THE OUTCOMES OF PLACEMENT INSTABILITY IN OUT OF HOME CARE: A LITERATURE REVIEW

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by

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Glossary

CBCL: Child Behaviour Checklist. A form which identifies problem behaviour in children, completed by caregivers.

CPS: Child Protective Services. A U.S. government agency which investigates child abuse or neglect.

CW / CWS: child welfare (services). Agencies and organisations which work to protect children from harm and their promote well-being.

FCMH: Foster Care Mental Health study. A longitudinal study of children in the U.S.

LONGSCAN: Longitudinal Studies in Child Abuse and Neglect. A group of longitudinal studies in the U.S.

MTFC-P: Multidimensional Treatment Foster Care for pre-schoolers. A behavioural intervention for children in OOHC.

NSCAW: National Survey of Child and Adolescent Well-Being. Undertaken between 1997 and 2014 in the U.S.

OOHC: out of home care. In the context of this thesis it refers specifically to family-based out of home care.

U.S.: United States of America

U.K.: United Kingdom

Abstract

Numerous publications have asserted that placement instability in out-of-home-care is detrimental to the well-being of the children and adolescents experience it. Despite this there has been no systematic review of placement instability on the well-being and development of children in care. To redress this, a scoping search of literature related to placement instability was undertaken, identifying publications which focused on outcomes. Two narrative reviews were conducted; one of longitudinal quantitative data, and the other of qualitative data. The review of qualitative research suggested that young people with experience of placement instability consistently identified a range of adverse outcomes, such as a diminished capacity for trust and close interpersonal relationships. Only one longitudinal study provided strong evidence of a directional effect of placement instability on the well-being of pre-schoolers over time. Several methodological and analytical issues across the wider body of studies prevent their findings from being interpreted with confidence. The issues with the wider body of research in this area are examined, and suggestions are made for future high-quality research.

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Reflexive statement

As a *pākehā* (white), middle-class woman with no experience of out-of-home-care (OOHC) I believe it is important to situate myself and my approach to this thesis. This thesis has been undertaken within a positivist framework, holding the assumption that the world can be understood through impartial observation and logical deduction. Despite my efforts to be impartial and logical, there are undoubtably critiques I have not made and salient points I have missed because of who I am and what I can and cannot see.

As to my background: I grew up in a stable family unit, and though I experienced instability in the form of moving between countries as an eight-year-old, this has not been a recurring theme in my life. While I have always worked with children and discovered I enjoy seeing them grow and develop, before this thesis I knew little about OOHC or the children who were placed in its care. I began this literature review as an academic exercise, a means to completing a requirement for my master's thesis. Academically, this has been a complex undertaking, requiring sustained focus and attention to detail. However, this thesis has also personally stretched me; I have grown angry that so many children and young people are let down by a system which claims to work in their favour, and that the research and theory in this area has been so thoughtlessly done. My faith tells me that all children (all people) deserve better. But neither I nor this thesis can suggest how to resolve placement instability or heal the wounds it has caused. My hope for this work is, therefore, that it will somehow contribute to improving a system on which the future of so many relies.

1. Introduction

1.1 Statement of problem

Stable and consistent caregiving is an ideal that underpins foster care efforts; children who can no longer live with their parents require a place to live, either permanently or for a limited time, where their needs can be met. An *unstable* situation, that is: one involving frequently changing caregivers, has been asserted to be detrimental to those who experience them and numerous publications have highlighted it as a problem for many children and youth in care. Yet while the research of the past few decades has drawn attention to the correlates of unstable placements (for example, see Oosterman, Schuengel, Wim Slot, Bullens, and Doreleijers, 2007), the *outcomes* of this lack of consistent caregiving have not been as clearly studied or reviewed despite assumptions to the contrary, as will be highlighted further in this chapter. There is place, therefore, for a review which focuses on this research.

1.2 Background

1.2.1 Out-of-home-care.

What is out-of-home-care. Out-of-home-care (OOHC) involves the formal removal of a child or children to a new living situation from their biological family home, usually by an official child welfare (CW) agency, and usually in response to the child living in a home situation which is unsafe or untenable for them or the family (M. E. Courtney & Maluccio, 1999; Hacsi, 1995). The decision of when a situation requires the removal of the child varies by different CW systems, and many more children are referred to CW agents than enter OOHC (Wildeman & Waldfogel, 2014). The most common reasons for removal are neglect or abuse on the part of the child's caregivers, or caregiver substance abuse (U.S. Department of Health and Human Services (USDHHS), 2018). Once removed, children can be placed in a range of settings. Most are placed in foster care, a surrogate family with non-professional

adult carers, or with relatives, also known as kinship care. Between 73% and 77% of children in OOHC were in such a setting in the USA and UK in 2018 (Department for Education (DfE), 2018; USDHHS, 2018). In some CW agencies, kinship care has become the preferred OOHC setting, these include the various states in the USA (Berrick et al., 1999), or for indigenous children, such as with Maori children in New Zealand (Oranga Tamariki, 2019). Depending on the age and behavioural difficulties of the child, other placement settings include group or congregate care, residential care, or independent living. Though it is often a policy of for a child to remain in OOHC only until a safe or tenable permanent situation is decided on, many children effectively grow up in in OOHC (Australian Institute for Health and Welfare, 2007; 2018). Depending on CW policy, children leaving OOHC can reunify with their family of origin, be formally adopted, enter independent living arrangements, or remain with a foster family in long-term care. Some CW systems which do not encourage long term care nevertheless have a number of youth who 'age out' of the system by reaching the age of majority before finding a permanent living situation (Avery, 2010). Different systems around the world either end services at the age of majority or extend their services until the young person is in their early twenties.

Purpose of out-of-home-care. The goals of OOHC and means by which to achieve them are not universally agreed on (Barth & Jonson-Reid, 2000), but the broad aim is to prevent further harm coming to the child. This is commonly done through: protecting the child or preserving the family (Gilbert, 2012). Some CW systems grew out of a protection-focused framework, intending to 'rescue' children from abusive or incompetent parents by placing them with 'better' parents through long-term foster care or adoption (Hacsi, 1995). Family-preservation approaches, conversely, approach the issue by attempting to support families therapeutically, addressing issues which have led to the situation . Over time, CW systems internationally have emphasised one or another approach, and often come to

recognise that aspects of both approaches are necessary (Gilbert, 2012). Critics have pointed out that CW policy changes to favour one approach or the other based on popular opinion rather than theory and empirical knowledge (M. E. Courtney & Maluccio, 1999).

Needs in out-of-home-care. Children entering OOHC often have a range of needs which either were caused by or not addressed in their pre-care situation. These needs can range from easily-recognisable physical, mental health, and medical needs, to less tangible belonging and self-actualization needs (Steenbakkers et al., 2018). These needs are not only immediate; long-term, maltreatment has adverse effects on development, education, and employment (Wildeman & Waldfogel, 2014). Whether placing a child in OOHC will lead to these needs being met and previous harms addressed is uncertain; in fact, when a national longitudinal study of children in OOHC in the USA was being planned, many CW staff were concerned that simply tracking various well-being indicators of children in OOHC might lead to the expectation that CW agencies would be responsible for improving that well-being, an outcome they felt was *not* under their control (Barth & Jonson-Reid, 2000). Moreover, there is evidence that OOHC itself exerts its own harmful effects on children, including the risk for further maltreatment (Biehal, 2014) and placement instability. Despite this, there is a consensus that OOHC is less harmful to children than remaining in a chronically abusive and/or neglectful family (Tarren-Sweeney, 2019b).

1.2.2 Out-of-home-care placement instability

What is placement instability. As has been mentioned, removing children from unsafe situations creates other problems which did not previously exist and which may exacerbate existing issues (Grigsby, 1994). One of these is ‘foster care drift’ or placement instability. This has long been a concern of OOHC systems (e.g., Maas & Engler, 1971) and is generally understood as *the experience of repeatedly changing living situation within OOHC*.

There is no universally agreed-upon definition of what this entails or even consensus on what terminology should be used and how. A move between placement settings can be described as a 'replacement' – 'breakdown' or 'disruption' and these terms can be used to refer either to *any* movement of a child from one OOHC setting to another, or only *specific* movements in care, such as to more restrictive levels of care (such as moving from family care to residential care, see: Usher, Randolph, & Gogan, 1999), or removals from a placement due to behaviour (Barber & Delfabbro, 2002). Within research, some authors use the number of placement as an indicator of instability, such as with more than three placements (e.g., Webster, Barth, & Needell, 2000), while others measure the length of time taken to enter a long-lasting placement (e.g., James, Landsverk, & Slymen, 2004). The lack of consistent terminology or conception of placement instability has been identified as an issue in this area of study (for an example see Unrau, 2007), but no solution has been found.

Incidence. Many national-level CW agencies set stability goals for children under their authority. A common goal is to have two or fewer placements within a single spell in OOHC, as is the case in the USA and Australia (Children's Bureau, 2018; Department of Families, Housing, Community Services and Indigenous Affairs, 2011), but it is hard to establish how many children experience placement instability due to variable reporting. For example, a recent report from the USA indicates that, of children in OOHC for *less than twelve months*, 37% were had more than two placements in OOHC, while this increased to 68% for those in care for more twenty-four months (Children's Bureau, 2018). In the UK, conversely, it was reported in the official 2014 CW report that 33% of children in OOHC had two or more placements (DfE, 2014), but these figures were not published later, note even in either the 2017 or 2018 reports (DfE, 2017, 2018), meaning the incidence is unknown.

While different measures can be useful to highlight how different CW systems attend to different aspects of instability in care (Bombach et al., 2018), they can make it difficult to

judge how many children are unstable in care. Published research can help estimate trends, with one analysis of all Danish children in care between 1982-1987 identified nine different patterns of movement through care. Within this group, only 5% were classified as having 'complex' trajectories, with an average of between three to over six placements over 115 to 130 months (Fallesen, 2014).

Correlates of placement drift. Many scholars feel that instability is inherent and inevitable reality of the OOHC system. Children in OOHC, after all, have a "bureaucracy as a substitute for their nuclear family" (Gries & Cantos, 2008, p. 368) which may have hundreds of thousands of children to care for and only a cursory understanding of the needs of each individual child. Nevertheless, identifying children who are at risk of moving placements has been a concern of CW agencies since it was first identified. Attempts to do this has involved research, much of which highlights *correlates* of placement instability in various child, placement, foster family, or systemic characteristics which may lead to a higher risk of a placement ending, and therefore instability. The results of this research will be briefly covered here.

Child factors. One explanation for drift is that, despite the intentions of foster systems, the children entering this system may have entrenched maladaptive behaviours or high needs which are not always visible or attended to. While undertaking the present review, over 100 studies were found which reported associated cross-sectional associations between child factors and placement instability, notably behaviour and mental health difficulties, along with several literature reviews which collate this research. Results from individual studies are presented in Appendices D and E and broadly support the findings of literature reviews. Child factors which have been found to correlate with placement instability include both entering OOHC at an older age and severe behaviour problems (Munro & Hardy, 2006; Oosterman et al., 2007; Pritchett et al., 2013; Rock et al., 2015; The Center for Human

Services, 2008). Other correlates often found to factor into breakdown include mental health issues (Munro & Hardy, 2006; Pritchett et al., 2013), attachment problems (Oosterman et al., 2007), and certain reasons for entry into care, such as when children are placed in OOHC due to their behaviour (Munro & Hardy, 2006; Rock et al., 2015). Research also suggests that the length of time a child has spent in care, along with the number of previous placements they have experience can be related to placement breakdowns (Oosterman et al., 2007).

Placement factors. Another explanation for drift can relate to the type of placement they are in and who they are in contact with. Many countries have policies which ensure children in OOHC can be placed with siblings, relatives, and have regular contact with their birth family, with the assumption that this is beneficial for the child (Berrick et al., 1999; Oranga Tamariki, 2019). Reviews suggest that few of these variables have consistently strong associations with placement; ensuring children and their siblings are placed together has some weak correlation with decreased breakdown (S. Holland et al., 2005; Oosterman et al., 2007; Rock et al., 2015). However, neither kinship care nor contact with birth parents have consistent associations with fewer placement breakdown (S. Holland et al., 2005; Oosterman et al., 2007; Rock et al., 2015; The Center for Human Services, 2008).

Foster family factors. A third area which may cause breakdown is the foster family itself. Families become foster carers for many reasons, and it may be that some have expectations of the child entering their home that are not realistic. Carers may also have insufficient training and misunderstand the child's behaviour as rejection instead of maladaptive behaviour. Reviews suggest that a lack of parenting ability and training are commonly found to be linked with placement breakdown (Oosterman et al., 2007; The Center for Human Services, 2008). It is also commonly found that the presence of the carers own children, has a consistently negative relationship on placement breakdown, especially if the children are similar in age (Munro & Hardy, 2006; Oosterman et al., 2007; Rock et al., 2015;

The Center for Human Services, 2008).

Systemic factors and planned changes. Finally, there are factors within CW systems which may increase a child's risk for placement instability, including planned moves which in research or practice may not be counted as disruptions (Ward, 2009). Social workers could be a source of instability; research suggests that the frequent caseworker turnover can impact a child's stability, especially in the first three years of entering care (Oosterman et al., 2007; Rock et al., 2015; The Center for Human Services, 2008).

Added to this, children in care often experience *planned* changes, which might involve moving due to a carer no longer being able to provide OOHC, moving to a longer-term or more suitable placement (especially common if there are shortages when a child enters care and must be placed in any available home), or at the end of a specialist placement with trained foster parents. These kinds of policy-related moves can also occur if a CW agency prioritises placement with kin or siblings. One study found that planned movements accounted for 43% of all placement changes over a one year period in the UK, and 57% of all moves out of the first placement children entered (Ward, 2009). Another study found that, for around 1,000 children in care in the USA over 18 months, 30% of moves were due to policy or other systemic reasons and 94% of children experienced a systemic or policy related move (James, 2004). While most researchers and CW agencies do not regard planned change as disruption (or negative, unplanned ends to placements) (Ward, 2009), in the longer-term experience of OOHC planned changes may contribute to more instability, and may even be psychologically harmful (Fisher, Van Ryzin, et al., 2011). One study of British children in care for longer than a year noted that a planned end to a long-term placement could be followed by a series of unplanned changes (Skuse et al., 1999), perhaps as a result of children being removed from a caregiver they have attached to and subsequently feeling greater anxiety about their new placement and caregiver. It is therefore important to keep planned

changes in mind when considering instability.

'Outcomes' of placement instability. Children who have been deprived or maltreated, like those entering OOHC, are especially vulnerable to poorer outcomes at every stage in their development (Dozier et al., 2002). Attachment theory, which forms the theoretical basis for much work in OOHC, suggests that children require stable, long-term relationships with a caring adult to facilitate their healthy development and growth (Bowlby, 1979; Bowlby et al., 1976). It seems, therefore, sensible to *assume* that children who experience frequent placement changes and do not receive the benefits of supportive caregiving are much more likely to experience negative outcomes than they would have they remained with the same caregiver. However, the *assumption* of this relationship is so strong that it has impacted the quality of research.

Issues in research.. Much research into placement instability devotes at most a few lines to its outcomes, sometimes without citing supporting evidence. When evidence is cited, it is often correlational rather than longitudinal, which would give an indication of the direction of the relationship. Examples of this are numerous; for example, a 2017 publication by Chambers and colleagues (2017) begins: *"Current research shows that when youth have multiple placement moves in the foster care system, they are more likely to experience poor psychological, social and academic consequences."* The authors support this claim by citing a review of risk and protective factors for placement instability (Rock et al., 2015) and a qualitative study which explored how 21 British youth experienced placement breakdowns (Rostill-Brookes et al., 2011). Neither of these studies establishes the likelihood of certain outcomes for youth who are unstable in care. Indeed, the wide body of research which shows correlational relationships between placement instability and various outcomes (Appendices D and E) seems often to be mis-taken for support of a causal relationship.

Most publications include shorter discussions of the outcomes of placement

instability, usually in the introduction (for an example see: Hartnett, Leathers, Falconnier, & Testa, 1999). However, these discussions of the literature do not examine the research in depth to evaluate how reliable their results are. Establishing whether a causal relationship exists between two variables requires high quality data, careful analyses and other methodological tools which address the difficulties in collecting and analysing longitudinal research (Bergman & Magnusson, 1990). Establishing whether existing publications meet these standards would be best done in a literature review, and an evaluation of existing reviews will here be undertaken.

1.3 Published reviews of placement instability

Only two published reviews have been identified which focus on the outcomes of placement instability, both of quantitative research. These are: Jones and colleagues, 2010, and Proch and Taber, 1985. Neither of these are systematic reviews. Proch and Taber (1985), among a wider review of placement instability research, included a short section on consequences (aka: outcomes), and Jones and colleagues (2010) conducted a broad review of research published in the UK to identify a range of risk and protective factors for children in OOHC, of which placement instability was a mediating factor. An article by Pecora and Huston (2008), while not a formal review, will also be examined here as it focuses entirely on reasons why professionals concerned with permanency planning should focus on reducing placement change. No reviews of qualitative research have been undertaken to date. The methodology and findings of these reviews will be evaluated to see whether they provide more information about the state of knowledge about placement instability.

1.3.1 Methodological quality. Only one of these three publications were published following modern review formats. Jones and colleagues (2010) gave a thorough account of their inclusion criteria, search strategy, appraisal criteria, and other review details. The search

strategy aimed to select a broad rather than exhaustive sample of research and included 96 studies. Of these 49% were rated as meeting some of quality criteria, and 43% were rated poor quality. Proch and Taber (1985) gave no details of how the four studies they reviewed were chosen. Pecora and Huston (2008) cited 28 articles, which were not all about children in OOHC, let alone those who experienced placement instability. The aims or review questions were stated across all reviews: two were focused specifically on placement change or disruption, either on the consequences for children in OOHC, their caregivers, and agencies which worked with them (Proch & Taber, 1985) or in order to establish why minimising placement change was important in permanency planning (Pecora & Huston, 2008). Jones and colleagues (2010) were focused on risk and protective factors for youth in OOHC and referred to placement instability only insofar as it was mentioned in studies they reviewed.

1.3.2 Placement instability findings. There was no clear consensus across the reviews on the outcomes of placement instability. Proch and Taber's (1985) review of four studies found none had statistically significant correlations between the number of placements children experienced and behaviour ratings as children or well-being outcomes as adults. They did find that children who entered family OOHC and were moved to group care had slightly poorer adult outcomes. In only one study was it reported that adults with a high number of placements felt worse about their experience of OOHC. Jones and colleagues (2010) highlighted that 17 studies in their review (nine of which were rated of moderate quality and the rest poor) supported a relationship between higher numbers of placement change and poorer outcomes for children in care, as well as higher stability being related with fewer emotional and behavioural problems. The authors highlighted, however, that their review was not exhaustive, and this review did not establish any directionality in the findings. They suggested placement instability was a factor which could be affected by specific interventions, which interacted with various emotional and behavioural disorders, and which

in turn impacted various health, behaviour, and education outcomes. Pecora and Huston (2008) outlined how focusing on reducing placement change might reduce child pain and trauma, as well as difficulties stemming from attachment, emotional, and behavioural issues, while also increasing educational achievement, but also, citing Proch and Taber's (1985) review, stressed that research had not yet established that instability influenced the functioning of those who experience it.

1.3.3. Conclusion. The research described above was not undertaken with enough focus or methodological clarity to establish whether placement instability does or does not affect various outcomes for children in OOHC. There is some quantitative research which establishes that there is a relationship between placement instability and various outcomes, but none of these reviews establish the direction of the effect by limiting their review to only high-quality longitudinal research, or to qualitative research. A review which attends to specific types of research (like that written by Minty, 1999) or which investigates and may challenge existing assumptions (such as Quinton, Rushton, Dance, and Mayes, 1997), is lacking in this area.

1.4 Rationale of this literature review

It is evident, therefore, that there is need for a specific, detailed review of the outcomes of placement instability. Previous reviews have predominantly focused on the correlates of placement instability, with only two reviews of varying quality specifically attending to its outcomes. A review which conducts a clearly documented search for all relevant published literature and critically analyses specific types of research will be useful to make clear what the state of research currently is, and what future direction future research and theory in this area could take.

1.5 Aim and research question

The primary aim of this research is to discover what is known about the psychosocial effects of placement instability on children and adults who experienced it while in care. This review will achieve this aim through answering the following question:

What effects do placement changes and placement instability have on the psychosocial development and well-being of children residing in out-of-home care?

2. Methodology

2.1 Purpose

The present chapter describes search and selection procedures for establishing what studies should be included in each of the narrative reviews (longitudinal studies that measure the effects of placement changes, and qualitative studies).

2.2 Search Strategy

A systematic scoping search was undertaken, in accordance with Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines (PRISMA; Moher, Liberati, Tetzlaff, & Altman, 2009). The scoping search aimed to collect all published research pertinent to the outcomes of placement instability on children in family-based OOHC.

Data collection process. A literature search was carried out using in PsychINFO and SCOPUS databases, as well as Google Scholar. The initial search included research published before March 2018. As the scoping review was meant to gather as many relevant studies as possible, this was supplemented by searching Open Grey (opengrey.eu) and the National Criminal Justice Reference System (ncjrs.gov) for reports, as well as PQDT Open (pqdtopen.proquest.com) for relevant theses. Additional articles were added through manually checking article references and cross-referencing studies from recent reviews. Books published with study details were also considered for inclusion. There was no opportunity to include unpublished articles.

The search was iterative, informed by exposure to new terms for placement instability and out-of-home-care. Initial search terms were ‘outcomes’ - ‘foster care’ and ‘out-of-home-care,’ as well as ‘breakdown’ - ‘placement change’ and ‘disruption.’ As articles were read and new terminology for foster care or instability were discovered or thought to be relevant, the search was repeated. Terms added later were ‘looked after child’ - ‘child in care’ and

'kinship care', as well as 'discontinuity' - 'placement stability' - 'unstable placement' - 'stable placement' and 'replacement.'

Studies published between 1960 to March 2018 were included in the search, primarily because these were the earliest which the online databases included. Previous literature reviews, as already established, have not sufficiently addressed historical research, so the search was not limited to more recent research only. Only English language articles were included, due to the difficulty in obtaining translations of non-English publications.

Search results were saved to a citations manager. Titles and abstracts of over 7,000 articles were skimmed for relevance and 6,333 were excluded. Full articles (N=751) were then obtained, and after skimming them 351 articles were then excluded. At this point the full text of some journal articles (N=11), books or book chapters (N=9), or theses (N= 8) could not be obtained and were excluded. Three hundred and seventy-two relevant publications were found. Each study's design and instability-related results were noted. Longitudinal or repeat-measures studies, as well as qualitative studies were marked for another round of analysis for the first two in-depth reviews. The specific methodology of each review will be described in turn below.

2.2.1 Longitudinal Studies. The first review undertaken was of the longitudinal literature.

Study inclusion/exclusion criteria.

1. *Measures of placement instability.* Studies were included if they a) gave the number of placements or the incidence of placement change between each wave of the study, or b) grouped children according to their placement stability trajectory during the study.
2. *Outcome measures.* Studies were included if data were measured and reported on at least two specific occasions, allowing for examination of the relationships between

variables and placement instability over time.

The search identified thirty-nine publications reporting longitudinal, repeat-measures, test-retest, prospective, or retrospective findings. Of these, eight publications (reporting on six studies) which met the above criteria were selected for review. Details of the excluded studies are available in Appendix B.

Critical analysis. Each article was read and details of methodology (participants, design, timing of waves and data collection, reporters, measures) and analysis (statistical models or regressions, operationalisation of variables, controlling variables, subgroups included) were collated in an excel document. These details were critically judged on how suitable the methods and analysis were in elucidating the role of placement instability in the data. Each study's results were then critically judged according to the strength or weakness of the methods. Finally, the overall strengths and weaknesses of research in this area were synthesised, along with a critical evaluation of what conclusions this research gives regarding placement instability. The results of the excluded studies (Appendix B) were briefly examined to see whether they supported these conclusions.

2.2.2 Qualitative Studies

Inclusion criteria.

1. *Experience of unstable foster care.* Studies were included if they gave details of participants' placement history or only included participants who had been/were unstable in OOHC. Participants could be foster youth, alumni, caregivers, case workers, birth parents, or others with connections to this population.
2. *Effects of foster care on youth*. Studies had to report on the perceived or self-reported effects of OOHC instability on youth.

The search identified 60 publications reporting qualitative findings. Of these, 26 publications reporting on 24 studies which met the above criteria were selected for review.

Study analysis. Details of participant demographics, instability, study methodology, and respondents' views on the impact of placement instability were noted for each study. Based on the Cochrane guideline to evaluating qualitative research (Hannes, 2011) attempts to improve credibility, transferability, dependability, and confirmability were also noted. The reported impacts of placement stability were thematically grouped and reported on together, as it was noted that some outcomes were immediate while some appeared to be long-term effects of instability. Few articles mentioned positive outcomes, but attention was paid to those which did.

3. Review of Longitudinal Research

3.1 Purpose

The previous chapter described the steps taken to find and evaluate the literature to be included in the following literature reviews. The aim of this first literature review was to find relevant published longitudinal studies which 1) included children in family-foster care and 2) measured the time-specific effects of placement instability on variables such as children and youths' behaviour or mental health. This chapter introduces the relevant research, critically appraises each study's methodology and results, and synthesizes these findings to evaluate their support for the negative impact of placement instability on foster children's well-being.

3.2 Search Results

Twenty-six longitudinal, repeat-measures, test-retest, prospective, or retrospective studies were located, with their relevant findings reported in thirty-seven articles. Six studies (Appendix A) had analyses which met the criteria for inclusion listed on page 13. Five were conducted in the U.S., one in Norway, and one in Australia. Two U.S. studies (LONGSCAN and NSCAW) had more than one set of relevant published analyses. Twenty studies, whose relevant findings were reported on in 29 articles, were excluded, the details of which are listed in Appendix B.

