adolescent adjustment. *Developmental Psychology, 33*(4), 657.
- Davis, E. P., & Sandman, C. A. (2010). The timing of prenatal exposure to maternal cortisol and psychosocial stress is associated with human infant cognitive development. *Child Development, 81*(1), 131-148.
- Day, A. M. (2017). Hearing the voice of looked after children: challenging current assumptions and knowledge about pathways into offending. *Safer Communities, 16*(3), 122-133.

- De Los Reyes, A., & Kazdin, A. E. (2005). Informant discrepancies in the assessment of childhood psychopathology: a critical review, theoretical framework, and recommendations for further study. *Psychological Bulletin*, 131(4), 483.
- Dean, C., Dean, N. R., White, A., & Liu, W. Z. (1995). An adoption study comparing the prevalence of psychiatric illness in women who have adoptive and natural children compared with women who have adoptive children only. *Journal of Affective Disorders*, 34(1), 55-60.
- Deater-Deckard, K., Dodge, K. A., Bates, J. E., & Pettit, G. S. (1996). Physical discipline among African American and European American mothers: Links to children's externalizing behaviors. *Developmental Psychology*, 32(6), 1065.
- Dekker, M. C., Tieman, W., Vinke, A. G., van der Ende, J., Verhulst, F. C., & Juffer, F. (2017). Mental health problems of Dutch young adult domestic adoptees compared to non-adopted peers and international adoptees. *International Social Work*, 60(5), 1201-1217.
- Del Pozo de Bolger, A., Dunstan, D., & Kaltner, M. (2018). A conceptual model of psychosocial adjustment of foster care adoptees based on a scoping review of contributing factors. *Clinical Psychologist*, 22(1), 3-15.
- Della F., Yeager, C., & Lewis, D. (1990). Child abuse: adolescent records vs. adult recall. *Child Abuse & Neglect*, 14(2), 227-231.
- DeLucia, C., & Pitts, S. C. (2005). Applications of individual growth curve modeling for pediatric psychology research. *Journal of Pediatric Psychology*, 31(10), 1002-1023.
- Demo, D. H., & Cox, M. J. (2000). Families with young children: A review of research in the 1990s. *Journal of Marriage and Family*, 62(4), 876-895.
- Denby, R., Rindfleisch, N., & Bean, G. (1999). Predictors of foster parents' satisfaction and intent to continue to foster. *Child Abuse & Neglect*, 23(3), 287-303.
- Department for Children, Schools and Families. (2008). *Department Report*. London: UK, DfCSF.

- Department for Children, Schools and Families. (2010). *The Children Act 1989 Guidance and Regulations Volume 2: Care planning, placement and case review*. London: UK, DfCSF.
- Department for Education. (2012). *Placing children in sibling groups for adoption: A call for views*. London, UK: DfE.
- Department for Education. (2016). *Adoption: A vision for change*. London, UK: DfE.
- Department of Health. (2000). *Adoption a new approach: A White Paper, Cm 5017*. London, UK: DoH.
- Dhavale, H. S., Bhagat, V., & Thakkar, P. (2005). A comparative study of behaviour problems between adopted and nonadopted children in India. *Journal of Child and Adolescent Mental Health*, 17(1), 27-30.
- Diaz, A., & Petersen, A. C. (2014). Institute of Medicine report: new directions in child abuse and neglect research. *JAMA pediatrics*, 168(2), 101-102.
- Dong, M. Giles, W., Felitti, V., Dube, S., Williams, J., Chapman, D., Anda, R. (2004). Insights into causal pathways for ischemic heart disease adverse childhood experiences study. *Circulation*, 110, 1761-1766.
- Doughty, J. (2015). 'Where nothing else will do': judicial approaches to adoption in England and Wales. *Adoption & Fostering*, 39(2), 105-118.
- Doughty, J., Meakings, S., Shelton, K. (2017). The legal and administrative processes in adoption: Views and experiences of newly formed adoptive families. *Journal of Social Welfare and Family Law*, 39(4), 473-490
- Dozier, M., Bick, J., & Bernard, K. (2011). Attachment-based treatment for young, vulnerable children. In J. D. Osofsky (Ed.), *Clinical work with traumatized young children* (pp. 75-95). New York, NY, US: Guilford Press.
- Dozier, M., Kaufman, J., Kobak, R., O'Connor, T. G., Sagi-Schwartz, A., Scott, S., ... & Zeanah, C. H. (2014). Consensus statement on group care for children and adolescents: A statement of

policy of the American Orthopsychiatric Association. *American Journal of Orthopsychiatry*, 84(3), 219.

- Drozd, F., Bergsund, H. B., Hammerstrøm, K. T., Hansen, M. B., & Jacobsen, H. (2018). A Systematic Review of Courses, Training, and Interventions for Adoptive Parents. *Journal of Child and Family Studies*, 27(2), 339-354.
- Dube, S., Williamson, D., Thompson, T., Felitti, V., & Anda, R. (2004). Assessing the reliability of retrospective reports of adverse childhood experiences among adult HMO members attending a primary care clinic. *Child Abuse & Neglect*, 28, 729-737.
- Dumaret, A. C., Coppel-Batsch, M., & Couraud, S. (1997). Adult outcome of children reared for long-term periods in foster families. *Child Abuse & Neglect*, 21(10), 911-927.
- Eckstrand, K. L., Ding, Z., Dodge, N. C., Cowan, R. L., Jacobson, J. L., Jacobson, S. W., & Avison, M. J. (2012). Persistent dose dependent changes in brain structure in young adults with low to moderate alcohol exposure in utero. *Alcoholism. Clinical and Experimental Research*, 36(11), 1892-1902.
- Eiden, R. D., Colder, C., Edwards, E. P., & Leonard, K. E. (2009). A longitudinal study of social competence among children of alcoholic and nonalcoholic parents: Role of parental psychopathology, parental warmth, and self-regulation. *Psychology of Addictive Behaviors*, 23(1), 36.
- Eisenberg, N., Hofer, C., Spinrad, T. L., Gershoff, E. T., Valiente, C., Losoya, S. H., ... & Maxon, E. (2008). Understanding mother-adolescent conflict discussions: concurrent and across-time prediction from youths' dispositions and parenting. *Monographs of the Society for Research in Child Development*, 73(2), vii-viii.
- Elam, K. K., Harold, G. T., Neiderhiser, J. M., Reiss, D., Shaw, D. S., Natsuaki, M. N., ... & Leve, L. D. (2014). Adoptive parent hostility and children's peer behavior problems: Examining

the role of genetically informed child attributes on adoptive parent behavior. *Developmental Psychology*, 50(5), 1543.

- Elgar, F. J., Mills, R. S., McGrath, P. J., Waschbusch, D. A., & Brownridge, D. A. (2007). Maternal and paternal depressive symptoms and child maladjustment: The mediating role of parental behavior. *Journal of Abnormal Child Psychology*, 35(6), 943-955.
- Elliott, A., & McMahon, C. (2011). Anxiety among an Australian sample of young girls adopted from China. *Adoption Quarterly*, 14(3), 161-180.
- Eme, R. (2017). Developmental psychopathology: A primer for clinical pediatrics. *World Journal of Psychiatry*, 7(3), 159.
- Erich, S., & Leung, P. (2002). The impact of previous type of abuse and sibling adoption upon adoptive families. *Child Abuse & Neglect*, 26(10), 1045-1058.
- Essex, M. J., Klein, M. H., Miech, R., & Smider, N. A. (2001). Timing of initial exposure to maternal major depression and children's mental health symptoms in kindergarten. *The British Journal of Psychiatry*, 179(2), 151-156.
- Evans, G., Li, D., & Whipple, S. (2013). Cumulative risk and child development. *Psychological Bulletin*, 139(6), 1342.
- Evans, K. C., Wright, C. I., Wedig, M. M., Gold, A. L., Pollack, M. H., & Rauch, S. L. (2008). A functional MRI study of amygdala responses to angry schematic faces in social anxiety disorder. *Depression and Anxiety*, 25(6), 496-505.
- Faber, J., & Fonseca, L. M. (2014). How sample size influences research outcomes. *Dental Press Journal of Orthodontics*, 19(4), 27-29.
- Fall, K. A., Roaten, G. K., & Eberts, S. E. (2012). An existential approach to adoptive identity development in adulthood. *The Family Journal*, 20(4), 441-447.
- Fallucco, E. M., Greco, P., Aldridge, P., Bolanos, V., Leung, K., & Blackmore, E. R. (2017). Parental Depressive Symptoms and Early Childhood Behavioral and Emotional Problems

As Measured in Pediatric Primary Care Settings. *Journal of the American Academy of Child & Adolescent Psychiatry*, 56(10), S154.

Farmer, E., & Dance, C. (2015). Family finding and matching in adoption: What helps to make a good match? *British Journal of Social Work*, 46(4), 974-992.

<http://dx.doi.org/10.1093/bjsw/bcv003>.

Farr, S. L., Dietz, P. M., O'Hara, M. W., Burley, K., & Ko, J. Y. (2014). Postpartum anxiety and comorbid depression in a population-based sample of women. *Journal of Women's Health*, 23(2), 120-128.

Feldman R, Granat A, Pariente C, Kanety H, Kuint J, Gilboa-Schechtman E. (2009). Maternal depression and anxiety across the postpartum year and infant social engagement, fear regulation, and stress reactivity. *Journal of the American Academy of Child and Adolescent Psychiatry*, 48(9),919–927.

Felitti, V., Anda, R., Nordenberg, D., Williamson, D., Spitz, A., Edwards, V., Koss, M., & Marks, J. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) study. *American Journal of Preventative Medicine*, 14, 245-258.

Fergus, S., & Zimmerman, M. A. (2005). Adolescent resilience: A framework for understanding healthy development in the face of risk. *Annual Review of Public Health*, 26, 399-419.

Fields, E. S., Meuchel, J. M., Jaffe, C. J., Jha, M., & Payne, J. L. (2010). Erratum to: Post adoption depression. *Archives of Women's Mental Health*, 13(5), 457-457.

Finkelhor, D., Shattuck, A., Turner, H., & Hamby, S. (2013). Improving the adverse childhood experiences study scale. *JAMA Pediatrics*, 167(1), 70-75.

Fishburn, S., Meins, E., Greenhow, S., Jones, C., Hackett, S., Biehal, N., ... & Wade, J. (2017). Mind-mindedness in parents of looked-after children. *Developmental Psychology*, 53(10), 1954.

- Fisher, P. A. (2015). Adoption, fostering, and the needs of looked after and adopted children. *Child and Adolescent Mental Health*, 20(1), 5-12.
- Fitzgerald, J., Gottschalk, P., and Moffitt, R. (1998) An analysis of sample attrition in panel data, *Journal of Human Resources*, 33, 251–99.
- Flaherty, E., Thompson, R., Dubowitz, H., Harvey, E., English, D., Proctor, L., & Runyan, D. (2013). Adverse childhood experiences and child health in early adolescence. *JAMA Pediatrics*, 167(7), 622-629.
- Flatley, J (2016) Abuse during Childhood: Findings from the Crime Survey for England and Wales, year ending March 2016. Office for National Statistics.
- Fletcher, J., Strand, S., & Thomas, S. (2015). The educational progress of looked after children in England Technical Report 1: Secondary school progress and attainment.
- Flores, E., Cicchetti, D., & Rogosch, F. A. (2005). Predictors of resilience in maltreated and nonmaltreated Latino children. *Developmental Psychology*, 41(2), 338.
- Foli, K. J. (2010). Depression in adoptive parents: A model of understanding through grounded theory. *Western Journal of Nursing Research*, 32(3), 379-400.
- Foli, K., Hebdon, M., Eunjung, L. & S, South. (2017). Transitions of Adoptive Parents: A Longitudinal Mixed Methods Analysis. *Archives of Psychiatric Nursing*, 31(5), 483 – 492.
- Foli, K. J., South, S. C., & Lim, E. (2012). Rates and predictors of depression in adoptive mothers: Moving toward theory. *Advances in Nursing Science*, 35(1), 51-63.
- Foli, K. J., South, S. C., Lim, E., & Jarnecke, A. M. (2016). Post-adoption depression: Parental classes of depressive symptoms across time. *Journal of Affective Disorders*, 200, 293-302.
- Fonagy, P., Luyten, P., Allison, E., & Campbell, C. (2017). What we have changed our minds about: Part 1. Borderline personality disorder as a limitation of resilience. *Borderline Personality Disorder and Emotion Dysregulation*, 4(1), 11.

- Fonagy, P., Cottrell, D., Phillips, J., Bevington, D., Glaser, D., & Allison, E. (2015). *What works for whom?: a critical review of treatments for children and adolescents*. New York: Guilford Press.
- Fonagy, P., Sled, M., & Baradon, T. (2016). Randomized controlled trial of parent–infant psychotherapy for parents with mental health problems and young infants. *Infant Mental Health Journal*, 37(2), 97-114.
- Ford, T., Vostanis, P., Meltzer, H., and Goodman, R. (2007) Psychiatric disorder among British children looked after by local authorities: Comparison with children living in private households. *The British Journal of Psychiatry*, 190(4), 319–325.
- Forget-Dubois, N., Boivin, M., Dionne, G., Pierce, T., Tremblay, R. E., & Pérusse, D. (2007). A longitudinal twin study of the genetic and environmental etiology of maternal hostile-reactive behavior during infancy and toddlerhood. *Infant Behavior and Development*, 30(3), 453-465.
- Fox, J., & Archard, P. J. (2018). Developing a digital toolkit for adoptive parents. *Journal of Social Work Practice*, 32(1), 87-98.
- Frigon, J. Y., & Laurencelle, L. (1993). Analysis of covariance: A proposed algorithm. *Educational and Psychological Measurement*, 53(1), 1-18.
- Fritz, M. S., Cox, M. G., & MacKinnon, D. P. (2015). Increasing statistical power in mediation models without increasing sample size. *Evaluation & the Health Professions*, 38(3), 343-366.
- Fryers, T., & Brugha, T. (2013). Childhood determinants of adult psychiatric disorder. *Clinical Practice and Epidemiology in Mental Health*, 9, 1-50.
- Furr, J. M., Comer, J. S., Villodas, M. T., Poznanski, B., & Gurwitch, R. (2018). Trauma and child psychopathology: From risk and resilience to evidence-based intervention. In J. N. Butcher & P. C. Kendall (Eds.), *APA handbooks in psychology series. APA handbook of*

*psychopathology: Child and adolescent psychopathology* (pp. 187-211). Washington, DC, US: American Psychological Association.

- Gagnon-Oosterwaal, N., Cossette, L., Smolla, N., Pomerleau, A., Malcuit, G., Chicoine, J. F., ... & Berthiaume, C. (2012). Pre-adoption adversity and self-reported behavior problems in 7 year-old international adoptees. *Child Psychiatry & Human Development*, 43(4), 648-660.
- Gar, N. S., & Hudson, J. L. (2009). Changes in maternal expressed emotion toward clinically anxious children following cognitive behavioral therapy. *Journal of Experimental Child Psychology*, 104(3), 346-352.
- Gardner, F. (1994). The quality of joint activity between mothers and their children with behaviour problems. *Journal of Child Psychology and Psychiatry*, 35, 935– 948.
- Gardner, F. (2000). Methodological issues in the direct observation of parent–child interaction: Do observational findings reflect the natural behavior of participants? *Clinical Child and Family Psychology Review*, 3(3), 185-198.
- Gardner F, Shaw DS. (2009). Behavioral problems of infancy and preschool children (0–5) In: Rutter M, Bishop D, Pine DS, et al., editors. *Rutter’s child and adolescent psychiatry*. Oxford: Blackwell Publishing Ltd.; p. 882–893.
- Gartstein, M. A., & Skinner, M. K. (2017). Prenatal influences on temperament development: The role of environmental epigenetics. *Development and Psychopathology*, 1-35.
- Gartstein, M. A., Bridgett, D. J., Dishion, T. J., & Kaufman, N. K. (2009). Depressed mood and maternal report of child behavior problems: Another look at the depression–distortion hypothesis. *Journal of Applied Developmental Psychology*, 30(2), 149-160.
- Garvin, M. C., Tarullo, A. R., Van Ryzin, M., & Gunnar, M. R. (2012). Postadoption parenting and socioemotional development in postinstitutionalized children. *Development and Psychopathology*, 24(1), 35-48.

- Gibaud-Wallston, J., & Wandersman, L. P. (1978). *Parenting sense of competence scale*. Lawrence Erlbaum Associates.
- Gilliom, M., & Shaw, D. S. (2004). Codevelopment of externalizing and internalizing problems in early childhood. *Development and Psychopathology, 16*(2), 313-333.
- Gilmore, L., & Cuskelly, M. (2009). Factor structure of the parenting sense of competence scale using a normative sample. *Child: Care, Health and Development, 35*(1), 48-55.
- Glasheen, C., Richardson, G. A., & Fabio, A. (2010). A systematic review of the effects of postnatal maternal anxiety on children. *Archives of Women's Mental Health, 13*(1), 61-74.
- Glazer, S., & Beehr, T. A. (2005). Consistency of implications of three role stressors across four countries. *Journal of Organizational Behavior. The International Journal of Industrial, Occupational and Organizational Psychology and Behavior, 26*(5), 467-487.
- Gleitman, I., & Savaya, R. (2011). Adjustment of adolescent adoptees: The role of age of adoption and exposure to pre-adoption stressors. *Children and Youth Services Review, 33*(5), 758-766.
- Goldberg, A. E. (2010). The transition to adoptive parenthood. In T. W. Miller (Ed.), *Handbook of stressful transitions across the lifespan* (pp. 165-184). New York, NY, US: Springer Science + Business Media.
- Goldberg, A. E., & Smith, J. Z. (2013). Predictors of psychological adjustment in early placed adopted children with lesbian, gay, and heterosexual parents. *Journal of Family Psychology, 27*(3), 431.
- Goldberg, A. E., & Smith, J. Z. (2014). Predictors of parenting stress in lesbian, gay, and heterosexual adoptive parents during early parenthood. *Journal of Family Psychology, 28*(2), 125.

- Goldman, G. D., & Ryan, S. D. (2011). Direct and modifying influences of selected risk factors on children's pre-adoption functioning and post-adoption adjustment. *Children and Youth Services Review, 33*(2), 291-300.
- Goodman, A., & Goodman, R. (2009). The Strengths and difficulties questionnaire as a dimensional measure of child mental health. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(4), 400-403.
- Goodman, A., & Goodman, R. (2012). Strengths and Difficulties Questionnaire scores and mental health in looked after children. *The British Journal of Psychiatry, 200*(5), 426-427.
- Goodman, A., Lamping, D. L., & Ploubidis, G. B. (2010). When to use broader internalizing and externalizing subscales instead of the hypothesised five subscales on the Strengths and Difficulties Questionnaire (SDQ): data from British parents, teachers and children. *Journal of Abnormal Child Psychology, 38*(8), 1179-1191.
- Goodman SH, Rouse MH, Connell AM, Broth MR, Hall CM, Heyward D. (2011). Maternal depression and child psychopathology: A meta-analytic review. *Clinical Child and Family Psychology Review, 14*,1–27.
- Goodman, J. H., Watson, G. R., & Stubbs, B. (2016). Anxiety disorders in postpartum women: a systematic review and meta-analysis. *Journal of Affective Disorders, 203*, 292-331.
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: a research note. *Journal of Child Psychology and Psychiatry, 38*(5), 581-586.
- Goodman, R. (2001). Psychometric properties of the strengths and difficulties questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*(11), 1337-1345.
- Goodman, J. H. (2004). Paternal postpartum depression, its relationship to maternal postpartum depression, and implications for family health. *Journal of Advanced Nursing, 45*(1), 26-35.

- Goodman, R., Ford, T., Corbin, T., & Meltzer, H. (2004). Using the Strengths and Difficulties Questionnaire (SDQ) multi-informant algorithm to screen looked-after children for psychiatric disorders. *European Child & Adolescent Psychiatry*, 13(2), ii25-ii31.
- Gottschalk, L. A. (1974). A hope scale applicable to verbal samples. *Archives of General Psychiatry*, 30(6), 779-785.
- Gottschalk, L. A., & Gleser, G. C. (1969). *The measurement of psychological states through the content analysis of verbal behavior*. Oxford, England: U. California Press.
- Gottschalk, L. A., Gleser, G. C., Daniels, R. S., & Block, S. (1958). The speech patterns of schizophrenic patients: A method of assessing relative degree of personal disorganization and social alienation. *Journal of Nervous and Mental Disease*, 127, 153-166.
- Grace SL, Evindar A, Stewart DE. (2003). The effect of postpartum depression on child cognitive development and behavior: A review and critical analysis of the literature. *Archives of Women's Mental Health*, 6(4), 263–274.
- Gravener, J. A., Rogosch, F. A., Oshri, A., Narayan, A. J., Cicchetti, D., & Toth, S. L. (2012). The relations among maternal depressive disorder, maternal expressed emotion, and toddler behavior problems and attachment. *Journal of Abnormal Child Psychology*, 40(5), 803-813.
- Green, J. (2016). *The mental health needs of adopted children*. Retrieved from: <http://www.sallydonovan.co.uk/2016/02/02/professor-jonathan-green-the-mental-health-needs-of-adopted-children/>
- Greenfield EA. (2010). Child abuse as a life-course social determinant of adult health. *Maturitas*, 66, 51–55.
- Gross, D., Conrad, B., Fogg, L., & Wothke, W. (1994). A longitudinal model of maternal self efficacy, depression, and difficult temperament during toddlerhood. *Research in Nursing & Health*, 17(3), 207-215.

- Gross, H. E., Shaw, D. S., Burwell, R. A., & Nagin, D. S. (2009). Transactional processes in child disruptive behavior and maternal depression: A longitudinal study from early childhood to adolescence. *Development and Psychopathology*, 21(1), 139-156.
- Grotevant, H. D., Dulmen, M. H., Dunbar, N., Nelson Christinedaughter, J., Christensen, M., Fan, X., & Miller, B. C. (2006). Antisocial behavior of adoptees and nonadoptees: Prediction from early history and adolescent relationships. *Journal of Research on Adolescence*, 16(1), 105-131.
- Grotevant, H. D., Lo, A. Y., Fiorenzo, L., & Dunbar, N. D. (2017). Adoptive identity and adjustment from adolescence to emerging adulthood: A person-centered approach. *Developmental Psychology*, 53(11), 2195.
- Grotevant, H. D., & McDermott, J. M. (2014). Adoption: Biological and social processes linked to adaptation. *Annual Review of Psychology*, 65, 235-265.
- Grotevant, H. D., Ross, N. M., Marchel, M. A., & McRoy, R. G. (1999). Adaptive behavior in adopted children: Predictors from early risk, collaboration in relationships within the adoptive kinship network, and openness arrangements. *Journal of Adolescent Research*, 14(2), 231-247.
- Gunnar, M. R., Bruce, J., & Grotevant, H. D. (2000). International adoption of institutionally reared children: Research and policy. *Development and Psychopathology*, 12(4), 677-693.
- Gunnar, M & Quevedo, K. (2007). The neurobiology of stress and development. *Annual Review of Psychology*, 58, 145–173.
- Gunnar, M. R., & Van Dulmen, M. H. (2007). Behavior problems in postinstitutionalized internationally adopted children. *Development and Psychopathology*, 19(1), 129-148.
- Gypen, L., Vanderfaeillie, J., De Maeyer, S., Belenger, L., & Van Holen, F. (2017). Outcomes of children who grew up in foster care: Systematic-review. *Children and Youth Services Review*, 76, 74-83.

- Hale III, W. W., Keijsers, L., Klimstra, T. A., Raaijmakers, Q. A., Hawk, S., Branje, S. J., ... & Meeus, W. H. (2011). How does longitudinally measured maternal expressed emotion affect internalizing and externalizing symptoms of adolescents from the general community?. *Journal of Child Psychology and Psychiatry*, 52(11), 1174-1183.
- Hambrick, E. P., Oppenheim-Weller, S., N'zi, A. M., & Taussig, H. N. (2016). Mental health interventions for children in foster care: A systematic review. *Children and Youth Services Review*, 70, 65-77.
- Hamilton, L., Cheng, S., & Powell, B. (2007). Adoptive parents, adoptive parents: Evaluating the importance of biological ties for parental investment. *American Sociological Review*, 72(1), 95-116.
- Han, Z. R., & Shaffer, A. (2014). Maternal expressed emotion in relation to child behavior problems: Differential and mediating effects. *Journal of Child and Family Studies*, 23(8), 1491-1500.
- Hannon, C., Wood, C., & Bazalgette, L. (2010). *In Loco parentis*. London, Demos. Retrieved from [http://www.demos.co.uk/files/In\\_Loco\\_Parentis\\_-\\_web.pdf?1277484312](http://www.demos.co.uk/files/In_Loco_Parentis_-_web.pdf?1277484312)
- Hansen, L. B., & Jacob, E. (1992). Intergenerational support during the transition to parenthood: Issues for new parents and grandparents. *Families in Society*, 73, 471-479.
- Harden, B. J., & Whittaker, J. V. (2011). The early home environment and developmental outcomes for young children in the child welfare system. *Children and Youth Services Review*, 33(8), 1392-1403.
- Hardt, J., & Rutter, M. (2004). Validity of adult retrospective reports of adverse childhood experiences: review of the evidence. *Journal of Child Psychology and Psychiatry*, 45(2), 260-273.
- Harold G, Hampden-Thompson G, Rodic M and Sellers R (2017), *An evaluation of the AdOpt parenting programme*. London: DfE.

- Harris-Waller, J., Granger, C., & Gurney-Smith, B. (2016). A comparison of parenting stress and children's internalizing, externalizing and attachment-related behaviour difficulties in UK adoptive and non-adoptive families. *Adoption & Fostering*, 40(4), 340-351.
- Harwood, R., Feng, X., & Yu, S. (2013). Preadoption adversities and postadoption mediators of mental health and school outcomes among international, foster, and private adoptees in the United States. *Journal of Family Psychology*, 27(3), 409.
- Hastings, R. P., & Lloyd, T. (2007). Expressed emotion in families of children and adults with intellectual disabilities. *Mental Retardation and Developmental Disabilities Research Reviews*, 13(4), 339-345.
- Hawes, D. J., Dadds, M. R., & Pasalich, D. (2013). Observational coding strategies. In J. Comer & P. Kendall (Eds.), *The oxford handbook of research strategies for clinical psychology* (pp. 120–141). New York: Oxford University Press.
- Hawk, B. N., & McCall, R. B. (2011). Specific extreme behaviors of postinstitutionalized Russian adoptees. *Developmental Psychology*, 47(3), 732.
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: Guilford.
- Hegar, R. L. (2005). Sibling placement in foster care and adoption: An overview of international research. *Children and Youth Services Review*, 27(7), 717-739.
- Henggeler, S. W., & Lee, T. (2003). Multisystemic treatment of serious clinical problems. In A. E. Kazdin & J. R. Weisz (Eds.), *Evidence-based psychotherapies for children and adolescents* (pp. 301-322). New York, NY, US: Guilford Press.
- Herbers, J. E., Cutuli, J. J., Kolarova, L., Abu, A., & Sparks, L. A. (2017). Mental health and adaptation of children experiencing family homelessness. In M. E. Haskett (Ed.), *Springer briefs in psychology. Child and family well-being and homelessness: Integrating research into practice and policy* (pp. 7-26). Cham, Switzerland: Springer International Publishing.

- Herrenkohl, T. I. (2013). Person–Environment interactions and the shaping of resilience. *Trauma, Violence, & Abuse*, 14(3), 191-194.
- Herrenkohl, R. C., & Herrenkohl, T. I. (2009). Assessing a child's experience of multiple maltreatment types: Some unfinished business. *Journal of Family Violence*, 24(7), 485-496.
- Herrenkohl, T. I., Jung, H., Klika, J. B., Mason, W. A., Brown, E. C., Leeb, R. T., & Herrenkohl, R. C. (2016). Mediating and moderating effects of social support in the study of child abuse and adult physical and mental health. *American Journal of Orthopsychiatry*, 86(5), 573.
- Herrmann, C. (1997). International experiences with the Hospital Anxiety and Depression Scale—a review of validation data and clinical results. *Journal of Psychosomatic Research*, 42(1), 17-41.
- Hibbs, E. D., Hamburger, S. D., Lenane, M., Rapoport, J. L., Kruesi, M. J., Keysor, C. S., & Goldstein, M. J. (1991). Determinants of expressed emotion in families of disturbed and normal children. *Journal of Child Psychology and Psychiatry*, 32(5), 757-770.
- Hirshfeld, D. R., Biederman, J., Brody, L., Faraone, S. V., & Rosenbaum, J. F. (1997). Expressed emotion toward children with behavioral inhibition: Associations with maternal anxiety disorder. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36(7), 910-917.
- Holland, S., Floris, C., Crowley, A., & Renold, E. (2010). *'How was your day?' Learning from experience: Informing preventative policies and practice by analysing critical moments in care leavers' life histories*. Voices from Care Cymru and Cardiff University School of Social Sciences. Funded by: Wales Office of Research and Development for Health and Social Care. Grant ref: SCSM 08–021.
- Hooley, J. M. (1987). The nature and origins of expressed emotion. In K. Hahlweg & M. J. Goldstein (Eds.), *The Family Process Press monograph series. Understanding major mental*

*disorder: The contribution of family interaction research* (pp. 176-194). New York, NY, US: Family Process Press.

Hooley, J. M. (2007). Expressed emotion and relapse of psychopathology. *Annual Review of Clinical Psychology*, 3, 329-352.

Hooley, J. M., & Gotlib, I. H. (2000). A diathesis-stress conceptualization of expressed emotion and clinical outcome. *Applied and Preventive Psychology*, 9(3), 135-151.

Hooley J.M., Gruber S.A., Parker H.A., Guillaumot J., Rogowska J., Yurgelun-Todd D.A. (2009). Cortico-limbic response to personally challenging emotional stimuli after complete recovery from depression. *Psychiatry Research*, 172(1), 83–91.

Hooley, J. M., & Miklowitz, D. J. (2018). Families and mental disorders. In J. N. Butcher & J. M. Hooley (Eds.), *APA handbooks in psychology series. APA handbook of psychopathology: Psychopathology: Understanding, assessing, and treating adult mental disorders* (pp. 687-703).

Horwath, E., & Weissman, M. M. (1995). Epidemiology of depression and anxiety disorders. In M.T.Tsuang, M.Tohen, & G.E.P.Zahner (Eds.), *Textbook in psychiatric epidemiology*. New York: Wiley.

Howard, L. M., Megnin-Viggars, O., Symington, I., & Pilling, S. (2014). Antenatal and postnatal mental health: summary of updated NICE guidance. *British Medical Journal (Online)*, 349.

Howe, D. (2003). Attachment disorders: Disinhibited attachment behaviours and secure base distortions with special reference to adopted children. *Attachment & Human Development*, 5(3), 265-270.

Howe, D. (2009) *A Brief Introduction to Social Work Theory*, Basingstoke, Palgrave Macmillan.

- Hughes, C., Aldercotte, A., & Foley, S. (2017). Maternal mind-mindedness provides a buffer for pre-adolescents at risk for disruptive behavior. *Journal of Abnormal Child Psychology*, 45(2), 225-235.
- Hughes K, Bellis MA, Hardcastle KA, Sethi, D., Butchart, A., Mikton, C., Jones, L., & Dunne, P. (2017). The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *Lancet Public Health*, 2, e356–66.
- Hughes, M., & Tucker, W. (2018). Poverty as an adverse childhood experience. *North Carolina Medical Journal*, 79(2), 124-126.
- Huh, D., Tristan, J., Wade, E., & Stice, E. (2006). Does problem behavior elicit poor parenting? A prospective study of adolescent girls. *Journal of Adolescent Research*, 21(2), 185-204.
- Ibrahim, J., Cosgrave, N., & Woolgar, M. (2018). Childhood maltreatment and its link to borderline personality disorder features in children: A systematic review approach. *Clinical child Psychology and Psychiatry*, 23(1), 57-76.
- Jacobsen, T., Hibbs, E., & Ziegenhain, U. (2000). Maternal expressed emotion related to attachment disorganization in early childhood: A preliminary report. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41(7), 899-906.
- Jaffari-Bimmel, N., Juffer, F., Van Ijzendoorn, M. H., Bakermans-Kranenburg, M. J., & Mooijart, A. (2006). Social development from infancy to adolescence: Longitudinal and concurrent factors in an adoption sample. *Developmental Psychology*, 42(6), 1143.
- James, K. M., Woody, M. L., Feurer, C., Kudinova, A. Y., & Gibb, B. E. (2017). Disrupted physiological reactivity among children with a history of suicidal ideation: Moderation by parental expressed emotion-criticism. *Biological Psychology*, 130, 22-29.
- Ji, J., Brooks, D., Barth, R. P., & Kim, H. (2010). Beyond preadoptive risk: The impact of adoptive family environment on adopted youth's psychosocial adjustment. *American Journal of Orthopsychiatry*, 80(3), 432.

- Johnson, S. M., & Bolstad, O. D. (1975). Reactivity to home observation: A comparison of audio recorded behavior with observers present or absent. *Journal of Applied Behavior Analysis*, 8(2), 181-185.
- Johnson, C., & Mash, E. J. (1989). A measure of parenting satisfaction and efficacy. *Journal of Clinical Child Psychology*, 18(2), 167-175.
- Jones, C. (2016). Sibling relationships in adoptive and fostering families: A review of the international research literature. *Children and Society*, 30, 324-334.
- Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, 25(3), 341-363.
- Jonn-Seed, M. S., & Weiss, S. (2002). Maternal expressed emotion as a predictor of emotional and behavioral problems in low birth weight children. *Issues in Mental Health Nursing*, 23(6), 649-672.
- Josie K., Greenley R., Drotar, D. (2008). Cumulative risk and asthma outcomes in inner-city African American youth. *Journal of Asthma*, 44, 535-541.
- Judge, S. (2003). Determinants of Parental Stress in Families Adopting Children From Eastern Europe\*. *Family Relations*, 52: 241-248. doi:10.1111/j.1741-3729.2003.00241.
- Juffer, F., & Van Ijzendoorn, M. H. (2005). Behavior problems and mental health referrals of international adoptees: A meta-analysis. *Jama*, 293(20), 2501-2515.
- Kalmuss, D., Davidson, A., & Cushman, L. (1992). Parenting expectations, experiences, and adjustment to parenthood: A test of the violated expectations framework. *Journal of Marriage and the Family*, 516-526.
- Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). *Early childhood interventions: Proven results, future promises*. Santa Monica, CA, US: RAND Corporation.
- Kawabata, Y., Alink, L. R., Tseng, W. L., Van Ijzendoorn, M. H., & Crick, N. R. (2011). Maternal and paternal parenting styles associated with relational aggression in children and

adolescents: A conceptual analysis and meta-analytic review. *Developmental Review*, 31(4), 240-278.

Keating, J. (2013). *History of Adoption and Fostering in the United Kingdom*. Oxford University Press.

Kerker, B. D., Storfer-Isser, A., Szilagyi, M., Stein, R. E., Garner, A. S., O'Connor, K. G., ... & Horwitz, S. M. (2016). Do pediatricians ask about adverse childhood experiences in pediatric primary care?. *Academic pediatrics*, 16(2), 154-160.

Kerker, B., Zhang, J., Nadeem, E., Stein, R., Hurlburt, M., Heneghan, A., Landsverk, J. & Horwitz, S. (2015). Adverse childhood experiences and mental health, chronic medical conditions, and development in young children. *Academic pediatrics*, 15(5), 510-517

Kerr, D. C., Leve, L. D., Harold, G. T., Natsuaki, M. N., Neiderhiser, J. M., Shaw, D. S., & Reiss, D. (2013). Influences of biological and adoptive mothers' depression and antisocial behavior on adoptees' early behavior trajectories. *Journal of Abnormal Child Psychology*, 41(5), 723-734.

Khafi, T. Y., Yates, T. M., & Sher-Censor, E. (2015). The meaning of emotional overinvolvement in early development: Prospective relations with child behavior problems. *Journal of Family Psychology*, 29(4), 585.

Khan, L. (2016). *Missed Opportunities: A review of recent evidence into children and young people's mental health*. Retrieved from <https://www.centreformentalhealth.org.uk/Handlers/Download.ashx?IDMF=54b5276e-9c58-4bf6-9d3a-a7257d2b714f>

King, S., Gieve, M., Iacopini, G., Hahne, A., & Stradling, H. (2017). *The evaluation of the adoption support fund*. London, Tavistock Institute of Human Relations.

- Kingston, D., & Tough, S. (2014). Prenatal and postnatal maternal mental health and school-age child development: a systematic review. *Maternal and Child Health Journal*, 18(7), 1728-1741.
- Kingston, D., Tough, S., & Whitfield, H. (2012). Prenatal and postpartum maternal psychological distress and infant development: a systematic review. *Child Psychiatry & Human Development*, 43(5), 683-714.
- Kline, R. B. (1998). Software review: Software programs for structural equation modeling: Amos, EQS, and LISREL. *Journal of Psychoeducational Assessment*, 16(4), 343-364.
- Knitzer, J., & Perry, D. F. (2009). Poverty and infant and toddler development. *Handbook of Infant Mental Health*, 135-152.
- Koh, B. D., & Rueter, M. A. (2011). Contributions of parent–adolescent negative emotionality, adolescent conflict, and adoption status to adolescent externalizing behaviors. *Journal of Clinical Child & Adolescent Psychology*, 40(6), 825-836.
- Koss, K.J., & Gunnar, M.R. (2018). Annual Research Review: Early adversity, the hypothalamic-pituitary-adrenocortical axis, and child psychopathology. *Journal of Child Psychology and Psychiatry*, 59, 327–346.
- Kriebel, D., & Wentzel, K. (2011). Parenting as a moderator of cumulative risk for behavioral competence in adopted children. *Adoption Quarterly*, 14(1), 37-60.
- Lancaster, R. L., Balling, K., Hastings, R., & Lloyd, T. J. (2014). Attributions, criticism and warmth in mothers of children with intellectual disability and challenging behaviour: a pilot study. *Journal of Intellectual Disability Research*, 58(11), 1060-1071.
- Lansford, J. E., Ceballo, R., Abbey, A., & Stewart, A. J. (2001). Does family structure matter? A comparison of adoptive, two parent biological, single mother, stepfather, and stepmother households. *Journal of Marriage and Family*, 63(3), 840-851.

- Latham, R. M., Mark, K. M., & Oliver, B. R. (2017). A harsh parenting team? Maternal reports of coparenting and coercive parenting interact in association with children's disruptive behaviour. *Journal of Child Psychology and Psychiatry*, 58(5), 603-611.
- Latham, R. M., Mark, K. M., & Oliver, B. R. (2018). Coparenting and children's disruptive behavior: Interacting processes for parenting sense of competence. *Journal of Family Psychology*, 32(1), 151.
- Lavner, J. A., Waterman, J., & Peplau, L. A. (2014). Parent adjustment over time in gay, lesbian, and heterosexual parent families adopting from foster care. *American Journal of Orthopsychiatry*, 84(1), 46.
- Lawler, J. M., Koss, K. J., & Gunnar, M. R. (2017). Bidirectional effects of parenting and child behavior in internationally adopting families. *Journal of Family Psychology*, 31(5), 563.
- Leckman Westin, E., Cohen, P. R., & Stueve, A. (2009). Maternal depression and mother-child interaction patterns: Association with toddler problems and continuity of effects to late childhood. *Journal of Child Psychology and Psychiatry*, 50(9), 1176-1184.
- Lee, B. R., Kobulsky, J. M., Brodzinsky, D., & Barth, R. P. (2018). Parent perspectives on adoption preparation: Findings from the Modern Adoptive Families project. *Children and Youth Services Review*, 85, 63-71.
- Leerkes, E. M., & Crockenberg, S. C. (2002). The development of maternal self efficacy and its impact on maternal behavior. *Infancy*, 3(2), 227-247.
- Leff, J., Vaughn, C. (1985) *Expressed Emotion in Families*. Guilford Press, New York.
- Lehmann, S., Breivik, K., Heiervang, E. R., Havik, T., & Havik, O. E. (2016). Reactive attachment disorder and disinhibited social engagement disorder in school-aged foster children-A confirmatory approach to dimensional measures. *Journal of Abnormal Child Psychology*, 44(3), 445-457.

- Lengua, L. J., Honorado, E., & Bush, N. R. (2007). Contextual risk and parenting as predictors of effortful control and social competence in preschool children. *Journal of Applied Developmental Psychology, 28*(1), 40-55.
- Lengua, L. J., & Kovacs, E. A. (2005). Bidirectional associations between temperament and parenting and the prediction of adjustment problems in middle childhood. *Journal of Applied Developmental Psychology, 26*(1), 21-38.
- Leve, L. D., Neiderhiser, J. M., Harold, G. T., Natsuaki, M. N., Bohannon, B. J., & Cresko, W. A. (2018). Naturalistic experimental designs as tools for understanding the role of genes and the environment in prevention research. *Prevention Science, 19*(1), 68-78.
- Levy Shiff, R., Bar, O., & Har Even, D. (1990). Psychological adjustment of adoptive parents to be. *American Journal of Orthopsychiatry, 60*(2), 258-266.
- Levy-Shiff, R., Zoran, N., & Shulman, S. (1997). International and domestic adoption: Child, parents, and family adjustment. *International Journal of Behavioral Development, 20*(1), 109-129.
- Lewis, K. C. (2018). The Treacherous Path: Developmental Psychopathology and the Evolution of Risk for Suicide. *The Psychoanalytic Study of the Child, 71*(1), 5-19.
- Li, D., Chng, G. S., & Chu, C. M. (2017). Comparing long-term placement of residential and family foster care: A meta-analysis. *Trauma, Violence & Abuse, X*(X), 1-12.
- Liming, K. W., & Grube, W. A. (2018). Wellbeing Outcomes for Children Exposed to Multiple Adverse Experiences in Early Childhood: A Systematic Review. *Child and Adolescent Social Work Journal, 35*(4), 317–335.
- Linville, D., & Lyness, A. (2007). Twenty American Families' Stories of Adaption: Adoption of Children from Russian and Romanian Institutions. *Journal of Marital and Family Therapy, 33*(1), 77-93.

- Lippold, M. A., Hussong, A., Fosco, G. M., & Ram, N. (2018). Lability in the parent's hostility and warmth toward their adolescent: Linkages to youth delinquency and substance use. *Developmental Psychology, 54*(2), 348.
- Lipscomb, S. T., Leve, L. D., Harold, G. T., Neiderhiser, J. M., Shaw, D. S., Ge, X., & Reiss, D. (2011). Trajectories of parenting and child negative emotionality during infancy and toddlerhood: A longitudinal analysis. *Child Development, 82*(5), 1661-1675.
- Llosada-Gistau, J., Montserrat, C., & Casas, F. (2015). The subjective well-being of adolescents in residential care compared to that of the general population. *Children and Youth Services Review, 52*, 150-157.
- Lloyd, E. C., & Barth, R. P. (2011). Developmental outcomes after five years for foster children returned home, remaining in care, or adopted. *Children and Youth Services Review, 33*(8), 1383-1391.
- Loeber, R., Burke, J. D., & Pardini, D. A. (2009). Development and etiology of disruptive and delinquent behavior. *Annual Review of Clinical Psychology, 5*, 291-310.
- Logan, F., Morrall, P., & Chambers, H. (1998). Identification of risk factors for psychological disturbance in adopted children. *Child Abuse Review, 7*, 154 –164.
- London, K., Bruck, M., Wright, D. B., & Ceci, S. J. (2008). Review of the contemporary literature on how children report sexual abuse to others: Findings, methodological issues, and implications for forensic interviewers. *Memory, 16*(1), 29-47.
- Lorant, V., Deliège, D., Eaton, W., Robert, A., Philippot, P., & Ansseau, M. (2003). Socioeconomic inequalities in depression: a meta-analysis. *American Journal of Epidemiology, 157*(2), 98-112.
- Lovejoy, M. C., Graczyk, P. A., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior: A meta-analytic review. *Clinical Psychology Review, 20*(5), 561-592.

- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335-343.
- Luthar SS. Resilience in development: a synthesis of research across five decades. In: Cicchetti D, Cohen DJ, eds. *Developmental Psychopathology*. 2nd edn. Hoboken, NJ: Wiley, 2006: 739–95.
- Luthar, S. S., & Cicchetti, D. (2000). The construct of resilience: Implications for interventions and social policies. *Development and Psychopathology*, 12(4), 857-885.
- Luthar, S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: A critical evaluation and guidelines for future work. *Child Development*, 71(3), 543–562.
- MacCallum, R. C., Zhang, S., Preacher, K. J., & Rucker, D. D. (2002). On the practice of dichotomization of quantitative variables. *Psychological Methods*, 7(1), 19.
- Magaña, A. B., Goldstein, M. J., Karno, M., Miklowitz, D. J., Jenkins, J., & Falloon, I. R. (1986). A brief method for assessing expressed emotion in relatives of psychiatric patients. *Psychiatry Research*, 17(3), 203-212.
- Maniadaki, K., Sonuga-Barke, E., Kakouros, E., & Karaba, R. (2005). Maternal emotions and self-efficacy beliefs in relation to boys and girls with AD/HD. *Child Psychiatry and Human Development*, 35(3), 245-263.
- Mannay, D., Evans, R., Staples, E., Hallett, S., Roberts, L., Rees, A., & Andrews, D. (2017). The consequences of being labelled ‘looked after’: Exploring the educational experiences of looked after children and young people in Wales. *British Educational Research Journal*, 43(4), 683-699.
- Mantymaa, M., Puura, K., Luoma, I., Latva, R., Salmelin, R., & Tammi-nen, T. (2012). Predicting internalizing and externalizing problems at five years by child and parental factors in infancy and toddlerhood. *Child Psychiatry and Human Development*, 43, 153–170.

- Mark, K. M., Pike, A., Latham, R. M., & Oliver, B. R. (2017). The Maternal Emotional Climate Predicts Twin Sibling Relationship Quality. *Twin Research and Human Genetics*, 20(2), 150-160.
- Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling*, 11(3), 320-341.
- Martin, C. R. (2005). What does the Hospital Anxiety and Depression Scale (HADS) really measure in liaison psychiatry settings?. *Current Psychiatry Reviews*, 1(1), 69-73.
- Mash, E. J., & Johnson, C. (1983). Parental perceptions of child behavior problems, parenting self esteem, and mother's reported stress in younger and task situations. *Journal of Clinical Child Psychology*, 12, 337-346.
- Mason, C. A., Tu, S., & Cauce, A. M. (1996). Assessing Moderator Variables: Two Computer Simulation Studies. *Educational and Psychological Measurement*, 56(1), 45-62.
- Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227.
- Masten, A. S. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology*, 23(2), 493-506.
- Masten, A. S. (2014). Global perspectives on resilience in children and youth. *Child Development*, 85(1), 6-20.
- Masten, A. S., Best, K. M., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2(4), 425-444.
- Masten, A. S., & Kalstabakken, A. W. (2018). Developmental perspectives on psychopathology in children and adolescents. In Butcher, J. N., & Kendall, P. C. APA handbook of

psychopathology: *Child and Adolescent Psychopathology*, Vol. 2. American Psychological Association.

Masten A. S., Reed M. J. (2002). Resilience in development. In: Snyder CR, Lopez SJ, editors. *Handbook of positive psychology*. Oxford University Press; New York: pp. 74–88.

Matthey, S., Barnett, B., Ungerer, J., & Waters, B. (2000). Paternal and maternal depressed mood during the transition to parenthood. *Journal of Affective Disorders*, 60(2), 75-85.

McAdams, T. A., Rijdsdijk, F. V., Neiderhiser, J. M., Narusyte, J., Shaw, D. S., Natsuaki, M. N., ... & Lichtenstein, P. (2015). The relationship between parental depressive symptoms and offspring psychopathology: evidence from a children-of-twins study and an adoption study. *Psychological Medicine*, 45(12), 2583-2594.