3.3 Studies selected for review

3.3.1 Foster Care Mental Health Study

Methodology. The Foster Care Mental Health study (FCMH) was a longitudinal study of U.S. children in family-based out-of-home care. The study identified children and adolescents aged 0-16 who were newly placed in foster care in San Diego, U.S., between May 1990 and October 1991 (Blumberg et al., 1996; Leslie et al., 2000). Of these, 1,352 children were in care at least five months, when the first wave of data collection began. All children in this study were in foster care at this point, though not all children remained in care until the second wave, 18 months after entry to care. According to one analysis 377 children and youth were reunified or adopted during the study period, and 32 experienced re-entry or a second spell in care (James, Landsverk, & Slymen, 2004).

Complete data at baseline (five months after entry to care) and follow-up were obtained for 78% (N=938) of the cohort (Garland et al., 1996). An analysis of these data report that on average the first wave of data were collected eight months after entry to care (James, Landsverk, & Slymen, 2004). Data about behaviour (including CBCL versions 2-3 and 4-18, Achenbach, 1991b) and other measures were collected from caregivers who had known children at least two weeks (Leslie et al., 2000). Placement changes recorded in this study were abstracted from case records and included all placement moves (short stays, shelters, detention centres) along with runaway and abduction data (James, Landsverk, & Slymen, 2004).

Critical analysis. The large number of participants and their entry into OOHC care due to confirmed maltreatment makes this a useful study with which to study placement instability. If the number reported by James et al., (2004) is accurate, over three quarters of the cohort were still in care after 18 months, which ought to allow comparisons between the

children still in care who were stable and those who were not.

Despite these strengths, a challenge of critically analysing this study is the lack of detail available about its methodology. Only through various published analyses of the data were the details above able to be found, and the number of participants who were eligible, declined to participate, or who did not remain in care for five months is unclear. More detail would have clarified whether the setting of each placement is recorded, to allow analyses to exclude changes such as respite stays. Furthermore, subgroups of this cohort have been included in other studies (such as under-four-year-olds in LONGSCAN, described below) and there is not enough detail to determine whether the two waves of FCMH data were included in these other studies, or whether they were collected *prior* to the children joining the other studies. A further critical flaw of this study regards the timing of data collection at each wave. One set of analyses suggest that this timing varied, reporting the mean period of 13 months between data collection with a standard deviation of almost five months (Newton et al., 2000).

While not necessarily a critical flaw, analyses ought to look at the number of placement changes *between* waves only, excluding placement changes prior to the first set of data collection.

Reported findings. One set of analyses for these data is relevant to this review, published by **Newton and colleagues (2000).** This examined the behaviour of 415 children and youth aged 2-17 (M = 6.6 years, SD = 3.9 years). This subsample 1) had an interval between baseline and follow up interviews of no less than six and no more than 18 months (M = 13.4 mths, SD = 4.8 mths), 2) had complete CBCL data at both waves, and 3) had an accurate record of placement changes over the entire 18 months of the study. Placement changes in this study included stays in the receiving facility or mental facilities (meaning every child began with one placement) but it is not clear whether respite care is included in

this count. The range of placement changes over 18 months was 1-15, with a mean of 4.23 and median of 4 placements. At baseline 58% of this subsample had at least one elevated CBCL score (total, internalising, or externalising).

Two hierarchical multiple regression analyses investigated the impact of placement moves on children's CBCL scores after 18 months in care. Separate regressions were made for children who changed placement fewer than five times over 18 months (N = 317) and for those who changed placement five or more times (N = 98). These regressions controlled for T1 CBCL score, age at initial placement, and gender (ethnicity was not found to be a significant variable). For the more unstable group (5+ movements), placement change accounted for between 6.6% to 9.7% of variance in their T2 CBCL scores (p = .01). For the more stable group, the number of placement changes did not significantly account for any variance in T2 CBCL scores. This result would suggest that more frequent moving has more of an impact on children and youth's well-being.

Critical analysis. This is one of the few analyses in this review that used regressions to attempt to estimate effects of placement instability that are independent of other effects i.e. to control for potential confounding. This is an important part of evaluating the impact of placement instability. This study also uses a child's age *at entry into care* as one of the covariates, which is shown to be a more accurate predictor of outcomes than current age (Tarren-Sweeney, 2008a). The other variables controlled for were gender and number of placement changes (ethnicity was not found to be related to CBCL scores). The authors appear to include *all* placement moves in their count of placement changes. They give placement change details for a child who moved 15 times over 18 months (p. 1366), including some placements which lasted between 1-7 days and stays in receiving and medical facilities.

A critical flaw of this analysis regards their placement instability variable. The

authors include placement changes *before* the first wave of data collection. The FCMH study began to measure baseline mental health five months after children arrived in care. Putting aside the timing of data collection, the number of placement changes included in analysis should be restricted to those occurring *after* data collection began. It is likely that any placement moves before five months would impact T1 CBCL, so including them in analyses as though they only impact T2 CBCL is misleading. Finally, these analyses include children who were not in OOHC for the whole study. Though the authors say "most" are still in care by 18 months they give no details of how many. Other published analyses indicate that just under a quarter of the whole sample left care and some then re-entered care again (James, Landsverk, & Slymen, 2004).

3.3.2 LONGSCAN – San Diego cohort

Methodology. The Longitudinal Studies of Child Abuse and Neglect (LONGSCAN) was a study protocol adopted in five study sites around the U.S. to allow for common data comparison. Of interest to the present review is the San Diego (Southwestern) study site, which included a cohort of infants who had been part of the FCMH study described above. Specifically, this sample included 330 children who entered care due to confirmed maltreatment before the age of 3.5 years and remained in care for at least five months (Litrownik et al., 2018). At LONGSCAN's baseline (child age four) these children were not all still in care: 41% were still in kin or non-kin foster homes, 18% had been adopted, and 34% of children had returned home (Larrabee & Lewis, 2015). Some remained stable in OOHC or with their birth or adoptive parents, others did not remain stable. One set of analyses calculated that 54.7% of children had the same caregiver between the ages of six and 14 (Proctor et al., 2010).

Data were collected every two years between July 1991 and January 2012 (Larrabee & Lewis, 2015). Complete data were recorded for 97% of children at age four, 71.5% at age

12, and 65.5% at age 14 (Runyan, 2009). Behavioural data measures included the CBCL (Achenbach, 1991a), administered to a primary caregiver who had known the youth for at least six months (Villodas, Litrownik, et al., 2016). From age 12 youth gave self-reports of their behaviour: at age 12 they completed the Youth Self Report (YSR, Achenbach, 1991), and at age 14 the Computerized Diagnostic Interview Schedule for Children, Version IV (C-DISC, Shaffer, Fisher, Lucas, Hilsenroth, & Segal, 2004). The number of changes in residence and primary caregiver over the course of the study were collected through interviews with caregivers and children (Larrabee & Lewis, 2015).

Critical analysis. The consistent collection of data every two years with a sample of children who entered care due to confirmed maltreatment is useful for investigating any long-term impacts of placement change. The count of placement changes was not taken from official records, instead recorded from the annual contact between study co-ordinators and families. Caregivers of children who moved placements more than once a year may therefore have not been able to accurately report the exact number of placements a child experienced, as caregivers were not likely to have complete details of a child's history in OOHC.

It ought to be a strength that caregivers were required to know the child for six months before reporting on their behaviour, yet it is unclear whether this means six months *living* with the child or six months knowing the child and having intermittent contact with them, such as with children who returned to their birth parents. It is also unclear how many participants did not have complete data due to instability preventing them having a primary caregiver who had known them the required length of time.

The different youth self-report measures at ages 12 and 14 are an unfortunate flaw of this study, making it harder to compare their self-reported behaviour over time (Tarren-Sweeney, 2019a). Finally, an implication that some children returned home during the study is that their follow-up mental health scores were reported by their parents, rather than foster

parents. The reliability of parent reports of maltreated children's mental health is questionable as it is unknown whether parents and foster parents systematically differ in the scale of problems that they report for these children (Tarren-Sweeney et al., 2004; Tarren-Sweeney & Goemans, 2019).

Reported findings. There are two published sets of analyses which report on this data and are relevant to this literature review: **Villodas, Litrownik, and colleagues (2016)** and **Villodas, Cromer, and colleagues (2016)**. These analyses include the entire sample of 330 children, whose movement in care between the ages of 4 and 12 were stratified into six trajectories: adopted, kinship care, stable foster care, stable reunified, disrupted reunified, and unstable. The first analysis investigated the impact of these trajectories on CBCL scores at 12 years. The second repeats the investigation with age 14 data.

The unstable trajectory comprised of 17 children (5%). They tended to be older than other children when they entered care. Between ages 4 to 12 they had a conditional probability of between .36 (age 6) and .13 (age 10, 12) of remaining with the same caregiver over a two-year period. This appears to be a very unstable sample, and worth investigating. However "on a conceptual basis" (Villodas, Litrownik, Newton, & Davis, 2016, p. 51) the authors combined this group with 39 'unstable reunified' children who had all returned home by age six and subsequently re-entered care, with some returning home *again* before age 12. These children had probabilities of between .92 (age 6) and .32 (age 10) of being with the same caregiver over a two-year period. It is likely that these children were also exposed to more maltreatment during the period they were reunified, given that they all re-entered care.

It should also be noted that by age 14 the trajectories no longer accurately described all the children's circumstances in care. The previously 100% stable groups were 80-91% stable (reunified and OOHC), and the previously unstable groups were 14-75% stable (unstable and re-entry). The adopted trajectory was only 89% stable. This makes comparing

the outcomes of children in each trajectory less clear.

Logistics regressions were carried to identify predictors of physical well-being and externalising and internalising behaviour problems at age 12. These analyses controlled for age 4 parent-reports and calculated the odds of children in various trajectories having better or worse health or behaviour after eight years in care. At age 12, parent-reported physical health and internalising behaviour problems were no different between unstable and stable trajectories. However, parent-reported externalising behaviour problems were 4.71 times (p=.004) more likely to be elevated in unstable children than those in stable OOHC (both in kin and non-kin settings). Age 14 analyses indicated that unstable trajectory youth developed significantly more depressed/withdrawn behaviour from age 4-12 than children who returned home and were stable.

Tegressions of *self*-reported problems at age 12 indicated that children in the unstable trajectory were 3.4 (p = .01) times more likely to have worse physical well-being than children who returned home and were stable. This contradicts the parent-reported data above, which found no difference between unstable and stable. Similarly, their self-reported internalising behaviour problems were 6.73 times (p=.02) more likely to be worse than children in stable family-based care, and 7.47 times (p=.02) more likely to be worse than children who reunified and remained with their parents. Age 14 data again suggested that children self-reported more problems with their physical health, anxiety, and aggressive behaviours than their caregivers did. Unfortunately, these data can only be considered correlational as there are no age 4 self-reports from children to control for.

Critical analysis. While the use of long-term trajectories is useful to look at patterns of movement for children in care, it does not separate the directionality of effect. It is likely that, had the authors defined groups on behaviour trajectories instead of placement, they would have found that children in the ‘deteriorating behaviour and mental health’ group

would have had greater odds of placement change. Furthermore, the combination of unstable in-care children with those who had returned home and subsequently re-entered care makes it difficult to properly interpret the results. The children who returned home will 1) have had behaviour reported by their parents and 2) been re-exposed to traumatic experiences necessitating their re-entry. Placement change is therefore not the only major source of trauma influencing this group's behaviour.

Relatedly, the analyses published for age 14 are less useful to studying the impact of placement instability as the trajectories no longer accurately describe children's status in or out of care. Where 100% of children in the stable at home or in care trajectories were with the same caregiver between ages 10 and 12, between nine and twenty percent of these children changed placement between ages 12 and 14. For example, children in the adopted trajectory were reported to have significantly higher increases in aggressive and depressed/withdrawn behaviour than children in the unstable trajectory between ages 12 and 14, however only 88% of these children were still adopted at this point, meaning 12% were now unstable and ought not be included in the stable adopted trajectory.

Finally, while the child self-reports at 12 and 14 are interesting and seem to indicate there are more severe internalising behaviour problems than parents report, they cannot be taken as evidence of the impact of placement change as there are no earlier self-reports to control for and are in fact reported through different measures at each age.

3.3.3 NSCAW – CW cohort

Methodology. The National Survey of Child and Adolescent Well-Being (NSCAW) was a U.S. prospective, multisite, eight-year study of children and youth inspired by LONGSCAN (Litrownik et al., 2018). It was intended to produce a nationally-representative sample of the children and families who had contact with the Child Welfare System (CWS) between October 1999 and December 2000 in the United States (NSCAW Research Group,

2002). It included children aged 0-14 and oversampled infants, families receiving services, and children who had been sexually abused. Within this study were two cohorts: the Child Welfare (CW) cohort of 5,504 children newly contacting CWS, and a cohort of 727 children who had been in care for approximately 12 months already. Only the CW cohort is relevant to this review. While all children in this cohort were investigated, not all entered OOHC and no data were available on the percentage in care at baseline, or how many entered care during the study. A similar study which began in 2008-2009 suggest 22.3% of children entered OOHC after contact with CWS (Dolan, Casanueva, Smith, & Ringeisen, 2013).

Four waves of data collection took place, at which children, caregivers, and caseworkers were interviewed face-to-face with computerised instrumentation. The first wave of data were collected approximately six months after the close of the initial investigation (NSCAW Research Group, 2002). Data were next collected at 18 months, 36 months, and 59-96 months after the close of the initial investigation. Variables collected included CBCL (Achenbach, 1991b, 1992) and infant temperament. Placement moves were reported by the caseworker (from case files). Every placement was counted (i.e. every time the child spent a night in a new physical location, Aarons et al., 2010).

Critical analysis. A study with a nationally representative sample is useful to see whether it gives a similar result about placement change than other samples which are more local. The lack of reporting on how many children actually entered OOHC is not as much a flaw as it could be, as it is presumed analyses are able to limit their calculations to children who entered care only. As with FCMH, counting every placement move including respite requires that analyses specify what moves they include to study placement instability specifically.

The 37-month variation in data collection for the final wave is a concern, and it will be difficult to draw any conclusions about analysis of that data. Children who were in

unstable placements at 59 months may have fewer placement changes over this period than children in stable placements by 96 months. Finally, it must be highlighted that these children are not all new to care. Some children returning to care may already have experienced instability and may have been re-exposed to maltreatment which influenced their behaviour. Analyses of placement instability should control for these possible confounds.

Reported findings. Three sets of analyses relevant to this literature review have been published: **Rubin, O'Reilly, Luan, and Localio (2007)**, **Aarons and colleagues (2010)**, and **Rosenthal and Villegas (2010)**.

The first set of analyses published by Rubin and colleagues (2007) investigated the influence of the time taken to find a placement which lasted ≥9 months (a stable placement) on CBCL scores in a subsample of 729 children who remained continuously in care between baseline and 18 months. Children with missing data or who were in group care for 9+ months were excluded. There were three levels of stability: early stability (entering a stable placement within 45 days of entering care), late stability (after 45 days entry to care) or unstable. In this sample 52.5% were in a long-lasting placement within 45 days, 19.4% within 90 days, and 28.4% of children did not stay in a placement for nine or more months.

These analyses compared dichotomised CBCL and temperament scores (scores ≥ 83rd percentile were counted as abnormal). To control for baseline characteristics, the authors classified children as high, medium, or low risk for instability based on variables which correlated with either CBCL score or placement stability in propensity score analyses. These variables were child age, baseline behaviour, CPS history, and caregiver problems with drugs and alcohol.

With a multivariate model, the authors calculated the predicted probability of behavioural problems at 18 months. Children who experienced a placement lasting 9+ months, whether within 45 or 90 days from entry to care, were not significantly different in

their behaviour at 18 months. However, unstable children, i.e. those who did *no*t experience a placement lasting ≥9 months, had twice the odds of having reported problematic behaviour at 18 months than early stable children (those who found a stable placement within 45 days), at all levels of risk (OR: 1.99).

Critical analysis. The authors operationalised placement instability differently to other analyses in this review, which provides some variety and may highlight different aspects of the impact of placement instability on children. The authors also calculated and controlled for each child's risk of not finding a placement lasting ≥9 months through propensity score matching. It is useful to see that the impact of placement instability is seen at each level of risk, while controlling for previous CWS involvement; though the authors use age at study baseline rather than age at entry to care.

A flaw of this analysis is that the authors did not make it clear whether the instability measure excluded respite stays or includes only permanent placement changes. Children with high behavioural or emotional needs can find long-lasting placements, but their caregivers often use respite care. Also, it is not revealed whether any "stable" children changed placement after nine months in one placement. This serves to make the results less clear-cut. Finally, of concern is that, since data collection for the entire study began approximately six months after a child entered care, both early stable *and* late stable children would have been in a long-lasting placement by the first data collection and may explain why no differences were found between these groups' reported behaviour.

Reported findings. A second set of analyses was published by **Aarons and colleagues (2010)** which included 500 children aged 2-15 who were continuously in foster care between baseline and 36 months. Placement changes were counted between baseline and 18 months, then 18 and 36 months. The first analysis was done for the entire subsample, then two further were conducted which controlled for 1) gender and 2) age (ages 2-5, 6-10, 11+).

These analyses used dichotomized CBCL scores with a problematic behaviour cut-off of T≥64. The average number of placement changes between baseline and 18 months were 1.92, and between 18 to 36 months the mean was .28.

These analyses conducted three cross-lagged path analyses which investigated the relationship between placement change and behaviour. Few significant correlations between placement change and elevated CBCL score were found. Placement changes between baseline and 18 months significantly correlated with male internalising behaviour at 18 months only (.20, $p < .001$). Placement changes between 18-36 months correlated with elevated externalising behaviour problems at 36 months for whole sample (.21, $p < .05$) and specifically for ages 6-10 (.20, $p < .05$). The strongest relationship was found between placement changes over 18-36 months and female internalising (.39, $p < .05$) and externalising (.42, $p < .05$) behaviour problems.

Critical analysis. The analysis of internalising and externalising behaviour separately by age and gender is useful to see if there are any trends; however, these analyses do not control for any other kind of co-variates which might explain the relationship, such as age at entry into care or previous contact with CWS. Cross-lagged path analyses are well-suited to analysing changes over time as they control both for past behaviour and previous placement changes.

As with the FCMH analysis, the number of placement moves *before* the first wave of data collection seems to have been included in the overall count of placements between 0-18 months. Combined with the lack of clarity around whether moves to respite care and into the receiving facility are included, it makes interpreting these results less straightforward.

Reported findings. A third set of analyses of this study published by **Rosenthal and Villegas (2010)** performed cross-lagged path analyses for placement change and CBCL score with the whole NSCAW sample (N=5,501) between baseline, 18 months, 36 months, and 56-

97 months. The authors exclude infants (age <2 years) due to having no CBCL data, but do not give the number in the subsample once these children have been removed. They trichotomized placement change to count as: none, one, or two or more placement changes and restricted placement change to movements occurring *within* the waves of the study, i.e. after the first wave of data were collected. CBCL scores were transformed into Z scores and the T1 distribution was used to generate scores for all waves. Authors did not provide the level at which CBCL score was deemed elevated or problematic. The number of children who moved once or more than once between 5 and 18 months was 6% and 8% respectively, 5% and 4% between 18-36 months, and 3% and 2% between 36 and 56-97 months.

Separate cross-lagged path analyses were conducted for internalising and externalising behaviour. These controlled for previous placement changes, carer-reported internalising and externalising problems at each previous wave, as well as type of maltreatment, ethnicity, age, and gender. After these controls, analyses found no correlation between placement change and subsequent *externalising* behaviour problems at any wave. Placement changes between 5-18 months, and 18–36 months did correlate with reported internalising behaviour at 18 and 36 months (respectively .094, $p < .01$ and .117, $p < .05$).

Critical analysis. The strength of this analysis is that it does *not* include placement changes before data collection. The authors even calculate the effect of the number of placement changes *before* the first wave of data were collected on behaviour reported then; however, these are not reported here as there is no previous behaviour measure to control for. As with other NSCAW analyses, the variability in collected wave 4 data may have influenced the lack of any significant finding and cannot necessarily be taken at face value.

Unfortunately, the analyses do not control for previous CWS contact, or even for whether children were still in OOHC by the end of the study. While only 2% of children changed OOH placement between 56 and 97 months, it is not reported what percentage of

these children were still in OOHC. Finally, and as with the other NSCAW analyses in this review, there is little clarity regarding placement change definition: "moves to foster homes, group homes, residential treatment, and *other placement settings*" (emphasis added, p. 1650).

3.3.4 South Australian Study

Methodology. This study followed 235 children with a mean age of 10.8 years who were referred for placement between May 1998 and April 1999 in South Australia. This was the entire cohort of children in the area, including those who were new to care (17%), returning to care (38%), or changing placements (45%). Children were tracked for two years, or until their case had been closed for more than one month. By the end of two years 225 children were still being followed, of whom 42% had returned to their birth parents. This figure hides the reality that many of these children changed placement or returned home and re-entered care over the preceding two years. This sample were mostly veterans of foster care (83%). Of these veterans, 20% had one/two previous OOH placements, 20% had 3-5 previous placements, 17.5% had 6-9 placements, and 23.5% had experienced more than 10 placements. Sixty-three percent had been in care less than 12 months total.

Data were collected from face-to-face interviews with caseworkers at four, eight, 12, 18, and 24 months after entry to care. For the behaviour measures the authors drew items from the Child Behaviour Checklist (CBC; Boyle et al., 1987): six items for conduct disorder problems, three items for hyperactivity, and five measured emotionality. The authors used seven items from a previous study to measure social adjustment (Barber & Delfabbro, 2000). Every placement move except respite care within same placement were recorded from interviews with the social worker.

Critical analysis. A clear operationalisation of placement instability (excluding respite care) will make the results of any analyses simpler to interpret than some other studies. Frequent data collection during the first year of the study is another strength of this study, to

see in greater detail how placement instability could impact children. As with NSCAW, this study includes children with previous CWS contact, and so analyses interested in the outcome of placement change ought to control for variability in previous OOHC experience.

A major flaw of this study is that data were collected from social workers *only*. Other studies have found that caseworkers are not reliable informants of children's behaviour (McCrae & Barth, 2008). In this study only 17% of caseworkers were in weekly contact with children, and most (74%) would have heard about children's behaviour and well-being from weekly contact with caregivers. During the first four months of the study, the inter-rater reliability of 26% of participants was assessed, with behaviour data collected from both caseworkers and caregivers. The results suggested that while some external behaviours were highly correlated, the inter-relater agreement regarding many internalising behaviours was closer to 50%. This suggests that while visible behaviour may be accurately reported by social workers, internal behaviour may not be, perhaps as caseworkers may over or under estimate the severity of behaviour which they have (or have not) had reported to them.

Reported findings. There is one relevant published analysis of this data, from **Barber and Delfabbro (2004)**. The authors conducted multiple repeat-measures ANOVAs investigating the correlations between various behaviour measures and placement moves at each wave of the study. They included all children and youth still followed by the study at each point.

The first set of ANOVAs investigated the relationship between placement change and behaviour within the entire sample. Few significant relationships were found. At 12 months, the social adjustment of the 54 children who had changed placement at least once every four months had deteriorated most out of the entire sample *(F* (6, 288) = 3.12, $p < 0.05$). However, at eight months children who had been initially unstable but then remained in the same placement for four months had *worse* reported emotionality than other groups. No other

significant group by time correlations were found in the sample.

A second set of ANOVAs involved a subgroup of "disruptive" children who were moved twice or more during the study due to their behaviour. The analyses included all children who were in care at all relevant waves, comparing the "disruptive" children with the others still in care. These analyses again found few significant group by time differences between the groups. Post-hoc analyses at 24 months suggested that improvements during this period were confined to the non-disruptive group and that worse behaviour was similarly only reported in the behaviourally-unstable group.

Critical analysis. In the second set of analyses, restricting analyses to only children in care at that point was a strength, though several flaws may explain why there no significant findings were found. The authors did not exclude children who had exited-and re-entered care, which suggests that some children may have been exposed to further maltreatment, impacting their behaviour or mental health separately to the effects of a stable or unstable placement. Another published analysis of this data suggests that in the first four months of care, children *already* in OOHC and simply changing placements were more likely to change placements due to their behaviour than children entering care for the first time (Barber & Delfabbro, 2003), so without separate analyses of children new to OOHC or already in care, it may have been harder to find any. Furthermore, the behaviour problems of these children may have already deteriorated such that any detrimental effects of placement change would be difficult to identify. Finally, analysing the behaviour of children whose placement disrupted due to behaviour compared to all other children means that some children in the non-disruptive group may have moved placements during the period, so the variables in question are not directly being compared.

3.3.5 MTFC-P randomized clinical trial

Methodology. This study was an RCT evaluating the Multidimensional Treatment

Foster Care for Preschoolers programme (MTFC-P; Fisher, Ellis, & Chamberlain, 1999) in Oregon, U.S. All children aged three to six who entered care in the area over a 3.5 year period were invited to participate if children were expected to remain in care for longer than three months (Fisher, Burraston, & Pears, 2005). Participants were 117 children aged three to five who entered new placements (new to care, re-entered, or changing placements). Children were randomly assigned to either the treatment or control condition prior to recruitment (Fisher & Stoolmiller, 2008). Eighty-nine percent of trained caregivers in MTFC-P consented to participate as did 80% of regular foster care caregivers.

Children were first assessed three to five weeks after entry to the first placement of the study. Most data were collected at three-month intervals; however, cortisol levels were measured monthly through saliva collection. This occurred on two consecutive days each month, where caregivers assisted the child in taking saliva samples just after waking and just before going to sleep. This allowed analysis of the morning-to-evening cortisol decrease. The normal cortisol cycle involves peak levels in the morning which decline over the day to near-zero levels at night-time (Fisher, Van Ryzin, & Gunnar, 2011). There is evidence that stressors such as abuse or maltreatment blunts this cycle; that is: causes lower peaks in morning cortisol (Fisher et al., 2016).