McCall, R. B. (2011). Children without permanent parents: Research, practice, and policy: IX. Research, practice, and policy perspectives on issues of children without permanent parental care. *Monographs of the Society for Research in Child Development*, 76(4), 223-272.

McCarthy, H. (2005). *Post adoption depression: The unacknowledged hazard*. International Adoption Articles Directory. Retrieved from <http://www.adoptionarticlesdirectory.com/Article/Post-Adoption-Depression---The- Unacknowledged-Hazards>.

McCarty, C. A., Lau, A. S., Valeri, S. M., & Weisz, J. R. (2004). Parent-child interactions in relation to critical and emotionally overinvolved expressed emotion (EE): Is EE a proxy for behavior?. *Journal of Abnormal Child Psychology*, 32(1), 83-93.

McDonald, T. P., Propp, J. R., & Murphy, K. C. (2001). The postadoption experience: Child, parent, and family predictors of family adjustment to adoption. *Child Welfare*, 80(1), 71.

McGhee, J., Bunting, L., McCartan, C., Elliott, M., Bywaters, P. and Featherstone, B. (2017) ‘Looking after children in the UK—convergence or divergence?’. *The British Journal of Social Work*, bcx103, <https://doi.org/10.1093/bjsw/bcx103>.

- McGrath-Lone, L., Dearden, L., Nasim, B., Harron, K., & Gilbert, R. (2016). Changes in first entry to out-of-home care from 1992 to 2012 among children in England. *Child Abuse & Neglect*, 51, 163-171.
- McGue, M., Keyes, M., Sharma, A., Elkins, I., Legrand, L., Johnson, W., & Iacono, W. G. (2007). The environments of adopted and non-adopted youth: Evidence on range restriction from the Sibling Interaction and Behavior Study (SIBS). *Behavior Genetics*, 37(3), 449-462.
- McKay, K., & Ross, L. E. (2010). The transition to adoptive parenthood: A pilot study of parents adopting in Ontario, Canada. *Children and Youth Services Review*, 32(4), 604-610.
- McKay, K., Ross, L. E., & Goldberg, A. E. (2010). Adaptation to parenthood during the post-adoption period: A review of the literature. *Adoption Quarterly*, 13(2), 125-144.
- McLaughlin, K. A. (2016). Future directions in childhood adversity and youth psychopathology. *Journal of Clinical Child and Adolescent Psychology*, 45(3), 361–382.
- McLaughlin, K. A., Breslau, J., Green, J. G., Lakoma, M. D., Sampson, N. A., Zaslavsky, A. M., & Kessler, R. C. (2011). Childhood socio-economic status and the onset, persistence, and severity of DSM-IV mental disorders in a US national sample. *Social science & medicine*, 73(7), 1088-1096.
- McMillen, J., Zima, B., Scott, B., Auslander, L., Munson, M., Tollier, M., & Spitznagel, E. (2005). Prevalence of psychiatric disorders among older youths in the foster care system. *Journal of the American Academy of Child & Adolescent Psychiatry*, 44(1), 88-95.
- McQuillan, J., Greil, A. L., White, L., & Jacob, M. C. (2003). Frustrated fertility: Infertility and psychological distress among women. *Journal of Marriage and Family*, 65(4), 1007-1018.
- McSherry, D., Malet, M. F., & Weatherall, K. (2016). Comparing long-term placements for young children in care: Does placement type really matter?. *Children and Youth Services Review*, 69, 56-66.

- Meakings, S., Ottaway, H., Coffey, A., Palmer, C., Doughty, J., & Shelton, K. (2018). The support needs and experiences of newly formed adoptive families: findings from the Wales Adoption Study. *Adoption & Fostering*, 42(1), 58-75.
- Meakings, S., Sebba, J., & Luke, N. (2017). *What is known about the placement and outcomes of siblings in foster care? An international literature review*. Oxford: The Rees Centre.
- Meakings, S., & Selwyn, J. (2016). ‘She was a foster mother who said she didn’t give cuddles’: The adverse early foster care experiences of children who later struggle with adoptive family life. *Clinical Child Psychology and Psychiatry*, 21(4), 509-519.
- Meakings, Shelton, & Coffey, (2016). A study examining the concerns, support needs and experiences of newly formed adoptive families. *Journal of Health Visiting*, 4(11), 562-570.
- Melby, J., Conger, R., Book, R., Rueter, M., Lucy, L., Repinski, D., Ahrens, K., Black, D., Brown, D., Huck, S., Mutchler, L., Rogers, S., Ross, J., & Stavros, T. (1993). *The Iowa family interactions scales*, 2<sup>nd</sup> Edition. Unpublished manuscript. Iowa State University Centre for Family Research in Rural Mental Health.
- Melina, L. (1997). Researchers are optimistic about drug-exposed children; adoptive parents are apprehensive. *Adopted Child*, 16, 1–4.
- Meltzer, H., Gatward, R., Goodman, R., and Ford, F. (2000). *Mental health of children and adolescents in Great Britain*. London: The Stationery Office.
- Meltzer, H., Gatward, R., Corbin, T., Goodman, R., & Ford, T. (2003). *The mental health of young people looked after by local authorities in England*. London: The Stationery Office.
- Merz, E. C., & McCall, R. B. (2010). Behavior problems in children adopted from psychosocially depriving institutions. *Journal of Abnormal Child Psychology*, 38(4), 459-470.
- Mieloo, C., Raat, H., Oort, F., Bevaart, F., Vogel, I., Donker, M., & Jansen, W. (2012). Validity and reliability of the strengths and difficulties questionnaire in 5–6 year olds: Differences by gender or by parental education? *PLoS ONE*, 7(5), e36805.

- Mignot, J. F. (2017). Full adoption in England and Wales and France: a comparative history of law and practice (1926–2015). *Adoption & Fostering*, 41(2), 142-158.
- Miner JL, Clarke-Stewart KA. (2008). Trajectories of externalizing behavior from age 2 to age 9: Relations with gender, temperament, ethnicity, parenting, and rater. *Developmental Psychology*, 44(3).
- Monck, E., & Rushton, A. (2009). Access to post-adoption services when the child has substantial problems. *Journal of Children's Services*, 4(3), 21-33.
- Morgan, J., Robinson, D., & Aldridge, J. (2002). Parenting stress and externalizing child behaviour. *Child & Family Social Work*, 7(3), 219-225.
- Moroney, E., Tung, I., Brammer, W. A., Peris, T. S., & Lee, S. S. (2017). Externalizing outcomes of youth with and without ADHD: time-varying prediction by parental ADHD and mediated effects. *Journal of Abnormal Child Psychology*, 45(3), 457-470.
- Morsbach, S. K., & Prinz, R. J. (2006). Understanding and improving the validity of self-report of parenting. *Clinical Child and Family Psychology Review*, 9(1), 1-21.
- Morse, M. *The determinants and consequences of empathic parenting: Testing an expansion of Belsky's model of parenting using SEM*. Doctor of Philosophy (Counseling Psychology). (2010). Graduate theses and Dissertations.
- Mott, S. L., Schiller, C. E., Richards, J. G., O'Hara, M. W., & Stuart, S. (2011). Depression and anxiety among postpartum and adoptive mothers. *Archives of Women's Mental Health*, 14(4), 335.
- Musser, E. D., Karalunas, S. L., Dieckmann, N., Peris, T. S., & Nigg, J. T. (2016). Attention-deficit/hyperactivity disorder developmental trajectories related to parental expressed emotion. *Journal of Abnormal Psychology*, 125(2), 182.

- Muthén, B. O., & Curran, P. J. (1997). General longitudinal modeling of individual differences in experimental designs: A latent variable framework for analysis and power estimation. *Psychological Methods*, 2(4), 371.
- Muthén, L. K., & Muthén, B. (2015). Mplus. *The comprehensive modelling program for applied researchers: user's guide*, 5.
- Nachtigall, C., Kroehne, U., Funke, F., & Steyer, R. (2003). Pros and cons of structural equation modeling. *Methods Psychological Research Online*, 8(2), 1-22.
- Nadeem, E., Waterman, J., Foster, J., Paczkowski, E., Belin, T. R., & Miranda, J. (2017). Long-term effects of pre-placement risk factors on children's psychological symptoms and parenting stress among families adopting children from foster care. *Journal of Emotional and Behavioral Disorders*, 25(2), 67-81.
- Narayan, A., Cicchetti, D., Rogosch, F. A., & Toth, S. L. (2015). Interrelations of maternal expressed emotion, maltreatment, and separation/divorce and links to family conflict and children's externalizing behavior. *Journal of Abnormal Child Psychology*, 43(2), 217-228.
- Narayan, A. J., Sapienza, J. K., Monn, A. R., Lingras, K. A., & Masten, A. S. (2015). Risk, vulnerability, and protective processes of parental expressed emotion for children's peer relationships in contexts of parental violence. *Journal of Clinical Child & Adolescent Psychology*, 44(4), 676-688.
- National Adoption Service (2017). *The legal framework for adoption: The Prospective Adoptive Parent's Guide*. Retrieved from [https://www.adoptcymru.com/home.php?\\_dds=true&fileID=107&inline=true](https://www.adoptcymru.com/home.php?_dds=true&fileID=107&inline=true).
- Natsuaki, M. N., Shaw, D. S., Neiderhiser, J. M., Ganiban, J. M., Harold, G. T., Reiss, D., & Leve, L. D. (2014). Raised by depressed parents: is it an environmental risk?. *Clinical Child and Family Psychology Review*, 17(4), 357-367.

- Neil, E., Beek, M., & Ward, E. (2013). *Contact After Adoption: A follow up in late adolescence*.  
University of East Anglia: Centre for Research on Children and Families.
- National Institute for Health and Care Excellence. (2017). *Child abuse and neglect guidelines*.  
NICE: London.
- Noll, J. G., Trickett, P. K., Susman, E. J., & Putnam, F. W. (2005). Sleep disturbances and  
childhood sexual abuse. *Journal of Pediatric Psychology*, 31(5), 469-480.
- NSPCC (2017). *Statistics on child abuse*. London: NSPCC.
- O'Connor T, Ben-Shlomo Y, Heron J, Golding J, Adams D, Glover V. (2005). Prenatal Anxiety  
Predicts Individual Differences in Cortisol in Pre-Adolescent Children. *Biological  
Psychiatry*. 58: 211–217.
- O'Connor, T. G., Deater-Deckard, K., Fulker, D., Rutter, M., & Plomin, R. (1998). Genotype–  
environment correlations in late childhood and early adolescence: Antisocial behavioral  
problems and coercive parenting. *Developmental Psychology*, 34(5), 970.
- O'Dell, K. E., McCall, R. B., & Groark, C. J. (2015). Supporting families throughout the  
international special needs adoption process. *Children and Youth Services Review*, 59, 161–  
170.
- O'Dougherty Wright, M., & Masten, A. S. (2005). Resilience processes in development. Fostering  
positive adaption in the context of adversity. In S. Goldstein & R.B.Brooks (Eds). *Handbook  
of resilience in children*, 17-37. New York NY: Kluwer.
- O'Halloran, K. (2006). *The politics of adoption*. Dordrecht: Springer.
- O'Hara, M. W., & Swain, A. M. (1996). Rates and risk of postpartum depression—a meta-  
analysis. *International Review of Psychiatry*, 8(1), 37-54.
- Palacios, J., & Brodzinsky, D. (2010). Review: Adoption research: Trends, topics, outcomes.  
*International Journal of Behavioral Development*, 34(3), 270-284.

- Palacios, J., Román, M., Moreno, C., León, E., & Peñarrubia, M. G. (2014). Differential plasticity in the recovery of adopted children after early adversity. *Child Development Perspectives*, 8(3), 169-174.
- Pardini, D. A. (2008). Novel insights into longstanding theories of bidirectional parent–child influences: Introduction to the special section. *Journal of Abnormal Child Psychology*, 36(5), 627-631.
- Paulhus, D. L., & Vazire, S. (2007). The self-report method. *Handbook of research methods in personality psychology*, 1, 224-239.
- Pawlby, S., Sharp, D., Hay, D., & O'Keane, V. (2008). Postnatal depression and child outcome at 11 years: the importance of accurate diagnosis. *Journal of Affective Disorders*, 107(1), 241-245.
- Pemberton, C. K., Neiderhiser, J. M., Leve, L. D., Natsuaki, M. N., Shaw, D. S., Reiss, D., & Ge, X. (2010). Influence of parental depressive symptoms on adopted toddler behaviors: An emerging developmental cascade of genetic and environmental effects. *Development and Psychopathology*, 22(4), 803-818.
- Performance and Innovation Unit Report (2000). *Prime Minister's Review: Adoption: issued for consultation*. Performance and Innovation Unit.
- Peris, T. S., & Baker, B. L. (2000). Applications of the expressed emotion construct to young children with externalizing behavior: Stability and prediction over time. *The Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41(4), 457-462.
- Peris, T. S., & Hinshaw, S. P. (2003). Family dynamics and preadolescent girls with ADHD: the relationship between expressed emotion, ADHD symptomatology, and comorbid disruptive behavior. *Journal of Child Psychology and Psychiatry*, 44(8), 1177-1190.

- Peris, T. S., & Miklowitz, D. J. (2015). Parental expressed emotion and youth psychopathology: New directions for an old construct. *Child Psychiatry & Human Development*, 46(6), 863-873.
- Peris TS, Yadegar M, Asarnow JR, Piacentini J (2013) Pediatric obsessive compulsive disorder: family climate as a predictor of treatment outcome. *Journal of Obsessive Compulsive and Related Disorders*, 1, 267–273.
- Phillips R. (2015). Foetal alcohol spectrum disorders: Parenting a child with an invisible disability. *Adoption and Fostering*, 39(3), 275-77.
- Piermattei, C., Pace, C. S., Tambelli, R., D’Onofrio, E., & Di Folco, S. (2017). Late Adoptions: Attachment Security and Emotional Availability in Mother–Child and Father–Child Dyads. *Journal of Child and Family Studies*, 26(8), 2114-2125.
- Pinto, L & Woolgar, M. (2015). Introduction: Looked after children. *Child and Adolescent Mental Health*, 20 (4), p. E1-E3.
- Plomin, R., DeFries, J. C., & Loehlin, J. C. (1977). Genotype-environment interaction and correlation in the analysis of human behavior. *Psychological Bulletin*, 84(2), 309.
- Portney, L.G. and Watkins, M.P. (2009). *Foundations of Clinical Research Applications to Practice*. 3rd Edition, Prentice Hall, Upper Saddle River.
- Prison Reform Trust (2016). In Care, Out Of Trouble. Retrieved from <http://www.prisonreformtrust.org.uk/Portals/0/Documents/In%20care%20out%20of%20trouble%20summary.pdf>
- Psychogiou, L., Daley, D. M., Thompson, M. J., & Sonuga-Barke, E. J. (2007). Mothers’ expressed emotion toward their school-aged sons. *European Child & Adolescent Psychiatry*, 16(7), 458-464.

- Psychogiou, L., Netsi, E., Sethna, V., & Ramchandani, P. G. (2013). Expressed emotion as an assessment of family environment with mothers and fathers of 1-year-old children. *Child: Care, Health and Development*, 39, 703–709.
- Quinton, D. (2012). *Rethinking matching in adoptions from care: A conceptual and research review*. London, England: BAAF.
- Raishevich, N., Kennedy, S. J., & Rapee, R. M. (2010). Expressed emotion displayed by the mothers of inhibited and uninhibited preschool-aged children. *Journal of Clinical Child & Adolescent Psychology*, 39(2), 187-194.
- Ramchandani, P., & Psychogiou, L. (2009). Paternal psychiatric disorders and children's psychosocial development. *The Lancet*, 374(9690), 646-653.
- Ratnayake, A., Bowlay-Williams, J., & Vostanis, P. (2014). When are attachment difficulties an indication for specialist mental health input?. *Adoption & Fostering*, 38(2), 159-170.
- Raykov, T., & Marcoulides, G. A. (2006). On multilevel model reliability estimation from the perspective of structural equation modeling. *Structural Equation Modeling*, 13(1), 130-141.
- RCPCH (2017). *State of Child Health: Report 2017*. London: College of Paediatrics and Child Health, RCPCH 2017.
- Rea, H. M., & Shaffer, A. (2016). Expressed Emotion in Mothers of School-Age Children: Relations to Maternal Maltreatment and Parenting Behavior. *Journal of Child and Family Studies*, 25(12), 3749-3759.
- Rees, A., & Hodgson, P. (2017). Regionalisation: improving the adoption experience in Wales. *Adoption & Fostering*, 41(3), 268-278.
- Rees, S., Channon, S., & Waters, C. S. (2018). The impact of maternal prenatal and postnatal anxiety on children's emotional problems: a systematic review. *European Child & Adolescent Psychiatry*, 1-24.

- Reitz, M., & Watson, K. W. (1992). *Adoption and the family system: Strategies for treatment*. Guilford Press.
- Research in Practice (2014). *Early brain development and maltreatment*. Retrieved from <https://fosteringandadoption.rip.org.uk/wp-content/uploads/2014/04/Early-brain-development-and-maltreatment.pdf>
- Reuben, J. D., Shaw, D. S., Neiderhiser, J. M., Natsuaki, M. N., Reiss, D., & Leve, L. D. (2016). Warm parenting and effortful control in toddlerhood: Independent and interactive predictors of school-age externalizing behavior. *Journal of Abnormal Child Psychology*, 44(6), 1083-1096.
- Rhee, S. H., & Waldman, I. D. (2002). Genetic and environmental influences on antisocial behavior: a meta-analysis of twin and adoption studies. *Psychological Bulletin*, 128(3), 490.
- Rimehaug, T., & Wallander, J. (2010). Anxiety and depressive symptoms related to parenthood in a large Norwegian community sample: the HUNT2 study. *Social Psychiatry and Psychiatric Epidemiology*, 45(7), 713-721.
- Roben, C. K., Moore, G. A., Cole, P. M., Molenaar, P., Leve, L. D., Shaw, D. S., ... & Neiderhiser, J. M. (2015). Transactional patterns of maternal depressive symptoms and mother–child mutual negativity in an adoption sample. *Infant and Child Development*, 24(3), 322-342.
- Rogers, R. (2018). Parents who wait: Acknowledging the support needs and vulnerabilities of approved adopters during their wait to become adoptive parents. *Child & Family Social Work*, 23(2), 289-296.
- Rogosch FA, Cicchetti D, Toth SL. Expressed emotion in multiple subsystems of the families with toddlers of depressed mothers. *Development and Psychopathology*. 2004;16:689–709. doi: 10.1017/S0954579404004730.
- Rohner, R. P., Khaleque, A., & Cournoyer, D. E. (2005). Parental acceptance rejection: Theory, methods, cross cultural evidence, and implications. *Ethos*, 33(3), 299-334.

- Rosenbaum, J. F., Biederman, J., Gersten, M., Hirshfeld, D. R., Meminger, S. R., Herman, J. B., et al. (1988). Behavioral inhibition in children of parents with panic disorder and agoraphobia: a controlled study. *Archives of General Psychiatry*, 45, 463–470. doi: 10.1001/archpsyc.1988.01800290083010
- Roskam, I., Stievenart, M., & De Mol, J. (2016). The transactional process between the relationships with caregivers and children's externalizing behavior. *Journal of Applied Developmental Psychology*, 42, 31-39.
- Roskam, I., van der Voort, A., Juffer, F., Stievenart, M., Bader, M., Muntean, A., . . . Pierrehumbert, B. (2017). Cross-informant ratings of internalizing and externalizing behavior in adolescent–parent pairs in six countries. Does being adopted make a difference? *International Perspectives in Psychology: Research, Practice, Consultation*, 6(1), 32-46.
- Rosnati, R., & Marta, E. (1997). Parent–child relationships as a protective factor in preventing adolescents' psychosocial risk in inter-racial adoptive and non-adoptive families. *Journal of Adolescence*, 20(6), 617-631.
- Royal College of Paediatrics and Child Health (2018). *Facing The Future: Standards for children in emergency care settings*. RCPCH: London.
- Ruberry, E. J., Klein, M. R., Kiff, C. J., Thompson, S. F., & Lengua, L. J. (2018). Parenting as a moderator of the effects of cumulative risk on children's social–emotional adjustment and academic readiness. *Infant and Child Development*, 27(3), e2071.
- Rueter, M. A., Keyes, M. A., Iacono, W. G., & McGue, M. (2009). Family interactions in adoptive compared to nonadoptive families. *Journal of Family Psychology*, 23(1), 58.
- Rushton, A. (2003). *The Adoption of Looked After Children: A Scoping Review of Research*. Social Care Institute for Excellence.

- Rushton, A., & Dance, C. (2006). The adoption of children from public care: a prospective study of outcome in adolescence. *Journal of the American Academy of Child & Adolescent Psychiatry*, 45(7), 877-883.
- Russek, L. G., & Schwartz, G. E. (1997). Feeling of parental caring predict health status in midlife: A 35-year follow-up of the Harvard Mastery of Stress Study. *Journal of Behavioral Medicine*, 20(1), 1-13.
- Rutter, M. (1979). Maternal deprivation, 1972-1978: New findings, new concepts, new approaches. *Child Development*, 283-305.
- Rutter, M. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorder. *The British Journal of Psychiatry*, 147(6), 598-611.
- Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences*, 1094(1), 1-12.
- Rutter, M. (2007). Resilience, competence, and coping. *Child Abuse & Neglect*, 31(3), 205-209.
- Rutter, M. (2012). Resilience as a dynamic concept. *Development and Psychopathology*, 24(2), 335-344.
- Rutter, M., Moffitt, T. E., & Caspi, A. (2006). Gene–environment interplay and psychopathology: Multiple varieties but real effects. *Journal of child Psychology and Psychiatry*, 47(3-4), 226-261.
- Rutter, M., Sonuga-Barke, E. J., Beckett, C., Castle, J., Kreppner, J., Kumsta, R., ... & Gunnar, M. R. (2010a). Deprivation-specific psychological patterns: Effects of institutional deprivation. *Monographs of the Society for Research in Child Development*, i-253.
- Rutter, M., Sonuga Barke, E. J., & Castle, J. (2010b). I. Investigating the impact of early institutional deprivation on development: Background and research strategy of the English and Romanian Adoptees (ERA) study. *Monographs of the Society for Research in Child Development*, 75(1), 1-20.

- Ryan, D. (2001). *Bronfenbrenner's ecological systems theory*. Retrieved from [http://www.floridahealth.gov/alternatesites/cms-kids/providers/early\\_steps/training/documents/bronfenbrenners\\_ecological.pdf](http://www.floridahealth.gov/alternatesites/cms-kids/providers/early_steps/training/documents/bronfenbrenners_ecological.pdf) January, 9, 2016.
- Ryan, S. D., Hinterlong, J., Hegar, R. L., Johnson, L. B. (2010). Kin adopting kin: In the best interest of the children? *Children and Youth Services Review*, 32, 1631–1639.  
doi:10.1016/j.childyouth.2010.06.013
- Sabates, R., & Dex, S. (2012). *Multiple risk factors in young children's development*. London: Centre for Longitudinal Studies, Institute of Education.
- Sameroff, A. (1975). Transactional models in early social relations. *Human Development*, 18(1-2), 65-79.
- Sameroff, A. J. (2000). Developmental systems and psychopathology. *Development and Psychopathology*, 12, 297 – 312.
- Sameroff, A. (2010). A unified theory of development: A dialectic integration of nature and nurture. *Child Development*, 81(1), 6-22.
- Sameroff, A. J.; Bartko, W. T.; Baldwin, A.; Baldwin, C.; Seifer, R. Family and social influences on the development of child competence. In: Lewis, M.; Feiring, C., editors. *Families, risk, and competence*. Mahwah, NJ: Lawrence Erlbaum Associates; 1998. p. 161-186.
- Sameroff A. J., MacKenzie M. J. Capturing transactional models of development: The limits of the possible. *Development & Psychopathology*. 2003; 15:613–640.
- Sameroff, A. J., Seifer, R., Zax, M., & Barocas, R. (1987). Early indicators of developmental risk: Rochester Longitudinal Study. *Schizophrenia Bulletin*, 13(3), 383-394.
- Santiago, C. D., Wadsworth, M. E., & Stump, J. (2011). Socioeconomic status, neighborhood disadvantage, and poverty-related stress: Prospective effects on psychological syndromes among diverse low-income families. *Journal of Economic Psychology*, 32(2), 218-230.