Placement disruption data were collected from social workers through the CWS database which gave details of arrival and departure dates for each placement. As researchers were also in monthly contact with caregivers to collect saliva, this also allowed for close monitoring of placement changes.

Critical analysis. The major strength of this study is its inclusion of biological data; it is the only study in this review which does not use a parent- caseworker- or teacher- report of behaviour to investigate the outcome of placement change. Unlike psychological measures, saliva collection is not dependent on observation of behaviour. As with other studies, these

children are not all new to care and so analyses ought to control for previous OOHC experience, as they ought to with the first few months of saliva collection as, if placement change does impact cortisol levels, entering a new placement for this study will impact this.

A drawback of this study is its inclusion only of pre-schoolers as any results may not be generalisable to older children or adolescents who may have experienced many placement changes, or who may experience or interpret these changes differently.

Reported findings. One published set of analyses of these data was relevant to this review: **Fisher and colleagues (2011)**. This examined a subsample (N=71) of children who experienced one placement change during their first six months in the study and who remained in that new placement for the following six months. These were evenly divided between the MTFC-P children (N=36) and regular foster care (RFC) children (N=35). These children did not all move to new OOHC placements; some reunified with parents, some were adopted, but the proportion of each were not significantly different between study conditions. It is important to note that most of these changes were reunifications or adoptions. Only eleven of the MTFC-P placements ended in "failure" or removal to new OOHC placements, as did 13 of the RFC placements.

The average AM to PM decrease in cortisol levels each month were examined using a linear mixed model. There was no correlation between placement change and *pre*-change AM-PM cortisol decrease for children in either condition. *After* a placement change there was a significant difference in AM-PM cortisol decrease between treatment condition and RFC. RFC children showed increasingly blunted AM-PM changes, indicating lower AM cortisol. This was not present for the children who were in the treatment condition. Gender, age, time before placement change, and waking time were found to have no significant effect on this.

Critical analysis. This study is a strong indicator that placement changes in regular foster care appear to be acutely stressful for pre-school aged children, seen through the

blunting of their AM-PM cortisol levels after but not before a placement change. While it is not a direct support for the impact of placement change on behavioural outcomes, dysregulated HPA has been linked with behavioural problems (Shirtcliff & Essex, 2008). A comparison of the HPA trajectory for children in RFC who did *not* disrupt would be useful to see whether cortisol for these children remained stable over time. Similarly, controlling for the destination to which these children moved would reveal whether a change to a difference placement, a return home, or adoption all had the same impact on children's HPA systems. Likewise, controlling for previous OOHC experience would be useful to see whether the impact of change is as consistently stressful for children's third move as their first. As it stands, this analysis tentatively suggests that *all* placement changes, whether planned or not, are stressful for children.

3.3.6 Norwegian kinship comparison study

Methodology. This was a prospective study of a cohort of 233 children aged 4-13 who had lived in family-based out-of-home care for at least one year by 1999 (Holtan, Rønning, Handegård, & Sourander, 2005). These children had entered care young, on average under two-and-a-half years old, and had all experienced abuse or neglect (Holtan et al., 2005). The study aimed to investigate the effects of kinship vs non-kinship care on children's behaviour and mental health. Non-randomised comparison groups were selected. Around half of the kinship and non-kin caregivers consented to participate, though complete data was not obtained from all participants. The second wave of data was collected around seven to eight years after baseline when children were on average 17.4 years old. Only 48% (N=111) of foster parents responded.

At study baseline, foster parents completed questionnaires which included the CBCL (Achenbach, 1991b) and a count of placements *before* the study began. A follow-up, caregivers indicated whether the placement had ended according to plan, without regard to

what the plan was (such as a planned return to birth parents, changing placement as planned, etc.). Only 10% of placements did not end according to plan.

Critical analysis. As with the South Australian study, this can give more insight into the impact of placement changes outside CW systems in the USA. Likewise, the long period of follow up is useful to study the long-term outcomes of instability.

Critically, 'disruption' in this study is conceived as an unplanned move to a new foster home or residential placement while 'permanency' is remaining with current OOHC caregivers until age 18 *or* ending the placement as planned. It is not clear how planned moves to other placements would be classified. Knowing whether planned and unplanned placement changes had different outcomes on youth would also clarify our understanding of instability in OOHC. As it is, the lack of clarity on whether planned endings can include placement change is an issue in interpreting any results of this study, which any analyses should make clear.

Reported findings. One set of analyses are relevant to this review, published by **Vis, Handegård, Holtan, Fossum, and Thørnblad (2016)**. They reported on data for 38 youth/young adults who had complete carer-reported CBCL scores seven to eight years after baseline. Further data specifically on these 38 youth is not available as most of the analyses included the whole sample of 111 follow-up respondents. While 10% of the entire sample ended their placements in an unplanned fashion, how many of these 38 youth specifically disrupted is not reported.

Bivariate analyses were carried out between the incidence of an unplanned end to a placement and carer-reported CBCL eight years after baseline. The incidence of disruption at any point over eight years did not significantly correlate with a problem behaviour score at follow-up.

Critical analysis. Using this analysis to further understand the outcomes of placement

change is difficult, due to several flaws. These include the small number of participants with relevant data at follow-up, the lack of controls for baseline behaviour or pre-study OOHC experience, and the lack of information about when and how often children moved in care. While the study found no relationship between placement instability and behaviour and social well-being over eight years, the methodological and analytical flaws mean that this finding is nearly meaningless.

3.4 Discussion

This review has critically analysed the longitudinal research and analyses which were most likely to reveal any impacts of placement instability of behaviour or outcomes for children in OOHC. While these studies used a range of approaches and samples, there are common flaws in methodology and analysis which make it difficult to interpret their results directly. Here a summary will be given of the strengths and flaws of the research, along with a discussion of what the research reveals about the outcomes of placement instability.

3.4.1 Methodological and analytical issues. While there are several critical flaws from which this body of research suffers, there are also strengths which mean their results cannot be overlooked. The samples in these studies are diverse and include children new to care as well as changing placements in care; this is important as children and adolescents in OOHC are a heterogenous group; entering care usually due to parent-related issues (Oyserman et al., 1992). One study included a nationally-representative of U.S. children who have contact with the CWS. Most studies in this review had enough participants to make the analysis of specific subsamples possible. Another strength is the common use of the CBCL as a behaviour measure. This tool has been validated in many settings including internationally (Bilenberg, 1999; Han & Yoo, 1995), and with different populations of children with high behavioural and mental health problems, including unaccompanied refugee children (Bean et

al., 2006), children with bipolar disorder or ADHD (Geller et al., 1998) and youth in residential settings (Wherry et al., 1992). While the studies in this review use a variety of different cut-off points or statistical methods to analyse their data, it enables at least some comparison of behavioural outcomes between studies. Despite this, there is a lack of research with children in OOHC that uses psychometric tools designed for use with children with high mental health needs. Given that children usually enter care due to maltreatment and are more likely than the general population to have extreme behaviour or mental health problems (Tarren-Sweeney & Goemans, 2019), it would be useful in exploring more specific measures of mental health problems.

The two most critical flaws of the research reviewed here are that the authors do not appear to have 1) accounted for the methodological limitations of studies in their analyses or 2) considered how to operationalize placement instability to look specifically at its outcomes only. Of the studies which compare the count of placement changes with behaviour over time, only one analysis (Rosenthal & Villegas, 2010) separated the number of changes into those pre- and post-baseline data collection. On the whole, analyses were more likely *not* to consider this, such as one comparing children who entered long-lasting placements before or after 45 days of entering care. These analyses seemed not to account for baseline data being collected on-average six months after children entered care, meaning that both groups of children would have been stable by baseline (Rubin et al., 2007). Given the range of confounds that could and do exist in this population, it should be a priority for analyses to be as accurate as possible in their use of data.

It is also critical to ensure that placement instability is well-conceptualised. Not all the analyses included in this review were designed to focus specifically on placement instability, but research which does intend to study it closely ought to think carefully and provide clear rationale for their operationalization. Studies which include children new to care and those re-

entering or changing placement should take care to control for these experiences. Likewise, separating the effects of placement instability from re-entry to care is vital to delineating how each effects the well-being of children and adolescents in OOHC. A child's return to their original caregivers followed by a re-entry to OOHC may be different to placement changes in OOHC, as the re-entry to care is often due to more maltreatment.

Another flaw which made critiquing study methodology difficulty was the lack of clear details about study methodology. This review would have benefited from access to more specific information about which placement changes are counted, as well as the movement of children in and out of care throughout the study. Only two studies explicitly stated which different types of placement change were included in their analyses (Barber & Delfabbro, 2004; Newton et al., 2000), one including all placement changes and one excluding respite care. Similarly, details about how many in a sample were in care at each wave (or had moved in and out of care) would further help compare the results of different studies.

The methodological and analytical issues highlighted this review were also found in a previous British study. In it over 90% of publications were rated as meeting only some quality criteria or lower (Jones et al., 2010).

3.4.2 Evidence of an outcome. The six studies and their analyses reviewed here report inconsistent findings regarding the existence of a direct, causal relationship between placement instability and negative outcomes for children in foster care. While some of the research does show there are associations between child well-being and placement instability that holds over time, the methodological and analytical flaws described above mean that the research cannot show the direction of this relationship. This is an unexpected result, as both the assumptions in published literature and attachment theory support the need for consistent, stable caregiving for children in care in order for children to have positive outcomes.

Biological evidence. The strongest support found by this review comes from Fisher and colleagues (2011). Their analysis indicates that placement change in the context of regular foster care is very stressful for young children - whether they are reunifying with birth parents, being adopted, or staying in care. That it is a direct measure of the physiological impact of placement change rather than an indirect or observed reports of behaviour also increases the reliability of this data. While research in other areas have linked HPA disruption with behaviour, this study alone does not provide the conclusive support needed. Further research is needed with older children, as well as that which distinguishes between different types of moves (planned or unplanned, reunifications and adoptions, or periods in respite care).

Carer-reported-behaviour. The other studies in this review found mixed outcomes on carer-reported behaviour over short, intermediate, or even long periods. No studies analysed carer-reported behaviour outcomes over periods shorter than 18 months. Over18-36 months analyses did not find consistent effects of placement instability on behaviour change, even analyses of the same study which controlled for initial behaviour (Aarons et al., 2010; Rosenthal & Villegas, 2010). Where one study found consistent associations between placement change and problematic internalising behaviour at 18 and 36 months, another found it only for females at 36 months, and these two studies' findings for externalising problem behaviours were contradictory. Another analysis of the same study found children in unstable placements were twice as likely to have elevated behaviour problems after 18 months compared to children who entered a long-lasting placement within 45 days of entering care (Rubin et al., 2007). Significant increases in problematic behaviour were found to follow a higher number of placement changes (Newton et al., 2000). Finally, the two analyses that reported on outcomes up to 97 months (8 years) after baseline found no associations (Rosenthal & Villegas, 2010; Vis et al., 2016).

These results unfortunately cannot be taken completely at face value due to the previously mentioned flaws. It may be that in the short-term placement change has no effect on behaviour and that long-term placement change is too unimportant a variable to influence children and youth in the OOHC, but it may be just as likely that research to date has not been undertaken with enough specificity to identify the impact of placement change on behaviour in the short and long term. Reviewing qualitative research into self-reported long-term outcomes of instability will address part of this question, but high-quality longitudinal research is also needed. That many of these analyses have found significant, if inconsistent, increases in problematic behaviour following placement change suggests that the assumption of a relationship is likely correct, but, again, more research is needed to identify the nature and extent of this relationship.

Gaps in research. The research reviewed here covers only a narrow subset of potential outcomes of placement instability. All but one article analysed behaviour only, measured via carer-reported CBCL or another carer-reported behaviour measure. Other areas of investigation can be seen in the excluded studies, which covered the relationship between placement instability and hyperactivity (Linares et al., 2010), children's feelings about care (Chapman & Christ, 2008), social skills (Akin, Byers, Lloyd, & McDonald, 2015), cognitive functioning (Pears, Kim, & Fisher, 2008), and education (Leonard & Gudiño, 2016). Measuring a wider range of variables and analysing how they are impacted by placement change will help broaden the understanding of placement change and its impact.

Similarly, only one analysis in this review measured youth self-reported behaviour - which showed that there were discrepancies between youth- and parent-reported internalising behaviour problems after eight years in care. Accurate reporting of observed internalising behaviour can be affected by parental distress (Najman et al., 2001), which is likely given children in unstable placements are often moved due to their behaviour problems. Likewise,

unstable children may not be placed with a caregiver long enough for them to learn to recognise signs of internalising behaviour issues (Tarren-Sweeney et al., 2004), so investigating whether self-reports reveal different impacts of placement change over time could be an avenue worth pursuing, even though evidence suggests youth tend to under-report data (Tarren-Sweeney, 2019a). Collecting self-report data would also help, as a low level of agreement between youth- and parent-reported behaviour has been linked with imminent breakdowns (Strijker, van Oijen, & Knot-Dickscheit, 2011).

Another gap in this research relates to the lack of studies investigating the short-term effects of placement instability on mental health and behaviour. Most studies here have more than a year between data collection point. Studies which collect data more frequently would be able to have a clearer picture of behaviour and mental health leading up to and after a change of placement. While this presents different challenges to long-term data collection (further discussed in Chapter Five), only one study currently investigates placement instability over fewer than 18 months (Fisher, Van Ryzin, et al., 2011).

Finally, further analysis into the effect of different types of placement changes would be useful. Excluding planned placement changes from their instability measure is commonly done in instability research, perhaps due to a focus on disruption (the unplanned end of a placement) instead of placement instability (James, 2004) and there are some approaches to OOHC which do not view planned change as a negative (such as the MTFC-P intervention mentioned in this review, which places children with professional caregivers for a period, with the plan to remove them from this setting later). Evidence in this review suggests that pre-schoolers experiencing all kinds of moves were significantly stressed after changing placement (Fisher et al., 2011) and other qualitative research suggests many foster children and alumni believe all placement changes are equal (Unrau, 2007). High quality longitudinal research is needed before it can be assumed that planned placement changes are less

detrimental to children.

3.4.3 Conclusion. While this review initially found over thirty published longitudinal articles analysing placement instability, only eight were undertaken with enough rigour to include them in this review. Some of the research suggests a connection between placement change and the well-being of children and adolescents in OOHC, with the strongest evidence coming from a study showing that placement change significantly disrupted the cortisol levels of pre-schoolers. Despite this, the flaws in methodology and analysis across all studies and analyses brook a direct interpretation of this support. More research is needed which looks specifically at instability and addresses the weaknesses of existing studies and analyses. In the next chapter, a review of the qualitative research will be undertaken to investigate what support it provides.

4. Review of Qualitative Research

4.1 Purpose

This chapter reviews qualitative research conducted with children, teenagers, and adults who are or have experienced instability in OOHC, as well as foster carers and caseworkers and other professionals who work with those in OOHC. Qualitative research can provide rich descriptions of the lived experience and relay how people or groups understand a situation. In the context of placement instability, this research can highlight how young people, carers, and professionals think about placement instability and whether they perceive it to have any effect on those who experience it. Given the lack of research into the effects of placement instability with self-reported behaviour in longitudinal research, this is especially important area to review. This chapter will identify the relevant research and critically appraise the methodology and analytical approaches of the literature, and then explore and discuss themes surrounding the positive or negative impacts of placement instability on the well-being of those in OOHC.

4.2 Search Results

The criteria for inclusion in this review are found on page 14. Fifty-nine qualitative publications were found which discussed placement instability with participants who had experience of family OOHC. Twenty-four studies, with relevant results published in twenty-six articles (Appendix C); this included 22 published articles and four theses. Thirty-four qualitative studies were excluded as they discussed placement instability without referencing the outcome or impact on those experiencing it or focused only on the impact of experiencing OOHC care itself.

4.3 Studies selected for review

Tables five to seven (Appendix C) list the twenty-four studies. Three studies were undertaken in Australia, one each in Sweden, Norway and Canada, seven were completed in England and the United Kingdom, and nine in the U.S. Unlike the review of longitudinal research, whole body of research will be collectively reviewed and critically analysed together.

4.4 Methodologies employed in peer-reviewed studies.

4.4.1 Study design and sampling method. Most studies included a purposive sample, and gathered data with a single interview with each participant. Three studies aimed to interview youth two or three times (Aparicio et al., 2015; Buys et al., 2011; Harwick et al., 2017), two studies included focus groups with foster carers (Geenen & Powers, 2007; Rostill-Brookes et al., 2011), and one study mailed surveys with open-ended questions to carers (Unrau et al., 2011). Studies all included participants who had experience of OOHC, with only six specifically selecting participants who had been unstable in care (Barber & Delfabbro, 2004; Chambers et al., 2018; Hébert et al., 2016; Martinez, 2010; Rostill-Brookes et al., 2011; Skoog et al., 2015; Unrau et al., 2008, 2010). Most studies (N = 17) gathered participants through snowball or self-selection methods. Two studies were part of larger quantitative projects which invited some or all participants to respond qualitatively; one used stratified random sampling to select registered foster carers in a U.S. state and sent surveys which contained qualitative open-ended questions that participants could choose to respond to (Unrau et al., 2011) and the second was part of a national longitudinal sample including 20% of all Norwegian children entering OOHC during a set period, and interviewed a purposive subsample (Christiansen et al., 2010). Of the other four, one was undertaken as an ethnographic research project with the author observing, volunteering in, and interviewing youth and staff in a U.S. residential facility for boys (Penzerro, 2003), a second was

conducted within a feminist Participatory Action Research framework stemming from the author's work with young women involved in sex work in England (Coy, 2009), and another invited specific participants in a Canadian longitudinal study to be interviewed based on their experience of stability while in care (Hébert et al., 2016). The final publication included in this review summarised research conducted in the UK (Ward, 2009), of which the original publications were not able to be located. After consideration it was decided to include this in the review as it contributed unique themes.

Critical analysis. There was little variation in the design of studies in this review, especially regarding the interview method for young people and professionals. Two studies reported they planned to use focus groups with participants but changed to one-on-one interviews at the request of the young people and alumni in their sample. It may be that the lack of focus groups with young people or OOHC alumni is a weakness of the body of research in this review, though there is some debate about whether individual interviews enable participants to more freely disclose their thoughts on sensitive topics (Guest et al., 2017; Kruger et al., 2019). Many studies (N = 20) did not specifically recruit participants with experience of unstable OOHC, which may be a weakness of the research, however the fact that one or more outcomes of placement instability were mentioned in their results would suggest that it has a serious impact on those who experience it. A strength of this body of research is that it represents not only UK and US populations, but also some European and Australian groups. While the results found here may not be generalisable to groups outside these areas, the variety may reveal whether there are different responses to placement instability in different areas.

4.4.2 Participants. Participants in most studies were adolescents currently in (N=13) or adults formerly in (N=11) OOHC. Five studies also included current foster carers (Buys et al., 2011; Geenen & Powers, 2007; Rostill-Brookes et al., 2011; Unrau et al., 2011; Ward,

2009), and four included caseworkers, social workers or other professionals such as teachers or guidance counsellors who worked with youth in OOHC (Buys et al., 2011; Geenen & Powers, 2007; L. Perez, 2011; Rostill-Brookes et al., 2011). The specific details of each group of participants are described below and in Appendix C.

Youth in care. Twenty-two studies were conducted with teenagers who were currently in OOHC (N=8) (Barber & Delfabbro, 2004; Booysen, 2009; Buys et al., 2011; Christiansen et al., 2010; Hyde & Kammerer, 2009; Penzerro, 2003; Rostill-Brookes et al., 2011; Skoog et al., 2015), teenagers and adults who had been in OOHC (N=9) (Barn & Tan, 2012; Chambers et al., 2018; Coy, 2009; Harwick et al., 2017; Hébert & Lanctôt, 2016; Johnson, 2012; Natalier & Johnson, 2015; Unrau et al., 2008; Ward, 2009), or both (N=4) (Aparicio et al., 2015; Butler & Charles, 1999; Geenen & Powers, 2007; Wadman et al., 2018). One study included was not clear whether participants were currently in OOHC (Mallon et al., 2002). Most participants were aged 13 - 24, with a total range of nine to 65 years. Six studies had fewer than ten participants (Aparicio et al., 2015; Booysen, 2009; Butler & Charles, 1999; Harwick et al., 2017; Mallon et al., 2002; Rostill-Brookes et al., 2011), six had 10-19 participants (Barber & Delfabbro, 2004; Coy, 2009; Hébert & Lanctôt, 2016; Johnson, 2012; Penzerro, 2003; Skoog et al., 2015), four had 20-29 participants (Geenen & Powers, 2007; Hyde & Kammerer, 2009; Unrau et al., 2008, 2010; Wadman et al., 2018), and five had between 30 and 80 participants (Barn & Tan, 2012; Buys et al., 2011; Chambers et al., 2018; Christiansen et al., 2010; Martinez, 2010; Natalier & Johnson, 2015), and one gave no details (Ward, 2009). Within the samples, females were more represented than males; five studies comprised of 100% female participants (Aparicio et al., 2015; Booysen, 2009; Coy, 2009; Hébert & Lanctôt, 2016; Johnson, 2012) and three more comprised of between 70%-99% female participants (Geenen & Powers, 2007; Harwick et al., 2017; Wadman et al., 2018); only one study included 100% male participants (Penzerro, 2003). Only ten studies gave

details of ethnicity. These included three small studies based in England and the UK included White, Black African and Black Caribbean participants (Booysen, 2009; Butler & Charles, 1999; Rostill-Brookes et al., 2011), and seven studies from several US states reported Caucasian/White, African American/Black, Latino/Hispanic, Native American, and mixed-race participants (Aparicio et al., 2015; Chambers et al., 2018; Geenen & Powers, 2007; Harwick et al., 2017; Hyde & Kammerer, 2009; Johnson, 2012; Unrau et al., 2008). Four of these studies had more than 20 participants, and of these all over-represented ethnic minorities relative to the estimates of national ethnic breakdowns (United States Census Bureau, 2019).

Most but not all participants in these studies had experienced family OOHC. Some teenagers who had entered directly into residential care were included in two studies with youth currently in residential care (Mallon et al., 2002; Penzerro, 2003) and one with participants who *had* been residential care (Hébert et al., 2016). Most studies included participants who experienced at least one placement change (N = 17), and eleven included only those with more than two changes . (Aparicio et al., 2015; Barber & Delfabbro, 2004; Booysen, 2009; Butler & Charles, 1999; Chambers et al., 2018; Harwick et al., 2017; Hébert & Lanctôt, 2016; Hyde & Kammerer, 2009; Johnson, 2012; Rostill-Brookes et al., 2011; Unrau et al., 2008). Most participants experienced 2-10 placements while in OOHC, though four studies reported that between 31% and 70% of their participants had moved through more than ten placements (Chambers et al., 2018; Johnson, 2012; Natalier & Johnson, 2015; Unrau et al., 2008).

Carers. Participants in these studies (N = 5) were adults who cared for children or youth in their home. The age range of participants was reported between 36 and 77 years old in two studies. Participants were mostly female, only one study reported slightly more male than female participants (Rostill-Brookes et al., 2011). Minorities were again over-

represented in some US and English studies (Geenen & Powers, 2007; Unrau et al., 2011), though two studies gave no details. One study had fewer than ten participants (Rostill-Brookes et al., 2011), two included 20-30 participants (Buys et al., 2011; Geenen & Powers, 2007), and one over 100 participants who had written their own answers as part of a mail survey (Unrau et al., 2011).

Carers in one study had experienced between one and seven placement breakdowns (Rostill-Brookes et al., 2011), while another reported most carers had 10+ years' experience in OOHC (Buys et al., 2011).

Caseworkers. Participants in these studies (N = 4) included adults who worked in professional capacities with children and young people in OOHC, including caseworkers, social workers, advisors, child welfare educators, and guidance counsellors. They were aged between 20 and 65 years old according to three studies. Most participants were women, with one study including 100% female caseworkers or advisors. Two US studies reported ethnographic details, one which overrepresented Caucasians, and another which overrepresented Hispanics.

One study reported participants' experience, with 32% having less than five years' experience and 8% more than fifteen years. Another reported that participants had experienced at least ten breakdowns each during their career. Participant numbers ranged from five to 39 participants.

Critical analysis. Where research in the previous review included only one longitudinal study of self-reported behaviour, the studies in this review predominantly feature youth or adults with direct experience of OOHC and placement breakdowns and instability. The importance of including the views of those in OOHC has been raised (Unrau, 2007) and it is a strength of this area of research that so many studies which include youth *and* adults are able to be included in this review. Having several studies reporting the experiences of

carers and professionals is also useful to identify whether there are different outcomes of placement instability that each group may report.

A weakness of this research is that very few studies include older alumni. Only two studies include adults aged over 30 years old, and only six have participants aged over 24 years old. Similarly, few correlational or longitudinal studies report on the post-OOHC progress of adults. Some mention their participants were homeless during the study (Aparicio et al., 2015) however the lack of details makes generalisation even to the study sample difficult. Another flaw is that most studies with carers and professionals did not give details of how much experience they had with children and youth in OOHC. Overall, participant demographics and experience in/with OOHC were not well reported. Though this review is focused on the experience of youth in family-based OOHC, there are studies in this review that contain the views of youth or alumni who entered OOHC directly into a residential setting. Because of the unclear reporting of participants, it is hard to tell which studies or which views are reported by youth without family-based care experience, or if there are differences in how these youth experience placement instability and OOHC. Finally, half the studies in this review include participants with no or one placement change. This makes it harder to identify any meaningful effects of placement change.

4.4.3 Analytical approach. The most common analytical approach reported in this review was a form of thematic analysis; eight publications described their approach in this way or described their process as ‘reading for themes’ (Barn & Tan, 2012; Butler & Charles, 1999; Buys et al., 2011; Harwick et al., 2017; Hyde & Kammerer, 2009; Johnson, 2012; Martinez, 2010; A. G. Perez, 2015). Four analyses used interpretive phenomenological analysis (Aparicio et al., 2015; Rostill-Brookes et al., 2011; Skoog et al., 2015; Wadman et al., 2018), five used constant comparative methods (Chambers et al., 2018; Christiansen et al., 2010; Geenen & Powers, 2007; Natalier & Johnson, 2015; Unrau et al., 2008), one article

each used voice-centered relational method (Coy, 2009) and consensual qualitative method (Hébert et al., 2016). Some publications (N=7) did not describe any analytical steps (Barber & Delfabbro, 2004; Booysen, 2009; Mallon et al., 2002; Penzerro, 2003; Unrau et al., 2010, 2011; Ward, 2009). Two studies published by Unrau and colleagues (WHEN AND WHEN) suggested details were reported in another publication, but an analytical method was not found there either (Unrau, 2007).

Critical analysis. Across the body of included research this was the area most poorly reported. While ten studies named the specific analytical approaches they used, most included only a few sentences regarding they steps they took in analysing and ensuring trustworthiness of the data. Frustratingly, this diminishes the trust which can be placed in the results of these analyses. Regarding the body of research as it is, only a handful of studies have described the steps taken to ensure the credibility, transferability, dependability, and confirmability of their results (Kisely & Kendall, 2011).

4.4.4 Aim. Fifteen publications looked specifically at issues surrounding placement change and instability in OOHC. Three focused on the outcomes, psychological shifts, or impact of instability on participants or youth in care (Chambers et al., 2018; Martinez, 2010; Unrau et al., 2008). Eight publications aimed to describe the experience of breakdown or instability (Booysen, 2009; Hébert et al., 2016; Johnson, 2012; Penzerro, 2003; Skoog et al., 2015; Unrau et al., 2010, 2011; Ward, 2009) and four focused on the processes and causes of breakdowns (Barber & Delfabbro, 2004; Barn & Tan, 2012; Butler & Charles, 1999; Rostill-Brookes et al., 2011). The other eleven studies focused on the impact of various OOHC factors on youth and alumni (Buys et al., 2011; Hyde & Kammerer, 2009; Natalier & Johnson, 2015), on the experience of transitioning out of care (Geenen & Powers, 2007; Harwick et al., 2017), being a teenage mother (Aparicio et al., 2015), self-harm (Wadman et al., 2018), attachment (A. G. Perez, 2015), youth in care with minority sexual orientations or

non-binary identifications (Mallon et al., 2002), development and well-being (Christiansen et al., 2010), and women who entered sex work while they were still adolescents in OOHC (Coy, 2009).

Critical analysis. Only two studies focused on the effect of placement instability *outside* the direct experience of placement breakdowns. While it may be considered strongly supportive of the impact of placement instability that youth, carers, and professionals mention its effect even in unrelated studies, the lack of research focusing directly on *outcomes* suggests there are likely to be views which are not represented in this review. The diverse range of study aims also makes interpreting the results difficult; discussion of impermanence could refer either to in-OOHC instability or an experience of having many informal caregivers before entering care.

4.5 Themes

This review will follow the format of the two publications which looked most thoroughly at the experience and outcomes of placement instability (Chambers et al., 2018; Unrau et al., 2008). Themes will be separated into 1) the immediate experience of placement changes and instability and 2) longer-term effects of placement instability. Then, the different effects and outcomes of placement instability will be reviewed through the lens of coping styles

4.5.1 The immediate experience of placement instability.

Constant adjustment. One part of the immediate experience of placement change and instability which youth said they experienced was of the necessity and effort required to adjust repeatedly to the setting of a new placement (Chambers et al., 2018; Hyde & Kammerer, 2009; Martinez, 2010; Natalier & Johnson, 2015; Skoog et al., 2015; Unrau et al., 2010). Youth expressed that they found different carers could have different expectations,

rules, and habits which needed to be discovered and conformed to, and which might have been different to previous rules and expectations (Coy, 2009; Hébert et al., 2016; Ward, 2009). Some youth mentioned feeling stressed or pressured by this constant need to adjust (Buys et al., 2011; Geenen & Powers, 2007; Hébert et al., 2016) and they felt this impacted their ability to settle into new schools (Buys et al., 2011) or even at home (Butler & Charles, 1999; Natalier & Johnson, 2015), which they felt meant they needed more time to make new connections and friendships (Martinez, 2010).

Of the carers, caseworkers, and professionals, only one caseworkers in one study reported that they felt that a new placement meant starting again (A. G. Perez, 2015); however the *authors* of many studies were attentive to the perceived difficulty of changing placement, highlighted how the "emotional wear and tear" (Hyde & Kammerer, 2009, p. 271) which accompanied the constant adjusting could lead to a depletion of resources for engaging with each new setting.

As I moved, I just didn't feel like making any more friends. Here I am just out of [high school #4] and I have two or three friends because I didn't even care. (Foster youth, male, age 17; Hyde & Kammerer, 2009, p. 271)

Some respondents also mentioned that sudden or unplanned placement changes were felt to exacerbate the difficulty they had in adjusting. Unexpected shifts left youth with the sense they did not have the information they felt they needed, sometimes not knowing why they were changing placements (Chambers et al., 2018) and making them feel unprepared for whatever they might encounter (Martinez, 2010; Rostill-Brookes et al., 2011; Unrau et al., 2010). It created an atmosphere where children and youth moving between placements reported that they came to anticipate and expect repeated movement and adjustment (Butler & Charles, 1999; Skoog et al., 2015; Unrau et al., 2010).

Loss. Another perceived impact of placement changes were the experience of loss

and losing both material and intangible things. These included: feeling a loss of relationships with adults or carers to whom young people said they had strong relationships or connections (Barn & Tan, 2012; Chambers et al., 2018; Geenen & Powers, 2007; Hyde & Kammerer, 2009; Martinez, 2010; Wadman et al., 2018), school or neighbourhood friendships (Chambers et al., 2018; Johnson, 2012; Unrau et al., 2008), siblings who might now be in different placements (Chambers et al., 2018; Unrau et al., 2008; Wadman et al., 2018), a familiar place, home, or neighbourhood (Geenen & Powers, 2007; Rostill-Brookes et al., 2011), or simply possessions which were left behind when a sudden placement change occurred (Mallon et al., 2002; Martinez, 2010; Unrau et al., 2008, 2010). In two studies, young people highlighted a perception that observing instability in others still had an impact on them: when other children moved away they lost a relationship even without moving themselves (Hébert et al., 2016; Ward, 2009).

This theme was reflected in the views of some professionals (Geenen & Powers, 2007, 2007; A. G. Perez, 2015). They felt that placement instability could result in the loss of a child's progress or sense of motivation to continue working towards their goals (Hyde & Kammerer, 2009; A. G. Perez, 2015). Carers suggested that placement change might lead to a loss of a necessary day-to-day consistency (Geenen & Powers, 2007). In contrast, youth in one study highlighted that placement endings did not necessitate the end of a relationship. Some youth and carers in Norway reported still having connections or seeking out previous foster carers even after the placement ended (Christiansen et al., 2010).

They [foster youth] go through a constant state of loss. They lose their families first. Then they often lose one foster family after another for lots of times, things that have nothing to do with them. And they lose their friends. They lose their school. They lose their neighbourhood, their sense of who they are and where they belong. And it's just a series of losses until finally, I think a lot of kids just feel empty. (Caseworker, Geenen & Powers, 2007,

p. 1093)

Other immediate psychological impacts. A range of emotions and cognitions, primarily negative, were reported as accompanying the often unexpected and unwelcome ends to placements (Rostill-Brookes et al., 2011). These were highlighted by youth, carers, and professionals. Negative emotional reactions to placement changes mentioned by youth and carers included *sadness and feeling upset* (Johnson, 2012; Rostill-Brookes et al., 2011), as well as stress, distress, shock, and confusion (Geenen & Powers, 2007; Johnson, 2012; Rostill-Brookes et al., 2011; Skoog et al., 2015; Unrau et al., 2010, 2011) and some youth with histories of self-harm reported that the time just after placement changes were when they self-harmed again (Wadman et al., 2018). Youth mentioned feeling *fearful* or nervous of the new placement or uncertain about how it would unfold (Natalier & Johnson, 2015; Rostill-Brookes et al., 2011; Unrau et al., 2010), and some carers also acknowledged this (Unrau et al., 2011). In particular, the safety of the new placement was mentioned as a cause for concern by youth, especially if they had no information about it (Chambers et al., 2018).

Feeling frustration and *powerlessness* were common themes for youth who experienced sudden or unexpected placements (Coy, 2009; Hébert et al., 2016). Many youth reported they understood placement changes as a *rejection* (Barber & Delfabbro, 2004; Chambers et al., 2018; Coy, 2009), especially if they felt their views on the placement had been ignored or discounted (Chambers et al., 2018; Coy, 2009; Hyde & Kammerer, 2009). The authors of one study highlighted this in the way that, unlike carers or professionals, youth did not describe placement changes as ‘breakdowns’ but instead as ‘moving on’ (Rostill-Brookes et al., 2011), suggesting that they had normalised what should be a disruptive and unusual process. Across many studies young people used a range of similes comparing how they perceived their moves in OOHC to the movement of bags of trash (Coy, 2009), footballs (Hébert et al., 2016), and other inanimate objects being moved about without

thought (Butler & Charles, 1999; Natalier & Johnson, 2015; Skoog et al., 2015).

Opportunities. Two studies asked participants directly whether there were any benefits to changing placement. While many youth said there were no good things (60% of participants in one study, (Unrau et al., 2008), others mentioned that leaving a unhappy or unsafe placement was a good outcome of changing placements (Chambers et al., 2018; Christiansen et al., 2010; Unrau et al., 2008) which professionals also mentioned (A. G. Perez, 2015). Likewise, youth mentioned that a placement change might provide a new opportunity in a fresh setting, perhaps without any negative relationships or stigmas which had developed in the previous setting (Martinez, 2010; Unrau et al., 2008) and might even lead to being placed with siblings- which could mitigate the difficulty of changing placements (Unrau et al., 2008). In one study a respondent mentioned that the times when they changed placements they spoke more with caseworkers and those supporting them, perhaps suggesting a time of better connections (Unrau et al., 2008).

Probably the fact that nobody knew you. You had the chance to start over, even though it mostly failed. (Foster alumni, 26 to 31 years old, Caucasian. 4 moves with 1 return home, (Unrau et al., 2008, p. 1261)

4.5.2 Longer-term or indirect outcomes. As well as the immediate impact of placement changes, youth and adults described both how these experiences and placement instability itself influenced them during and after they left care.

Trust and relationships. The most commonly cited outcome of placement instability was a felt *loss of trust*. Alumni, carers, and professionals alike reported they noticed trusting others was harder, they felt, due to placement instability (Buys et al., 2011; Chambers et al., 2018; Johnson, 2012; Martinez, 2010; Unrau et al., 2008, 2011). Some alumni suggested that instability made them feel unable to communicate well (Johnson, 2012) or afraid to connect with others as they felt they could be hurt (Coy, 2009; Johnson, 2012), and others suggested

that they now felt unable to maintain close or meaningful friendships in their adult lives (Chambers et al., 2018; Coy, 2009; Johnson, 2012). This impact might seem to stem from youth in care losing effort from constantly adjusting to new relationships or settings and losing sources of support. Carers and other professionals said that they perceived placement instability as causing attachment problems for those in care (Unrau et al., 2011), making children and youth hesitant to connect and settle even with adoptive parents (Ward, 2009), and even leading to social disengagement (Buys et al., 2011) with some carers reporting that youth sometimes sabotaged relationships in order to avoid hurt (Rostill-Brookes et al., 2011).

I can't even make it when it comes to relationship. With me, it's a problem. I have a big problem being in a relationship. I have a trusting problem. I just like don't trust nobody, cause I've been used and abused too much. I can't say the other word, but I been f- over too much. That's how I feel. (Female, African American, age 22-25. Johnson 2012 p57)

Self-worth, sense of self, and belonging. Another long-term impact of placement instability reported by some youth and alumni was on their view of themselves. Youth and alumni who experienced repeated placement changes said it made them feel "like nobody", "worthless" and "not good enough" (Christiansen et al., 2010; Johnson, 2012; Natalier & Johnson, 2015). This mirrors the cognitions some youth mentioned during placements changes: they saw the change as a rejection and felt unwanted or uncared (Chambers et al., 2018; Coy, 2009; Rostill-Brookes et al., 2011), and some questioned what made them deficient to the point of being unlovable (Unrau et al., 2008). At a deeper level of self-concept, both youth and professionals mentioned that they saw repeated placement changes as leaving youth feeling without a strong sense of self, even losing their sense of self (Buys et al., 2011; Geenen & Powers, 2007; Mallon et al., 2002; Skoog et al., 2015) or feeling like they were not the same *because* of the placement changes (Skoog et al., 2015), perhaps assuming that after their efforts to adjust to emotional turmoil and loss, youth had no effort

for themselves. Adults who had left care also reported they felt placement instability left them with a sense that they had neither a home nor a family of their own (Chambers et al., 2018; Natalier & Johnson, 2015), and that despite some wanting to belong (Johnson, 2012) they were isolated and unconnected from others (Johnson, 2012; Martinez, 2010; Rostill-Brookes et al., 2011), compounding the difficulties some of them had with forming and maintaining relationships.

Other long-term outcomes. Carers and caseworkers reported that frequent placement changes prevented children and youth in OOHC from developing like more stable children did. The effect of instability-related stress on *school* and the ability to settle at school was mentioned by youth in care and adults alike (Barn & Tan, 2012; Buys et al., 2011), especially the way instability made it hard to graduate or succeed academically (Chambers et al., 2018). Likewise, instability was felt by caseworkers as impacting youths' ability to develop basic life skills (Buys et al., 2011; Johnson, 2012) or a healthy sense of autonomy (Buys et al., 2011; Hébert et al., 2016). When placement changes occurred without input from the youth in care (or in spite of their input) or when youth were moved without information about when and where they were moving, it made some youth feel invisible, unimportant, and powerless (Chambers et al., 2018; Coy, 2009). Adults who worked with youth in care noted how this seemed to impacted their ability to make choices or decide for themselves how to act (Buys et al., 2011). Two common long-term outcomes that adults formerly in OOHC felt had come from placement instability included a lack of trust or a difficulty in building stable relationships, and unstable lifestyle marked by moving frequently and even finding it difficult to stay in one place for long (Chambers et al., 2018; Coy, 2009; Natalier & Johnson, 2015; Unrau et al., 2008, 2010). Moving felt more normal than staying in one place, and for some it was easy and natural to be able to pick up and leave (Johnson, 2012), which respondents felt was related to the placement instability they experienced while in OOHC.

"I can't stay still in one location for more than one year…it's difficult because I've been bounced around so much in my life…that it's hard for me to stay still" (Male alumni, aged 23, African American. 13 placements, zero returns home, (Chambers et al., 2018, p. 81)

Benefits of instability. Surprisingly, there were more long-term positive outcomes of instability reported by youth than positive immediate outcomes, though they may not have been truly positive outcomes. Adults who had been in OOHC most often responded that they felt that through their many placements they had an opportunity to experience many different ways of life and were exposed to diversity (Chambers et al., 2018; Martinez, 2010; Unrau et al., 2008) which could lead to an ability to understand or empathise with different points of view. Youth also suggested feeling that since they did not have anyone else they learned to rely on themselves and recognise their own inner strengths through the experience (Chambers et al., 2018; Johnson, 2012; Unrau et al., 2008) and felt they were able to adapt to any situations they found themselves in due to their resourcefulness (Chambers et al., 2018; Johnson, 2012; Martinez, 2010). For some youth, especially those who had experienced teenage pregnancy, there was a desire to provide a better life for their children or future families (Aparicio et al., 2015; Unrau et al., 2008), or a determination that once out of care their own lives would be more stable (Harwick et al., 2017). While these final two views were not framed by participants as benefits, it suggests that some alumni channelled their felt experience into proactive efforts to take control of and improve their lives.

4.5.3 Strategies employed to cope with placement instability. Another finding of this review was that children and youth who experienced placement instability reported that they engaged in a range of behaviours which may have been in response to placement instability. In a study including young women in residential care in Canada (Hébert & Lanctôt, 2016), some young women reported they felt they had no control over their experience of placement instability, while others deliberately instigated it through acting out,

running away, and other behaviours. No youth specifically mentioned behaving in certain ways due to their experience of instability, but some carers and caseworkers mentioned it.

The three categories in this section are taken from the theory of relational wounds, which suggests that youth engage in a number of ways as they try to express their needs, attain safety, or deal with past trauma (Griffin, 2004). Presenting a comprehensive review of how youth in OOHC cope with instability is outside the scope of the present review, and this section is included primarily to give an overview how youth and adults in research included in this review reacted differently to instability. It would be worth investigating whether these different coping mechanisms modify the impact of placement instability.

Withdrawing and isolating. This strategy describes the behaviours most mentioned by youth. Many reported they would avoid engaging with their foster families by staying in their rooms, avoiding being at home, or simply not speaking to anyone (Chambers et al., 2018; Johnson, 2012; Skoog et al., 2015), while detaching, emotionally disengaging or shutting down, and not letting people in (Chambers et al., 2018; Coy, 2009; Hébert et al., 2016; Hyde & Kammerer, 2009; Natalier & Johnson, 2015; Skoog et al., 2015, 2015; Unrau et al., 2008). Some youth specifically mentioned that they withdrew from things over which they had no control (Booysen, 2009; Hébert et al., 2016). Others suggested they simply ‘went with the flow’ and attempted to ‘just try to enjoy themselves’ (Johnson, 2012; Rostill-Brookes et al., 2011). Professionals in one study mentioned that a main difference between adolescents and younger children in OOHC was that the older youth tended to hide their feelings and avoid attachments, remaining focused on getting out of care (L. Perez, 2011). A perceived result of this behaviour was that it made youth “not care” – an outcome of placement instability repeated across many studies in this review.

Moving against. Some youth mentioned taking deliberate actions to show their negative feelings about placements change (Barber & Delfabbro, 2004; Christiansen et al.,

2010), or to attempt to gain some control over their lives, often by running away (Hébert et al., 2016; Penzerro, 2003). One youth reported she acted out as she felt she would never be good enough for a long-term placement, so questioned why she should attempt to improve her behaviour (Johnson, 2012). Foster carers mentioned these behaviours the most, suggesting they thought youth knew exactly how to behave to force a placement change if they were not content where they were (Barber & Delfabbro, 2004; Unrau et al., 2011), or that once youth knew a placement change was imminent their behaviour would deteriorate (Rostill-Brookes et al., 2011). Alumni reported in two studies that they deliberately acted in ways they knew would be unhelpful or would break relationships that were beneficial to them (Coy, 2009; Natalier & Johnson, 2015).

People pleasing. Another behavioural strategy seen in this research was people pleasing, or attempting to work hard to meet the expectations of those around them. One young woman who was interviewed reported she had attempted to people please in care, but that it had not led to the acceptance she had wanted (Coy, 2009). Other young women in that study reported they had begun street work because they had wanted to please the men they had met while running away from their placements. This was the least reported method, mentioned in two studies only by adults who had been in OOHC.

4.6 Discussion

Qualitative research involving views of youth, alumni, carers, and professionals on placement instability in OOHC has been reviewed in this chapter. Much of the research shares a common methodological approach. The diverse samples and research aims are a strength of this body of research, though the inconsistent reporting of this diversity can make it hard to directly interpret. Here, the strengths and weaknesses of the research will be summarised, then the themes surrounding the outcomes of placement instability will be

discussed.

4.6.1 Methodological and analytical issues.

The main strengths of the research are its inclusion of many youth and adult voices with experience of OOHC. Researchers have called for more research to include the views of youth in care (Unrau, 2007) and this appears to be an area where those voices are able to be heard. Older adolescents and young adults recently out of care were the primary participants in most studies, which suggests these studies can highlight a range of immediate and short-term outcomes of placement instability. Next, the stated aims of the research included in this review were for the most part not focused on instability. While this can be considered a strength of this review as it reveals that youth and alumni who have been in OOHC are impacted by instability enough to discuss it in other contexts, more research which focuses specifically on placement instability and its outcomes would reveal whether there are other themes which are not mentioned here.

The greatest weakness of the literature in this review was the lack of reporting of analytical strategies. While some authors stated clearly their epistemological framework for undertaking their research and analysis of their data, several publications gave few or no details about their approach. There are serious questions, therefore, about the trustworthiness of some of these studies. When combined with the assumption within this area of research that placement instability is bad, it raises questions of whether authors could be biased towards reporting the negative outcomes. This lack of detail is not limited to the research in this review and has been noticed in other areas of qualitative reporting; some have suggested that journal page limits can force authors of qualitative research to choose whether to "explain their method clearly or present their results persuasively" (Levitt et al., 2017, p. 5). Regardless of why authors did not include these details, it remains a weakness of this research and future research should not overlook the importance of establishing their

approach to qualitative data.

Gaps in research. There are areas which warrant further research to better understand how placement instability is understood. One important avenue for future research involves adults aged over 25 who have experienced placement instability, specifically to investigate how they understand the long-term impact of instability in their lives. Some research, for example, suggests that the level of *felt security* while in care has a greater impact on outcomes four to five years after youth leave care (Cashmore & Paxman, 2006). Longitudinal research past this time may be impractical, so interviews with middle-aged and older adults may shed light on this. Also, more research which directly asks youth, alumni, and especially carers and professionals what they believe to be the impact of placement instability might highlight whether there are other themes or outcomes which have not yet been revealed.

4.6.2 Discussion of findings. The most striking result of this review is that youth and alumni consistently report experiencing placement changes and instability in primarily negative ways. Specifically, the immediate experience is of constant adjustments and losses, accompanied by a range of mainly negative cognitions and emotions while the longer-term outcomes include a diminished capacity for trusting others and maintaining healthy relationships, as well as a negative self-view, a loss of sense of belonging, and negative impacts on education and stability as adults. This narrative is not only consistent with the expectations of most researchers in this area, but also developmental theory: successful development for youth is linked to long-term relationships and support (Arnett & Tanner, 2006), and for children and alumni in OOHC, instability appears to be a barrier to healthy development.

Though some youth and adults mentioned there benefits to instability, both immediate and long-term, critical appraisal of the longer-term benefits suggest they may also be indicative of negative outcomes. For example, reporting it is a “benefit” to rely only on

oneself due to their unstable experience in OOHC is suggestive of a maladaptive developmental pathway, wherein instability may have distorted one's perception of the world and of themselves. Healthy adults should be able to maintain commitments, friendships, and receive support when needed (CITATION). That caregivers and professionals did not mention any long-term positive outcomes to instability would support this view.

This review also found that there are different behaviours which children and youth use to cope with placement instability. Whether these coping strategies impact the short- or long-term effects of placement instability is unclear, but no publications reviewed here have considered child or youth coping behaviour into their analyses and this may be an avenue for further study. The lack of theoretical basis for much of the research reviewed here, along with the primary interpretation of placement instability through attachment theory (focused on the caregiver-child relationship) may explain this. Viewing placement disruption through the lens of transaction or environmental theories, which focus on actions which a young person takes in their environment, may provide different insight about factors which mediate the effects of placement instability (Howe, 1983).

4.6.3 Conclusion

Twenty-six publications which discussed an outcome of placement instability were included in this review. While there were serious concerns about the analytical trustworthiness of some of the research, the research represents the views of many youth and alumni and some carers and professionals. The results suggest that, to those who experience or witness it, placement instability is believed to have serious negative outcomes on a young person's experience of OOHC, relationships with others, and long-term well-being. The next chapter will present the final discussion of the reviews undertaken here, and will present suggestions for future research.

5. Discussion

5.1 Purpose

In the previous chapters, two literature reviews investigated the outcomes of placement instability for children and youth in OOHC. Here, the main contribution of these reviews will be stated, followed by an in-depth examination of the strengths and weaknesses of the body of research, followed by the implications these weaknesses have for future research into placement instability. The chapter will conclude by outlining the main limitations of these reviews.

5.2 Primary contribution of findings

These reviews provide two primary contributions to the wider body of knowledge in this area. First, due to methodological and analytical flaws in published high-quality longitudinal research, there exists no definitive evidence that establishes a causal relationship of the effect of placement instability on mental health or behaviour for children and youth in OOHC over time. There is a single exception, which supports that, over a period of six months, placement change is followed by increased cortisol blunting in pre-school-aged children (Fisher, Van Ryzin, et al., 2011).

Second, and in contrast to most longitudinal research, youth and adults who have been in OOHC consistently report that they perceive the effects and outcomes of placement change to be detrimental to their well-being. They report this both in their immediate experience of a placement change, as well as in the longer-term experience of care and into adulthood. This is supported by qualitative reports from carers and caseworkers.

5.2.1 Main implications. The primary implication of these findings is that further high-quality longitudinal research into placement instability is needed. The perceived negative effect which youth and adults who have been in OOHC report (Chapter four) is

mirrored in the strong cross-sectional correlations between placement instability and child ill-mental health and behavioural problems (Appendices D and E). These findings, however, cannot reveal the direction of the relationship; that requires well-designed longitudinal research. Unfortunately, this review has highlighted that there cannot be much confidence in the findings of existing longitudinal research due to several flaws in methodology and analysis (Chapter three). Rather than reveal any direction of effect, the body of research reviewed here can suggest only that placement instability and children's well-being co-vary *over time*. That is; children who experience placement instability are more likely, over time, to have poorer reported mental health and behaviour than children who are more stable in their placements. The only direct evidence that placement instability *preceded* poor mental health, again, was a single study which showed that over a six-month period cortisol levels increased in pre-school children after they experienced a placement change (Fisher, Van Ryzin, et al., 2011). To establish whether this relationship holds with young children, or for older children and teenagers, over longer periods of time, and with different measures of behaviour or well-being, more research is required that has been specifically designed to address the flaws that exist in existing longitudinal research.