- Santos-Nunes, M., Narciso, I., Vieira-Santos, S., & Roberto, M. S. (2017). Parenting and emotional well-being of adoptive school-aged children: The mediating role of attachment. *Children and Youth Services Review*, 81, 390-399.
- Sar, B. K. (2000). Preparation for adoptive parenthood with a special-needs child. *Adoption Quarterly*, 3(4), 63– 80.
- Sara, G. and Lappin, J. (2017). *Childhood trauma: psychiatry's greatest public health challenge?* Retrieved from [http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667\(17\)30104-4/fulltext](http://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(17)30104-4/fulltext) [Accessed 13 August 2017].
- Sayil M, Güre A, Uçanok Z (2006) First time mothers' anxiety and depressive symptoms across the transition to motherhood: associations with maternal and environmental characteristics. *Women Health*, 44:61–77. doi: 10.1300/J013v44n03\_04
- Schleider, J. L., & Weisz, J. R. (2017). Family process and youth internalizing problems: A triadic model of etiology and intervention. *Development and Psychopathology*, 29(1), 273-301.
- Schloss, S., Schramm, M., Christiansen, H., Scholz, K. K., Schuh, L. C., Doepfner, M., ... & Pauli-Pott, U. (2015). Expressed emotion, mother-child relationship, and ADHD symptoms in preschool—a study on the validity of the German Preschool Five Minute Speech Sample. *Zeitschrift für Kinder-und Jugend psychiatrie und Psychotherapie*, 43(6), 425-431.
- Schofield G and Beek M (2014). *The Secure Base Model: Promoting attachment in foster care and adoption*. London: BAAF
- Schofield, G., Beek, M., & Ward, E. (2012). Part of the family: Planning for permanence in long-term family foster care. *Children and Youth Services Review*, 34(1), 244-253.
- Schupay, B, "*Baby Blues: Mothers' Experiences After Adoption*" (2013). Graduate theses and Dissertations. <http://scholarcommons.usf.edu/etd/4577>
- SDQ info (n.d.). *Norms*. Retrieved from <http://www.sdqinfo.com/g0.html>

- Sellers, R., Harold, G. T., Elam, K., Rhoades, K. A., Potter, R., Mars, B., ... & Collishaw, S. (2014). Maternal depression and co occurring antisocial behaviour: testing maternal hostility and warmth as mediators of risk for offspring psychopathology. *Journal of Child Psychology and Psychiatry*, 55(2), 112-120.
- Seltzer, L. J., Ziegler, T., Connolly, M. J., Prosofski, A. R., & Pollak, S. D. (2014). Stress induced elevation of oxytocin in maltreated children: Evolution, neurodevelopment, and social behavior. *Child Development*, 85(2), 501-512.
- Selwyn, J. (2017). Post-adoption support and interventions for adoptive families: Best practice approaches. Munich, Germany: Deutsche Jugendinstitut.
- Selwyn, J., Meakings, S., & Wijedasa, D. (2015). *Beyond the adoption order. Challenges, interventions and adoption disruption*. London, England: BAAF, 2015.
- Selwyn, J., & Quinton, D. (2004). Stability, permanence, outcomes and support: Foster care and adoption compared. *Adoption & Fostering*, 28(4), 6-15.
- Selwyn, Quinton, Harris, Wijedasa, Nawaz, & Wood (2010). *Pathways to permanence for black, Asian and mixed ethnicity children*. London : BAAF, 2010.
- Selwyn, J., Wood, M., & Newman, T. (2017). Looked after children and young people in England: Developing measures of subjective well-being. *Child Indicators Research*, 10(2), 363-380.
- Sempik, J., Ward, H., & Darker, I. (2008). Emotional and behavioural difficulties of children and young people at entry into care. *Clinical Child Psychology and Psychiatry*, 13(2), 221-233.
- Senecky, Y., Agassi, H., Inbar, D., Horesh, N., Diamond, G., Bergman, Y. S., & Apter, A. (2009). Post-adoption depression among adoptive mothers. *Journal of Affective Disorders*, 115(1), 62-68.
- Shackman, J. E., & Pollak, S. D. (2014). Impact of physical maltreatment on the regulation of negative affect and aggression. *Development and Psychopathology*, 26(4pt1), 1021-1033.

- Sharma, A. R., McGue, M. K., & Benson, P. L. (1996). The emotional and behavioral adjustment of United States adopted adolescents: Part I. An overview. *Children and Youth Services Review*, 18(1-2), 83-100.
- Sher-Censor, E. (2015). Five Minute Speech Sample in developmental research: A review. *Developmental Review*, 36, 127-155.
- Sher-Censor, E., Shulman, C., & Cohen, E. (2018). Associations among mothers' representations of their relationship with their toddlers, maternal parenting stress, and toddlers' internalizing and externalizing behaviors. *Infant Behavior and Development*, 50, 132-139.
- Sher-Censor, E., & Yates, T. M. (2015). Mothers' expressed emotion and narrative coherence: Associations with preschoolers' behavior problems in a multiethnic sample. *Journal of Child and Family Studies*, 24(5), 1392-1405.
- Shrivastava, S. R., Shrivastava, P. S., & Ramasamy, J. (2015). Antenatal and postnatal depression: A public health perspective. *Journal of Neurosciences in Rural Practice*, 6(1), 116.
- Siegel, D. H. (2003). Open adoption of infants: Adoptive parents' feelings seven years later. *Social Work*, 48(3), 409-419.
- Siegel, D. (2012). *Growing up in open adoption: Young adults' perspectives*. *Families in Society*, 93, 133–140. doi:10.1606/1044-3894.4198. Retrieved from <http://alliance1.metapress.com/content/h87111t7628640q6/fulltext.pdf>.
- Silk, J. S., Ziegler, M. L., Whalen, D. J., Dahl, R. E., Ryan, N. D., Dietz, L. J., ... & Williamson, D. E. (2009). Expressed emotion in mothers of currently depressed, remitted, high-risk, and low-risk youth: Links to child depression status and longitudinal course. *Journal of Clinical Child & Adolescent Psychology*, 38(1), 36-47.
- Simmel, C. (2007). Risk and protective factors contributing to the longitudinal psychosocial well-being of adopted foster children. *Journal of Emotional and Behavioral Disorders*, 15(4), 237-249.

- Simmel, C., Barth, R. P., & Brooks, D. (2007). Adopted foster youths' psychosocial functioning: A longitudinal perspective. *Child & Family Social Work*, 12(4), 336-348.
- Simmel, C., Brooks, D., Barth, R. P., & Hinshaw, S. P. (2001). Externalizing symptomatology among adoptive youth: Prevalence and preadoption risk factors. *Journal of Abnormal Child Psychology*, 29(1), 57-69.
- Simmonds J (2004) *Fostering: Attachment*. Retrieved from <https://www.scie.org.uk/publications/guides/guide07/carers/profiles/simmonds.asp> (accessed 8 January 2014)
- Sinclair I., Baker C., Lee J., and Gibbs I. (2007). *The pursuit of permanence: A study of the English care system*. London: Jessica Kingsley Publishers.
- Smith, E. K., Gopalan, P., Glance, J. B., & Azzam, P. N. (2016). Postpartum depression screening: a review for psychiatrists. *Harvard Review of Psychiatry*, 24(3), 173-187.
- Smith, J. D., Dishion, T. J., Shaw, D. S., Wilson, M. N., Winter, C. C., & Patterson, G. R. (2014). Coercive family process and early-onset conduct problems from age 2 to school entry. *Development and Psychopathology*, 26(4pt1), 917-932.
- Smith, R. P., & Zigmond, A. S. (1994). *The hospital anxiety and depression scale manual*. Windsor, UK, NFER-Nelson.
- Speltz, M. L. (1990). The treatment of preschool conduct problems: An integration of behavioral and attachment concepts. In M. Greenberg & D. Cicchetti (Eds.), *Attachment in the preschool years: Theory, research, and intervention* (pp. 399-426). Chicago: University of Chicago Press.
- Spieker, S. J., & Booth, C. L. (1988). Maternal antecedents of attachment quality. In J. Belsky & T. Nezworski (Eds.), *Child psychology. Clinical implications of attachment* (pp. 95-135). Hillsdale, NJ, US: Lawrence Erlbaum Associates, Inc.

- Spieker, S. J., Oxford, M. L., Fleming, C. B., & Lohr, M. J. (2018). Parental childhood adversity, depression symptoms, and parenting quality: Effects on toddler self-regulation in child welfare services involved families. *Infant Mental Health Journal*, 39(1), 5-16.
- Spinhoven, P. H., Ormel, J., Sloekers, P. P. A., Kempen, G. I. J. M., Speckens, A. E. M., & Van Hemert, A. M. (1997). A validation study of the Hospital Anxiety and Depression Scale (HADS) in different groups of Dutch subjects. *Psychological Medicine*, 27(2), 363-370.
- SPSS, I. (2011). IBM SPSS statistics for Windows, version 20.0. New York: IBM Corp.
- Sroufe, L. A. (1997). Psychopathology as an outcome of development. *Development and Psychopathology*, 9(2), 251-268.
- Sroufe, L. A. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment & Human Development*, 7(4), 349-367.
- Sroufe, L. A., Carlson, E. A., Levy, A. K., & Egeland, B. (1999). Implications of attachment theory for developmental psychopathology. *Development and Psychopathology*, 11(1), 1-13.
- Sroufe L., & Rutter, M. (1984). The domain of developmental psychopathology. *Child Development*, 55, 17-29.
- Stein, A., Netsi, E., Lawrence, P. J., Granger, C., Kempton, C., Craske, M. G., ... & West, V. (2018). Mitigating the effect of persistent postnatal depression on child outcomes through an intervention to treat depression and improve parenting: a randomised controlled trial. *The Lancet Psychiatry*, 5(2), 134-144.
- Stone, L., Otten, R., Engels, R., Vermulst, A., & Janssens, J. (2010). Psychometric properties of the parent and teacher versions of the strengths and difficulties questionnaire for 4- to 12-year-olds: a review. *Clinical Child and Family Psychology Review*, 13(3), 254e274.
- Stoolmiller, M. (1999). Implications of the restricted range of family environments for estimates of heritability and nonshared environment in behavior-genetic adoption studies. *Psychological Bulletin*, 125(4), 392.

- Stoto, M. A., Almario, D. A., & McCormick, M. C. (1999). *Reducing the odds: Preventing perinatal transmission of HIV in the United States*. National Academies Press.
- Strachan, A. M., Goldstein, M. J., & Miklowitz, D. J. (1986). *Do relatives express expressed emotion?. In Treatment of Schizophrenia* (pp. 51-58). Springer, Berlin, Heidelberg.
- Suchman, N., Mayes, L., Conti, J., Slade, A., & Rounsaville, B. (2004). Rethinking parenting interventions for drug-dependent mothers: From behavior management to fostering emotional bonds. *Journal of Substance Abuse Treatment, 27*(3), 179-185.
- Suwalsky, J. T., Cote, L. R., Bornstein, M. H., Hendricks, C., Haynes, O. M., & Bakeman, R. (2012). Mother–infant socioemotional contingent responding in families by adoption and birth. *Infant Behavior and Development, 35*(3), 499-508.
- Suwalsky, J. T., Hendricks, C., & Bornstein, M. H. (2008). Families by adoption and birth: I. Mother-infant socioemotional interactions. *Adoption Quarterly, 11*(2), 101-125.
- Swanson, J. & Wadhwa, P. (2008). Developmental origins of child mental health disorders. *Journal of Child Psychology & Psychiatry, 10*, 1009 -19.
- Sweeney, S., & MacBeth, A. (2016). The effects of paternal depression on child and adolescent outcomes: a systematic review. *Journal of Affective Disorders, 205*, 44-59.
- Tan, T. X., Camras, L. A., Deng, H., Zhang, M., & Lu, Z. (2012). Family stress, parenting styles, and behavioral adjustment in preschool-age adopted Chinese girls. *Early Childhood Research Quarterly, 27*(1), 128-136.
- Tan, T. X., Major, D., Marn, T., Na, E., & Jackson, A. L. (2015). Adopted children's country of origin and post-adoption parent–child relationship quality: Findings from the United States National Survey of Adoptive Parents (NSAP). *Children and Youth Services Review, 48*, 117-125.

- Tan, T. X., & Marfo, K. (2006). Parental ratings of behavioral adjustment in two samples of adopted Chinese girls: Age-related versus socio-emotional correlates and predictors. *Journal of Applied Developmental Psychology, 27*(1), 14-30.
- Tan, T. X., & Marfo, K. (2016). Pre-adoption adversity and behavior problems in adopted Chinese children: A longitudinal study. *Journal of Applied Developmental Psychology, 42*, 49-57.
- Tarren-Sweeney, M. (2008). Retrospective and concurrent predictors of the mental health of children in care. *Children and Youth Services Review, 30*(1), 1-25.
- Tarren-Sweeney, M. (2010). It's time to re-think mental health services for children in care, and those adopted from care. *Clinical Child Psychology and Psychiatry, 15*(4), 613-626.
- Tasker, F., & Wood, S. (2016). The transition into adoptive parenthood: Adoption as a process of continued unsafe uncertainty when family scripts collide. *Clinical Child Psychology and Psychiatry, 21*(4), 520-535.
- Teixeira-Pinto, A., Siddique, J., Gibbons, R., & Normand, S. L. (2009). Statistical approaches to modeling multiple outcomes in psychiatric studies. *Psychiatric Annals, 39*(7), 729-735.
- Terr, L. (1991). Childhood An outline and overview. *American Journal of Psychiatry, 148*(1), 10-20.
- Teti, D. M., & Gelfand, D. M. (1991). Behavioral competence among mothers of infants in the first year: the mediational role of maternal self efficacy. *Child Development, 62*(5), 918-929.
- Teyhan, A., Wijedasa, D., & Macleod, J. (2018). Adult psychosocial outcomes of men and women who were looked-after or adopted as children: prospective observational study. *BMJ Open, 8*(2), e019095.
- Thapar, A., & Rutter, M. (2009). Do prenatal risk factors cause psychiatric disorder? Be wary of causal claims. *British Journal of Psychiatry, 195*, 100–101.
- Thomas, C. (2013). *Adoption for looked after children: messages from research*. London, UK: British association for adoption and fostering.

- Thomas, C. (2018) *The Care Crisis Review: Factors contributing to national increases in numbers of looked after children and applications for care orders*. London: Family Rights Group.
- Thompson, R. A. (1999). Early attachment and later development. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 265-286). New York, NY, US: Guilford Press.
- Thompson, R., Flaherty, E. G., English, D. J., Litrownik, A. J., Dubowitz, H., Kotch, J. B., & Runyan, D. K. (2015). Trajectories of adverse childhood experiences and self-reported health at age 18. *Academic Pediatrics*, 15(5), 503-509.
- Tienari, P., Wynne, L. C., Sorri, A., Lahti, I., Läksy, K., Moring, J., ... & Wahlberg, K. E. (2004). Genotype–environment interaction in schizophrenia-spectrum disorder: long-term follow-up study of Finnish adoptees. *The British Journal of Psychiatry*, 184(3), 216-222.
- Tilbury, C., & Thoburn, J. (2008). Children in out-of-home care in Australia: International comparisons. *Children Australia*, 33(3), 5-12.
- Tizard, B. (1977). *Adoption: A second chance*. New York, NY, US: Free Press.
- Tompson, M. C., Pierre, C. B., Boger, K. D., McKowen, J. W., Chan, P. T., & Freed, R. D. (2010). Maternal depression, maternal expressed emotion, and youth psychopathology. *Journal of Abnormal Child Psychology*, 38(1), 105-117.
- Toth, S. L., & Cicchetti, D. (2013). A developmental psychopathology perspective on child maltreatment. *Child Maltreatment*, 18(3), 135-139.
- Toth, S. L., Rogosch, F. A., Manly, J. T., & Cicchetti, D. (2006). The efficacy of toddler-parent psychotherapy to reorganize attachment in the young offspring of mothers with major depressive disorder: a randomized preventive trial. *Journal of Consulting and Clinical Psychology*, 74(6), 1006.

- Tremblay, R. E. (2013). Early development of physical aggression and early risk factors for chronic physical aggression in humans. In *Neuroscience of Aggression* (pp. 315-327). Springer, Berlin, Heidelberg.
- Trickett, P. K., & Putnam, F. W. (1998). Developmental consequences of child sexual abuse. In P. K. Trickett & C. J. Schellenbach (Eds.), *Violence against children in the family and the community* (pp. 39-56). Washington, DC, US: American Psychological Association.
- Triseliotis, J. (2002). Long term foster care or adoption? The evidence examined. *Child & Family Social Work*, 7(1), 23-33.
- Tully, L. A., Arseneault, L., Caspi, A., Moffitt, T. E., & Morgan, J. (2004). Does maternal warmth moderate the effects of birth weight on twins' attention-deficit/hyperactivity disorder (ADHD) symptoms and low IQ?. *Journal of Consulting and Clinical Psychology*, 72(2), 218.
- Van den Dries, L., Juffer, F., van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (2009). Fostering security? A meta-analysis of attachment in adopted children. *Children and Youth Services Review*, 31(3), 410-421.
- Van der Kolk, B. A., Roth, S., Pelcovitz, D., Sunday, S., & Spinazzola, J. (2005). Disorders of extreme stress: The empirical foundation of a complex adaptation to trauma. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, 18(5), 389-399.
- van der Voort, A., Linting, M., Juffer, F., Bakermans-Kranenburg, M. J., Schoenmaker, C., & van IJzendoorn, M. H. (2014). The development of adolescents' internalizing behavior: Longitudinal effects of maternal sensitivity and child inhibition. *Journal of Youth and Adolescence*, 43(4), 528-540.
- Van IJzendoorn, M. H., & Juffer, F. (2006). The Emanuel Miller Memorial Lecture 2006: Adoption as intervention. Meta analytic evidence for massive catch up and plasticity in physical,

socio emotional, and cognitive development. *Journal of Child Psychology and Psychiatry*, 47(12), 1228-1245.

Van Ijzendoorn, M. H., Juffer, F., & Poelhuis, C. W. K. (2005). Adoption and cognitive development: a meta-analytic comparison of adopted and nonadopted children's IQ and school performance. *Psychological Bulletin*, 131(2), 301.

Van Ijzendoorn, M. H., Schuengel, C., & BAKERMANS–KRANENBURG, M. J. (1999). Disorganized attachment in early childhood: Meta-analysis of precursors, concomitants, and sequelae. *Development and Psychopathology*, 11(2), 225-250.

Vanderfaellie, J., Van Holen, F., Trogh, L., & Andries, C. (2012). The impact of foster children's behavioural problems on Flemish foster mothers' parenting behaviour. *Child & Family Social Work*, 17(1), 34-42.

Vaughan, E. L., Feinn, R., Bernard, S., Brereton, M., & Kaufman, J. S. (2013). Relationships between child emotional and behavioral symptoms and caregiver strain and parenting stress. *Journal of Family Issues*, 34(4), 534-556.

Vaughn, C. E., & Leff, J. P. (1976). The influence of family and social factors on the course of psychiatric illness: A comparison of schizophrenic and depressed neurotic patients. *The British Journal of Psychiatry*, 129(2), 125-137.

Verhulst, F. C., Althaus, M., & Versluis-Den Bieman, H. J. (1990). Problem behavior in international adoptees: I. An epidemiological study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 29(1), 94-103.

Viana, A. G., & Welsh, J. A. (2010). Correlates and predictors of parenting stress among internationally adopting mothers: A longitudinal investigation. *International Journal of Behavioral Development*, 34(4), 363-373.

- Villodas, M., Cromer, K., Moses, J., Litrownik, A., Newton, R., & Davis, I. (2016). Unstable child welfare permanent placements and early adolescent physical and mental health: the roles of adverse childhood experiences and post-traumatic stress. *Child Abuse & Neglect*, 62, 76-88.
- Villodas, M. T., Litrownik, A. J., Thompson, R., Roesch, S. C., English, D. J., Dubowitz, H., ... & Runyan, D. K. (2012). Changes in youth's experiences of child maltreatment across developmental periods in the LONGSCAN consortium. *Psychology of Violence*, 2(4), 325.
- Waid, J., & Alewine, E. (2018). An exploration of family challenges and service needs during the post-adoption period. *Children and Youth Services Review*, 91, 213-220.
- Wade, J., & Dixon, J. (2006). Making a home, finding a job: investigating early housing and employment outcomes for young people leaving care. *Child & Family Social Work*, 11(3), 199-208.
- Walkner, A. J., & Rueter, M. A. (2014). Adoption status and family relationships during the transition to young adulthood. *Journal of Family Psychology*, 28(6), 877.
- Waller, R., Gardner, F., Hyde, L. W., Shaw, D. S., Dishion, T. J., & Wilson, M. N. (2012). Do harsh and positive parenting predict parent reports of deceitful callous behavior in early childhood?. *Journal of Child Psychology and Psychiatry*, 53(9), 946-953.
- Wang, F., Christ, S. L., Mills-Koonce, W. R., Garrett-Peters, P., & Cox, M. J. (2013). Association between maternal sensitivity and externalizing behavior from preschool to preadolescence. *Journal of Applied Developmental Psychology*, 34(2), 89-100.
- Webster-Stratton, C. (1998). Preventing conduct problems in Head Start children: strengthening parenting competencies. *Journal of Consulting and Clinical Psychology*, 66(5), 715.
- Weidemann G, Rayki O, Feinstein E, Hahlweg K. (2002). The family questionnaire: development and validation of a new self-report scale for assessing expressed emotion. *Psychiatry Research*, 109, 265-79.

- Weintraub, M. J., Hall, D. L., Carbonella, J. Y., Weisman de Mamani, A., & Hooley, J. M. (2017). Integrity of literature on expressed emotion and relapse in patients with schizophrenia verified by AP curve analysis. *Family Process, 56*(2), 436-444.
- Weissman, M. M., Prusoff, B. A., Gammon, G. D., Merikangas, K. R., Leckman, J. F., & Kidd, K. K. (1984). Psychopathology in the children (ages 6–18) of depressed and normal parents. *Journal of the American Academy of Child Psychiatry, 23*(1), 78-84.
- Welsh Government (2016). *Children looked after at 31 March by local authority, gender and age*. Welsh Government.
- Welsh Government (2017a). *Children looked after at 31 March by local authority, gender and age*. Welsh Government.
- Welsh Government (2017b). *Prosperity for All: the national strategy*. Welsh Government.
- Werum, R., Davis, T., Cheng, S., & Browne, I. (2018). Adoption Context, Parental Investment, and Children's Educational Outcomes. *Journal of Family Issues, 39*(3), 720-746.
- Weston, S., Hawes, D. J., & Pasalich, D. S. (2017). The Five Minute Speech Sample as a Measure of Parent–Child Dynamics: Evidence from Observational Research. *Journal of Child and Family Studies, 26*(1), 118-136.
- Whenan, R., Oxlad, M., & Lushington, K. (2009). Factors associated with foster carer well-being, satisfaction and intention to continue providing out-of-home care. *Children and Youth Services Review, 31*(7), 752-760.
- White, K. R. (2016). Placement discontinuity for older children and adolescents who exit foster care through adoption or guardianship: A systematic review. *Child and Adolescent Social Work Journal, 33*(4), 377-394.
- Whitten, K. L., & Weaver, S. R. (2010). Adoptive family relationships and healthy adolescent development: A risk and resilience analysis. *Adoption Quarterly, 13*(3-4), 209-226.