5.3 Strengths and limitations of existing research

The aim of this literature review was to discover whether current research revealed whether placement change has an impact on the wellbeing of those who experience it. While it seems clear that placement instability and poor well-being co-vary over time, the direction of this relationship has not been established. In the following section, the reasons why this was not possible will be discussed, by addressing the weaknesses of the research. The primary focus will be on longitudinal research, with comments about qualitative research made where relevant. The strengths of the body of research, such as they are, will also be

touched on. Once the limitations and strengths have been highlighted, suggestions will be made about what kind of research could be undertaken to address these shortcomings and provide answers to the question this thesis has intended to answer.

5.3.1 Strengths of longitudinal studies.

Multiple longitudinal data sets. One strength of the body of literature is that several large longitudinal research studies exist with data recording both placement instability and children's behaviour and mental health over periods of 18 months to twelve years. This review looked at publications based on five longitudinal studies; more exist but were not reviewed as no suitable published analyses of the data exist (Appendix B). There exist, therefore, several sets of longitudinal data which can be re-analysed while addressing some of the issues which will be outlined below.

Similar behaviour measures. A second strength of this body of research is the use of similar behaviour measures across the studies. The CBCL (Achenbach, 1991b) was used in four out of six longitudinal studies, which can allow for easier comparison of population and findings. Carers in OOHC have been found to be as reliable informants as parents (Tarren-Sweeney et al., 2004). While the CBCL may be a too-broad instrument for a population as high-needs as children in OOHC, it's frequent use in research with both clinical and non-clinical children means there are national norms in many countries against which the behaviour issues of children in OOHC can be compared (Kristensen et al., 2010), and also reliable versions of the CBCL in other languages which allow comparison between OOHC systems internationally (Wild et al., 2012).

5.3.2 Limitations of longitudinal publications.

Given that researchers have long been aware of placement instability as a potential cause of poor outcomes for children in OOHC, the paucity of high-quality of research in this area is unexpected. There are several fundamental issues across the body of research which

will be outlined here, followed by suggestions for research which addresses some of these issues.

Including placement changes outside of data collection. The largest issue in interpreting the results of most analyses was that the count of placement changes was not restricted to those between waves of data collection only. Specifically, many longitudinal studies did not begin to collect the baseline data until six months after the study's commencement. Given that some studies included thousands of children, it must be expected that data collection cannot be completed on an exact schedule. However, analyses must then ensure that any placement changes occurring before baseline data collection *are not* included in the total count of changes between baseline and the second data measurement, as any effect which these movements may have will have already influenced the baseline behaviour. Only one longitudinal study clearly stated they were separately analysing pre-baseline placement changes (Rosenthal & Villegas, 2010). Others may have done this, but without stating so in their methodology the impact of placement instability over the first wave of the study cannot be clearly interpreted.

An example of this flaw can be seen in one analysis investigating the effect of a child entering a placement that lasted nine or more months within or after 45 days of entering OOHC, by examining the change in behaviour at baseline and wave 1 (18 months into the study) (Rubin et al., 2007). Though this would be a useful metric to understand about placement instability, this study's baseline behaviour data were collected on average six months (180 days) into the study, long after many children in both groups would have entered a long-term placement. Unsurprisingly, no statistically significant difference was found between these two groups.

Definition of placement change. Another of the most widespread issues these reviews have highlighted is the way is the lack of clarity in the definition of placement

instability and how this can impact the results of an analysis. The broader issue around the specific definition of placement instability (or lack thereof) is a recognised issue in this area (see Unrau, 2007). The present review found that the operationalisation of placement instability was often vague or unclear, both within longitudinal and qualitative research. For example, while many analyses defined an 'unstable' spell in care by the number of movements a child experienced, it was often unclear what *type* of movements were or were not included (such as to respite care, to a more/less restrictive type of care, etc). On a theoretical level this may be understandable; the qualitative publications and one longitudinal analysis (Fisher, Van Ryzin, et al., 2011) support the view that no matter where the move is to, a placement change can be experienced as stressful or detrimental. However, some movements which involve further maltreatment or neglect, specifically returns home, possibly not be automatically included in investigations into placement change. Several publications reviewed here classed a return to original caregivers and a re-entry to care as two placement changes; yet, when investigating the effects of placement change on well-being, the abuse or neglect that occurred likely had its own effect on the child's wellbeing separate from the disruption of moving. The qualitative research reviewed here was particularly unclear about how many returns home participants had experienced. Only two qualitative publications gave details of movements in care, returns home, and other salient details whenever they quoted a participant (Chambers et al., 2018; Unrau et al., 2010). Finally, establishing whether movement to respite care is or is not included in a definition of placement change is important, as even short-term changes may be important in examining the impact of placement change (Dozier et al., 2002)

Independent variables. With one exception, longitudinal research here investigated only the relationship between placement instability and caregiver- and caseworker- reported behaviour using the CBCL or similar instruments. While the effect of placement instability

on children's well-being is important, there may be other dimensions in which it affects the children who experience it. Some excluded longitudinal studies (Appendix B) aimed to investigate the impact of placement instability on other areas, such as children's view of their placement (Chapman & Christ, 2008), the effectiveness of emotional support from caregivers (Harden & Whittaker, 2011), levels of hyperactivity and impulsivity (Linares et al., 2010), academic achievement (Leonard & Gudiño, 2016), agreement between carer and youth reports of behaviour (Strijker et al., 2011), and attachment security (Lang et al., 2016; Pasalich et al., 2016). In contrast, qualitative research, through self-reports, highlighted that youth felt that several detrimental outcomes were linked to placement instability, such as poorer scholastic achievement, and a diminished trust towards others which could last into adulthood. High-quality research into a range of variables is required to have a clearer picture of what, if any, effect placement instability has. One specific area will be highlighted as a weakness within the range of longitudinal research reviewed here.

Self- or child-reported behaviour. As well as revealing the breadth of impact which youth attributed to placement instability, qualitative research and the one longitudinal publication which included child-reported mental health indicated there were areas which children and carers/caseworkers agreed and disagreed on. Particularly, the qualitative review indicated that while adults mentioned many aspects of placement instability, they did not mention all of them, so it may be that only using carer-reports of children's well-being, cannot accurately reveal the extent of the impact of placement instability. While the self-reports of children in OOHC may be unreliable (Tarren-Sweeney, 2019a) any discrepancies between caregiver- and self- reported behaviour should still be investigated, especially given that self-isolating behaviour was commonly reported across the qualitative research.

Study duration. Qualitative accounts of adults who had experienced placement instability suggest that placement instability was felt to strongly impact adults' ability to form

close, trusting relationships in the long-term, as well as increasing several negative emotions and cognitions in the short-term. These results were generally not replicated in the quantitative research reviewed here.

Short term. Two longitudinal studies investigated well-being over shorter periods, collecting data monthly (Fisher, Van Ryzin, et al., 2011) or every four months (Barber & Delfabbro, 2004). The former collected data every month for a period of two years, and analysed data three months before and six months after the placement change. This study found the only strong evidence of the impact of a placement change on children in OOHC care. The latter study, collecting data from caseworkers every four months, found that post-hoc analyses revealed some effects of placement change, but these were not uniform. It suggests that frequent data collection with carer- or child- reported data may reveal more about the effect of placement change in the short-term.

Long term. While three longitudinal studies investigated children's well-being over a period of five or more years (mostly in OOHC) and found no statistically significant relationship between placement instability and carer-reported well-being (NSCAW, LONGSCAN, and the Norwegian Kinship Comparison Study), issues with data collection and analysis, once again, prevent any confidence being taken in the lack of relationship.

One excluded prospective longitudinal study repeatedly interviewed adults leaving OOHC over four to five years (Cashmore & Paxman, 2006). It did not find a significant correlation between placement instability in OOHC and well-being at the end of the study, instead finding that the extent to which participants felt a sense of belonging in their living situation one year after leaving OOHC was significantly correlated. With the finding in the qualitative review (Chapter 4) that adults who experienced instability in OOHC reported they found it difficult to form meaningful relationships, further research into how adults manage relationships after leaving OOHC may be warranted. Only one longitudinal publication

reviewed here investigated behaviour after youth in OOHC reached the age of majority (Vis et al., 2016). Though it found no significant connection between placement instability and caregiver-reported behaviour, it was not clear how involved the carer-respondents were with the now adults they were reporting on.

Controlling for relevant confounds. A further weakness, especially of the longitudinal research, is that none of the studies reviewed here adequately control for previous or ongoing adverse experiences which may contribute to negative developmental pathways and therefore influence both placement change and other well-being indicators for children in care. Most children who enter OOHC do so due to maltreatment, which is known to have a wide-range of negative outcomes over a child, youth, and adult's life-span (Dozier et al., 2002); research into the effects of placement instability *must* be able, as much as possible, to delineate these different effects. Furthermore, given the heterogenous nature of children in OOHC (Oyserman et al., 1992), it seems important to control for more variables than age, gender, and ethnicity, which were the variables most controlled for in the longitudinal studies reviewed here. One factor which no studies controlled for was *age at their first admission to OOHC.* This has been found to correlate with a number of well-being outcomes compared to their age at time of study, including mental health issues both in and after care (Tarren-Sweeney, 2008a) and an increased chance of disruption during care (Bernedo et al., 2016; James, 2004).

Reporting of study methodology. A difficulty in reviewing longitudinal analyses was attempting to locate information about study methodology. Datum such as the total number of participants, mortality rate, when and how data were collected were not clearly reported in each individual analysis. This made understanding the overarching study methodology was nearly impossible in some cases. Especially in the case of the LONGSCAN and Foster Care Mental Health studies (Chapter 3), it is unclear whether they shared participants,

methodology, other instrumentation.

Qualitative research and analyses were extremely variable in their methodological reporting, with some including rich descriptions of participants and others giving only vague descriptions of both participants and analytical strategy. Analysis of qualitative research is capable of being as rigorous as quantitative, despite it not producing empirically objective results in the same way that quantitative research would, and it is a weakness of the body of qualitative research reviewed here that more authors were not as thorough in describing how they analysed their data.

Participants in qualitative research. A weakness of the qualitative research was the generally homogenous set of participants interviewed. Most were young adults, under thirty years old, selected through a snowball or convenience sample from local community organisations. The selection methodology was likely an influence on the similar participant groups. Whether placement instability has life-long effect on adults is unclear, and only a handful of studies had participants who were adults of middle age or older (Chambers et al., 2018; Coy, 2009; Unrau et al., 2008).

Theoretical background. A final weakness across the body of research surrounding placement instability relates to the use of theory. Most research cites attachment theory as the link between placement instability and negative outcomes, but few to no publications reviewed here attempted to explain any mechanisms by which the broken caregiver-child attachment relationship led to poorer outcomes for the child, and this dearth of further theorising about how placement instability impacts children and youth is among the most serious weaknesses in this area. The focus on attachment theory alone may limit the range of outcomes which are examined in research (Leathers, 2002), which is supported in this review by the focus only on externalising and internalising carer-reported behaviour in the longitudinal research (Chapter three). Furthermore, attachment theory itself may be unable to

comprehensively explain how children behave in situations of placement instability (Rittner et al., 2011), which this thesis also supports.

Some attempts to broaden the theoretical approach to children in OOHC have been suggested both specifically for placement instability research or with children in OOHC as a whole. These include the conservation of resources theory, which suggests that children experience transitions through OOHC as loss and become powerless and dependent on adults for resources (Rittner et al., 2011), using a sociological perspective as a general lens to examine how youth in OOHC progress (Wildeman & Waldfogel, 2014), or using Bronfenbrenner's Ecological theory to examine delinquency in OOHC (Farineau, 2016). What is certain is that there is room for further theorising as to how children experience and are affected by placement instability.

A lack of theory has been highlighted in other areas of research within OOHC. Adolescents who age out of OOHC without finding a stable living situation have also very little theory about how their experience impacts their future outcomes (Stein, 2006). It is a real weakness to find that two groups of children and youth who are being failed by the OOHC system are also being failed by the wider research community.

5.4 Implications for future research and practice.

5.4.1 Future research

There are several areas to which future longitudinal research or analyses should attend. Here, two areas which are broadly applicable will first be discussed; the need for care in reporting on research and the definition of placement instability. The specific implications for analysing existing data and undertaking new longitudinal research will then be outlined.

Care in reporting results. Perhaps the most fundamental implication of these reviews is that greater care needs to be taken in reporting on published research around placement

instability in OOHC. This thesis reveals that a causal relationship between placement instability and well-being has *not* been established, despite many stated assumptions to the contrary. The following quotes are typical of comments made in publications: *"the adverse effects of these disruptions on psychosocial functioning are well-documented"* (Fisher, Mannering, Stoolmiller, Takahashi, & Chamberlain, 2011, p. 481). *"Current research shows that when youth have multiple placement moves in the foster care system, they are more likely to experience poor psychological, social and academic consequences."* (Chambers et al., 2017, p. 392). *"Concerns about the adverse effects of placement instability are supported by findings from empirical studies which have reported that a greater number of placement changes is associated with adverse permanency as well as child-level outcomes, ranging from delayed reunifications […] to higher levels of behavioral disturbance […] and diminished ability to build attachments and stable relationships."* (James, Landsverk, Slymen, et al., 2004, p. 128). This review reveals this is not the case, and that care must be taken in making assumptions based on the wide body of correlational research that currently exists (Appendices D and E). This field has been poorly guided by scholarship and research literature to this point, and it is hoped that the present reviews will help to rectify incorrect information and ensure that future research is able to provide high-quality empirical evidence of the effects of placement instability on children's mental health, social relationships, and well-being.

Clear operationalisation of placement instability. A second broad implication of these reviews is that researchers should clearly report how they have operationalised placement instability in their analyses. There is no universal definition of placement instability and even children in OOHC disagree about what they believe researchers should focus on (Unrau, 2007). Furthermore, placement instability is complex and seems to effect children and youth in many ways, so a homogenous or consistent definition is unlikely to be

useful. Rather, these reviews have highlighted that it is *unclear* definitions of 'movements in care' that causes confusion. Future authors should be explicit about what aspect of placement instability they are investigating and what definition of a 'movement' in care they are using, including whether they are using planned movements or respite care.

Analysing existing datasets. This review included analyses of six longitudinal datasets, including the NSCAW and LONGSCAN studies. Several other longitudinal datasets also exist but have no high-quality analyses (Appendix B). There is room for further, high-quality examination of this data that addresses the weaknesses in existing research. Ensuring that only placement changes that occur *between* data-collection points are used and having a precise understanding of what aspect of placement instability is being studied so as to ensure that the analytical approach will lead to clear results.

New research. While re-examining existing datasets will yield some further insights, the studies undertaken to date are not themselves designed with placement instability in mind, and therefore cannot produce the high-quality data which is needed to thoroughly examine placement instability. New, large scale, prospective cohort studies which specifically include placement instability as one of the main variables are needed. Though such studies would be very expensive and likely require international co-ordination to ensure they are carried out well, it seems unlikely that there is another way to gather high-quality data which can be used to determine the effects of placement instability.

Among the several features this study will require, there are several features would make the data it collects high-quality enough to ensure the results are reliable:

- Recruit young children to the cohort prior to entering care and follow them through the course of their childhood; whether they remain at home, enter OOHC, are adopted, etc.
- Collect data more frequently. One of the issues of most longitudinal studies is their

collection of data every 12-18 months. It may be that this time period is too long to adequately identify the salient impacts of placement change and instability. Furthermore, more frequent data collection will mean the short- and long- term effects of placement change will be more clearly seen.

- Collect more data. This review has highlighted that placement instability is complex, and that youth report that it impacts them in several ways in the short- and long-term. It may be that the use of the CBCL alone is unable to detect the effects of placement change, especially when analyses control only for age, gender, and the reason a child has entered OOHC. Collecting not only carer-reported behaviour, but also children's self-reports, carer-child relationship, and other psycho-developmental measures will allow for complex and thorough analyses.

5.4.2 Implications for professionals

These reviews have no clear data with which to give direction to social workers, CW organisations, and policy makers who work with children in OOHC about what types of placement changes are or are not beneficial to children. The longitudinal review has shown that there is no evidence yet that supports ideas about whether certain movements in OOHC are more damaging than others, or how harmful placement instability is at different ages. Despite this, CW organisations must make decisions even when no strong evidence exists and this review would suggest that minimising placement change as much as possible is better for a child's well-being.

The qualitative review indicates that children and youth who experience placement change find it emotionally damaging, both during the initial experience and in the long term. In specific cases of a negative placement, children report that moving out of that placement can be beneficial, however long-term there were no reported benefits to placement instability, and the perceived benefit of youth coming to only rely on themselves or have no social

connections is clearly *not* beneficial for that teen or young adult. Initiatives to help youth in care develop connections with others and to foster self-confidence and self-worth may be protective factors against the reported effects of placement instability, however more research in this area is need.

5.5 Limitations of this reviews

"All narratives represent only one possible telling of the tale or organization of the available information." ('Narrative Literature Review', 2017). To ensure that data analysis and critique are undertaken consistently, it is often recommended that systematic reviews should be conducted within at least two researchers (Aromataris et al., 2015; V. Smith et al., 2011). Though this narrative review has included a clear process for identifying and reviewing individual studies and has not been as concerned with statistical data as a meta-analysis would be, it has still been primarily undertaken by author only. It is likely that another author might have included other research or raised other critiques when reviewing the research. It may be possible that another author could come to a different conclusion based on the findings of these reviews. However, this review has been supported by my supervisor, by constant self-reflection, and by, in the editing stages, asking other academics to read and highlight any unsupported claims in this review.

There exist other practical factors which may limit the findings of this review. A primary limitation is that only English-language publications were able to be included, as the author is academically competent in English only. Longitudinal studies of foster care systems in Scandinavia and other European countries have been undertaken (such as the The Norwegian Longitudinal Study on Out-of-Home Care (Andenæs et al., 2001), and publications which analyse these data but are not published in English cannot be included here. No English-language publications analysing studies conducted in any Asian, Middle Eastern, South American, or African countries were found. The findings of this thesis may,

therefore, be limited to the OOHC systems in North America and Europe/Australasia.

Another potential limitation of this review is the inclusion only of published research. Analyses of longitudinal data which result in no statistically significant findings are not always published (citation), and there may be analyses which did not find that placement instability and well-being did not significantly co-vary over time. It may be the case that some potentially significant percentage of research

The long period between the undertaking of these reviews and the completion of this thesis may be another limitation. Periodic searches were made for recent relevant publications; yet these were not undertaken as intensively as the initial literature searches. There may be recently published research that is relevant to this thesis, but which has not been included.

5.6 Conclusion

Placement instability is complex, and there is currently insufficient high-quality research that establishes if and how it effects the children, youth, and adults who experience it. Reviews of longitudinal and qualitative research tentatively suggests there is a negative relationship which links an increase of placement instability with a decrease in child or adolescent well-being, yet it will take careful, specific research to establish the nature and extent of the relationship.

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APPENDIX A

Published longitudinal analyses included for review

Table 1

Published longitudinal analyses included for review (N = 6)

Study	Authors	Sample demographics	Months (waves)	Excluded in analyses	Measures at every wave (informant)	Instability measure (informant)	Instability incidence	In care at end of study
U.S., FCMH	Newton, Litrownik, & Landsverk, 2000	N = 415 (54% f) Age: 2 - 17 Age entered care: M=6.6yrs SD=3.9yrs	18 (2)	Missing data. <2 years old. Interval between t1 and t2 too long/short	CBCL (caregiver)	All changes, including to receiving facility. (case records)	Range: 1-15 Mean: 4.23 Median: 4	Uncertain. "nearly all" p1373
U.S., LONGSCAN San Diego cohort	Villodas, Litrownik, Newton, & Davis, 2016	N = 330 (52.7% f) Age: 4 yrs Entered care before age 3.5. Remain in care 5+ months.	96 (2)	In care after age 3.5, less than 5 months	Physical well- being: 2 items (caregiver) CBCL (caregiver) *must have known child 6+ months	Number of placements, caregivers (case records)	Unstable trajectory: n=17,.13 -.36 odds of being with same caregiver over a two-year interval. Combined with children who returned home before age 6 and subsequently re-entered care (n=39)	100% of unstable trajectory. 70% had return home before age 6 then subsequently returned to care.
	Villodas, Cromer, et al., 2016	N = 251 Age: 4 yrs Entered care before age 3.5. Remain in care 5+ months.	120 (2)	Missing data.	Physical well-being: 2 items (caregiver) CBCL (caregiver)	Number of placements (caregiver)	Unstable n=7 All previously unstable. 1 same caregiver. 1 returned home.	95% of unstable group N=1 return home

Study	Authors	Sample (age at baseline)	Months (waves)	Excluded	Measures at every wave (informant)	Instability measure (informant)	Instability incidence	In care at end of study
U.S., NSCAW, CW cohort	Rubin, O'Reilly, Luan, & Localio, 2007	N = 729 (57% f) Age: 0 – 14 Continuously in OOHC for 18 months	18 (2)	Missing data, 9+ months in group home	Age >2: CBCL (caregiver) Age <2: temperament (caregiver)	Time taken to achieve placement lasting ≥9 months. Early (before 45 days), late (after 45 days), unstable. (caseworker)	Stability achieved: Early: 52.5% Late: 19.4% Unstable: 28.4%	100%
	Rosenthal & Villegas, 2010	N = 4,080 (52% f) Age: 0-16 Part of NSCAW. Not only children in OOHC	96 (4)	No CPS-funded services Infants	Age >2: CBCL (caregiver) Age: <2: temperament (caregiver)	Moves to foster homes (kin and nonkin), group homes, residential treatment, and other placement settings.	% with 1 / 1+ placement change 0 to 2-6 months: 6% / 3% 2-6 to 18 months: 7% / 8% 18 to 36 months: 5% / 4% 36 to 59-96 months: 3% / 2%	Unsure
	Aarons et al., 2010	N = 500 (51%F) Age: 2-15 Continuously in OOHC for 36 months	36 (3)	Infants (no CBCL)	CBCL (caregiver)	Removal from home with overnight stay elsewhere (caseworker)	Mean # placements 0 –18 months: 1.92 18 – 36 months: 0.28	100%
Australia, South Australian study	Barber & Delfabbro, 2004	N = 120 (49% f) Age: 4 – 17 (m: 10.8yrs) Referred new placement may 1998 – April 1999	24 (5)	Children on detention orders, supported accommodation, family preservation, <2 weeks duration.	Abbreviated CBC (6 conduct, 3 hyperactivity, 5 emotionality), social adjustment scale (case workers)	All placement movements (case worker) Unstable group: 2+ breakdowns due to behaviour	Incidence of placement change (all) 0-4 months: 53% 4-8 months: 24% 8-12 months: 21% 12-24 months: 34%	60% 100% of disruptive group

Study	Authors	Sample (age at baseline)	Months (waves)	Excluded	Measures at every wave (informant)	Instability measure (informant)	Instability incidence	In care at end of study
U.S., MTFC-P RCT	Fisher, Van Ryzin, & Gunnar, 2011	N = 71 (42%f) Age 3-5 (m: 4.47yrs) Entering foster placement, either in MTFC-P or control.	9 (every month)	No placement change. More than one placement change. Caregiver declined.	AM and PM collection of saliva on 2 consecutive days each month. (caregiver)	Move to new location, includes adoption, return home, new placement	All children have at least 3 months stable in placement preceding placement change, then six months stable following.	33% N=33 return home N=15 adoptions
Norway, Kinship comparison study	Vis, Handegård, Holtan, Fossum, & Thørnblad, 2016	N = 233 (45%f) Age: 4-13* (m: 8.9 - 9.5) from Holtan	96 (2)	Missing data, no contact.	CBCL (foster parents, some youth at t2)	Placement ended in an unplanned fashion	4.7% (N=11) disrupted.	66%. N=77 aged out N=2 adopted

Note. FCMH = Foster care mental health study, LONGSCAN = Longitudinal Studies of Child Abuse and Neglect, NSAW = National Survey of Child and Adolescent Well-being, MTFC-P = Multidimensional Treatment Foster Care for Preschoolers, RCT = randomized controlled trial, CBCL = child behaviour checklist (Achenbach), CBC = Child behaviour checklist (Boyle)

APPENDIX B

Excluded longitudinal studies

Table 2

Analyses excluded from longitudinal review due to placement instability measure (N = 12)

Study	Publication	Sample	Reason for exclusion	Results
Children entering care, Germany	Lang et al., 2016	N = 55 50.9% f Age: 9-79 months	Does not measure number of placement changes during study.	Hierarchical multiple regression: Number of placement changes pre-study not significantly related to baseline attachment security (β -.22, p < .1) or wave 3 attachment security.
LONGSCAN, SW site, U.S.	Proctor et al., 2010	N = 279 53.4% f Baseline age: 4	Does not measure number of placement changes during study.	Multinomial logistics regression: Caregiver stability significantly correlated with stable internalising behaviour trajectory (OR: 1.44, p < .05) but not stable externalising behaviour trajectories.
NSCAW, CW cohort, U.S.	Chapman & Christ, 2008	N = 290 53.7% f Age: 6+	Does not specify what analyses mean by placement stability.	Placement stability significantly negatively correlated with children adopting more positive views on their placement, and significantly positively correlated with children remaining positive about their placement.
	Leonard & Gudiño, 2016	N = 438 N = 234	Not restricted to number of OOHC placements.	Hierarchical regression: # home placements did not significantly correlate with either math or reading scores at wave 4, nor internalising or externalising behaviour problems.
	Rindlaub, 2015	N = 1,179 58.3% f Age: 11-16	Not restricted to number of OOHC placements.	Autogregressive cross-lagged model: # home placements did not significantly correlate with externalising or internalising behaviour.
	Rufa & Fowler, 2016	N = 225 52.9% f	Not restricted to number of OOHC placements.	For African American youth aged 4+ in kinship care, # home placements significantly correlated with externalising behaviour at 18 months (b = 4.42, p

		M age: 9.67		= .001) but not internalising behaviour.
NSCAW, CW and LTFC cohorts, U.S.	Harden & Whittaker, 2011	N = 1,720 Age: <2 yrs	Does not report number of placement changes during entire study.	Hierarchical general linear models: Placement changes at wave 2 significantly moderated the effect of emotional support on younger children's behaviour problems at wave 4.
Parenting RCT, U.S.	Kim et al., 2013	N = 145 100% f M age: 11.54	Does not report number of placement changes during entire study.	Longitudinal path model: Placement changes between waves 2 and 3 significantly mediated the effect of an intervention on tobacco and marijuana use and health-risking sexual behaviour.
PFR intervention RCT, U.S.	Pasalich et al., 2016	N = 210 44% f M age: 18 months	Excludes placements which broke down during RCT.	Previous instability significantly correlated with lower attachment security postintervention (β = -.2, p =.004) and higher externalising behaviour problems 6 months postintervention (β = -.15, p =.002).
PMTO in home study, U.S.	Akin et al., 2015	N = 121 56.2% f M age: 11.7 yrs	Uses annualised placement rate from whole time in care (including before study commencement)	Structural equation modelling: Annual placement rate significantly correlated with T2 social skills but not T2 functioning or problem behaviour
South Australian Study, Australia	Barber & Delfabbro, 2002	N = 235 48.5% f Age: 4-17	Compares individuals with previous behaviour-related placement disruption with others	Logistics regression: Disruptive individuals have worse T1 and T2 behaviour than others.
Use of psychiatric crisis services, U.S.	Park et al., 2009	N = 1,389 46% f Age: 3-16	Does not measure number of placement changes during study.	Logistics regression: Previous placement instability significantly correlated with repeated psychiatric crises (OR: 1.77, p < .001)

Note. LONGSCAN = Longitudinal Studies of Child Abuse and Neglect, SW site = South Western site, NSCAW = National Survey of Child and Adolescent Well-Being, CW cohort = Child Welfare cohort, LTFC cohort, Long term foster care cohort, RCT = randomized controlled trial, PFR = Promoting First Relationships©, PMTO = Parent Management Training - Oregon model

Table 3

Analyses excluded from longitudinal review due to T1 or T2 measure (N = 11)

Study	Publication	Sample	Reason for exclusion	Results
Australia post-care study, Australia	Cashmore & Paxman, 2006	N = 47 61.7% f Age: 16-18	All measures post-care	Number of placements correlated with opinions about care, education completion, willing to ask for support, feeling of missing affection, and felt security
The Children's Study,	McAuley & Trew, 2000	N = 19 52.9% f	Does not report T3 variables	Forward stepwise logistic regression: carer externalising behaviour reports significantly correlated with disrupted placement at end of study.

Northern Ireland		M age: 8 years		
Dutch OOHC study, Netherlands	Strijker et al., 2002	N = 120 57% f Age: 0-17	Does not measure T2 variables	Multivariate analysis: Various behaviours significantly correlate with disrupted placements.
Dutch OOHC study 2, Netherlands	Strijker et al., 2005	N = 91 59% f Age: 4-18	Combines T1 and T2 measures	Chi square analysis: Placements are more likely to breakdown for children with withdrawn or aggressive-delinquent behaviour.
Dutch OOHC study 3, Netherlands	Strijker et al., 2008	N = 419 51.1% f Age: 0-18	T2 variable taken at unspecified time "a minimum of six months from admission" (p. 117)	Stepwise discriminant analysis: Number of placements significantly correlates with placement breakdown.
Dutch OOHC study 4, children with ID Netherlands	Strijker & van de Loo, 2010	N = 99 49.9% f M age: 6.2 years	T2 variable taken at unspecified time "while in care"	Discriminant analysis model: Placement change does not significantly correlate with placement breakdown for children with ID.
Looking after Children Study, England	Ward & Skuse, 2001	N = 249	Unclear when measures are taken.	Placement instability significantly negatively correlated with ongoing health conditions and learning difficulties.
MTFC-P study U.S.	Fisher, Mannering, et al., 2011	N = 117 41.7% f Age: 3-6	Only reports average of behaviour measure over course of study	Average parent daily report of five or more problematic behaviour significantly correlated with placement breakdown (exp(b) = 1.10, p = .013)
Norwegian Longitudinal Study on Out-of-Home Care	Havnen et al., 2014	N = 109 33% f Age: 6-12	T1 measure is from birth parents.	Correlation: Number of placements over 7-8 years does not significantly correlate with change in total difficulties, emotional problems, conduct problems, or hyperactivity.
Siblings in care study, U.S.	Linares et al., 2010	N = 252 44.8% f Age: 3-12+	Reports average of measures across waves.	Multilevel mixed model: More instability correlated with higher average hyperactivity/instability and impulsivity.
Spanish non-kin study, Spain	Bernedo et al., 2016	N = 104 46.1%f Age: 0-18	Does not measure T2 variables.	Logistics regression: T1 Warm/communicativeness of carers correlates with placement disruption,

Note. OOHC = out-of-home care, ID = intellectual disability, MTFC-P = Multidimensional Treatment Foster Care for Preschoolers.

Table 4

Analyses excluded from longitudinal review due to no analysis of impact of instability on T2 measure (N = 6)

Study	Publication	Sample	Reason for exclusion	Results
Barnardos Find-A-Family study, Australia	Fernandez, 2009	N = 59 50.8% f M age: 12 years	Descriptive correlation between stability and a variable only	Chi square: Stable children more likely to be integrated into placement, more likely to comfort others when upset. Unstable children more likely to pick fights.
Daily report study, U.S.	Chamberlain et al., 2006	N = 246 53% f Age: 5-12	No analysis of impact of instability on T2 variables	Multivariate analysis: baseline daily report of behaviour significantly correlated with placement disruption (exp(b) = 1.20, p = .0001).
Dutch OOHC study 5, Netherlands	Strijker et al., 2011	N = 60 56.5% f Age: 11-17	No analysis of impact of instability on T2 variables.	T test. Disagreement on behaviour rating between carer and youth at T2 significantly correlated with breakdown (d = .97).
Independent Fostering Agency study, England and Wales	Staines, 2012	N = 299 44% f Age: 5-14	No analysis of impact of instability on T2 variables	Descriptive: Children who disrupted placement had no significant differences in change in SDQ score between baseline and placement breakdown
Study of long term OOHC in California, U.S.	Webster, Barth, & Needell, 2000	N = 5,557 Age: <6	No analysis of impact of instability on T2 variables.	Logistics regression: gender, ethnicity, age at entry, placement type, and 2+ moves in the first year of study were significant correlates of placement instability.
South Australian Study, Australia	Barber et al., 2001	N = 235 48.5% f Age: 4-17	No analysis of impact of instability on T2 variables	Logistics regression: placement stability significantly correlated with neglect and baseline emotional adjustment for all children, and baseline mental health problems for children already in care.

Note. OOHC = out-of-home care, SDQ = Strengths and Difficulties Questionnaire

APPENDIX C

Qualitative studies included for review

Table 5

Qualitative studies included for review – with OOHC youth or alumni (N=22)

Study	Study design	Participant	Ethnicity	Experience of instability	Analyses (analytical approach)	Analysis aim	Themes
Australia, Queensland	Series of three personal interviews with convenience sample of youth in OOHC over a period of 18 months.	N = 65 66% f Baseline age: 61% 13-15 38% 16-18	No details.	26% 1 placement 33% 2-5 placements 33% 6-10 placements 14% 10+ placements 3% uncertain	Buys, Tilbury, Creed, & Crawford, 2011 (Thematic analysis)	Explore impact of OOHC factors which impact career development, transition from school to work, and expectations and ideas about the process.	Adjust – stress and unable to focus on school
Australia	Interviews with a purposive sample of youth who disrupted due to their behaviour over a two-year period.	N = 13 38.4% f Age: 10-15	No details.	100% 2+ behaviour related disruptions.	Barber & Delfabbro, 2004 (Analytical approach not stated)	The reactions of children who disrupt and how the CWS could improve.	Cognition – rejection Coping – deliberately disrupt
Australia	Interviews with a convenience sample of OOHC alumni.	N = 77 52% f Age: 18-25	No details.	14% 1 placement 55% 2-10 placements 31% 10+	Natalier & Johnson, 2015 (Constant comparative)	Investigating the experience of OOHC and how it shapes young people's	Adjust – constantly, can't feel at home Emotions – nervous, Cognition - Passed around

				placements		experience of home.	like teddy bear, unwanted Self – worthless, alone, no place to belong/call home Adult – always moving Coping – disengage, less emotionally attach, let go if I want to without caring Coping – assert control even if unhelpful
Canada	Telephone interviews with a purposive sample of alumni who had been part of a study while in residential care.	N = 16 100% f Age: 20+	No details.	Range: 2-16 placements 11 first placed in rehabilitative care.	Hébert & Lanctôt, 2016 **(**Consensual qualitative method)	How young women experience observed, imposed, or self-imposed instability.	Adjust – to new setting, pressure to do well, adjust to changed plans Emotion – disoriented Cognition – powerless, need to protect self Coping – distance Coping – run away and get authority
England	One-to-one interviews with a convenience sample of OOHC alumni in England.	N = 36 61% f Age: 16-23	No details.	Mean: 2.42 placements Range: 1-4	Barn & Tan, 2012 (Thematic analysis)	Supplementing a quantitative survey, investigate 'how' and 'why' placement disruption was experienced.	Loss – relationships Emotion – destabilised Relationships – lack of positive relationships involved in prostitution and drug use
England	Semi-structured interviews with a purposive sample of adolescents currently in OOHC with a breakdown in the previous year.	N = 3 100% f Age: 15	White: 1 Black African: 1 Black Carribean: 1	Range: 2-5 placements	Booysen, 2009 (Analytical approach not stated)	Interviews investigating personal views surrounding placement breakdown.	Cognition – doubt new carer is reliable, previous experience effects current situation Coping – disengage, no point caring about something you cannot change

U.K.	Interviews with a self-selecting sample of adolescents in OOHC.	N = 2 50% f Age: 16-20	1 White 1 African-Carribean	Collectively 15 placements.	Butler & Charles, 1999 (Thematic analysis)	Investigate the processes, interactions, and negotiations surrounding placement breakdown	Adjustment – expected, can't settle
U.K.	Feminist participatory action approach involving interviews with young women with experience of OOHC and prostitution pre-age 18.	N = 14 100% f Age: 17-33	No details.	All recall instability Time in care: 18 months- 16 years	Coy, 2009 (Voice-Centered Relational Method)	Make visible the experience of women with whom the researcher had worked.	Adjust – to new parents figures, unable to rely on current relationships Cognition - uncared for, views unimportant Relationships – fear or lack of skills to develop meaningful relationships, can lead to exploitative relationships Adult – geographic unsettlement, difficult maintaining supportive connections and relationships Coping – not invested in success of placement Coping – fight to assert autonomy even in unhelpful ways
England, West Midlands	Interviews with a purposive sample of young people whose placement had ended unplanned.	N = 5 40% f Age: 9-15	60% White 40% Mixed	Range: 2-6 placements In care for 4-12 years All full legal care orders	Rostill-Brookes et al., 2011 (IPA)	Help OOHC service managers understand placement breakdown (unplanned end) in their area and give recommendations	Adjust – unprepared Loss – home, school, friends and familiar people Cognition – 'moving' instead of breakdown Cognition - unwanted Emotion – unexpected and unwelcome end, feel shock,

							sadness, fear, distress Not listened to in situation – crap, upsetting, confused Coping – just tried to enjoy myself, got to terms with it, move on
England, West Midlands	Interviews with a purposive sample of youth in OOHC and alumni who had self-harmed in the previous six months.	N = 24 83% f Age: 14-21	No details.	25% 0-1 placements 75% 2+ placements	Wadman et al., 2018 (IPA)	What are the perceptions and experiences of young people in OOHC who self harm.	Loss – supports, siblings, friends Behaviour – self harm
England	Report on interviews with a purposive sample of youth who left OOHC while taking part in a larger study.	No details	No details	No details	Ward, 2009 (Analytical approach not stated)	How unstable are children in OOHC in England	Adjust – to new setting, family
Norwegian Longitudinal Study on Out-of-home-Care	Interviews carried out with a national sample of children in OOHC. (20% of eligible children during recruitment period).	N = 62 33% f Age: 13-20	No details.	10% 0 moves 31% 1 move 34% 2-3 moves 17% 4-6 moves 7% 7-11 moves	Christiansen et al., 2010 (Constant comparative)	Mapping issues regarding children's placement history, development, and well-being.	Loss - breakdown doesn't always mean end of contact Self - I was too much – or she was too little. Coping - only way to end placement or be listened to was to misbehave (N7) Positive - breakdthrough after years of difficulty and unhappiness
Sweden	Interviews with a purposive selection of youth in OOHC who experienced a breakdown over a two-year period.	N = 12 50 % f Age: 8-18	No details.	Range: 1-11 placements Includes moves home.	Skoog et al., 2015 (IPA)	Investigating how children in OOHC experience placement breakdown.	Adjust – constantly, expected Emotion- confused, disappointed Belonging – not able to settle before moving Instability + lack of belonging shapes insecurity Self – different because of instability Coping – don't let people in, put up wall stay in room Coping – accept life and

							imminent change
U.S.	A series of three interviews with a purposive sample of young women who were or had been teen mothers while in OOHC	N = 6 100% f Age: 19-22	N = 5 African American N = 1 Latina	Range: 2-17 placements	Aparicio et al., 2015 (IPA)	What is the lived experience of motherhood among teen mothers in OOHC with a history of maltreatment?	Instability – not want that for their own child
U.S., Southern California	Interviews with a snowball sample of OOHC alumni with 2+ placement changes.	N = 43 51% f Age 18-23: 48% 24+: 14%	44% African American 23% Latino(a) 19% Bi/multiracial 14% Caucasian	30% 2-9 moves 52% 10-26 moves 18% 27+ moves	Chambers et al., 2018 (Constant comparative method)	How do OOHC alumni 1) remember placement moves and 2) perceive the impact of those moves on them	Loss – relationships, friendship, siblings Adjust – constant, effort, unprepared, not know why move Cognition – unwanted, rejected, views not asked so insignificant or invisible Emotion – fear unsafe placement School – hard to graduate, moving and adjusting Cope – emotionally shut down/distant Adult – expect and instigate instability Benefits – adaptability, inner strength
					Martinez, 2010 (Thematic anlaysis)	How impactful were placement moves? What was hardest about moving? What was best about moving?	Loss – relationships, friendships, possessions Adjust – effort, unprepared, difficult to do that, takes time to make friends Positive – new start Benefits – exposed to difference, learn about cultures Relationships – hard to trust others, superficial only

U.S., West coast urban	Interviews with a convenience sample of 19 youth in OOHC and 8 alumni.	N = 27 70% f Age: 14-19	33% African American 48% Caucasian 7% Native American 2.7% Hispanic 7% biracial	No details.	Geenen & Powers, 2007 (Constant comparative)	Investigating the process of transitioning from OOHC to independent living.	Loss – family, friends, school, neighbourhood Adjustment – stressful Emotions – confused, stuck Self – lose who you are and where you belong Outcome – feel empty
U.S.	Two interviews with OOHC alumni with disabilities.	N = 7 71% f Age: 18-24	N =2 African American 3 = Native American/Caucasian 2 = Caucasian	Range: 5 – multiple placements	Harwick et al., 2017 (Thematic analysis)	The experience of transitioning out of OOHC for young adults with disabilities.	Future – desire stability
U.S., Massachussets	Repeat interviews with a sample of adolescents currently living in OOHC (53% of eligible population).	N = 20 50% f Age: 16-19	35% Black 25% Hispanic 30% White/Non-Hispanic 10% Mixed-race	Range: 2-19 placements 10% 2-3 moves 90% 4+ moves	Hyde & Kammerer, 2009 (Thematic analysis)	Experience of participants lives and experiences in OOHC care.	Loss – relationships Adjust – repeatedly to new settings, lose effort Coping – emotionally withdraw

U.S.	Face-to-face interviews with a sample of African American women alumni who had aged out of care.	N = 11 100% f Age: 22-25	100% African American	18% 3-4 placements 36% 5-6 placements 09% 9 placements 36% 10+	Johnson, 2012 (Thematic analysis)	What is the experience of African American women who experience multiple placements?	Loss – relationships Emotion – feeling upset Self – alone and nobody in the world, not good enough, outcast Belonging – want to belong Relationship – difficult, struggling with healthy connections, try to avoid attachment Adult – expect to move on, hard to communicate Benefit – able to move easily, adapt, survive, resourceful Coping – "went with the flow" Coping – people please Coping – acted crazy since not perfect for anyone Coping – talked to no one,
U.S., New York and Los Angeles	Interviews with a convenience selection of GLBTQ youth.	N = 6	No details.	No details.	Mallon et al., 2002 (Analytical approach not stated)	Investigating the experience of GLBTQ youth in OOHC.	Loss – possessions Self – hard to keep track of through moves
U.S.	Ethnographic observations and interviews with youth in a residential facility.	N = 12 100% m Age: 13-17	No details.	Multiple placements, some failed adoptions.	Penzerro, 2003 (Ethnography)	Investigating how children cope with drifting through placements	Coping – run away, make the best of things here and now, learn not to get attached
U.S., Midwest	Interviews with snowball sample of OOHC alumni who had 2+ placements while in care.	N = 22 68% f Age: 18-65	59% White 14% Black 14% Native American 9% Biracial N=1 Hispanic	32% 3-5 placements 32% 5-9 placements 36% 10+ placements	Unrau et al., 2008 (Constant comparative)	How OOHC alumni remember multiple placement experiences.	Loss – friendships, possessions, siblings, sense of normalcy Positive – leave bad placement, start over, connect with others Relationships – no trust Self – no sense of autonomy, self-worth

							Adult – geographical instability Benefits – learn own strength, experience diversity, able to relate to others Coping – shut down, disengage Coping – normalise moving
					Unrau et al., 2010 (Analytical approach not stated)	How OOHC alumni experienced multiple placements	Loss – friendships, possessions Adjust – constantly, unprepared, expected Emotions – distress, fear

Note. Ethnic categories copied verbatim from studies. OOHC = out-of-home care, IPA = interpretative phenomenological analysis, CWS = child welfare service, GLBTQ = gay, lesbian, bi, transgender, queer.

Table 6

Qualitative studies included for review – with foster carers (N = 5)

Study	Study design	Participant	Ethnicity	Experience	Analyses (analytical approach)	Analysis aim	Themes
Australia, Queensland	Interviews with a convenience sample of carers over a period of 18 months.	N = 27 74% f	No details.	26% 3-10 years' experience. 48% 10-20 years' experience. 26% 20+ years' experience	Buys et al., 2011 (Thematic analysis)	Explore impact of OOHC factors which impact career development, transition from school to work, and expectations and ideas about the process.	Belonging – no sense, leads to lack of trust Relationships – no long-term relationships effects trust and social engagement Adult – can't settle
England, West Midlands	Focus group with purposive sample of	N = 7 43% f	60% White	Experienced 1-7 placement breakdowns	Rostill-Brookes et al., 2011	Help OOHC service managers understand	Emotion – distress Coping - youth

	OOHC carers about unplanned ends to foster placements.	Age: 36-57			(IPA)	placement breakdown (unplanned end) in their area and give recommendations	misbehave once they hear placement is ending, lose respect
England	Report on interviews with a sample of OOHC carers taking part in a larger study.	No details	No details	No details	Ward, 2009 (Analytical approach not stated)	How unstable are children in OOHC in England, what are the reasons and consequences of this.	Relationships – children hesitant to commit to relationship due to previous movements, can take years
U.S. West coast urban	Focus groups with a convenience sample of foster carers.	N = 21 66% f	33% African American 47% Caucasian 14% Hispanic 5% Native American	No details.	Geenen & Powers, 2007 (Constant comparative)	Investigating the process of transitioning from OOHC to independent living.	Loss - consistency
U.S., Midwest	Mail survey with open-ended questions sent to randomly selected active and licensed foster homes carers. 21.7% response rate.	N = 105 91% f Age: 27-77	76% Caucasian 21% African American 3% Other	No details.	Unrau et al., 2011 (Analytical approach not stated)	Foster parents' perceptions of youth's emotions during a placement change.	Cognition – less trust in adults Emotion – confusion, fear Coping – manipulate people to get what they want

Note. Ethnic categories copied verbatim from studies. OOHC = out-of-home care, IPA = interpretative phenomenological analysis.

Table 7

Qualitative studies included for review – with caseworkers and other professionals (N = 4)

Study	Study design	Participant	Ethnicity	Experience	Published analyses	Analysis aim	Themes
Australia, Queensland	Interviews with a convenience sample of	N = 35 54% f	No details.	32% direct caseworkers <5 years' experience.	Buys et al., 2011 (Thematic	Explore impact of OOHC factors which impact	Belonging – no sense, leads to lack of trust

	caseworkers and guidance officers over a period of 18 months.	Age: 20-65		8% senior caseworkers 15+ years' experience. 60% guidance officers 1-30 years' experience.	analysis)	career development, transition from school to work, and expectations and ideas about the process.	Relationships – no long-term relationships effects trust and social engagement Adult – can't settle
England, West Midlands	Interviews with the caseworkers and one advisor of young people whose placements had ended.	N = 5 100% f Age: 35-47	60% White	10 to "too many" breakdowns	Rostill-Brookes et al., 2011 (IPA)	Help OOHC service managers understand placement breakdown (unplanned end) in their area and give recommendations	Emotion – distress Relationships – sabotage relationships to avoid hurt
U.S., Urban west coast	Interviews with a convenience sample of child welfare, education, ILP, and other professionals	N = 39 64% f	84% Caucasian 10% African American 3% Asian 3% Hispanic	No details.	Geenen & Powers, 2007 (Constant comparative)	Investigating the process of transitioning from OOHC to independent living.	Loss – friends, school, neighbourhood Emotions – feel empty Self – lose sense of self.
U.S., Los Angeles	Interviews with snowball sample of social workers.	N = 15 80% f Age: 22-49	7% African American 13% White 80% Hispanic	No details.	L. Perez, 2011 (Thematic anlaysis)	Investigating the effect of multiple placements on youth and children in OOHC's ability to form healthy attachments.	Adjust – have to start again Loss – progress, motivation, relationships, environment Positive – meet child's needs, child safety Coping – hide feelings, don't want to be seen as weak so act out, detach, just want to get to the next step

Note. Ethnic categories copied verbatim from studies. OOHC = out-of-home care, IPA = interpretative phenomenological analysis, ILP = independent living programme.