- Wickrama, K., Lee, T. K., O'Neil, C. W., & Lorenz, F. O. (2016). ). *Higher-Order Growth Curves and Mixture Modeling with Mplus*. New York, NY: Routledge.
- Widaman, K. F. (2006). III. Missing data: What to do with or without them. *Monographs of the Society for Research in Child Development*, 71(3), 42-64.
- Widom, C. S., Raphael, K. G., & DuMont, K. A. (2004). The case for prospective longitudinal studies in child maltreatment research: Commentary on Dube, Williamson, Thompson, Felitti, and Anda (2004). *Child Abuse & Neglect*, 28(7), 715-722.
- Wierzbicki, M. (1993). Psychological adjustment of adoptees: A meta-analysis. *Journal of Clinical Child Psychology*, 22(4), 447-454.
- Wigfall, V., Monck, E., & Reynolds, J. (2006). Putting programme into practice: The introduction of concurrent planning into mainstream adoption and fostering services. *British Journal of Social Work*, 36(1), 41-55.
- Williams, J., & MacKinnon, D. P. (2008). Resampling and distribution of the product methods for testing indirect effects in complex models. *Structural Equation Modeling*, 15(1), 23-51.
- Wilson, H. W., Samuelson, S. L., Staudenmeyer, A. H., & Widom, C. S. (2015). Trajectories of psychopathology and risky behaviors associated with childhood abuse and neglect in low-income urban African American girls. *Child Abuse & Neglect*, 45, 108-121.
- Wind, L. H., Brooks, D., & Barth, R. P. (2005). Adoption preparation: Differences between adoptive families of children with and without special needs. *Adoption Quarterly*, 8(4), 45-74.
- Wisner, K. L., Chambers, C., & Sit, D. K. (2006). Postpartum depression: a major public health problem. *Jama*, 296(21), 2616-2618.
- Woolgar, M. (2013) The practical implications of the emerging findings in the neurobiology of maltreatment for looked after and adopted children: Recognising the diversity of outcomes. *Adoption & Fostering*, 37(3), 237-252.

- Woolhouse, H., Gartland, D., Mensah, F., Giallo, R., & Brown, S. (2016). Maternal depression from pregnancy to 4 years postpartum and emotional/behavioural difficulties in children: Results from a prospective pregnancy cohort study. *Archives of Women's Mental Health*, 19(1), 141-151.
- World Health Organization (2009). *Addressing adverse childhood experiences to improve public health: expert consultation*, 4-5 May 2009. Retrieved from [http://www.who.int/violence\\_injury\\_prevention/violence/activities/adverse\\_childhood\\_experiences/global\\_research\\_network\\_may\\_2009.pdf](http://www.who.int/violence_injury_prevention/violence/activities/adverse_childhood_experiences/global_research_network_may_2009.pdf)
- Wretham, A. E., & Woolgar, M. (2017). Do children adopted from British foster care show difficulties in executive functioning and social communication? *Adoption & Fostering*, 41(4), 331-345.
- Yelland, I., & Daley, D. (2009). Expressed emotion in children: associations with sibling relationships. *Child: Care, Health and Development*, 35(4), 568-577.
- Yelland, J., Sutherland, G., & Brown, S. J. (2010). Postpartum anxiety, depression and social health: findings from a population-based survey of Australian women. *BMC Public Health*, 10(1), 771.
- Yonas, M. A., Lewis, T., Hussey, J. M., Thompson, R., Newton, R., English, D., & Dubowitz, H. (2010). Perceptions of neighborhood collective efficacy moderate the impact of maltreatment on aggression. *Child Maltreatment*, 15(1), 37-47.
- Zamostny, K. P., O'Brien, K. M., Baden, A. L., & Wiley, M. O. L. (2003). The practice of adoption: History, trends, and social context. *The Counseling Psychologist*, 31(6), 651-678.
- Zethof, D., Nagelhout, G. E., de Rooij, M., Driezen, P., Fong, G. T., van den Putte, B., ... & Willemsen, M. C. (2016). Attrition analysed in five waves of a longitudinal yearly survey of smokers: findings from the ITC Netherlands survey. *The European Journal of Public Health*, 26(4), 693-699.

Zigmond, A. S., & Snaith, R. P. (1983). The hospital anxiety and depression scale. *Acta Psychiatrica Scandinavica*, 67(6), 361-370.

Zvara, B. J., Sheppard, K. W., & Cox, M. (2018). Bidirectional effects between parenting sensitivity and child behavior: A cross-lagged analysis across middle childhood and adolescence. *Journal of Family Psychology*, 32(4), 484.

## Appendix 1: Letter of approval of ethical consent



**School of Social Sciences**  
**Ysgol Gwyddorau Cymdeithasol**  
Head of School, Pennaeth yr Ysgol  
Dr Tom Hall

**Cardiff University**  
Glamorgan Building  
King Edward VII Avenue  
Cardiff CF10 3WT  
Wales UK

Tel +44(0)29 2087 5179  
Fax +44(0)29 2087 4175

[www.cardiff.ac.uk/social-sciences](http://www.cardiff.ac.uk/social-sciences)

3<sup>rd</sup> April 2014

Our ref: SREC/1226

Dr Sally Holland  
SOCSI

Dear Sally

**Prifysgol Caerdydd**

Adeilad Morgannwg  
Rhodfa'r Brenin Edward VII  
Caerdydd CF10 3WT  
Cymru, Y Deyrnas Unedig

Ffôn +44(0)29 2087 5179  
Ffacs +44(0)29 2087 4175

[www.caerdydd.ac.uk/social-sciences](http://www.caerdydd.ac.uk/social-sciences)

Your project entitled "*Wales Adoption Cohort Study*" has been approved by the School of Social Sciences Research Ethics Committee of Cardiff University at its meeting on 2<sup>nd</sup> April 2014, subject to the following:

- The Committee agreed that your statement on archiving (Page 5 of application) is unclear, since it is the case that your project data will be archived in some way. The University policy on retaining data for 5 years or 2 years post-publication would therefore apply.

If you need clarification concerning this, please contact me.

If you make any substantial changes with ethical implications to the project as it progresses you need to inform the SREC about the nature of these changes. Such changes could be: 1) changes in the type of participants recruited (e.g. inclusion of a group of potentially vulnerable participants), 2) changes to questionnaires, interview guides etc. (e.g. including new questions on sensitive issues), 3) changes to the way data are handled (e.g. sharing of non-anonymised data with other researchers).

In addition, if anything occurs in your project from which you think the SREC might usefully learn, then please do share this information with us.

All ongoing projects will be monitored every 12 months and it is a condition of continued approval that you complete the monitoring form. Please inform the SREC when the project has ended. Please use the SREC's project reference number above in any future correspondence.

Yours sincerely

Professor Adam Hedgecoe  
Chair of School of Social Sciences Research Ethics Committee



THE QUEEN'S  
ANNIVERSARY PRIZES  
FOR HIGHER AND FURTHER EDUCATION  
2015

INVESTORS  
IN PEOPLE

Athena  
SWAN  
Bronze Award

QAA  
UK Quality Assured  
Sicrwydd Ansawdd y DU

Registered Charity, no. 1136855  
Elusen Gofrestredig, rhif 1136855

**Appendix 2: Data collection from Child Adoption Report (CAR)**



**WALES ADOPTION COHORT STUDY  
ASTUDIAETH CARFAN MABWYSIADU CYMRU**

**CODEBOOK**

Version no.	Date	Amended by	Summary of changes
1.0	07/10/14	RA	CARA form codebook created
2.0	13/04/2015	RA	Added variables

## Demographic details (\* Global codes. 88=missing, 99=n/a)

Variable name	Brief description
StudyNumber	Participant number
Researcher	Name of researcher entering the data
Status	Status i.e. complete record or missing data/check needed
Status_notes	Notes about what needs doing/checking
LocalAuthority	Name of Authority
Consortium	String - Name of consortium (if applicable code later)
LA_number	ID used by LA
FamilyID	ID to match with questionnaire data
Form_type	Type of form used 1) old 2) new 3) other
Child_gender	Child gender 1) Male 2) Female
Child_DOB	Date of birth
Date_form_completed	Date CAR form was completed
Child_ethnic	Ethnicity of child 1) White British 2) White Welsh 3) White other 4) Mixed – White & black Caribbean 5) Mixed – white & black African 6) Mixed White & Asian 7) Mixed- other 8) Asian Indian 9) Asian Pakistani 10)Asian Bangladeshi 11)Asian Chinese 12)Asian other 13) Black African 14)Black Carribean 15)Black other 16)Other
Child_eth_other	String - Ethnicity other
Child_religion	Child's religion 0) No religion 1) Christian 2) Buddhist 3) Hindu 4) Jewish 5) Muslim 6) Sikh 7) Other
Child_language	1) English 2) Welsh 3) Other
Language_other	String – note other language

## Child variables

Variable name	Brief description
LA_care_at_birth	Taken into LA care at birth (i.e. from hospital)
Phys_abuse	Experienced physical abuse 1) Yes 2) No 3) Likely
Phys_perpetrator	Who perpetrated the physical abuse (string)
Phys_notes	String – Notes about physical abuse
Physical_chastisement	Experienced physical chastisement 1) Yes 2) No 3) likely
PhysChas_perpetrator	Who perpetrated the physical chastisement?
Sex_abuse	Experienced sexual abuse 1) Yes 2) No 3) Likely
Sex_exploitation	Experiences sexual exploitation? 1) Yes 2) No 3) Likely
Sex_perpetrator	Who perpetrated the sexual abuse/exploitation?
Sex_notes	String – Notes about sexual abuse
Emot_abuse	Experienced emotional abuse 1) Yes 2) No 3) likely
Emot_perp	Who perpetrated the emotional abuse?
Emot_notes	String – Notes about emotional abuse
Neglect	Experienced neglect 1) Yes 2) No 3) likely
Neglect_perp	Who perpetrated the neglect?
Neglect_notes	String – Notes about neglect
Conflict_home	Experienced conflict in home 1) Yes 2) No 3) likely
Conflict_notes	String – Notes about conflict
Domestic_violence	Experienced domestic violence in home 1) Yes 2) No 3) likely
DV_notes	String – Notes about domestic violence
Relationship_breakdown	Experienced a relationship breaking down between birth parents 1) Yes 2) No 3) likely
Rel_breakdown_notes	String – Notes about relationship breakdown

RiskFactorCoding	Source of risk factor coding 1) Stated by social worker with no details 2) Stated by social worker with full details 3) Stated by social worker with mixed details
Learning_diff	Learning difficulties 1) Yes 2) No
Learn_notes	String – Notes about learning difficulties
Edu_needs	Educational needs highlighted 1) Yes 2) No
Edu_notes	String – Notes about educational needs
Edu_statement	Does child have educational statement 1) Yes 2) No
School_adjustment	Did child have issues adjusting to school 1) Yes 2) No
School_adjust_notes	String – Notes about trouble adjusting to school
No_of_school_changes	Number (1,2,3) of school changes
Mental_health	Mental health issues 1) Yes 2) No
Mental_notes	String – Notes about mental health issues
Behaviour_problems	Behaviour problems (I.e. fighting, aggression, hyperactivity, etc.) 1) Yes 2) No
Behaviour_notes	String – notes about behaviour problems
Attachment_difficulties	Attachment difficulties? I.e. SW has stated that child may have/does have attachment issues or likely based on notes (i.e. comforted from any person, clingy, etc.) 1) Yes 2) No 3) Potential
Attachment_diff_notes	Notes about attachment difficulties
Eating_problems	Eating problems 1) Yes 2) No
Eating_notes	String – notes about eating problems
Sleeping_problems	Sleeping problems 1) Yes 2) No
Sleeping_notes	String – notes about sleeping problems
Soiling	Soiling 1) Yes 2) No
Soiling_notes	Notes about soiling
Self_harm	Does child self harm? 1) Yes 2) No

Selfharm_notes	Notes about self harm
Sexualised_behaviour	Sexualised behaviour? 1) Yes 2) No
Sex_beh_notes	Sexual behaviour notes
Health_need	Any other health needs 1) Yes 2) No 3) Potential
Health_needs	String – notes about health needs
Phys_disability	Physical disability? 1) Yes 2) No
Phys_dis_notes	String – Notes about physical disabilities
Low_birth_weight	Low birth weight 1) Yes 2) No
Birth_complications	Complications during birth 1) Yes 2) No
Birth_compli_notes	String – notes about birth complications
Prenatal_drug_exposure	Exposure to drugs pre birth 1) Yes 2) No 3) Potentially
Prenatal_alcohol_exposure	Exposure to alcohol pre birth 1) Yes 2) No 3) Potentially
Prenatal_smoking_exposure	Exposure to smoking pre birth 1) Yes 2) No 3) Potentially
Subs_expo_notes	String – any notes on any substance exposure
Prematurity	Premature at birth 1) Yes 2) No
Injuries	Any highlighted suspicious injuries 1) Yes 2) No
Injuries_notes	String – notes about injuries
A_E_Attendances	Number of A&E attendances (1,2,3)
Protective_factors	String - Any protective factors mentioned
Child_other_notes	String – Any other notes of aspects not covered by variables

## Birth mother variables

Variable name	Brief description
Mum_DOB	Date of birth
Mum_ethnic	Ethnicity 1) White British

	<ul style="list-style-type: none"> <li>2) White Welsh</li> <li>3) White other</li> <li>4) Mixed – White &amp; black Caribbean</li> <li>5) Mixed – white &amp; black African</li> <li>6) Mixed White &amp; Asian</li> <li>7) Mixed- other</li> <li>8) Asian Indian</li> <li>9) Asian Pakistani</li> <li>10) Asian Bangladeshi</li> <li>11) Asian Chinese</li> <li>12) Asian other</li> <li>13) Black African</li> <li>14) Black Caribbean</li> <li>15) Black other</li> <li>16) Other</li> </ul>
Mum_eth_other	String – notes about ethnicity
Mum_religion	Religion <ul style="list-style-type: none"> <li>0) No religion</li> <li>1) Christian</li> <li>2) Buddhist</li> <li>3) Hindu</li> <li>4) Jewish</li> <li>5) Muslim</li> <li>6) Sikh</li> <li>7) Other</li> </ul>
Mum_religion_other	String – other religion notes
Currently_employed	Currently employed <ul style="list-style-type: none"> <li>1) Full time</li> <li>2) Part time</li> <li>3) Unemployed</li> </ul>
Previously_employed	Previously employed <ul style="list-style-type: none"> <li>1) Full time</li> <li>2) Part time</li> <li>3) Unemployed</li> </ul>
Employment_notes	String – notes about employment
Mum_benefits	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> </ul>
Highest_edu_achievement	Highest educational achievement? <ul style="list-style-type: none"> <li>0) None</li> <li>1) GCSE/O Level</li> <li>2) A level</li> <li>3) GNVQ or equivalent</li> <li>4) Degree</li> <li>5) MSc/PhD</li> <li>6) Other</li> </ul>
Edu_other	
Learning_difficulties	String – notes about educational achievement Mum has learning difficulties? <ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> </ul>
Learning_notes	
Mum_statement	String- notes about learning difficulties Mum has educational statement <ul style="list-style-type: none"> <li>1) Yes</li> </ul>

Relationship_status_cds_father	2) No Relationship status with child's father 1) single 2) married 3) cohabiting 4) other 5) separated
Rel_status_other	String - Relationship status other
No_of_children	Number of children (1,2,3)
Other_children_looked_after	Are any of mums other children in LA care or looked after? (Including adoption) 1) Yes 2) No
SS_involvement_as_child	Were social services involved with mum as a child? 1) Yes 2) No
Mum_careleaver	Is mum a care leaver herself? 1) Yes 2) No
Mum_previouscareproceedings	Has mum been involved in previous care proceedings? 1) Yes 2) No
Mum_care_notes	String – notes about mums childhood/care
Mum_phys_abuse	Mum experienced physical abuse as child? 1) Yes 2) No 3) Suspected
Mum_sex_abuse	Mum experienced sexual abuse as child? 1) Yes 2) No 3) Suspected
Mum_Emot_abuse	Mum experienced emotional abuse as child? 1) Yes 2) No 3) Suspected
Mum_neglect	Mum experienced neglect as child? 1) Yes 2) No 3) Suspected
Mum_exp_DV_child	Mum experienced domestic violence as child? 1) Yes 2) No 3) Suspected
Mum_mental_health	Mental health difficulties 1) Yes 2) No
Mum_mental_notes	String – notes about mental health
Mum_phys_health	Physical health difficulties 1) Yes 2) No
Mum_phys_health_notes	String – notes about physical health difficulties

Mum_phys_disability	Physical disability 1) Yes 2) No
Mum_phys_notes	String – notes about physical disability
Mum_substance	Substance abuse? 1) Yes 2) No 3) Suspected
Mum_subs_notes	String – notes about substance abuse
Mum_alcohol	Alcohol issues? 1) Yes 2) No 3) Suspected
Mum_consent_medical_records	Did Mum give consent to her medical records being viewed? 1) Yes 2) No 3) Unsure
Mum_homelessness	Has mum ever been homeless?
Crime	Engaged in criminal activity? 1) Yes 2) No
Crime_notes	String – notes about criminal activity
Mum_notes	String – any other notes not covered by variables

## Birth father variables

Variable name	Brief description
Dad_DOB	Date of birth
Dad_ethnic	Ethnicity <ol style="list-style-type: none"> <li>1) White British</li> <li>2) White Welsh</li> <li>3) White other</li> <li>4) Mixed – White &amp; black Caribbean</li> <li>5) Mixed – white &amp; black African</li> <li>6) Mixed White &amp; Asian</li> <li>7) Mixed- other</li> <li>8) Asian Indian</li> <li>9) Asian Pakistani</li> <li>10) Asian Bangladeshi</li> <li>11) Asian Chinese</li> <li>12) Asian other</li> <li>13) Black African</li> <li>14) Black Caribbean</li> <li>15) Black other</li> <li>16) Other</li> </ol>
Dad_eth_other	String – notes about ethnicity
Dad_religion	Religion <ol style="list-style-type: none"> <li>1) No religion</li> <li>2) Christian</li> <li>3) Buddhist</li> <li>4) Hindu</li> <li>5) Jewish</li> <li>6) Muslim</li> <li>7) Sikh</li> <li>8) Other</li> </ol>
Dad_religion_other	String – other religion notes
Dad_currently_employed	Currently employed <ol style="list-style-type: none"> <li>1) Full time</li> <li>2) Part time</li> <li>3) Unemployed</li> </ol>
Dad_previously_employed	Previously employed <ol style="list-style-type: none"> <li>1) Full time</li> <li>2) Part time</li> <li>3) Unemployed</li> </ol>
Dad_highest_edu	Highest educational achievement? <ol style="list-style-type: none"> <li>1) None</li> <li>2) GCSE/O Level</li> <li>3) A level</li> <li>4) GNVQ or equivalent</li> <li>5) Degree</li> <li>6) MSc/PhD</li> <li>7) Other</li> </ol>
Dad_high_edu	String – notes about educational achievement
Dad_learn_diff	Dad has learning difficulties? <ol style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> </ol>
Dad_benefits	Dad on benefits?

Dad_phys_abuse	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> </ul> Dad experienced physical abuse as child?
Dad_Sex_abuse	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> <li>3) Suspected</li> </ul> Dad experienced sexual abuse as child?
Dad_emot_abuse	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> <li>3) Suspected</li> </ul> Dad experienced emotional abuse as child?
Dad_neglect	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> <li>3) Suspected</li> </ul> Dad experienced neglect as child?
Dad_exp_domestic_voilen ce	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> <li>3) Suspected</li> </ul> Dad experienced domestic violence as child?
Dad_mental_health	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> </ul> Dad has mental health issues?
Dad_Mental_notes	String – notes about mental health
Dad_phys_health	Physical health difficulties
Dad_phys_health_notes	String – notes about physical health difficulties
Dad_phys_disability	Physical disability
Dad_phys_notes	String – notes about physical disability
Dad_substance	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> <li>3) Suspected</li> </ul> Substance abuse?
Dad_substance_notes	String – notes about substance abuse
Dad_alcohol	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> <li>3) Suspected</li> </ul> Alcohol issues?
Dad_permission_access_ medical_records	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> <li>3) Unsure</li> </ul> Did Dad give consent to her medical records being viewed?
Dad_crime	<ul style="list-style-type: none"> <li>1) Yes</li> <li>2) No</li> </ul> Engaged in criminal activity?
Dad_crime_notes	String – notes about criminal activity

Dad_homelessness	Dad ever been homeless? 1) Yes 2) No
Dad_No_children	Number of children (1,2,3)
Dad_other_children_LA	Are any of dads other children looked after? 1) Yes 2) No
Dad_prev_SS_Inv_as_Child	Were social services involved with dad as a child? 1) Yes 2) No
Dad_Careleaver	Is dad a care leaver himself? 3) Yes 4) No
Dad_Previouscareproceedings	Has dad been involved in previous care proceedings? 1) Yes 2) No
Dad_notes	String – any other notes about dad

## Other variables

Variable name	Brief description
Contact_mother	Does child have contact with mother? 1) Yes 2) No
Contact_detail	Detail of contact 1) Letterbox 2) Visit 3) Other
Contact_notes	Notes about contact
Contact_father	Does child have contact with father? 3) Yes 4) No
Contact_detail	Detail of contact 4) Letterbox 5) Visit 6) Other
Contact_notes	Notes about contact
Contact_Siblings	Does child have contact with siblings? 1) Yes 2) No
Contact_sibs_detail	Detail of contact 1) Letterbox 2) Visit 3) Other
Contact_sibs_notes	Notes about contact
Contact_other	Does child have contact with other family? 1) Yes 2) No
Contact_other_detail	Detail of contact 1) Letterbox

Contact_other_notes	2) Visit
Sib_group	3) Other
Placed_with	Notes about contact
Family_members_assessed	Child adopted as part of sibling group
Assessment_details	Number of child they are placed with
Timeline_move1	Were family members assessed?
Timeline_move2	1) Yes
Timeline_move3	2) No
Timeline_move4	String – details of who was assessed and outcome
Timeline_move5	String - Details of each move the child has had.
Timeline_move6	I.e. the date the moved and details (grandparents, foster care, etc).
Timeline_move7	
Timeline_move8	
Timeline_move9	
Timeline_move10	
Timeline_further_moves	Any moves 10+
Date_C_Removed_1 <sup>ST</sup>	Date the child was first removed from home and taken into LA care
Date_C_Removed_FINAL	Date the child was removed from home for the final time (i.e. if there are any failed reunifications the FINAL time)
No_of_moves	Number of moves pre adoption
No_of_carers	Number of carers pre adoption
Foster_to_adopt	Was the child adopted from foster parent?
No.of_failed_reunifications	Number of failed reunifications
No_of_placements	Number of placements pre adoption
SS_date_first_involvement	Date social services first became involved
SS_reason1streferral	String – reason for social services first involvement
Date_CPR	Date child put on CPR register
CPR_category	CPR category
CPR_cat_notes	Notes about CPR
Section_47	Section 47?
	1) Yes
	2) No
Date_Section47	Date section 47
Section_20	Section 20?
	1) Yes
	2) No
Date_Section20	Date section 20 entered
Date_PLO_entered	Date Public Law Outline entered
Date_CareOrder_applied_for	Date care order applied for
Date_Adoption_plan_agreed	Date adoption plan agreed
Date_Careorder_granted	Date care order granted

Date_PlacementOrder_Applied	Date placement order applied for
Date_PlacementOrder_granted	Date placement order granted
Date_adoptionOrder_applied	Date adoption order applied for
Date_AdoptionOrder_granted	Date adoption order granted
Date_Child_placed_for_adoption	Date child was placed for adoption
NotesAboutDates	String – any notes about dates
BIRTH_PARENT_Appeal_or_application_leave	Did birth parent appeal? 1) Yes 2) No
Appeal_leave_notes_placement_disrupted	String – notes about appeal Has the placement disrupted? 1) Yes 2) No
NOTES_IDENTITY_ADDRESSED_TO_CHILD	Notes addressed to child to help with their identity
Support_plan_available	Support plan available? 1) Yes 2) No
SUP_health	Support noted related to child's health? 1) Yes 2) No
SUP_health_details	String – support related to health
SUP_edu	Support noted related to child's education? 1) Yes 2) No
SUP_edu_details	String – support related to education
SUP_emo_beh	Support noted related to child's behaviour? 1) Yes 2) No
SUP_emo_beh_details	String – support related to behaviour
SUP_identity	Support noted related to child's identity? 1) Yes 2) No
SUP_identity_details	String – support related to identity?
SUP_family_social	Support noted related to child's social aspects? 1) Yes 2) No
SUP_family_social_details	String – support related to social?
SUP_social_presentations	Support noted related to child's social presentation? 1) Yes 2) No
SUP_social_presentations_details	String – support related to social presentation?
SUP_selfcare	Support noted related to child's selfcare? 1) Yes 2) No
SUP_selfcare_details	Support noted related to child's selfcare? 1) Yes 2) No

SUP_financial	String – support related to selfcare? Support noted related to financial needs?
SUP_financial_details	1) Yes 2) No
NOTES	String – support related to financial needs String – anything else deemed important

## Appendix 3: Adopter recruitment flyer



### An Invitation to take part in a Research Study on the Experiences of Adoptive Families in Wales



If you have had a Welsh child placed for adoption with you between 1st July 2014 and 30th June 2015, we would like to hear from you!