APPENDIX D

Correlations of placement instability with young people still in OOHC

Table 8

Behaviour – externalising (N = 31)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Barnardos Find-A-Family Programme. Longitudinal study of children aged 8+ in OOHC in Australia (N=59). (Fernandez, 2009)	Number of placements	"gets into fights and pick on other young people"	NR (positive)	.0003	Chi square	Nil
FCMH. Children aged 0-16 who entered OOHC in a U.S. county between May 1990 and Oct 1991(N=1084). (James, 2004)	First behaviour-related placement change during study	Externalising behaviour problems	2.43 (reported risk ratio)	.000	Cox regression model	Gender, age at entry, race/ethnicity, maltreatment type, behaviour problems, previous OOHC experience, days in kinship care, # placement moves (routine, planned, disruptive)
FCMH. Children aged 1-16 entering OOHC in a US city between May 1990 and Oct 1991 and remaining in care over 18 months (N=430). (James, Landsverk, & Slymen, 2004)	No placement lasting 9+ months over 18 months Ref: a placement lasting 9+ months	Externalising problems	3.56 (reported odds ratio)	.002	Multivariate polychotomous logistics regression	Gender, age, race/ethnicity, reason for entry, internalising and externalising problems
FCMH. Children aged 2-17 who entered OOHC in a U.S. state between May 1990 and Oct 1991 (N=415). (Newton et al., 2000)	Number of placement changes over 18 months	Externalising behaviour at 18 months			Bivariate correlation	
		Baseline below borderline	.250 (reported association)	< .001		
		Basline above borderline	.117 (reported association)	NS		
FTMC-P RCT. Longitudinal RCT of children aged 3-6 in a treatment programme in the US (N=78). (Miller, 2008)	Number of pre-study placement changes	Externalising behaviour	.199 (reported β)	NS	Linear regression	
Lifelines for Kids study. Children aged 6-15 in OOHC for at least 6 months in a US county (N=71) and their caregivers (N=74). (Benson, 2006)	Number of foster placements before study	Externalising behaviour problems CBCL	1.472 (reported B)	NS	Linear regression analysis	Psychological presence of birthparents, # placements, age, gender
NSCAW – CW sample. Children aged 3-10 in family OOHC at baseline (N=315). (Helton, 2011)	Placement disruption	Behavioural disability	1.02 (reported odds ratio)	NS	Logistics regression model	Age, gender, race, disability, caregiver health, kinship placement, placement below poverty line, interactions
		x age	3.14 (reported odds ratio)	< .05		

NSCAW. Children who experienced OOHC at any point over 36 months in the US (N=224). (Leonard & Gudiño, 2016)	# OOH placements during the study	Externalising behaviour at 36 months	-.57 (reported B)	NR (with other variables accounts for .07 ΔR^2)	Hierarchical regression	Age, gender, wave 1 factors, race/ethnicity, abuse type, cognitive functioning, # school placements, school engagement, # home placements, interactions
NSCAW, LTFC sample. Children aged 6-10 in OOHC over 36 months in the US (N=199). (O'Neill, 2011)	Same caregiver at baseline and 36 months	Externalising problems			Logistics regression	Child age, Caregiver age, placement type, external behaviour, caregiver experience.
	Age 6-10		.88 (reported odds ratio)	.00		
	Age 11-18		.99 (reported odds ratio)	NS		
NSCAW, CW. Adolescents aged 11+ who entered OOHC and received services from a CWS agency (N=88). (Wells & Chuang, 2012)	Number of OOH placement changes over 36 months	Externalising behaviour	1.01 (reported incidence rate ratio)	NS	Negative binomial	Agency location, baseline age, gender, race, most serious type of maltreatment, behaviour, composite measure of risk, behaviour x agency size, crosstraining x behaviour
South Australian study. Children aged 4-17 who entered OOHC in Australia between May 1998 and Apr 1999 (N=235). (Barber & Delfabbro, 2002)	Changed placement in first four months due to behaviour Ref: no behaviour-related change in that time	Conduct problems at 12 months	NR (positive)	< .001	ANOVA group x time	
RCT of parent training programme with children aged 3-16 in OOHC with serious emotional disturbance in the U.S. with aim of reunification (N=121). (Akin et al., 2015)	Annual placement instability	Problem behaviour T2	.09 (reported association)	NS	Structural equation model	Socio-emotional functioning at baseline and T2, problem behaviour at baseline and T2, social skills at baseline and T2, annual placement instability
Children who had been in OOHC and entered a therapeutic treatment programme (N=172). (Cooper et al., 1987)	Number of placements	Severity of behaviour problems	.34 (reported association)	< .01	t-tests	nil
All children in OOHC in a US state between Arp 2008 and Mar 2009 (N=2,248). (J. R. Courtney & Prophet, 2011)	3+ placements over 12 months	Behaviour problem	2.1 (reported odds ratio)	.001	Forward stepwise binary logistics regression	ID, visual or hearing impairment, physical disability, emotional disturbance, other medically diagnosed condition, reason for entry, re-entry to foster care, previously adopted, kinship placement
Refugee or immigrant children in OOHC in the US between 2012 and 2015 (N=235). (Crea et al., 2017)	Changing placement	Significant acting out behaviour	3.66 (reported odds ratio)	< .001	Binomial logistics regression	Age, gender, country of origin, abandonment, experience of violence in home country, trauma, acting out behaviour
Children placed between aged 5-11 in OOHC intending to be adopted in the UK (N=99). (Dance & Rushton, 2005)	Disrupted placement at T3	Behaviour and overactivity at T2	1.18 (reported odds ratio)	NS .061	Multiple logistics regression model	Age at placement, behaviour problems T1, T2, overactivity T1, T2, maternal sensitivity T1, T2, rejection by birth parents, attachment to mother T1, T2, # moves and returns home
Youth aged 17+ in OOHC in a U.S. county (N=188). (Farruggia & Germo, 2015)	Number of placements	Clinical externalising Axis I diagnoses	(all reported associations)		Correlation	nil
		Female	.06	NS		

		Male	.11	NS		
		Aggressive behaviour				
		Female	.18	NS		
		Male	.05	NS		
Children in OOHC aged 3-17 in the Netherlands (N=446). (Goemans et al., 2016)	Child has previous placement	Externalising behaviour problems	.013 (reported association)	NS	Heirarchical multiple regression	Age, gender, placement history, placement duration, kinship care, foster family composition, other foster children, foster parent view of care, mandated care, plan for reunification, intervention for parents or children, contact
Two groups of CW workers asked about youth in OOHC aged 5-19 in England (N=27)(N=45). (P. Holland & Gorey, 2004)	2+ placements	Behaviour disorder	2.29 (reported odds ratio)	NS	Logistics regression model	NR
	3+ placements	Behaviour disorder symptoms	4.67 (reported odds ratio)	NS		
Longitudinal RCT of children raised in institutions who entered OOHC in Romania (N=54). (Humphreys et al., 2015)	Disrupted placement Ref: stable	Externalising symptoms	0.72 (reported difference)	< .0001	General linear model	
Children aged 7+ who exited family OOHC in a U.S. state between 1991 and 1995 (N=15,384). (Jonson-Reid & Barth, 2003)	4+ placements in 1st spell in care	Re-entry to probation supervision	9.99 (reported risk ratio)	NR	Cox proportional hazards model	Age at first report, ethnicity, gender, type of abuse, reunification, placement setting of first spell, # spells in care, time in first spell, interactions, time-varying co-variates
Children aged 5-6 adopted from OOHC who had been 1) unstable in care, 2) stable, or 3) never been in care (N=102). (Lewis et al., 2007)	Number of foster placements while in OOHC	Oppositional behaviour	10.3 (reported association)	< .01	ANCOVA	Age, verbal intelligence, placement instability
Youth aged 17 about to leave OOHC in care in a U.S. state (N=354). (Jonson-Reid et al., 2007)	Number of placements during entire time in foster care (cat: 1 or 2+)	Victim of dating violence	3.3	.05	correlation	nil
		Perpetrator of dating violence	0	NS		
Children aged 12 or 13 in non-kin OOHC for between 1-8 years in a US state (N=199). (Leathers, 2002)	# of non-kin placements	Conduct disorder			Hierarchical regression	Gender, time in care, birth family variables, placement movement, group placement, contact, community variables, interactions
		x male	.14 (reported B)	NS		
		x female	.12 (reported B)	NS		
Adolescents aged 12 or 13 with a sibling also in OOHC in 1997 in a U.S. county (N=197). (Leathers, 2005)	Placement disruption during study	Behaviour problems	2 (reported odds ratio)	NS	Logistics regression	Gender, race, previous placements, years in placement, years in OOHC, behaviour problems, sibling placements patterns, foster home integration, total # siblings, frequency of contact,
Random selection of adolescents in non-kin family OOHC in a U.S. county in 1997 and 1998 (N=179). (Leathers, 2006)	End of placement (excl respite and other short term)	Behaviour problems (caseworker)	1.29 (reported odds ratio)	NS	Logistic regression analysis	Gender, years in OOHC, # placements pre-study, race, years in placement, placed with siblings, caseworker reported behaviour problems

Children aged 6-12 living in family OOHC in a US state (N=219). (Lehmann et al., 2013)	Number of placements	Behavioural disorder	1.27 (reported odds ratio)	NS	Binary logistics regression	Age, age at first placement, number of placements, serious neglect, violence exposure
Children in OOHC in Spain (N=694). (López et al., 2011)	Breakdown Cf: no breakdown	Behaviour problems			Chi square	
		x non-kin care	.45 (reported effect size)	< .000		
		x kinship care	NR	NS		
Children aged 4-12 in a US state who entered care between Jan 1994 and Dec 1995 (N=354). (Olson, 1998)	Total number of placements in OOHC	Negative behaviour	.314 (reported β) 8.8% ΔR^2	.028	Hierarchical multiple regression	Age, gender, ethnicity, reason for entry, negative behaviour
Children aged 4+ in OOHC in urban Canada without ID (N=184). (Palmer, 1996)	Number of placements over the past 18 months	Child's behaviour	.421 (reported β)	.0001	Regression analysis	# of placements, behaviour, gender, preparation for placement by parents, worker training
Children included in a 1977 national study of children in care (N=4,288). (Pardeck, 1984)	3+ placements	Home behaviour	.22 (reported association)	< .05	Chi square	Time in care
		School behaviour	.2 (reported association)	< .05		
Children with ID who entered LTFC between Jan 2002 and Dec 2003 (N=99). (Strijker & van de Loo, 2010)	Number of placements during study	Conduct disorder T2	-2.9 (reported association)	< .01	t-test	nil
Longitudinal study of children aged 11-17 who entered OOHC in the Netherlands between Jan 2002 and Jul 2004 (N=60). (Strijker et al., 2011)	Placement breakdown	Parent-child agreement on externalising problems T2 (CBCL)	NR (negative)	NS	t-test	
Children referred to OOHC for 6+ months between Sep 1996 and May 1997 in a province of the Netherlands (N=76). (Strijker et al., 2005)	Placement breakdown	Aggressive-delinquent behaviour Ref: normal	20.17 (reported odds ratio)	.004	Binary logistics regression	Various types of behaviour, age
Six month longitudinal study of children aged 2-16 in a US county (N=32). (Tunno, 2016)	Experienced placement disruption over x months Ref: no disruption	Problematic child behaviours	-.07 (reported association)	NS	Fisher's exact	

Note. OOHC = out-of-home care, CW = child welfare, CLAS, FCMH, FTMC-P, RCT, CBCL, Minn LInK, NSCAW, CW sample, LTFC sample, SDQ, ID, NR = not reported, NS = not significant (p > .05)

Table 9

Behaviour – internalising (N = 28)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**

CalYOUTH. Study of youth in OOHC aged 16-17 transitioning to adulthood in a U.S. state (N=683). (Okpych & Courtney, 2017)	Average number of placements per year in care quartile of 4th most unstable.	Depression	1.17 (reported odds ratio)	NS	Logistics regression	Age at entry, time in care, placement instability, re-entry to care, primary placement setting, maltreatment type
		Maina/hypomania	1.08 (reported odds ratio)	NS		
		PTSD	2.23 (reported odds ratio)	.006		
		Suicide attempt	1.38 (reported odds ratio)	NS		
FCMH. Children aged 0-16 who entered OOHC in a U.S. county between May 1990 and Oct 1991(N=1084). (James, 2004)	First behaviour-related placement change during study	Internalising behaviour problems	1.12 (reported risk ratio)	NS	Cox regression model	Gender, age at entry, race/ethnicity, maltreatment type, behaviour problems, previous OOHC experience, days in kinship care, # placement moves (routine, planned, disruptive)
FCMH. Children aged 1-16 entering OOHC in a US city between May 1990 and Oct 1991 and remaining in care over 18 months (N=430). (James, Landsverk, & Slymen, 2004)	No placement lasting 9+ months over 18 months Ref: stable placement	Internalising problems	1.2 (reported odds ratio)	NS	Multivariate polychotomous logistics regression	Gender, age, race/ethnicity, reason for entry, internalising and externalising problems
FCMH. Children aged 0-16 who entered OOHC in a U.S. county between May 1990 and Oct 1991(N=570). (James, Landsverk, Slymen, et al., 2004)	Number of placement changes	Mental health visits	NR (positive)	< .0001	Bivariate	
		x Behaviour problems	1.08 (reported rate ratio)	.009	Multivariate Poisson regression	Number of placement changes, gender, age at entry, race, type of maltreatment, behaviour problems, kinship care, previous OOHC, days in inpatient psychiatric care
		x Previous OOHC	1.2 (reported rate ratio)	NS		
	Number of behaviour related placement changes	Mental health visits	NR (positive)	< .0001	Bivariate association	
		x Behaviour problems	2.05 (reported rate ratio)	< .0001	Multivariate Poisson regression	Number of placement changes, gender, age at entry, race, type of maltreatment, behaviour problems, kinship care, previous OOHC, days in inpatient psychiatric care
		x Previous OOHC	1.18 (reported rate ratio)	NS		
FCMH. Children aged 2-17 who entered OOHC in a U.S. state between May 1990 and Oct 1991 (N=415). (Newton et al., 2000)	Number of placement changes	T2 internalising behaviour			Bivariate correlation	
		T1 below borderline	.244 (reported correlation)	< .001		
		T1 above borderline	.066 (reported correlation)	NS		
Lifelines for Kids study. Children aged 6-15 in OOHC for at least 6 months in a US county (N=71) and	Number of foster placements before study	PTSS symptomatology	1.305 (reported B)	NS	Linear regression analysis	Psychological presence of birthparents, # placements, age, gender

their caregivers (N=74). (Benson, 2006)		Internalising behaviour problems CBCL	.120 (reported B)	NS		
MTFCP-RCT. Longitudinal RCT of children aged 3-6 in a treatment programme in the US (N=78). (Miller, 2008)	Number of pre-study placement changes	Internalising behaviour	-.063 (reported association)	NS	Linear regression	PDR, CBCL, emotional regulartion
NSCAW. Children who experienced OOHC at any point over 36 months in the US (N=224). (Leonard & Gudiño, 2016)	# OOH placements during the study	Internalising behaviour at 36 months	-.06 (reported B)	NR (with other variables accounts for .04 ΔR^2)	Hierarchical regression	Age, gender, wave 1 factors, race/ethnicity, abuse type, cognitive functioning, # school placements, school engagement, # home placements, interactions
NSCAW, CW sample. Adolescents aged 11+ who entered OOHC and received services from a CWS agency (N=88). (Wells & Chuang, 2012)	Number of OOH placement changes over 36 months	Internalising behaviour	0.99 (reported incidence rate ratio)	NS	Negative binomial	Agency location, baseline age, gender, race, most serious type of maltreatment, behaviour, composite measure of risk, behaviour x agency size, crosstraining x behaviour
South Australian study. Children aged 4-17 who entered OOHC in Australia between May 1998 and Apr 1999 (N=235). (Barber & Delfabbro, 2002)	Changed placement in first four months due to behaviour Ref: no behaviour-related change in that time	Emotionality at 12 months	NR	< .01	ANOVA group x time	
Children aged 6-12 in OOHC for between 1-2 years in England (N=116). (Anderson et al., 2004)	Number of previous placements	Adolescent-reported mental health	NR	NS	Logistics regression	Age, gender, time in care, number of previous placements, short/long term care
All children in OOHC in a US state between Arp 2008 and Mar 2009 (N=2,248). (J. R. Courtney & Prophet, 2011)	Placement instability	Emotionally disturbed	3.6 (reported odds ratio)	.001	Forward stepwise binary logistics regression	ID, visual or hearing impairment, physical disability, emotional disturbance, other medically diagnosed condition, reason for entry, re-entry to foster care, previously adopted, kinship placement
Adolescents placed in OOHC in Denmark in 2004 (N=227). (Egelund & Vitus, 2009)	Placement breakdown	Emotional problems	NR (positive)	.0323	Bivariate	Nil
Children placed in OOHC in a US state between 2000 and 2002 (N=6,432). (Eggertsen, 2008)	Number of placements	Mental Health			Multinomial logistics regression model	Age at time of entry, gender, race, major and minor health problems, behaviour problems, reason for placement, number of caseworkers, other systemic factors
	2		1.42 (reported odds ratio)	< .001		
	3+		2.4 (reported odds ratio)	< .001		
Children aged 0-18 in care for 90+ days in a U.S. state between Jul 1998 and Jun 2001 (N=37,693). (Fawley-King, 2011)	Changed placement in first 90 days in care	Used crisis MH service	5.08 (reported odds ratio)	< .001	Logistics regression	Prior treatment, gender, race, age, year

Children in OOHC aged 3-17 in the Netherlands (N=446). (Goemans et al., 2016)	Child has previous placement	Internalising behaviour problems	.063 (reported association)	NS	Heirarchical multiple regression	Age, gender, placement history, placement duration, kinship care, foster family composition, other foster children, foster parent view of care, mandated care, plan for reunification, intervention for parents or children, contact
Two groups of CW workers asked about youth in OOHC aged 5-19 in Canada (N=27)(N=45). (P. Holland & Gorey, 2004)	2+ placements	Two DSM diagnoses	1.25 (reported odds ratio)	NS	Logistics regression model	Maltreatment experience, birth parent variables, academic problems, ADHD, social skills, mental health and behaviour
		Threat/suicide attempt	0.95 (reported odds ratio)	NS		
	3+ placements	Mental illness symptoms	3.9 (reported odds ratio)	NS		
		Threat/attempt suicide	9.75 (reported odds ratio)	< .01		
Longitudinal RCT of children raised in institutions who entered OOHC in Romania (N=54). (Humphreys et al., 2015)	Disrupted placement Ref: stable	Internalising symptoms	1.09 (reported difference)	.0026	General linear model	
Children aged 5-13 entering a residential treatment programme from Oct 1994 to May 1999 (N=57). (Hussey & Guo, 2005)	Number of previous OOHC placements	Mental disorders (psychopathology)	.10 (reported risk ratio)	NS	Hierarchical linear model	Change in score over time, race, age, I.Q., length of stay, other rater score
Children aged 6-12 living in family OOHC in a US state (N=219). (Lehmann et al., 2013)	Number of placements	Emotional disorder	1.13 (reported odds ratio)	NS	Binary logistics regression	Age, age at first placement, number of placements, serious neglect, violence exposure
Children aged 4-12 in family OOHC in the Netherlands (N=238). (Maaskant et al., 2014)	Number of previous placements	Mental health problems	.09 (reported β)	NR (model significance .003)	Block-wise linear regression	Age, age at entry to current placement, # previous placements, kinship, year in family OOHC
Children aged 0-17 entering a new non-kin placement with a U.S. private agency between Apr 2010 and Apr 2012 (N=1,484). (Moore et al., 2016)	Changed placement for any reason within 180 days	Mental Health problems at entry	3.07 (reported odds ratio)	.00	t test	
Report about youth who emancipated from OOHC between 1991 and 1997 in a U.S. state (N=10,225). (Needell et al., 2002)	5+ placements during time in care Ref: 1 placement	Received any mental health service before emancipation	6.14 (reported odds ratio)	< .05	Logistics regression analysis	Age at entry, race/ethnicity, reason for removal, last placement type, county size, gender
Children aged 4-12 in a US state who entered care between Jan 1994 and Dec 1995 (N=354). (Olson, 1998)	Total number of placements in OOHC	Number of recommend mental health services	.121 (reported β) 1.3% ΔR^2	.028	Hierarchical multiple regression	Age, gender, ethnicity, reason for entry, number of services recommended
Children included in a 1977 national study of children in care (N=4,288). (Pardeck, 1984)	3+ placements	Emotional problems	.37 (reported association)	< .05	Chi square	
Children aged 3-16 who first entered	3+ placement	A second psychiatric	1.77	< .001	Logistics	Age at entry to care, gender, ethnicity, reason for

OOHC in a US state between Jul 2001 and Jun 2003 (N=1,389). (Park et al., 2009)	changes since entry to OOHC	crisis service use	(reported odds ratio)		regression	entry to care, type of care, rural or urban, other mental health variables
Children aged 2+ entering OOHC for 9+ months in a US city between Jul 1993 and Jun 1995 (N=1,635). (Rubin, Alessandrini, Feudtner, Mandell, et al., 2004)	3+ placements Ref: 2 or fewer	High mental health service use	2.01 (reported odds ratio)	NR	ANOVA	Age, gender, race, medical foster care designation, physical health care cost, # placements
Nationally representative sample of adolescents aged 13-17 who entered OOHC and residential care in Sweden in 1991 (N=776). (Sallnäs et al., 2004)	Obvious breakdown	Mental health	1.8 (reported odds ratio)	< .01	Multivariate logistics regression	Gender, age, immigrant background, runaway, substance use in birth home, caregiver mental health, reason for entry, child mental health, previous breakdown of placement, voluntary placement, type of care, distance from home
Longitudinal study of children aged 11-17 who entered OOHC in the Netherlands between Jan 2002 and Jul 2004 (N=60). (Strijker et al., 2011)	Placement breakdown	Parent-child agreement on internalising problems T2 (CBCL)	NR (negative)	< .01	t-test	
Children referred to OOHC for 6+ months between Sep 1996 and May 1997 in a province of the Netherlands (N=76). (Strijker et al., 2005)	Placement breakdown	Withdrawn behaviour Ref: normal	97.81 (reported odds ratio)	.001	Binary logistics regression	Various types of behaviour, age
Children aged 12 in OOHC for 4+ years in south of Sweden (N=136). (Vinnerljung et al., 2017)	Placement breakdown	Emotional problems during placement	NR (positive)	< .001	Multivariate model	Gender, age at placement, placed with siblings, parental variables, reason for placement, emotional problems, behavioural problems, other problems, school problems, health problems,
Note. OOHC = out-of-home care, CalYOUTH, CLAS, FCMH, MTFC-P, RCT, PDR, CBCL, NSCAW, CW sample, ID, MH, CW, ADHD, IQ, NR = not reported, NS = not significant (p > .05)						

Table 10

Behaviour – delinquency (N = 4)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Two groups of CW workers asked about youth in OOHC aged 5-19 in England (N=27)(N=45). (P. Holland & Gorey, 2004)	2+ placements	Delinquent activity	12 (reported odds ratio)	< .01	Logistics regression model	NR
Children in OOHC in a U.S. metropolitan area (N=628). (Lee, 2009)	Number of placements during first spell in OOHC	Truancy (court petition)		NS	Chi square test	
	Number of	Juvenile delinquency			Cox regression	Race, gender, age at first placement, caregiver

	placements during first spell in OOHC Ref: 1-2	3 placements	.83 - .72 (reported hazard ratio)	NR		education, reason for placement, length of stay, placement pattern, number of placements in first spell, # spells in OOHC, previous OOHC service, parent mental health, special education
		4 + placements	1.69 – 1.81 (reported hazard ratio)	NR		
Maltreated children in a U.S. state in OOHC pre-14 with a delinquency petition post-14 (N=4,085). (Ryan & Testa, 2005)	Change in physical location of OOHC	Delinquency petition between age 14-16			Chi square	
		Male	28.84 (reported x2)	< .001		
		Female	3.84	< .05		
African American males aged 11-16 in OOHC in a US county (N=278). (Ryan et al., 2008)	Number of previous placements	Filed delinquency petitions			Cox regression	Age at interview, reason for entry, kinship care, time in OOHC, # of placements, attachment with carer, commitment to education, involvement in religious or after school activies
	2		3.73 (reported hazard ratio)	< .05		
	3+		5.47 (reported hazard ratio)	< .01		
	Youth expects placement change in next 12 months		.28 (reported hazard ratio)	< .01		
Note. OOHC = out-of-home care, CW = child welfare, NR = not reported, NS = not significant (p > .05)						

Table 11

Behaviour – inappropriate sexual (N = 5)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Children aged 4-17 who entered OOHC in Australia between May 1998 and Apr 1999 (N=235). (Barber & Delfabbro, 2002)	Changed placement in first four months due to behaviour Ref: no behaviour-related change in that time	Sexualised behaviours at 12 months	NR (positive)	< .01	ANOVA group x time	
Two groups of CW workers asked about youth in OOHC aged 5-19 in England (N=27)(N=45). (P. Holland & Gorey, 2004)	2+ placements	Sexual acting out	8.5 (reported odds ratio)	< .05	Logistics regression model	**NR**
	3+ placements	Molested other children	26.0 (reported odds ratio)	< .01		
Boys in OOHC aged 3-18 evaluated due to inappropriate sexual behaviour	Number of all living situations (unclear if	Sexually inapprop. behaviour	1.37 (reported odds ratio)	< .05	Logistics regression	Age at 1st evaluation (preadolescent or adolescent), behaviour scores, type of abuse, mitigating factors

(N=559). (Prentky et al., 2014)	OOHC only or general)	Sexual aggression	1.19 (reported odds ratio)	< .05		
		Behaviour persistence	1.27 (reported odds ratio)	< .05		
		Child/male victims	1.2 (reported odds ratio)	< .05		
CICS. Children aged 4-11 in OOHC in an Australian state (N=347). (Tarren-Sweeney, 2008b)	Time in present placement/time in care	Sexual behaviour problems	.34 (reported odds ratio)	.05	Hierarchical logistics regression	Age, gender, reading difficulty, various pre-care factors, type of care, instability, in-care factors, interpersonal behaviour
Longitudinal study of all children in OOHC in 6 U.K. local authorities for 12+ months by Apr 1996 and still in care Apr 1998 (N=249). (Ward & Skuse, 2001)	Number of placements in first year of care	Sexual behaviours	NR	NS	NR	
Note. OOHC = out-of-home care, CW = child welfare, CICS, NR = not reported, NS = not significant (p > .05)						

Table 12

Behaviour – pregnancy, prostitution, sexual risk (N = 4)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Girls in residential care in a Canadian province over 18 month period (N=315). (Hébert & Lanctôt, 2016)	Unstable placement pattern. 2.5 SD more placements than others in sample Ref: stable	Sex-trade activity	.648 (reported ???)	< .001	Path model	Age, problem behaviour covariance, placement trajectory
Girls aged 11-14 part in OOHC taking part in a middle school intervention RCT (N=100). (Kim et al., 2013)	Number of placement changes over 12 months	Health-risking sexual behaviour	.09 (reported ???)	NS	Correlation	nil
Report about youth who emancipated from OOHC between 1995 and 1997 in a U.S. state (N=2,913). (Needell et al., 2002)	5+ placements during time in care	Became pregnant while in care Ref: 1 placement	2.03 (reported odds ratio)	< .05	Logistics regression analysis	Age at entry, race/ethnicity, reason for removal, last placement type, county size
Children in OOHC in a U.S. metropolitan area (N=628). (Lee, 2009)	Number of placements during first spell in OOHC Ref: 1-2 placements	Teen pregnancy			Cox regression	Race, gender, age at first placement, caregiver education, reason for placement, length of stay, placement pattern, number of placements in first spell, # spells in OOHC, previous FC service, parent mental health, special education
	3 placements		1.52 – 1.57 (reported hazard ratio)	NS		
	4 + placements		2.37 – 2.34 (reported hazard ratio)	.02 - .03		

Adult outcomes for adolescents aged 13-16 who entered family-based OOHC in 1991 in Sweden (N=776). (Vinnerljung & Sallnäs, 2008)	Negative or unplanned breakdown of initial placement.	Teenage pregnancy	NR	NS	Logistics regression	Gender, immigrant background, reason for placement, length of placement, placement setting, teen pregnancy
Note. OOHC = out-of-home care, NR = not reported, NS = not significant (p > .05)						