A team of researchers at Cardiff University has been funded by the Welsh Government to carry out a major new research study that aims to understand the early experiences of children and their families when a child has been placed for adoption.

Our research team want to find out:

- What support do families need in the first year after their child or children come to live with them?
- What helps families to flourish in the first year?
- What is the impact of decisions made before children were placed for adoption (e.g. the length of time before a plan for adoption was agreed) on families?



*Our research team includes (from left to right):  
Claire Palmer, Sally Holland, Julie Doughty,  
Katherine Shelton, Heather Ottaway and Rebecca Anthony*

#### We would like to hear from you:

If you are interested in taking part, or would like more information

please text YES to 07814 186066

Or Email: [adoption@cardiff.ac.uk](mailto:adoption@cardiff.ac.uk)

 Text or phone: 07814 186066

### What will taking part involve?

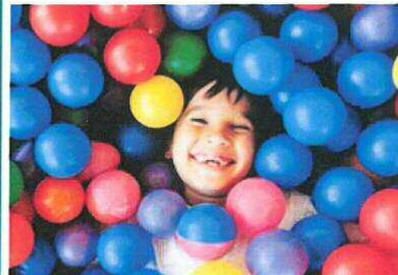
- We will send you a questionnaire to fill out with a prepaid envelope (this should take about 30 minutes to complete).
- Once you have returned the questionnaire to us, you can **choose** whether you would like to take part in an interview about your experiences as an adoptive family. We will arrange to interview you at a time that suits you.
- 8-10 months after the first questionnaire, we will send a second questionnaire for you to complete.
- *We will make sure that any identifying information is removed and you and your family will remain completely anonymous.*
- You can opt out at any stage and you don't have to explain why.

### What are the benefits of taking part?

- We will use the information you provide to influence development of adoption policy and practice in Wales and the New National Adoption Service to try to improve adoptive services and support in Wales.
- You will receive **free membership** of Adoption UK for one year as a thank you. Membership includes; six copies of 'Adoption Today' magazine, access to the Adoption UK helpline, local support groups and the lending library.
- You will be able to **choose a free book** from a selection from Jessica Kingsley Publishing for each stage of the study that you are involved in.

Cefnogi Teuluoedd sy'n Mabwysiadu

**adoption uk**  
supporting adoptive families



**NISCHR**

Sefydliad Cenedlaethol ar gyfer Ymchwil Gofal Cymdeithasol ac Iechyd | National Institute for Social Care and Health Research



Ariennir gan  
**Lywodraeth Cymru**  
Funded by  
**Welsh Government**

**If you are interested in taking part, please text**

**YES to 07814 186066**

**or email: [adoption@cardiff.ac.uk](mailto:adoption@cardiff.ac.uk)**

**For more information, please see our website:**

**[sites.cardiff.ac.uk/adoptioncohort](http://sites.cardiff.ac.uk/adoptioncohort)**

## Appendix 4: Questionnaire one



# A Research Study about the Experiences of Adoptive Families

## QUESTIONNAIRE FOR ADOPTIVE PARENTS



ID number..... (for office use)

## ABOUT THE QUESTIONNAIRE

This questionnaire contains three main sections. Section one covers some background information about you and your family. The second section focuses on how the adoption is faring in these early days. It includes what you think is going well in adoptive family life, as well as concerns you may have in caring for your child. We also ask about your child's behaviour, thoughts and feelings, your own feelings and mood, and your thoughts on being a parent. The final section is about your adoption support needs and experiences.

The questions relate to your child who has recently been placed with you for adoption. If you have had more than one child placed with you since 1<sup>st</sup> July 2014, please complete the questionnaire as it relates to the **eldest** child. Please try to answer every question, even if it doesn't seem to apply to you, or your child. Your answers are confidential and they will not be stored with either your name or your child's name.

This questionnaire can be completed by the adoptive parent of the child. If you are adopting as a couple, it can be completed by either parent.

- ✓ Please make sure you read each question carefully before you answer.
- ✓ Please try to answer every question.
- ✓ Remember that your answers are confidential.

Some questions ask about how your child has been feeling over the past six months, but please answer with reference to however long your child has been living with you.

**Everyone who completes this questionnaire will receive free membership to Adoption UK for one year and a free book from a selection of texts by Jessica Kingsley Publishing. The book choice is enclosed. Please use the leaflet to tick the book you would like to receive and return it to us with your completed questionnaire in the prepaid envelope.**

## Section 1

### About Your Child Who Has been Placed with you for Adoption

Is the child a boy or a girl? (please circle)	Boy	Girl
Child's date of birth?	Day:	Month: Year:
What is your gender? (please circle)	Male	Female
What is your date of birth?	Month:	Year:
What is your relationship to the child?  <hr style="width: 40%; margin-left: 0;"/> (i.e. adoptive mother, adoptive father)		

### About Your Family

On a typical weekday who lives in your household and what is their relationship to your child who is taking part in this study? Please list everyone who lives in your household.

Please fill in the table below:

	Relationship to your child	For all children in the household Age (years)
<i>Example 1</i>	<i>Mother</i>	-
<i>Example 2</i>	<i>Brother (our birth son)</i>	<i>11</i>
Person 1		
Person 2		
Person 3		
Person 4		
Person 5		
Person 6		
Person 7		
Person 8		

1. Approximate gross (before tax) annual family income. Please tick one.			
Up to £10,000	<input type="checkbox"/>	£30,000 - £49,999	<input type="checkbox"/>
£10,000 - £19,999	<input type="checkbox"/>	£50,000 - £74,999	<input type="checkbox"/>
£20,000 - £29,999	<input type="checkbox"/>	£75,000 or more	<input type="checkbox"/>

2. What is your current employment status? Please tick <u>all that apply</u> .			
Full Time Paid Employment	<input type="checkbox"/>	Part Time Training or Education	<input type="checkbox"/>
Part Time Paid Employment	<input type="checkbox"/>	Voluntary Work	<input type="checkbox"/>
Currently unemployed	<input type="checkbox"/>	Retired	<input type="checkbox"/>
Full Time Training or Education	<input type="checkbox"/>	Never worked	<input type="checkbox"/>
Other (please describe) _____			
If you have paid work, what type of work do you do? _____			

3. Have you completed ... Please tick <u>all that apply</u> .			
O-levels or GCSEs	<input type="checkbox"/>	University degree	<input type="checkbox"/>
A-levels/Highers	<input type="checkbox"/>	Higher or postgraduate degree	<input type="checkbox"/>
Vocational training (please describe) _____			
If you do not currently have a partner, please <u>tick here</u> and go on to the next section ' <b>About You</b> '. <input type="checkbox"/>			

4. What is your partner's current employment status? Please tick <u>all that apply</u> .			
Full Time Paid Employment	<input type="checkbox"/>	Part Time Training or Education	<input type="checkbox"/>
Part Time Paid Employment	<input type="checkbox"/>	Voluntary Work	<input type="checkbox"/>
Currently unemployed	<input type="checkbox"/>	Retired	<input type="checkbox"/>
Full Time Training or Education	<input type="checkbox"/>	Never worked	<input type="checkbox"/>
Other (please describe) _____			
If they have paid work, what type of work do they do? _____			

5. Has your partner completed ... Please <u>tick all that apply</u> .			
O-levels or GCSEs	<input type="checkbox"/>	University degree	<input type="checkbox"/>

A-levels/Highers		Higher or postgraduate degree	
Vocational training (please describe)			
<hr/>			

## About You

1. What is your ethnic group? Please tick one box to best describe your ethnic group or background.

White		Asian or Asian British	
English/Welsh/Scottish/Northern Irish/British	<input type="checkbox"/>	Indian	<input type="checkbox"/>
Irish	<input type="checkbox"/>	Pakistani	<input type="checkbox"/>
Gypsy or Irish Traveller	<input type="checkbox"/>	Bangladeshi	<input type="checkbox"/>
Black/African/Caribbean/Black British		Mixed/multiple ethnic groups	
African	<input type="checkbox"/>	White & Black Caribbean	<input type="checkbox"/>
Caribbean	<input type="checkbox"/>	White & Black African	<input type="checkbox"/>
	<input type="checkbox"/>	White & Asian	<input type="checkbox"/>
Other ethnic group (please specify) _____			

2. What is your religion? Please tick one box.

No religion	<input type="checkbox"/>	Jewish	<input type="checkbox"/>
Christian (all denominations)	<input type="checkbox"/>	Muslim	<input type="checkbox"/>
Buddhist	<input type="checkbox"/>	Sikh	<input type="checkbox"/>
Hindu	<input type="checkbox"/>	Other (please specify) _____	<input type="checkbox"/>

3. Which languages do you speak on a day to day basis? Please tick all that apply

English	<input type="checkbox"/>	Welsh	<input type="checkbox"/>
Other (please specify) _____	<input type="checkbox"/>		<input type="checkbox"/>

4. Which language is spoken predominantly in your home? Please tick one box

English	<input type="checkbox"/>	Welsh	<input type="checkbox"/>
---------	--------------------------	-------	--------------------------

Other (please specify)		
------------------------	--	--

## Section 2

### About Your Child

Your Child's Behaviour (Their personality, strengths and difficulties)

For each item below, please tick the number for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can, even if you are not absolutely certain. Please give your answers on the basis of your child's behaviour over the last 6 months.

	Not True	Somewhat True	Certainly True
1. Considerate of other people's feelings	0	1	2
2. Restless, overactive, cannot stay still for long	0	1	2
3. Often complains of headaches, stomach aches or sickness	0	1	2
4. Shares readily with other children (treats, toys, pencils etc.)	0	1	2
5. Often has temper tantrums or hot tempers	0	1	2
6. Rather solitary, tends to play alone	0	1	2
7. Generally obedient, usually does what adults request	0	1	2
8. Many worries, often seems worried	0	1	2
9. Helpful if someone is hurt, upset or feeling ill	0	1	2
10. Constantly fidgeting or squirming	0	1	2
11. Has at least one good friend	0	1	2
12. Often fights with other children or bullies them	0	1	2
13. Often unhappy, down hearted or tearful	0	1	2
14. Generally liked by other children	0	1	2
15. Easily distracted, concentration wanders	0	1	2
16. Nervous or clingy in new situations, easily loses confidence	0	1	2
17. Kind to younger children	0	1	2
18. Often lies or cheats	0	1	2
19. Picked on or bullied by other children	0	1	2
20. Often volunteers to help others (parents, teachers, other children)	0	1	2
21. Thinks things out before acting	0	1	2
22. Steals from home, school or elsewhere	0	1	2
23. Gets on better with adults than with other children	0	1	2

24	Has many fears, easily scared	0	1	2
25	Sees tasks through to the end, good attention span	0	1	2

## Your Child's Thoughts and Feelings

Below is a list of items that describe children. For each item that describes your child now or within the past 2 months, please circle the **2** if the item is **very true** or **often true** of your child. Circle the **1** if the item is **somewhat** or **sometimes true**. If the item is **not true**, circle the **0**. Please answer all of the items as well as you can, even if some do not seem to apply.

	Not True	Sometimes True	Very True
1. Aches or pains (without medical cause; do <b>not</b> include stomach or headaches)	0	1	2
2. Acts too young for age	0	1	2
3. Afraid to try new things	0	1	2
4. Avoids looking others in the eye	0	1	2
5. Can't concentrate, can't pay attention for long	0	1	2
6. Can't sit still, restless, or hyperactive	0	1	2
7. Can't stand having things out of place	0	1	2
8. Can't stand waiting; wants everything now	0	1	2
9. Chews on things that aren't edible	0	1	2
10. Clings to adults or too dependent	0	1	2
11. Constantly seeks help	0	1	2
12. Constipated, doesn't move bowels (when not sick)	0	1	2
13. Cries a lot	0	1	2
14. Cruel to animals	0	1	2
15. Defiant	0	1	2
16. Demands must be met immediately	0	1	2
17. Destroys his/her own things	0	1	2
18. Destroys things belonging to his/her family or other children	0	1	2
19. Diarrhoea or loose bowels (when not sick)	0	1	2
20. Disobedient	0	1	2
21. Disturbed by any change in routine	0	1	2
22. Doesn't want to sleep alone	0	1	2
23. Doesn't answer when people talk to him/her	0	1	2

	Not True	Sometimes True	Very True
24. Doesn't eat well (please describe): _____	0	1	2
25. Doesn't get along with other children	0	1	2
26. Doesn't know how to have fun; acts like a little adult	0	1	2
27. Doesn't seem to feel guilty after misbehaving	0	1	2
28. Doesn't want to go out of home	0	1	2
29. Easily frustrated	0	1	2
30. Easily jealous	0	1	2
31. Eats or drinks things that are not food – <b>don't</b> include sweets (please describe): _____	0	1	2
32. Fears certain animals, situations, or places (please describe): _____	0	1	2
33. Feelings are easily hurt	0	1	2
34. Gets hurt a lot; accident-prone	0	1	2
35. Gets in many fights	0	1	2
36. Gets into everything	0	1	2
37. Gets too upset when separated from parents	0	1	2
38. Has trouble getting to sleep	0	1	2
39. Headaches (without medical cause)	0	1	2
40. Hits others	0	1	2
41. Holds his/her breath	0	1	2
42. Hurts animals or people without meaning to	0	1	2
43. Looks unhappy without good reason	0	1	2
44. Angry moods	0	1	2
45. Nausea, feels sick (without medical cause)	0	1	2
46. Nervous movements or twitching (please describe): _____	0	1	2
47. Nervous, highly strung, or tense	0	1	2

	Not True	Sometimes True	Very True
48. Nightmares	0	1	2
49. Overeating	0	1	2
50. Overtired	0	1	2
51. Shows panic for no good reason	0	1	2
52. Painful bowel movements (without medical cause)	0	1	2
53. Physically attacks people	0	1	2
54. Picks nose, skin, or other parts of body (please describe): _____	0	1	2
55. Plays with own sex parts too much	0	1	2
56. Poorly coordinated or clumsy	0	1	2
57. Problems with eyes (without medical cause) (please describe): _____	0	1	2
58. Punishment doesn't change his/her behaviour	0	1	2
59. Quickly shift from one activity to another	0	1	2
60. Rashes or other skin problems (without medical cause)	0	1	2
61. Refuses to eat	0	1	2
62. Refuses to play active games	0	1	2
63. Repeatedly rocks head or body	0	1	2
64. Resists going to bed at night	0	1	2
65. Resists toilet training (please describe): _____	0	1	2
66. Screams a lot	0	1	2
67. Seems unresponsive to affection	0	1	2
68. Self-conscious or easily embarrassed	0	1	2
69. Selfish or won't share	0	1	2
70. Shows little affection toward people	0	1	2
71. Shows little interest in things around him/her	0	1	2
72. Shows too little fear of getting hurt	0	1	2
73. Too shy or timid	0	1	2

74. Sleeps less than most children during day and/or night (please describe): _____ _____	0	1	2
-------------------------------------------------------------------------------------------------	---	---	---

	Not True	Sometimes True	Very True
75. Smears or plays with bowel movements	0	1	2
76. Speech problem (please describe) _____	0	1	2
77. Stares into space or seems preoccupied	0	1	2
78. Stomach aches or cramps (without medical cause)	0	1	2
79. Rapid shifts between sadness and excitement	0	1	2
80. Strange behaviour (describe): _____	0	1	2
81. Stubborn, sullen, or irritable	0	1	2
82. Sudden changes in mood or feelings	0	1	2
83. Sulks a lot	0	1	2
84. Talks or cries out in sleep	0	1	2
85. Temper tantrums or hot temper	0	1	2
86. Too concerned with neatness or cleanliness	0	1	2
87. Too fearful or anxious	0	1	2
88. Uncooperative	0	1	2
89. Underactive, slow moving, or lacks energy	0	1	2
90. Unhappy, sad, or depressed	0	1	2
91. Unusually loud	0	1	2
92. Upset by new people or situations (please describe): _____	0	1	2
93. Vomiting, throwing up (without medical cause)	0	1	2
94. Wakes up often at night	0	1	2
95. Wanders away	0	1	2
96. Wants a lot of attention	0	1	2
97. Whining	0	1	2
98. Withdrawn, doesn't get involved with others	0	1	2
99. Worries	0	1	2

100 Please write in any problems the child has that were not listed  
above \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## You and your child

Can you outline what you think is going well in these early days of adoptive family life?

Can you think of up to 3 problems or concerns that you currently have in relation to the care of your child?

*My first concern is (please give a brief description)...*

Please circle your response to the following questions:

	Not at all	A little	Somewhat	A lot/Very
How severe is the problem or concern that you have noted?	1	2	3	4
How well do you feel that the child is coping with the problem or concern?	1	2	3	4
What is the impact of this problem or concern on you?	1	2	3	4
What do you feel the impact of this problem or concern is upon your family?	1	2	3	4
What do you feel the impact of this problem or concern is upon the child's day-to-day functioning?	1	2	3	4
How important is it to have this problem or concern resolved?	1	2	3	4

*My second concern is (please give a brief description)...*

**Please circle your response to the following questions:**

	Not at all	A little	Somewhat	A lot/Very
How severe is the problem or concern that you have noted?	1	2	3	4
How well do you feel that the child is coping with the problem or concern?	1	2	3	4
What is the impact of this problem or concern on you?	1	2	3	4
What do you feel the impact of this problem or concern is upon your family?	1	2	3	4
What do you feel the impact of this problem or concern is upon the child's day-to-day functioning?	1	2	3	4
How important is it to have this problem or concern resolved?	1	2	3	4

My third concern is (please give a brief description)...

Please circle your response to the following questions:

	Not at all	A little	Somewhat	A lot/Very
How severe is the problem or concern that you have noted?	1	2	3	4
How well do you feel that the child is coping with the problem or concern?	1	2	3	4
What is the impact of this problem or concern on you?	1	2	3	4
What do you feel the impact of this problem or concern is upon your family?	1	2	3	4
What do you feel the impact of this problem or concern is upon the child's day-to-day functioning?	1	2	3	4
How important is it to have this problem or concern resolved?	1	2	3	4

### About You

### Being a Parent

Here are some statements about what it can be like to be an adoptive parent. For each statement, please circle the number that best describes how you feel about being a parent.

	Strongly Agree					Strongly Disagree
1. Even though being an adoptive parent could be rewarding, I am frustrated now while my child is at his/her present age.	1	2	3	4	5	6
2. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot.	1	2	3	4	5	6
3. I do not know why it is, but sometimes when I'm supposed to be in control I feel like the one being manipulated.	1	2	3	4	5	6
4. My mother/father was better prepared to be a good mother/father than I am.	1	2	3	4	5	6
5. A difficult problem in being an adoptive parent is not knowing whether you're doing a good job or a bad one.	1	2	3	4	5	6
6. Sometimes I feel like I'm not getting anything done.	1	2	3	4	5	6

7. My talents and interests are in other areas, not in being an adoptive parent.	1	2	3	4	5	6
8. If being a mother/father of a child were only more interesting, I would be motivated to do a better job as an adoptive parent.	1	2	3	4	5	6
9. Being an adoptive parent makes me tense and anxious.	1	2	3	4	5	6
10. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired.	1	2	3	4	5	6
11. I would make a fine model for a new mother / father to follow in order to learn what she/he would need to know in order to be a good parent.	1	2	3	4	5	6
12. Being an adoptive parent is manageable, and any problems are easily solved.	1	2	3	4	5	6
13. I meet my own personal expectations for expertise in caring for my child.	1	2	3	4	5	6
14. If anyone can find the answer to what is troubling my child, I am the one.	1	2	3	4	5	6
15. Considering how long I've been an adoptive parent I feel thoroughly familiar with this role.	1	2	3	4	5	6
16. I honestly believe I have all the skills necessary to be a good mother/father to my child.	1	2	3	4	5	6
17. Being a good mother/father is a reward in itself.	1	2	3	4	5	6

## Your Mood and Feelings

Please try to answer all of the following questions with respect to how you have been feeling in the past week. Please circle one answer for each statement.

1.	I feel tense or wound up	Most of the time	A lot of the time	Time to time, occasionally	Not at all
2.	I still enjoy things I used to enjoy	Definitely as much	Not quite as much	Only a little	Hardly at all
3.	I get a sort of frightened feeling something awful is about to happen	Very definitely and quite badly	Yes, but not too badly	A little, but it doesn't worry me	Not at all
4.	I feel as if I am slowed down	Nearly all the time	Very often	Sometimes	Not at all
5.	I get a sort of frightened feeling like butterflies in the stomach	Not at all	Occasionally	Quite often	Very often
6.	I have lost interest in my appearance	Definitely	I don't take so much care as I should	I may not take quite so much care	I take just as much care as ever
7.	I can laugh and see the funny side of things	As much as I always could	Not quite so much now	Definitely not so much now	Not at all
8.	Worrying thoughts go through my mind	A great deal of the time	A lot of the time	From time to time but not too often	Only occasionally
9.	I feel cheerful	Not at all	Not often	Sometimes	Most of the time
10.	I can sit at ease and feel relaxed	Definitely	Usually	Not often	Not at all
11.	I feel restless and I often have to be on the move	Very much indeed	Quite a lot	Not very much	Not at all
12.	I look forward with enjoyment to things	Very often indeed	Quite often	Not very often	Not at all
13.	I get sudden feelings of panic	Very often indeed	Quite often	Not very often	Not at all
14.	I can enjoy a good book or radio or TV programme	Often	Sometimes	Not often	Very seldom
15.	My appetite is less than usual	Very much	Somewhat	A little	Not at all
16.	My appetite is greater than usual	Very much	Somewhat	A little	Not at all
17.	I have lost weight recently	Not much, if any	Yes, more than 5 pounds	Yes, more than 10 pounds	Yes, more than 15 pounds

18	I am purposefully trying to lose weight	Yes	No
----	-----------------------------------------	-----	----

Section 3	
Your Support Experiences and Needs	
Pre Placement	
1.	<p><b>Please indicate how you were assessed and approved as an adoptive parent:</b></p> <p>Through Local Authority Agency <input type="checkbox"/></p> <p>Through Voluntary Adoption Agency (e.g. Barnardo's, St. David's etc.) <input type="checkbox"/></p>
2.	<p><b>Were you given information about the support available to adoptive families in your training and preparation to become an adoptive parent?</b></p> <p>No <input type="checkbox"/></p> <p>Yes (please state briefly what you were told about the support available) <input type="checkbox"/></p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
3.	<p><b>Was any life story work carried out with your child before he/she arrived in their adoptive home (such as work to help child make sense of their past experiences, to help them understand why they are being adopted, to compile a life-story book?)</b></p> <p>No <input type="checkbox"/></p> <p>Yes (please state by whom) _____ <input type="checkbox"/></p> <p>Don't know <input type="checkbox"/></p> <p>N/a (under 24 months at time of the adoptive placement) <input type="checkbox"/></p>
4.	<p><b>How good an understanding does your child have of the reasons why they are being adopted (i.e. why he/she cannot live with birth family)?</b></p> <p>Good understanding - consistent with age and developmental stage <input type="checkbox"/></p> <p>Some understanding <input type="checkbox"/></p> <p>Little or no understanding <input type="checkbox"/></p> <p>N/A [Under 24 months at time of adoptive placement] <input type="checkbox"/></p>
5.	<p><b>Do you think your child is confused about the reasons for being adopted?</b></p> <p>No <input type="checkbox"/></p> <p>N/a [Under 24 months at time of adoptive placement] <input type="checkbox"/></p> <p>Yes (Please explain) <input type="checkbox"/></p>

---

---

---

---

---

**6. How good an understanding does your child have of what adoption means (i.e. that they are living in a permanent family)?**

- Good understanding - consistent with age and developmental stage
- Some understanding
- Little or no understanding
- N/a [Under 24 months at time of adoptive placement]

**7. Do you think your child is confused about the meaning of adoption?**

- No
- N/a [Under 24 months at time of adoptive placement]
- Yes (Please explain)

---

---

---

---

---

**8. Does your child have their life story book with them in the adoptive home?**

- No life story book yet provided
- Yes, but poor quality and/or lacks accurate detail (go to next section 'Matching')
- Yes, a well prepared life story book (go to next section 'Matching')

**9. Do you know why your child has not yet been given their life story book?**

---

---

---

---

---

**10. Have you been told when you can expect to receive the life story book?**

---

---

---

---

## Matching

1. Before the adoptive placement commenced, are you satisfied that enough information was shared with you about your child and their circumstances, to assist you in making an informed decision about the suitability of the match?

Information was missing, which I believe some professionals were aware of at the time

Information was missing which I believe was not known by professionals at the time

As far as I am aware, all relevant information was shared with me

Please state briefly what information you think was missing.

---

---

---

---

---

2. Did you meet the medical advisor for adoption?

No

Yes

3. Did you read the report written by the medical advisor for adoption, or were you told about the content of the report?

No

Yes

4. Were any likely support needs identified by the medical advisor for adoption?

- No   
Don't know   
Yes (please state briefly the supports needs identified)

---

---

---

---

---

5. Were you linked or matched to any other children before being matched with your child?

- No  (Go to Question 7)  
Yes  (Go to next question)

6. Did links and/or matches that did not proceed affect you in any adverse way?

- It was difficult to deal with   
It was somewhat difficult to deal with   
It had no real impact on me/us

7. On the whole, how helpful was the foster carer in supporting you as an adoptive parent during the introductions and the move into the adoptive home?

- He/she was helpful   
He/she was neither helpful nor a hindrance   
He/she was a hindrance   
N/a [I was my child's foster carer]

*Please briefly explain your response*

---

---

---

---

---

8. On the whole, how helpful was the foster carer in supporting your child during the introductions and the move into the adoptive home?

- He/she was helpful   
He/she was neither helpful nor a hindrance   
He/she was a hindrance   
N/a [I was my child's foster carer]

*Please briefly explain your response*

---

---

---

---

---

**9. Did your child have goodbye/ final farewell meetings with any members of their birth family?**

- Yes\*   
 No (Go to next section 'formal support')   
 Don't know (Go to next section 'formal support')

**\* If yes, please indicate with whom and when goodbye/farewell meetings were held?**

	No Meeting Held	Before Matching	Between Matching & Introductions	During Introductions	Since Moving into Adoptive Home
Birth mother	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Birth father	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Siblings (any)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maternal grandparent/s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Paternal grandparent/s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (please state) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
—					

**Formal Support**

**1. Have you seen the adoption support plan?** (The formal plan which set out your child's needs when they are placed with the adoptive family, and the support services which will be put in place to meet those needs).

- No   
 Yes  Can you briefly outline the main support needs identified in the plan?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**2. Have professionals started to put the necessary help in place to begin addressing the identified support needs in the plan?**

- Yes   
 No (but they are needed now)   
 No (but not yet needed)

**3. Please indicate which statement best fits your view of the support plan drawn up for your child**

- A specific plan tailored to my child's individual needs and circumstances   
A general plan which would apply to most children placed for adoption in the UK

**4. How many adoption social workers have you had since starting your home study?**

- One   
Two   
Three   
Four or more

**5. Have you needed to contact your adoption social worker for information, advice or support since your child moved in with you?**

No

Yes  What information, support or advice have you needed?

---

---

---

**6. How easy has it been to contact your adoption social worker?**

Easily contactable

Somewhat difficult to contact

Very difficult to contact

**7. How would you rate the helpfulness of the contact you have had with your adoption social worker, since your child moved in with you?**

Poor

Satisfactory

Good

N/a have not been in contact with adoption social worker

**Please provide any further information about your adoption social worker that you think may be relevant.**

---

---

---

**8. Have you needed to contact your child's social worker for information, advice or support since your child moved in with you?**

No

Yes  What information, support or advice have you needed?

---

---

---

**9. How easy has it been to contact your child's social worker?**

Easily contactable

Somewhat difficult to contact

Very difficult to contact

**10. How would you rate the helpfulness of the contact you had with your child's social worker, since your child moved in with you?**

Poor

Satisfactory

Good

N/a have not been in contact with adoption social worker

**Please provide any further information about your child's social worker that you think may be relevant**

---

---

---

## Professional Support

Since the start of the adoptive placement, please identify whether the following aspects of professional support have been a) provided, b) needed, but not provided or c) not needed. If support has been provided, please supply further details.

	Not needed	Needed, but not provided	Provided	If provided, please state by which agency or professional/s (e.g. Adoption social worker, teacher, GP, psychologist)
1. <b>Financial support:</b> Adoption Allowance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2. <b>Financial support:</b> Settling in grant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3. <b>Practical support for adoptive family</b> e.g. home help, babysitting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4. <b>Emotional support for you</b> (e.g. someone to talk things through with / to confide in)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5. <b>Parenting adopted children course/training</b> (e.g. Safe base or incredible years training)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6. <b>Child or family focussed therapeutic support</b> (e.g. play therapy, family therapy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7. <b>Non-therapy based support to help strengthen relationships in adoptive family</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8. <b>Support in helping child to make better sense of their lives and circumstances</b> (e.g. life story work)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9. <b>Educational support assistance</b> (e.g. help in getting appropriate school place, support for special educational needs)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10. <b>Support in assessing / managing physical health problems</b> (e.g. asthma, visual, hearing or mobility difficulties)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11. <b>Support in assessing / managing emotional and or behavioural problems</b> (e.g. aggression, anxiety attention difficulties)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12. <b>Support in assessing / managing other health problem not covered in previous two categories</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
13. <b>Other support not covered in list above (please state)</b> <hr/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## Contact Arrangements

Please indicate the contact arrangements that have been agreed (if any) with:

	Direct (Face to face)	Indirect (Letterbox)	No Planned Contact or n/a
Birth parent/s	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sibling/s (any siblings)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other family (e.g. birth grandparents)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Foster carer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have you had any support needs to date, in managing contact?

No

Yes\*

\* Please state the nature of the support needed

---



---



---



---

## Semi-Formal and Informal Support

**1. Have you accessed any peer support with other adopters?** (E.g. through online support forums, peer support group, peer mentoring)

No, not needed

No, but I would like to

Yes

**2. How many family members (not living in household) could you count on for support if needed?**

(e.g. babysitting, help with practical tasks such as laundry, shopping, someone to talk to/confide in)

**3. How many friends could you count on for support, if needed?**

**4. Please tell us about the type and frequency of informal support you receive as adoptive parents from your family and friends**

---



---

<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
-------------------------------------------------

## Summary

**1. Overall, how well do you think your child has started to settle into their adoptive home?**

- Well or very well – little or no difficulty
- Some difficulties, most of which I had expected
- Some difficulties, most of which I had **not** expected
- There are many difficulties

**2. Overall, how well do you think you are adjusting to adoptive family life?**

- Well or very well – little or no difficulty
- Some difficulties, most of which I had expected
- Some difficulties, most of which I had **not** expected
- I am finding it very difficult

**3. If you have adopted as a couple, how well do you think your partner is adjusting to adoptive family life?**

- Not applicable
- Well or very well – little or no difficulty
- Some difficulties, most of which he/she had expected
- Some difficulties, most of which he/she had **not** expected
- He/she is finding it very difficult

**4. If you have previously adopted, how well do you think your existing adopted children are adjusting to having another child in the family?**

- Well or very well – little or no difficulty
- Some difficulties, most of which I/we had expected
- Some difficulties, most of which /we had **not** expected
- They are finding it very difficult

**5. If you have birth children living at home, how well do you think they are adjusting to having another child in the family?**

- Well or very well – little or no difficulty
- Some difficulties, most of which I had expected
- Some difficulties, most of which I had **not** expected
- They are finding it very difficult

**6. Is there anything else you want to tell us about your needs as a recently formed adoptive family?**

---

---

---

---

_____
_____
_____
_____
_____
_____
_____
_____
_____

Thank you for completing this questionnaire.

On receipt of your completed questionnaire, we will post out the book you have selected. We will also send you details about how to access your free Adoption UK membership for one year. We will be in touch again in about 9 months' time to invite you to complete the second questionnaire.

As part of the study, we would like to talk to some parents in more depth about their experiences of becoming an adoptive family, and their early support needs. We wonder whether you would be prepared to participate in an interview with us, either at your home or at a place convenient to you. It should take about one hour. We will give you a second book from our booklist as a thank you for your participation. Would you be willing to speak to one of our researchers about your experiences?

Yes  No

Please return this questionnaire (with your selected book choice) in the pre-paid envelope provided.

**Appendix 5: Consent form for interviews**

**Research consent form**

**The early support needs and experiences of adoptive families**

Thank you for agreeing to consider taking part in this research. The person organising the research must explain the study to you before you consent. If you have any questions or want more information, please ask the researcher before you agree to take part. You will be given a copy of this consent form to keep and refer to.

The information you provide will be included in a report, but it will not be possible for others to identify you from anything published. Your personal details will not be shared with anyone outside the research team.

Please note: Confidentiality cannot be maintained if you reveal a serious criminal offence or a serious risk to a child. In the unlikely event this were to happen, we would, during the interview, discuss the necessary action with you.

Unless you request otherwise, you will be sent a summary of the findings.

**Participant's statement**

*I \_\_\_\_\_ am satisfied that the research project described above has been properly explained to me and I agree to take part in the study.*

*I understand that there is no obligation to answer every question. If I decide during the interview that I no longer wish to participate in the study, I can notify the researcher immediately and no information given by me will be used.*

*I understand that such information will be treated as strictly confidential and handled in accordance with the provisions of the Data Protection Act 1998.*

**Signed:..... Date:.....**

**Name (in capitals).....**

**Address:.....**

.....

**Tel:..... Email:.....**

**Researcher's statement:**

**I..... confirm that I have carefully explained the nature, demands and any foreseeable risk (where applicable) of the proposed research to the participant.**

**Signed:.....Date:.....**

**Appendix 6: Pre-school Five Minute Speech Sample procedure**

**Manual for collecting the Pre-school Five Minute Speech Sample PFMSS**

Dr Dave Daley

North Wales Clinical Psychology Programme and School of Psychology  
University of Wales, Bangor  
Gwynedd LL57 2AS

## Collection of PFMSS speech sample

### GUIDELINES FOR ADMINISTERING THE PRE-SCHOOL FIVE-MINUTE SPEECH SAMPLE

#### A. Setting

Only the examiner and the respondent should be present in the interview room. It is important to be alone with the respondent during the interview so that he/she does not feel inhibited, and is neither distracted nor interrupted. In order to lessen interruptions when interviewing in a home setting, request that the phone be taken off the hook during the 5 minutes that the PFMSS is being administered. Minimizing distractions and interruptions will help to ensure consistency and accuracy of the data.

#### B. Equipment

Equipment quality is very important, particularly microphone quality. In addition, should a tape recorder with “voice activated” (VOR) mechanisms be used, the VOR should be disabled. The following equipment is necessary when administering the FMSS:

1. A good tape recorder
2. A high quality microphone
3. A stop watch

Always test the equipment prior to administering the PFMSS. Batteries powering equipment should **always** be checked just prior to recording. It is important to remember when setting up for an interview to record at the beginning of the audiotape all identifying information (e.g., study name, ID number, family member, date, name of interviewer). *When administering the PFMSS, leave the tape recorder on while giving the verbatim instructions to the respondent.*

Time the FMSS using a stopwatch or digital watch for the most accurate results. Use of any timer with a bell is discouraged because it may startle the respondent. It is important that the respondent speak for 5 minutes. If the respondent is unable to continue for the full 5 minutes, even after the appropriate prompt has been given, then the tape machine **must continue** to record until the time has elapsed.

#### C. Verbatim Instructions

In order to ensure consistency in the data, when administering the PRE-SCHOOL Five-Minute Speech Sample the following instructions are to be read aloud **exactly as follows**:

EXAMINER: *I'd like to hear your thoughts and feelings about (child's name), in your own words and without my interrupting with any questions or comments. When I ask you to begin I'd like you to speak for 5 minutes, telling me what kind of a person (child's name) is and how the two of you get along together. After you begin to speak, I prefer not to answer any questions until after the 5 minutes are over. Do you have any questions before we begin?*

IMPORTANT: Once the respondent has begun to speak, the examiner may only make one comment.

*"Please tell me anything about (relative's name) for a few more minutes."*

#### D. Dealing With Questions Asked Before the Procedure

1. "What exactly do you want me to tell you?" and/or "Would you like me to start since the time (relative's name) was a \_\_\_\_\_ child?"

**Response:** "Whatever you think is important about (relative's name) and how you get along together."

2. "I want to know how my daughter is doing."

**Response:** "That's a question I feel would be more adequately answered by someone who has worked a little more closely with (relative's name) than I. However, if you would like, we could talk a little more about that after we finish this interview."

#### E. Dealing with Questions Asked During the Procedure

1. "Am I doing okay?"

**Response:** Respond by either nodding your head or by saying, "fine", or nod your head. It is better to nod because it is less distracting.

2. "How much time to I have left?"

**Response:** "A couple more minutes." "About a minute".

Note: Do not tell the respondent the **exact** time he/she has left, since this may cause the respondent to become anxious.

3. “Do you want me to go on and tell you about his/her illness?”

**Response:** “Please tell me anything about (relative’s name) for a few more minutes”.

F. Dealing with Issues and Concerns During the Procedure

1. If the respondent stops speaking before the 5 minutes have elapsed

<b>Action: Wait 30 seconds before prompting</b> because the respondent often continues talking on his/her own.
----------------------------------------------------------------------------------------------------------------

If necessary prompt the respondent **once** by saying:

“Please tell me anything about (relative’s name) for a few more minutes.” If the respondent still does not speak, **simply allow the full 5 minutes to elapse before turning off the tape recorder.**

**Action:** Turn off the tape recorder when 5 minutes have elapsed and allow the respondent to finish his/her thought.

2. Note on the tape cover the actual amount of time the respondent spoke.

G. Actions the Examiner Should Not Take

1. **Do not say anything** while the respondent is delivering the speech, not even “mm-hmm”
2. Do not use leading prompts, such as, “Could you tell me a little bit more about how you and (relative’s name) get along?” or “Could you tell me more about what type of a person (relative’s name) is?”
3. Avoid looking at the respondent while he/she is giving the speech sample. Take notes during the speech sample. Do not disturb the respondent in any way. Some respondents may find a lack of eye contact distressing, in this event minimal eye contact may alleviate verbal blocking by the speaker.

General scoring guidelines

- 1) Rate the speech sample directly from the audio-tape. Transcripts may be used to improve accuracy or to help new coders familiarise themselves with coding

2) Each phrase within the speech sample must be listened to carefully

3) Remember to consider tone of voice when considering ratings. Pay particular attention to use of sarcasm.

4) Always code conservatively, if in doubt do not make ratings which might lead to a rating of high expressed emotion

### **Differences between PFMSS and FMSS at a glance**

Category	Aspects included in PFMSS	Aspects not included in FMSS
Initial statement	First thought expressed by the parent with is specifically about their child, ratings based on descriptions and relationships. Global rating	Does not code for negative behaviours attributed to external causes.
Warmth	Intensity of sentiment or feeling which parent expresses about their child. This is Based on tone, spontaneity, concern, and empathy. Global rating	Warmth was not included in FMSS
Emotional Over-involvement	Not included	Does not code for i)emotional displays, ii) statements of attitude iii) excessive detail in the past, iv) positive remarks., or v) excessive praise.
Relationship	This assesses the quality of the relationship and joint activities undertaken between parent and child. This is based on parent's reports of the relationship and reports that the parent enjoys and values time spent with the child. Global rating	Disregard statements in the past more than six months old. Clarification about recent difficulty does not apply.
Critical comments	Frequency count of statements which criticise or find fault with the child based on tone and critical phrases.	Removed content based criticism, don't score for over-embellishment.
Positive comments	Frequency count of statements of praise, approval or appreciation. Based on tone and positive phrases.	Not included in FMSS as a separate category

### **Rationale for developmental changes to the FMSS**

Initial statement. The initial statement in the PFMSS is very similar to that in the FMSS, one small amendment has been made to the scoring, whereby

- i) Negative behaviours attributed to external causes are disregarded, the reason for this is that parents of pre-school rarely attribute behaviour to external causes in the initial statement.
- ii) Provided developmentally appropriate examples of positive, neutral and negative initial statement.

Warmth.. This is a new category, the inclusion of which was important for two reasons,

- i) a small body of literature demonstrating the importance of warmth in the pre-school period,
- ii) The need to include more positive aspects of EE when devising a pre-school version, where the behaviour and problems are likely to be less serious than for older children.
- iii) Provided developmentally appropriate examples of high, moderate and low warmth.

Emotional Over-involvement. This section has been extensively changed in the pre-school version.

- i) Emotional display has been discarded , due to very low frequency and difficulty in determining whether the emotional display was the result of difficulty with the child or just general levels of stress.
- ii) Discarded statements of attitude, as they seemed developmentally inappropriate for parents of pre-school children. Parents of young children often talk about their relationship with their child in a stereotyped way which could easily be mistaken for a statement of attitude..
- iii) discarded excessive detail in the past. When parents of pre-school children talk excessively about the past, they usually refer to pregnancy, or early infancy. Due to the child's developmental immaturity these details are not relevant to the speech sample.
- iv) Positive remarks, removed from EOI and given separate frequency count. Parents of pre-school children are used to sharing their child's achievements with other adults. A higher frequency of positive remarks was therefore expected, so positive remarks was made a separate section and the excessive praise rule was removed.
- v) Provided developmentally appropriate examples of self sacrificing/overprotective behaviour and lack of objectivity.

## Relationship

Modified the scoring for relationship category.

- i) Report of a positive relationship remains the same
- ii) Interest in the relative has been refocused as a measure of the amount of value and enjoyment parents get out of spending time and interacting with their child. Most parents

do spend time with their children, and take their children on activities, however a good indication of relationship is how parents enjoy and value these times.

- iii) Statements in the past (more than six months old) have been discarded this is because as children mature developmentally the nature of their relationship with their parents changes. It would be extremely difficult to control for these developmental changes in pre-school children, and therefore appropriate to exclude.
- iv) Clarification about recent difficulty does not apply. This is because the parent and child already have a young relationship which alters as a function of development .It would therefore be inappropriate to apply this rule.

### Critical comments

This section has also been extensively changed in the pre-school version.

- i) The major change to critical comments is inclusion of critical phrases without content based criticism. Parents of pre-school tend either not to have had enough experience of their child's negative behaviours or expect them to improve with time. For these reasons parents do not use critical phrases such as "I resent it" or "It annoys me. Parents do however find fault with their child. and generally use descriptive words indicative of a negative trait which the child poses (with or without tone). In the PFMSS critical comments are a frequency count of these faults.
- ii) As these critical comments are less severe then content based criticism over-embellishment has also been discarded.
- iii) Dissatisfaction was also discarded for the same reasons as content based criticism.
- iv) Guidelines for strings of critical comments still apply
- v) Exceptions to the critical rule still apply
- vi) Critical comments must be the opinion of the respondent.

### Positive comments

This is a new category, the inclusion of which was important for two reasons

- i) Parents of pre-school children are used to sharing their child's achievements with other adults. A higher frequency of positive remarks was therefore expected, so positive remarks was made a separate section and the excessive praise rule was removed.
- ii) Amendments to the scoring of criticism meant that high levels of critical comments were expected. It was therefore more important to be able to compare levels of critical comments with levels of positive comments. Which this new category allows.
- iii) Scoring for strings of positive comments remains
- iv) Scoring for elaboration remains

v) Scoring for repetition remains.

### **Summary of scoring categories**

The three global categories scored in the PFMSS are (a) Initial Statement, (b) Warmth, (c) Relationship,

**Initial statement.** The initial statement is based on the first thought or idea expressed by the respondent about his/her child. This statement is rated independently of the remainder of the speech sample as either Positive, Negative, or Neutral.

**Warmth:** Warmth is based on tone of voice, spontaneity, concern and empathy. Warmth is rated as high, moderate or low

**Relationship:** Relationship is based on statements which describe the relationship between parent and child. These statements are rated as positive, neutral or negative.

The two frequency counts scored in the PFMSS are (a) critical comments, and (b) Positive comments

**Critical comments.** Frequency count of statements which find fault with the child. These are generally descriptive words indicative of a negative trait inherent in the child such as aggression or irritability.

**Positive comments.** Frequency count of statements of praise, approval or appreciation. These are generally descriptive words indicative of a positive trait inherent in the child such as intelligence or sociability.

**Appendix 7: Pre-school Five Minute Speech Sample coding**

**Manual for coding Expressed Emotion from Pre-school Five Minute Speech Sample  
PFMSS**

Dr Dave Daley

North Wales Clinical Psychology Programme and School of Psychology  
University of Wales, Bangor  
Gwynedd LL57 2AS

### Differences between PFMSS and FMSS at a glance

Category	Aspects included in PFMSS	Aspects not included in PFMSS
Initial statement	First thought expressed by the parent with is specifically about their child, ratings based on descriptions and relationships. Global rating	Does not code for negative behaviours attributed to external causes.
Warmth	Intensity of sentiment or feeling which parent expresses about their child. This is Based on tone, spontaneity, concern, and empathy. Global rating	Warmth was not included in FMSS
Emotional Over-involvement	This assesses the level of emotional relationship between parent and child. This is based on self sacrificing / over-protective behaviour and lack of objectivity. Global rating	Does not code for i)emotional displays, ii) statements of attitude iii) excessive detail in the past, iv) positive remarks., or v) excessive praise.
Relationship	This assesses the quality of the relationship and joint activities undertaken between parent and child. This is based on parent's reports of the relationship and reports that the parent enjoys and values time spent with the child. Global rating	Disregard statements in the past more than six months old. Clarification about recent difficulty does not apply.
Critical comments	Frequency count of statements which criticise or find fault with the child based on tone and critical phrases.	Removed content based criticism, don't score for over-embellishment.
Positive comments	Frequency count of statements of praise, approval or appreciation. Based on tone and positive phrases.	Not included in FMSS as a separate category

### Rationale for developmental changes to the FMSS

Initial statement. The initial statement in the PFMSS is very similar to that in the FMSS, one small amendment has been made to the scoring, whereby

- ii) Negative behaviours attributed to external causes are disregarded, the reason for this is that parents of pre-school rarely attribute behaviour to external causes in the initial statement.
- ii) Provided developmentally appropriate examples of positive, neutral and negative initial statement.

Warmth. This is a new category, the inclusion of which was important for two reasons,

- ii) A small body of literature demonstrating the importance of warmth in the pre-school period,
- iv) The need to include more positive aspects of EE when devising a pre-school version, where the behaviour and problems are likely to be less serious than for older children.
- v) Provided developmentally appropriate examples of high, moderate and low warmth.

Emotional Over-involvement. This section has been extensively changed in the pre-school version.

- i) Emotional display has been discarded , due to very low frequency and difficulty in determining whether the emotional display was the result of difficulty with the child or just general levels of stress.
- ii) Discarded statements of attitude, as they seemed developmentally inappropriate for parents of pre-school children. Parents of young children often talk about their relationship with their child in a stereotyped way which could easily be mistaken for a statement of attitude.
- iv) Discarded excessive detail in the past. When parents of pre-school children talk excessively about the past, they usually refer to pregnancy, or early infancy. Due to the child's developmental immaturity these details are not relevant to the speech sample.
- vi) Positive remarks, removed from EOI and given separate frequency count. Parents of pre-school children are used to sharing their child's achievements with other adults. A higher frequency of positive remarks was therefore expected, so positive remarks was made a separate section and the excessive praise rule was removed.
- vii) Provided developmentally appropriate examples of self sacrificing/overprotective behaviour and lack of objectivity.

#### **Relationship Modified the scoring for relationship category.**

- ii) Report of a positive relationship remains the same
- iii) Interest in the relative has been refocused as a measure of the amount of value and enjoyment parents get out of spending time and interacting with their child. Most parents do spend time with their children, and take their children on activities, however a good indication of relationship is how parents enjoy and value these times.

iv) Statements in the past (more than six months old) have been discarded this is because as children mature developmentally the nature of their relationship with their parents changes. It would be extremely difficult to control for these developmental changes in pre-school children, and it is therefore appropriate to exclude them.

iv) Clarification about recent difficulty does not apply. This is because the parent and child already have a young relationship which alters as a function of development .It would therefore be inappropriate to apply this rule.

**Critical comments This section has also been extensively changed in the pre-school version.**

iii) The major change to critical comments is inclusion of critical phrases without content based criticism. Parents of pre-school tend either not to have had enough experience of their child's negative behaviours or expect them to improve with time. For these reasons parents do not use critical phrases such as "I resent it" or "It annoys me". Parents do however find fault with their child, and generally use descriptive words indicative of a negative trait which the child has (with or without tone). In the PFMSS critical comments are a frequency count of these faults.

iv) As these critical comments are less severe then content based criticism over-embellishment has also been discarded.

iv) Dissatisfaction was also discarded for the same reasons as content based criticism.

v) Guidelines for strings of critical comments still apply

vi) Exceptions to the critical rule still apply

vi) Critical comments must be the opinion of the respondent.

**Positive comments This is a new category, the inclusion of which was important for two reasons**

ii) Parents of pre-school children are used to sharing their child's achievements with other adults. A higher frequency of positive remarks was therefore expected, so positive remarks was made a separate section and the excessive praise rule was removed.

iii) Amendments to the scoring of criticism meant that high levels of critical comments were expected. It was therefore more important to be able to compare levels of critical comments with levels of positive comments. Which this new category allows.

iv) Scoring for strings of positive comments remains

v) Scoring for elaboration remains

v) Scoring for repetition remains.

### **Summary of scoring categories**

The four global categories scored in the PFMSS are (a) Initial Statement, (b) Warmth, (c) Relationship, (d) Emotional Over-Involvement.

**Initial statement.** The initial statement is based on the first thought or idea expressed by the respondent about his/her child. This statement is rated independently of the remainder of the speech sample as either Positive, Negative, or Neutral.

**Warmth:** Warmth is based on tone of voice, spontaneity, concern and empathy. Warmth is rated as high, moderate or low

**Relationship:** Relationship is based on statements which describe the relationship between parent and child. These statements are rated as positive, neutral or negative.

**Emotional Over-Involvement EOI:** This is indicated by statements which demonstrate that the parent is excessively involved with their child. In this pre-school version EOI has been re-defined as over-protective/self sacrificing behaviour and emotional displays.

The two frequency counts scored in the PFMSS are (a) critical comments, and (b) Positive comments

**Critical comments.** Frequency count of statements which find fault with the child. These are generally descriptive words indicative of a negative trait inherent in the child such as aggression or irritability.

**Positive comments.** Frequency count of statements of praise, approval or appreciation. These are generally descriptive words indicative of a positive trait inherent in the child such as intelligence or sociability.

# Initial statement

This is a global rating, rated as positive, negative or neutral. This is defined as the first thought expressed by the parent which is specifically about their child. If the parents starts by saying

“oh I don’t know what to say”

Or

“Five minutes this is difficult”

Or

“I’m twenty seven years old”

These are not scored

However any information about the child is considered an initial statement, even if the parent says

“Jack is three years old”

Or

“Jack is my only child”

Or

“Jack is the youngest in the family”

These are scored. Initial statement can be scored as positive, neutral or negative

It can sometimes be difficult to work out when an initial statement has finished. As a good rule of thumb the parents natural flow of speech is a good guide for determining when their first thought or idea has been completed. It is important to be aware of conjunctions when coding initial statements. For example if after a brief pause the parent uses a conjunction to continue their initial statement, this addition should be used as an extension of their initial statement. However if a conjunction is used to begin a thought which is not related to the original statement then it should not be considered when rating the initial statement. For example

“Jack and I have a loving relationship, (brief pause) we are very close”

Positive + Positive = Positive initial statement

Or

“Jack and I get along okay (brief pause) he’s a very temperamental child

Neutral + Negative = {two different ideas} = Neutral initial statement and one critical comment

### **Positive initial statement**

#### **There are two types of positive initial statements**

- i) Positive descriptions
- ii) Positive relationships

#### **Positive descriptions**

This is a statement that expresses praise, approval or appreciation for the behaviour or personality of the child. For example

“He’s a sweet boy”

Or

“She’s so kind and caring”

Or

“John’s a bright child”

#### **Positive relationships**

An initial statement scored as a positive relationship indicates that parent and child have a good relationship. For example

“Johnny and I get on really well together”

Or

“We have a strong relationship”

It is important to remember that initial statements coded for positive relationship can also contribute to an overall positive rating on relationship.

### **Neutral description**

This is an initial statement which provides descriptive or factual information with little or no tone, or information which is irrelevant to the speech sample. For example

“Jack is the youngest in the family”

Or

“Sue is three years of age now”

Or

“Johnny plays with toys every day”

### **Neutral relationship**

This is coded when there is insufficient evidence to make a positive or negative rating. This is usually the case because parents describe their relationship using “weak adjectives” such as “fine” or “all right” For example

“Johnny and I get along all right”

Or

“Thing between us are basically fine”

Or

“We get on okay”

### **Conditional statements**

Initial statements which are qualified by a condition are rated as neutral For example

“We get along sometimes”

Or

“We usually get on well”

Or

“He’s really nice except when he is tired”

### **Statements of improvement**

Initial statements which indicate improvement are rated as neutral, For example

“He’s been getting better over the last few weeks”

Or

“He’s been much improved since he turned three”

### **Statements in the past**

Initial statements in the past tense are rated as neutral. For example

“He used to be a good child”

Or

“She was very cuddly when she was smaller”

Or

“We used to enjoying playing together”

### **Positive and negative statements**

Initial statements which are both positive and negative are rated as neutral. For example

“Jack is a creative but lazy child”

Or

“Sue is cute but very disobedient”

### **Negative initial statement**

A negative rating for initial statement can be made on the basis of

- i) Negative description
- ii) Negative relationship

### **Negative description**

An initial statement which describes the child's personality or behaviour unfavourably is rated as negative. For example

“Jack is a really horrible child”

Or

“Clare is a spiteful girl”

Or

“John goes out of his way to be difficult and stroppy”

### **Negative relationship**

An initial statement which indicates an adverse relationship between parent and child is rated as negative. For example

“Jack and I always seem to get into conflict”

Or

“I dread it when it is just him and me together”

# Warmth

Warmth is defined as the intensity of sentiment or feeling which parents express about their child. It relates only to the warmth expressed during the speech sample and not the warmth of the respondents personality. On the PFMSS warmth is rated as high, moderate or low.

When coding warmth using the PFMSS it is important to consider

- i) Tone of voice
- ii) Spontaneity
- iii) concern and empathy

## High rating

### Tone of voice

For warmth this is the most important criterion on which to base a rating. Raters must remain alert for signs of enthusiasm when the respondent is talking about their child. As well as positive changes in tone when the respondent switches from talking about neutral subjects to talking about their child. In contrast monotonic speech when the respondent is talking about their child is evidence of lack of warmth. It is important for the rater to consider both the respondents normal tone and pitch as well as variations in tone before considering making a rating of warmth based on tone of voice. It is important that ratings of warmth are based solely on the content of the speech sample and not on the raters interpretation of facial expressions or other non-verbal behaviours.

### **Spontaneity**

Since the PFMSS does not give any specific instructions to talk about feelings of affection, spontaneous expressions of affection, love, appreciation etc result in a higher rating of warmth. Often respondents elaborate on points they are making and in doing so express positive feelings about their child. For example

“She likes drawing, she's always bringing me home pictures from play-school, in fact last week she drew me this picture of a castle, it was very well drawn, I was very proud of her, so I stuck it up in a prime location in the kitchen, and I've been showing it to everyone who has called”.

Or

“He’s very musical, I think his has a very musical ear as he seems to find it easy to hum and sign songs with me, he has also starting tinkling on the piano, I mean he hasn’t had any musical lessons but already he is able to play a few notes, and make up his own little tunes, he only makes them up but they do sound as if they were properly composed.”

## **Concern and empathy**

The respondents ability to demonstrate concern for their child, as well as demonstrate an ability to see things from the child's point of view, or understand what the child is going through, are also important components of warmth. For example

### ***Concern***

“He's really has difficulty concentrating, I mean it's not really a problem now but I do worry about how he is going to get on when he get to school next year”

Or

“He never sits down to play with anything or anyone, always prefers to be running around on his own, it does worry me that he doesn't want to play with other children and make friends. I think it is because other children don't want to charge around as much as him, so he finds them boring, I worry about him becoming a loner”

### **Empathy**

“ I know he likes to watch Tellytubbies, but when I put the TV on, he is only able to watch for a few minutes before he is gone, playing with another toy, or looking out the window, it must be terrible not being able to sit still”

Or

“She loves Tots TV, but she's not able to sit still and watch it, she's so distractible that she wanders off in the middle of it, then she gets upset when she realises that she has missed it. I can't imagine what is must be like to want to do something but to not be able to do it”

## **Moderate rating**

### **Tone of voice**

A moderate rating of warmth based on tone of voice can be made when there is some evidence of changes in pitch and tone when the parent is talking about their child. Consistency is what would distinguish a high rating based on tone (where the tone would change every time the parent talked about the child) compared with a moderate rating where the tone only changed occasionally.

### **Spontaneity**

Moderate ratings of warmth based on spontaneity result from some evidence of affection, love, or appreciation of the child, but this is not expressed with enough intensity to warrant a high rating. For example

“He’s good at football, I think for his age he’s got better co-ordination than most children and is probably more athletic”.

Or

“She likes to colour, and usually manages to keep between the lines, which is good for her age.”

### **Concern and empathy**

Some evidence which demonstrates concern for their child, as well as demonstrates an ability to see things from the child’s point of view, or understand what the child is going through,. For example

“He usually ends up breaking his toys when he has a tantrum, and then he gets upset when he realises his toys are broken, and that makes him more upset again it concerns me but its difficult to know how to help him “

Or

“She fights with most children she plays with, so they don’t usually stay for very long, so she is quite lonely. I have tried to explain to her that she has to be nice to other children, otherwise they won’t want to play with her”

### Low ratings of warmth

### **Tone**

The absence of tone would be where the parent spoke about their child in a monotonic voice with no voice modulation when talking about the child.

### **Spontaneity**

The absence of spontaneity would be where the respondent was more matter of fact and just made statements. For example

“She’ is good at drawing”

or

“He’s very musical”

**It is important for raters to remember that statements which lack spontaneity can still be rated as positive comments.**

### **Empathy and concern**

The absence of empathy or concern would be where the parent talks about the child without any evidence that they see things from the child’s point of view, or understand what the child is going through, for example

“She grabs other toys from children, and then gets upset when they won’t play with her, why does she do that when I tell her not to, it does my head in”

Or

“He asks me to put the television on, but then he can’t sit still to watch it, he would make you dizzy, so I just turn it off”

### **Three important caveats relevant to the coding of warmth on the PFMSS**

#### i) Depression

Even if the experimenter knows the respondent is depressed, this knowledge should be discounted when rating warmth. Even depressed people should be capable of expressing warmth

#### ii) Critical comments

The frequency of negative comments should not be allowed to influence ratings of warmth.

#### iii) Stereotyped endearments

Endearments such as “love”, “pet” or “poppet” are often used by parents to describe their children in a stereotyped way and are not necessarily evidence of warmth

### **Relationship**

Relationship is defined as a global rating of the quality of relationship and joint activities undertaken between parent and child over the previous six months. When the relationship isn’t addressed a neutral rating is assigned as parents are specifically requested to talk about the relationship they have with their children in the instructions.

When coding relationship on the PFMSS it is important to consider

- i) Parent's reports of their relationship with their child
- ii) Parent's reports that they enjoy and value time spent with their child.

### **Parents reports of their relationship with their child**

A direct statement that the parent and child get along together is strong evidence for a positive relationship. Unless the report of a good relationship is contradicted elsewhere in the speech sample a positive rating would be made. For example

“Johnny and I get along very well together”  
“We have a very strong and close relationship”  
“Essentially we are kindred spirits”

Parent's reports that they enjoy and value time spent with their child.

Reports that parents enjoy and value the time they spend with their child are also indicative of a positive relationship. However for a statement to demonstrate a positive relationship if is not acceptable for a parent to just indicate they spend time with their child, they must indicate that they enjoy and value the time spent together.

### **Positive relationship**

“ We always go swimming together on Tuesday mornings, I always look forward to this as it is us time”

Or

“We always do some baking together during the week, we have such fun together mixing cakes and making a mess.”

### **Neutral relationship**

Unclear evidence

A speech sample which does not provide enough evidence for a positive or negative relationship gets a neutral rating. Neutral ratings tend to occur for two reasons

- 1) The parents makes a direct statement about their relationship with their child but includes a qualifying term or a conditional term which weakens the evidence for a positive relationship. For example

“We get on fairly well together”

We sometimes have fun together”

We have an okay relationship”

“We get on great together when he’s not tired”

“We get on great together when her younger brother isn’t around”

2) The parent give details about joint activities but doesn’t indicate they enjoy or value them

“We go to the park all the time”

“I always get his Lego out and build things with him”

### **Negative relationships**

Negative relationships should be coded with caution. Negative ratings usually occur when the parent makes a direct statement about their poor relationship with their child. For example

“We just don’t seem to get along, He just ignores me”

“He just does what we wants, he doesn’t listen to what I say”

It’s important to remember that a negative relationship can only be rated from a direct negative statement as long as this statement isn’t contradicted elsewhere in the speech sample.

#### *Emotional Over-involvement EOI*

Emotional Over-involvement assesses the level of emotional relationship between parent and child. EOI is rated as high borderline or low. When rating EOI on the PFMSS it is important to consider

- i) Self sacrificing/overprotective behaviour
- ii) Lack of objectivity

#### High ratings

##### ***Self sacrificing/overprotective behaviour***

Evidence that the parent has sacrificed themselves in an extreme or unusual manner for their child, and that they do not enjoy such sacrifices. For example

“ I was frightened to leave Jack with a baby sitter, so I gave up my evening classes. I do really miss them but I had no choice”

Of

“He is very destructive, breaks all his toys, I never have money for myself, all my money seems to go on buying new toys for Sam”

### ***Lack of objectivity***

Evidence that the parent always thinks their child is right, and always defends their child’s behaviour.

For example

“He fights with his sister, but she always winds him up”

Or

“The pre-school are always complaining about his aggressive behaviour, but he is only aggressive because the other children are horrible to him”

It is important to rate EOI conservatively.

### **Moderate ratings**

#### ***Self sacrificing/overprotective behaviour***

Some evidence that the parent has sacrificed themselves but not in an extreme or unusual manner for their child, and some indication that they do not enjoy such sacrifices. For example

“I do worry sometimes about Sam when I leave him with my parents, he’s so unpredictable. Sometimes I cancel going out when he had been really horrible rather than leave him with my mum and dad”

Of

“John always destroys his colouring books, I always tell him not to tear it because I can’t afford another one, but he always does tear it and I usually get around to buying him another one even though I know I am wasting my hard earned money”

### ***Lack of objectivity***

Evidence that the parent usually thinks their child is right, and usually defends their child’s behaviour.

For example

“He fights with his sister, I’m sure she is usually the one who starts it all”

Or

“The pre-school say he is really naughty and aggressive, I think it’s just some of the other child in the class who lead him astray”

No evidence of EOI or inconclusive evidence for a moderate rating should be rated as low.

### **Important caveat when rating EOI based on overprotective behaviour.**

It is important when rating EOI based on overprotective behaviour that concern associated with leaving their child in someone’s care, relates to concern for the child’s well being, and not concern about the child’s behaviour in their absence. Overprotective behaviours would be a parent’s concern that the child would be upset or come to harm in her absence. Non overprotective behaviours would be concerns that the child might have a tantrum, or cause damage in their parent’s absence.

### **Critical comments**

Critical comments are negative comments about the child’s behaviour and/or personality. They can be scored either on the basis of

- i) Tone
- ii) Critical phrases

#### ***Tone***

It is possible to score critical comments based on tone, even if the content of the statement doesn’t contain a critical content. Scoring criticism based on tone requires a certain degree of practice. First establish a baseline level of tone for the respondent (each individual has a different level of tone). Once a baseline level has been established it will be possible to note fluctuations in tone, which will denote depending on their direction critical or positive comments. Again it is important to remember to rate conservatively, if in doubt do not rate a critical comment.

#### ***Critical phrases***

This is a frequency count of statements that criticise or find fault with the child. Generally descriptive words indicative of a negative trait that the child has such as aggression or irritability and typically stated in a negative tone. For example

“Jane is a horrible girl”

Or

“Jack is a nightmare in the supermarket”

Or

“George is such hard work, you wouldn’t believe”

Also included in this category are other descriptions of the child’s behaviour which are accompanied by a negative tone , or indication that the parent doesn’t like or approve of the behaviour.

“He spits at me”

Or

“At breakfast he usually throws his food at the wall”

#### ***What not to include as a critical comment***

Do not code stereotyped descriptions of children unless they are accompanied by a negative tone. For example

“He’s a scamp”

Or

“She really can be a little monkey at times”

Or

“George can be a real terror in the morning”

#### ***Guidelines for scoring strings of critical comments***

When parents get going, they may often make several critical comment in the one phrases. Guidelines for scoring strings of criticisms are the same as in the FMSS and are as follows.

- i) Statements about unrelated behaviours are coded as separate critical comments. For example

“Philip’s a very bad tempered boy, always grumpy and snarling, and he’s disobedient”

As two unrelated behaviours bad temper and disobedience have been described, two critical comments are scored.

- ii) Statements about similar or related behaviours are scored as one critical comment

“He’s destructive, he destroys all his toys, and my plants in the garden, he destroys everything”

As all the statements relate to the child’s destruction, one critical comment is scored

“He’s aimless, he never sits down to do anything, all he does is wander around the house poking his nose into things”

As both comments involve being aimless, only one is scored.

### **Important caveat for scoring critical comments**

Critical comment must be the opinion of the respondent. For example

“Jack is a destructive little boy”

#### And not

“Jack’s teacher says he is a destructive little boy”

### **Positive comments**

Positive comments are statements of praise, approval or appreciation . The majority of these will be descriptive words which indicate a positive trait which the child has, but they can also be rated on tone.

- i) Tone
- ii) Positive phrases

#### ***Tone***

It is possible to score positive comments based on tone, even if the content of the statement doesn’t contain positive content. Scoring criticism based on tone requires a certain degree of practice. First establish a baseline level of tone for the respondent (each individual has a different level of tone). Once a baseline level has been established it will be possible to note fluctuations in tone, which will denote depending on their direction critical or positive comments. Again it is important to remember to rate conservatively, if in doubt do not rate a positive comment

#### ***Positive phrases***

This is a frequency count of statements which praise, or indicate appreciation or approval for the child. Generally descriptive words indicative of a positive trait which the child has such as intelligence or sociability and typically stated in a positive tone. For example

“Jack is very intelligent”

Or

“Chloe is very loving”

Or

“George is extremely creative”

Some mothers with poor vocabulary may chose to talk around these issues rather than use specific descriptive words. These descriptive phrases can also be coded as positive phrases. For example

“He’s very very good at doing puzzles and jigsaws”

Or

“She’s very close to me, always giving me hugs and telling me she loves me”

Or

“He is always making things out of old pieces of paper and boxes, he can turn an old box into anything”

As with critical comments, there are guidelines for scoring strings of positive comments

***Guidelines for scoring strings of positive comments are as follows***

- i) Statements about unrelated behaviours are coded as separate positive comments. For example

“Jack’s a very bright boy, and he’s sporty as well”

As two unrelated behaviours intelligence and athleticism have been described, two positive comments are scored.

- ii) Statements about similar or related behaviours are scored as one positive comment

“He’s very musical, he plays the piano and sings “

As all the statements relate to the child’s musical ability, one positive comment is scored

***Do not rate***

- i) Positive comments coined in the negative ie “ he’s a great kid, not”
- ii) Qualified comments i.e. “pretty good” or “fairly bright”
- iii) Statements in the past tense

**Rubric for high and low EE**

Due to the extensive changes made to the scoring of the FMSS, it would not be possible to use the same rubric for devising high and low EE groups. On the PFMSS the rubric for high and low EE is somewhat simpler. High EE results from at least one negative or low global category and more critical comments than positive comments. This new rubric does still need to be extensively tested. However preliminary investigation of the rubric indicated that it does generate groups indicative of high and low EE.

**Investigation of the new high and low EE rubric**

Participants for this short study were 133 children with pre-school AD/HD and 20 non AD/HD pre-school children living in the New Forest and Southampton areas of Hampshire, England. The sample of 68 females and 85 males had a mean age of 37 months and an age range of 34 to 39 months. Participants with AD/HD were recruited through the same screening procedures as outlined in the paper..

The utility of the new rubric for determining high and low EE on the PFMSS was examined in two ways, 1) by examining differences between and high and low EE mothers on the sub-components of EE and 2) by examining the ability of the rubric to differentiate between mothers of AD/HD and non AD/HD mothers. An independent samples *t* test was use to examine differences on sub-components of EE, for high and low EE groups. The results presented in table 1 demonstrated significant differences between high and low EE mothers on each component of the PFMSS, with high EE mothers demonstrating more negative scores for initial statement and relationship, less warmth, greater negative comments and few positive comments. A one sample chi square test was used to examine the ability of the new rubric to discriminate between AD/HD and non AD/HD groups. The results of the test were significant,  $\chi^2 ( 1, n = 173) = 18.36, p = 0.00$ . The proportion of mothers of AD/HD children with high EE was 51 percent, with 40 percent in the low EE group and 100 percent of mothers of non AD/HD children in the low EE group. The results indicated that the new rubric created groups representative of high and low EE.

**Table 1**

EE	High EE N = 78	Low EE N = 96	<i>t</i>	<i>p</i>
Initial statement	1.52 (0.59)	2.45 (0.61)	-10.09	0.00

Warmth	1.28 (0.50)	2.40 (0.57)	-13.56	0.00
Relationship	1.57 (0.52)	2.26 (0.46)	-9.23	0.00
Negative comments	6.90 (2.70)	3.22 (2.49)	9.26	0.00
Positive comments	1.49 (1.38)	3.75 (1.88)	-8.83	0.00

---

**Appendix 8: Pre-school Five Minute Speech Sample simple coding sheet (designed by  
Rebecca Anthony)**

**5 min Speech Sample – coding sheet**

Interview Number

Participant number (for matching)

Initial Statement	1	Positive
	2	Neutral
	3	Negative
Warmth	1	High
	2	Moderate
	3	Low
Relationship	1	Positive
	2	Neutral
	3	Negative
Emotional Over-Involvement		Low
		Borderline
		High
Critical Comments (Tally)		
Positive Comments (Tally)		
Expressed Emotion		High*
		Low

\*At least 1 negative or low global category and more critical than positive comments

## **Appendix 9: Chapter five search strategy**

Search strategy for any paper that has used the FMSS

1. expressed emotion/
2. "PFMSS".mp.
3. Expressed Emotion/ or "FMSS".mp.
4. "Speech sample".mp.
5. CHILD\*.mp.
6. 1 or 2 or 3 or 4
7. 5 and 6