Table 13

Behaviour – substance abuse (N = 4)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Children aged 4-17 who entered OOHC in Australia between May 1998 and Apr 1999 (N=235). (Barber & Delfabbro, 2002)	Changed placement in first four months due to behaviour Ref: no behaviour-related change in that time	Alcohol and drug use at 12 months	NR (positive)	< .05	ANOVA group x time	
Youth aged 17+ in OOHC in a U.S. county (N=188). (Farruggia & Germo, 2015)	Number of placements	Substance Use			Correlation	nil
		Female	.13 (reported association)	NS		
		Male	.22 (reported association)	< .05		
Longitudinal study of children between preschool and early adulthood (N=205). (Herrenkohl et al., 2003)	Number of foster care transitions	Drug use	3.99 (reported association)	< .001	T test	
Girls aged 11-14 part in OOHC taking part in a middle school intervention RCT (N=100). (Kim et al., 2013)	Number of placement changes over 12 months	Tobacco use	.23 (reported association)	< .05	Correlation	nil
		Marijuana use	.26 (reported association)	< .05		
		Tobacco and marijuana use	.17 (reported association)	< .10	Longitudinal path model	Intervention condition, placement changes, health-risking sexual behaviour
Note. OOHC = out-of-home care, NR = not reported, NS = not significant (p > .05)						

Table 14

Behaviour – other (N = 17)

Setting/population	Instability measure	Variable	Relationship	Significance (p)	Statistical analysis	Controls for:
CalYOUTH. Study of youth in OOHC aged 16-17 transitioning to adulthood in a U.S. state (N=683). (Okpych & Courtney, 2017)	Average number of placements per year in care quartile of 4th most unstable.	DSM: MDD, manic or hypomanic episode, conduct disorder or ODD (MINI KID)	1.83 (reported odds ratio)	NS	Logistics regression	Age at entry, time in care, placement instability, re-entry to care, primary placement setting, maltreatment type
CICS. Children aged 4-11 in OOHC in an Australian state (N=621). (Tarren-Sweeney, 2008a)	Time in current placement/time in care	Attention problems (CBCL)	-.22 (reported β)	< .05	Linear regression model	Gender, reading difficulties, ID, pre-care factors, age at entry to care, kinship care, various carer factors, expected reunification,
		Global disorder (ACC)	0.2 (reported odds ratio)	< .05	Logistics regression model	Gender, reading difficulties, ID, pre-care factors, age at entry to care, kinship care, various carer factors, expected reunification,
KEEP. Children aged 5-12 in family OOHC in a US county between 1999 and 2004 (N=700 families). (Hurlburt et al., 2010)	Leaving OOHC placement for a negative, non-planned reason	Daily reported behaviour	5.11 (reported odds ratio)	< .001	Multivariate logistics regression	Daily behaviour report, age, number of children in home, caregiver relationship, gender, race
MTFC-P RCT. Pre-schoolers in regular OOHC in a RCT in the US (N=60). (Fisher, Mannering, et al., 2011)	Placement disruption	Number of problematic behaviours reported daily	1.10 (reported hazard ratio)	.013	Cox proportional hazards model	PDR
MTFC-P RCT. Longitudinal RCT of children aged 3-6 in a treatment programme in the US (N=78). (Miller, 2008)	Number of pre-study placement changes	Emotional and behavioural difficulties	.335 (reported β)	.004	Linear regression	
		ADHD behaviour	1.241 (reported odds ratio)	.032		
Minn-LInK. Youth aged 14+ who were in care between 2006-2007 and turned 17 while in care in a US state (N=1,312). (Hill, 2012)	Number of placements Ref: 7+	Emotional-behavioural disorder			Multinomial regression	Number of placements, types of disability
	0-3		3.07 (reported association)	< .001		
	4-6		2.11 (reported association)	< .001		
NSCAW. Children aged 3-10 in family OOHC at baseline and remained in care for 9 months (N=336). (Conn, 2012)	Placement stability	Emotional and behavioural problems	.320 (reported odds ratio)	.044	Logistics regression analysis	Caregiver race, caregiver gender, child emotional/behavioural problems, instability, cognitive stimulation
South Australian Study. Children aged 4-17 who entered OOHC in Australia between May 1998 and Apr 1999 (N=235). (Barber & Delfabbro, 2002)	Changed placement in first four months due to behaviour Ref: no behaviour-related change in that time	Uncooperativeness at 12 months	NR (positive)	< .05	ANOVA group x time	
		Hyperactivity at 12 months	NR (positive)	< .001		

South Australian Study. Children aged 4-18 in OOHC in Australia (N=364). (Osborn et al., 2008)	Number of placement changes due to behaviour	Behavioural and emotional problems (SDQ)	5.37 (reported F)	< .01	ANOVA	
Youth aged 11-17 in OOHC in the US (N=56). (Gramkowski et al., 2009)	Number of placements	Risk behaviour	NR	NS	Pearson correlations	Nil
		x age	3.14 (reported odds ratio)	< .05		
Children in OOHC in a U.S. metropolitan area (N=628). (Lee, 2009)	Number of placements during first spell in OOHC Ref: 1-2 placements	Runaway from OOHC			Cox regression	Race, gender, age at first placement, caregiver education, reason for placement, length of stay, placement pattern, number of placements in first spell, # spells in OOHC, previous FC service, parent mental health, special education
	3 placements		2.67 – 2.44 (reported hazard ratio)	.007 - .02		
	4 + placements		1.53 – 1.56 (reported hazard ratio)	NS		
Children aged 6-12 in OOHC for between 1-2 years in England (N=116). (Anderson et al., 2004)	Number of previous placements	SDQ	NR	NS	Logistics regression	Age, gender, time in care, number of previous placements, short/long term care
Youth aged 5-18 who entered OOHC during a longitudinal study (N=3,066). (Farmer et al., 2008)	Number of placements	Difficulties (CBCL)	0.01 (reported coefficient)	< .05	Negative binomial model	Race, age, gender, birth family income, behaviour, strengths, child risk, family risk, time in care
Longitudinal RCT of children raised in institutions who entered OOHC in Romania (N=54). (Humphreys et al., 2015)	Disrupted placement Ref: stable	ADHD symptoms	1.5 (reported difference)	NS	General linear model	
Matched comparisons of children who entered family OOHC before Jul 2006 (N=121). (Koh et al., 2014)	3+ placements during study Ref: <2 placements	DSM diagnosis during study period	7.79 (reported odds ratio)	< .01	Bivariate analyses	nil
Children aged 6-12 living in family OOHC in a US state (N=219). (Lehmann et al., 2013)	Number of placements	Any disorder	0.91 (reported odds ratio)	NS	Binary logistics regression	Age, age at first placement, number of placements, serious neglect, violence exposure
		ADHD disorder	0.3 (reported odds ratio)	< .001		
Longitudinal study of children aged 11-17 who entered OOHC in the Netherlands between Jan 2002 and Jul 2004 (N=60). (Strijker et al., 2011)	Placement breakdown	Parent-child agreement on total problems T2 (CBCL)	NR (negative)	NS	t-test	
Children referred to OOHC for 6+ months between Sep 1996 and May 1997 in a province of the Netherlands (N=76). (Strijker et al., 2005)	Placement breakdown	Hyperactive behaviour Ref: normal	1.58 (reported odds ratio)	NS	Binary logistics regression	Various types of behaviour, age
Note. OOHC = out-of-home care, CICS = children in care study, ACC = , ID = intellectual disability, CBCL, ACC, CLAS, BPI, KEEP, MTFC-P, RCT, PDR, ADHD, SDQ, , CBCL, DSM, NR = not reported, NS = not significant (p > .05)						

Table 15

Education (N = 15)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
NSCAW. Children who experienced OOHC at any point over 36 months in the US (N=420). (Leonard & Gudiño, 2016)	# OOHC placements during the study	Reading scores at 36 months	0.00 (reported B)	NS	Hierarchical regression	Age, gender, wave 1 factors, race/ethnicity, abuse type, cognitive functioning, # school placements, school engagement, # home placements, interactions
		Math scores at 36 months	-.04 (reported B)	NS		
South Australian Study. Children aged 4-17 who entered OOHC in Australia between May 1998 and Apr 1999 (N=235). (Barber & Delfabbro, 2002)	Changed placement in first four months due to behaviour Ref: no behaviour-related change in that time	Attendance at 12 months	NR	NS	ANOVA group x time	
Children aged 8-14 in OOHC (N=58). (Aldgate et al., 1992)	Number of previous placements	Reading score	.13 (reported coefficient)	NS	Multivariate regression	Reason for entry to care, initial care, plan, # placements, length of current placement, carer future expectations, contact
		Reading progress	-.11 (reported coefficient)	NS		
Report on education outcomes of children aged 3-9 in OOHC in Australia (N=2,367). (Australian Institute of Health and Welfare, 2015)	Number of placements over whole time in care	Reading	.025 (reported association)	NS	Regression model	State, year level, gender, ethnicity, rural/urban, setting of care, time in care, time in current placement
		Numeracy	.020 (reported association)	NS		
Children aged 11+ in OOHC in England (N=109) and carers (N=162). (Beck, 2006)	3+ placement changes in the past 12 months Ref: <3 placements	Reported not in school by carer	5.6 (reported association)	.02	Chi square	
Report on educational outcomes of all children aged 0-18 in OOHC in care in a Canadian province between Apr 2009 and Mar 2012 (N=27,693). (Brownell et al., 2015)	Total number of placements	Kindergarten "not ready" for school	NR (positive)	< .05	Regression model	SES of child living area, school, ethnicity, legal status, kinship placement, reason for placement, age at entry, gender, disability, mental disorder, mother age at 1st birth, mother substance use during pregnancy, substantiated abuse, time spent in care, days absent from school
		Grade 3 reading	NR (none)	NS		
		Grade 3 numeracy	NR (none)	NS		
		Grade 7 mathematics	NR (none)	NS		
		Grade 7 engagement	NR (none)	NS		
		Grade 8 reading and writing	NR (negative)	< .05		
		Grade 9 earning 8+ credits	NR (positive)	< .01		
		High school	NR (none)	NS		

		completion				
Study of educational outcomes including all children in grades 4-10 who entered OOHC between Jul 2007 and June 2014 in a U.S. state (N=7,590). (Clemens et al., 2018)	Number of placements in the year of testing	Reading	-2.52 (reported coefficient)	< .01	Regression model	Removed from home for the 1st or 2nd second time in months before testing, # months in OOHC before testing, age at first removal, # school moves (with and without placement change), gender, non-English speaker, use of special education services,
		Writing	-2.01 (reported coefficient)	< .01		
		Math	-2.36 (reported coefficient)	< .01		
Longitudinal study of children between preschool and early adulthood (N=212). (Herrenkohl et al., 2003)	Number of foster care transitions	School dropout	3.9 (reported association)	< .05	Chi square	
Children aged 12 or 13 in non-kin OOHC for between 1-8 years in a US state (N=199). (Leathers, 2002)	# of non-kin placements	School achievement and involvement	-.07 (reported B)	.01	Hierarchical regression	Gender, time in care, birth family variables, interactions, group placement, contact
Children with OOHC experience and sat a Grade 3 school assessment in Western Australia between 1990 and 2010 (N=2,160). (Maclean et al., 2017)	Number of placements (4+) Ref: no placements	Grade 3 reading score	4.09 (reported odds ratio)	NS	Multivariate logistics regression	Age, gender, ethnicity, ID, birth anomaly, premature birth, birthweight, parents married, maternal age, maternal substance use, maternal or paternal assault, maternal or paternal mental health contact, disadvantaged, rural/urban
		Non-aboriginal	1.61 (reported odds ratio)	< .05		
		Aboriginal	0.91 (reported odds ratio)	NS		
Children aged 6-18 in OOHC in a US state (N=158). (Schelble et al., 2010)	Number of placements in the past 18 months	School/work performance (CAFAS)	.153 (reported B)	.044	Linear regression	Gender, race, age, time in care, # placements, emotion dysregulation, academic resilience
Black and Hispanic youth aged 10-18 entering OOHC in a US state between Jul 2005 and Dec 2013 (N=4,022). (Summersett-Ringgold et al., 2018)	Number of placements in first two years of care	School has individualised plan for youth (CANS)	0.79 (reported incidence rate ratio)	.004	Negative binomial regression	Individual level strengths (coping, optimism, talents, cultural identity and rituals), family level strengths (family and relationship permanence), community strengths (education, religious, community life)
Longitudinal study of children in OOHC in six English local authorities between Apr 1996 and Mar 1997 (N=242). (Skuse et al., 1999)	Number of placements in school year	Excluded from school			Fisher exact text	
	1-2		7% (reported percent)	< .023		
	3+		31% (reported percent)			
		Educational attainment	NR	NS	NR	
Children aged 6-12 in OOHC 6+ months, between Jul 1996 and Mar 1998 in a U.S. state (N=472). (Zima et al., 2000)	Number of foster homes lived in	Academic skills delay (below 1st percentile for age in reading or math)	1.18 (reported odds ratio)	≤ .05	Multiple logistics regression	Age, gender, ethnicity, foster parent education, time in care, placement setting, # school changes, placement changes, school days missed/year.
Longitudinal group of children aged 3-8 in OOHC in a U.S. city between 2006 and 2008 (N=209). (Zorc et al., 2013)	9+ months in a placement	School absence			Multivariate poisson regression	Placement stability, age, gender, abnormal CBCL score at baseline, early kinship care, previous placement history, reason for placement
	Early stable (before 45 days)		1.35 (reported rate ratio)	.132		

	Late stable (after 45 days)		1.37 (reported rate ratio)	.029		
	Unstable		1.7 (reported rate ratio)	.000		
		Number of schools				
	Early stable (45 days)		1.55 (reported rate ratio)	.000		
	Late stable (after 45 days)		2.08 (reported rate ratio)	.000		
	Unstable		1.67 (reported rate ratio)	.000		
Note. OOHC = out-of-home care, SES, NSCAW, ID, CAFAS, CBCL, NR = not reported, NS = not significant (p > .05)						

Table 16

In care – attitudes to OOHC (N = 3)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
OnLAC. Children entering OOHC in Canada since 2001 (N=1,385). (McFarlane, 2017)	Total number of caregivers	Placement satisfaction	-.025 (reported standardized B)	NS	Hierarchical regression	# caregivers, type of placement, # children in the home, caseworker variables, carer variables, gender, age, adversities, behaviour, health, strengths, relationship with carer, T1 placement satisfaction
NSCAW CW sample. Children aged 6+ in OOHC for 18 months (N=290). (Chapman & Christ, 2008)	Placement stability	Attitude toward placement			Regression analysis	Age, placement stability, CBCL score at T1 and T2, gender, race
		Becomes positive	-.07 (reported β)	.013		
		Remains positive	.13 (reported β)	.0142		
Children aged 12 in OOHC for 4+ years in south of Sweden (N=136). (Vinnerljung et al., 2017)	Placement breakdown	Child satisfaction with foster home	NR (positive)	< .001	Multivariate model	Gender, age at placement, placed with siblings, parental variables, reason for placement, emotional, school, health, behavioural and other problems,
Note. OOHC = out-of-home care, onLAC, NSCAW, CW sample, CBCL, NR = not reported, NS = not significant (p > .05)						

Table 17

In care – placement disruption (N = 22)

Setting/population	Instability measure	Variable	Relationship	Significance (p)	Statistical analysis	Controls for:
NSCAW. Longitudinal study of youth aged 11-16 in OOHC in the U.S. (N=1,179). (Rindlaub, 2015)	# placement changes between baseline and 18 months	# placement changes between 18 and 36 months	.179 (reported association)	< .05	Cross-lagged model	Caregiver relationship, placement change, externalising behaviour, age, gender
NSCAW II. Children aged 0-17 in OOHC in the U.S. (N=2,296). (Pac, 2017)	Total # OOHC living arrangements	Disruption in care (excl return home, adoption, etc)	.68-.64 (reported hazard ratio)	< .001	Cox proportional hazard ratio	Gender, # living situations, # OOHC placements, race, age at entry, age, behaviour, income, monthly stipend to foster parents, agency effects
		x kinship care	.52 (reported hazard ratio)	< .01		
		x non-kin care	.75 (reported hazard ratio)	< .001		
Children under 13 in long term OOHC placed between 1961-1962 in England (N=?). (George, 1998)	# previous residential care placements	Placement end within five years	NR (positive)	< .05	Chi square	
	# previous foster care placements		NR	NS		
Children aged 4-13 in family-OOHC in Norway over eight years (N=136). (Holtan et al., 2013)	Number of previous placement pre-study	Disrupted placement	1.2 (reported odds ratio)	NR	Generalized linear mixed model	Age at first placement, # years in OOHC, # previous placements, gender, mother's education, foster carers own children
Children aged 0-16 who entered OOHC in a U.S. county between May 1990 and Oct 1991(N=1084). (James, 2004)	# previous routine moves	First behaviour-related placement change during study	.54 (reported risk ratio)	.000	Cox regression model	NR
	# previous planned moves to kin or siblings		1.21 (reported risk ratio)	NS		
	# previous disruptive moves		.77 (reported risk ratio)	.08		
Adolescents aged 12 or 13 with a sibling also in OOHC in 1997 in a U.S. county (N=197). (Leathers, 2005)	Previous # placements	Placement disruption during study	2.42 (reported odds ratio)	< .05	Logistics regression	Gender, race, previous placements, years in placement, years in OOHC, behaviour problems, sibling placements patterns, foster home integration, total # siblings, frequency of contact,
Children in OOHC in Spain (N=694). (López et al., 2011)	Previous foster breakdown	Breakdown Cf: no breakdown	NR	NS	Chi square	
Children aged 5-12 entering new OOHC placement for at least 30 days in a U.S. county between 1999 and 2004 (N=700 families). (Price et al., 2008)	Number of placements while in OOHC	Moved to another OOH placement, restrictive environment, or runaway	1.07 (reported hazard ratio)	.04	Cox hazard regression	Kinship care, age, gender, primary language, days in placement at baseline, # placements at baseline, intervention, interaction between prev placement and intervention status
Children aged 0 - 17 adopted or placed in permanent guardianship care from OOHC in a U.S. state between 1998 and 2010 and tracked	Number of placement changes in OOHC	Disruption after permanency (adoption, reunification)Number of placement changes in	1.05 (reported hazard ratio)	< .05	Survival analysis	

until Jun 2011 (N=51,576). (Rolock & White, 2016)		OOHC				
Children who entered OOHC in a U.S. state in 2000 (N=2,947). (Rosenthal & Villegas, 2011)	Square root of number of prior placements	Change in placement (including re-entry)			Cox proportional hazards model	Gender, age at entry, ethnicity, living situation, reason for entry, size of county, interactions
		First three years in care	2.09 (reported hazard ratio)	.000		
		After four years in care	1.72 (reported hazard ratio)	.000		
Nationally representative sample of adolescents aged 13-17 who entered OOHC and residential care in Sweden in 1991 (N=776). (Sallnäs et al., 2004)	Previous breakdown of placement	Obvious breakdown	1.5 (reported odds ratio)	NS	Multivariate logistics regression	Gender, age, immigrant background, runaway, substance use in birth home, caregiver mental health, reason for entry, child mental health, previous breakdown of placement, voluntary placement, type of care, distance from home
Children in TFC between 1994 and 1997 in a U.S. state (N=90). (D. K. Smith et al., 2001)	Number of previous placements in OOHC	Disruption (removal from foster home)	.84 (reported odds ratio)	NS	Logistics regression model	Age, gender
All children aged 0-18 admitted to LTFC between Sep 2000 and Jun 2004 in the North Netherlands (N=419). (Strijker et al., 2008)	Previous # placements	Placement breakdown	NR	NR (positive)	Stepwise discriminant analysis	Age, baseline behaviour problems, # previous placements
Children with ID who entered LTFC between Jan 2002 and Dec 2003 (N=99). (Strijker & van de Loo, 2010)	Number of placements during study	Placement breakdown	-1.44 (reported association)	NS	t-test	nil
Children entering OOHC in an urban area of Canada between Jan 1970 and Jun 1990 (N=3,448). (Tucker & MacKenzie, 2012)	Number of placement changes	Rate of placement change	.008 (reported association)	< .01	Parametric model	Gender, unemployment and women in workforce (for available foster homes), economic incentives, time since entry, age, # placement changes, time since last change, interaction of age and placement change
	x age		.004 (reported association)	< .01		
Children placed in OOHC in the Netherlands between 2004 and 2007 (N=580). (Vanderfaeillie et al., 2017)	Number of previous placement changes	Placement breakdown	1.061 (reported odds ratio)	NS	Multivariate	Age at placement, baseline behaviour, number of placements, reason for placement, birth family contact, in treatment foster care
Representative sample of children placed in LTFC in the Netherlands between 2005 and 2007 (N=309). (Vanderfaeillie et al., 2018)	Number of previous placements	Placement breakdown	NR	NS	Univariate	nil
Children aged 12 in OOHC for 4+ years in south of Sweden (N=136). (Vinnerljung et al., 2017)	Previous placement breakdowns	Placement breakdown	NR (positive)	NS	Multivariate model	Gender, age at placement, placed with siblings, parental variables, reason for placement, emotional problems, behavioural problems, other problems, school problems, health problems,
Supporting siblings in foster care study. Randomized clinical trial of siblings aged 11-15 in OOHC in the	Previous number placements	Placement change	.92 (reported odds ratio)	NS	Logistics regression	Positive home integration, sibling relationship, behaviour, treatment condition, living with sibligns

U.S. over 18 months (N=328). (Waid et al., 2016)						
Children and youth in TCF in a U.S. state (N=?). (Walsh & Walsh, 1990)	Number of placements before current study	One or more breakdowns while in care	.37	NR	Regression	
All children under six years old who entered OOHC in a US state between Jan 1988 and Dec 1989 (N=5,557). (Webster et al., 2000)	# moves in first year Ref: no moves	3+ placement changes after first year in OOHC			Logistics regression	Gender, ethnicity, age at entry, reason for removal, placement type, # moves in first year
	1		1.06 (reported odds ratio)	NS		
	2		1.62 (reported odds ratio)	< .001		
	3		1.65 (reported odds ratio)	< .01		
	4		2.14 (reported odds ratio)	< .01		
Children who entered OOHC between 1990 and 2003 in a U.S. state and changed placement at least once (N=85,659). (Zinn et al., 2006)	Number of previous placements	Placement change	1.02 (reported hazard ratio)	< .001	Hazard model	Gender, age, ethnicity, health, mental health, disability, type of placement, foster parent characteristics, reason for placement, care history variables, agency variables, caseworker variables
Note. OOHC = out-of-home care, RCT, NSCAW, TFC, LTFC, ID, NR = not reported, NS = not significant (p > .05)						

Table 18

In care – time in care (N = 5)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Child in OOHC for 8+ days in 2006 and 2007 (N=7,099). (Akin et al., 2012)	Two or fewer placements in first 100 days care	In care three years or longer	.79 (reported odds ratio)	. 01	Multivariate logistic regression	Gender, age at entry, race, disability status, mental health problems, reason for entry, first placement setting, siblings in care, runaways
Children entering OOHC for the first time during the study period in an Australian city (N=201). (Fernandez, 1999)	Three+ placements in care	Time in care before returning home	12.051	< .0005	Log-linear model	
Children aged <13 who entered OOHC in 1952 and 1953 who stayed continuously over five years (N=209). (Parker, 1966)	Previous experience of foster care	End of placement within five years	NR (positive)	< .05	NR	nil
Children younger than six who entered care in a U.S. state which used a permanency programme between Jul 1997 and Jun 1998	Number of placements during intervention period	Finding a permanent home within 12 months of entering care	.68 (reported odds ratio)	.035	Backward Logistics regression model	Ethnicity, emotional/behavioural problems, biological parent substance abuse, biological parent SES, # caseworkers, # placements, contact, type of first placement, court-related variables

(N=366). (Potter & Klein-Rothschild, 2002)						
Children able to be adopted in three U.S. OOHC service units in May 1995 (N=147). (Schmidt-Tieszen & McDonald, 1998)	Previous disrupted placement	Has long term foster care as goal	NR	NS	Multivariate model	Age, # siblings placed together, emotional problems, developmental disability, genetic or family history risk factors, medical/physical problems, learning disability, ethnicity, gender, previous disruptions
OOHC = out-of-home care, onLAC, NSCAW, CW sample, CBCL, NR = not reported, NS = not significant (p > .05)						

Table 19

Leaving care – exit setting (N = 9)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Casey. Children in OOHC with goal of adoption in a U.S. sate, not adopted before March 2002 (N=657). (Cushing & Greenblatt, 2009)	Number of placement changes	Risk for adoption delay	.68 (reported hazard ratio)	NS	Multivariate cox regression	Age, gender, emotional or behavioural problems, years since removal of parent rights, placement with siblings, change in caseworker, placed in institution, rejected foster home, ambivalence to foster parents
Children in OOHC for whom a mediation trial was used between Sep 1999 and Sep 2005 (N=311). (Aguiniga et al., 2015)	Number of placements during 18 months of the study	Family reunification	.986 (reported odds ratio)	NS	Multiple logistic regression	Age at removal, gender, # of placements, ethnicity, parental substance abuse or mental health concerns,
		Placed with kin	.677 (reported odds ratio)	< .001		
		Adoption	1.040 (reported odds ratio)	NS		
Children and youth in OOHC legally free for adoption between Jan 2008 and Aug 2014 in a U.S. state (N=5,773). (Elgin et al., 2015)	Number of unique placements after parental rights revoked	Likelihood of achieving permanency			Cox regression model	Race, gender, physical disability, mental disability, # involvements before placed, age at parent right removal, permanency goal, siblings in care, neglect and abuse, country, # placements post TPR, months in group placement, months in family placement.
		Age <1 -5	1 (reported hazard ratio)	NS		
		Age 6-12	.94 (reported hazard ratio)	< .001		
		Age 13-17	.93 (reported hazard ratio)	< .001		
Children aged 3-8 entering OOHC between Nov 2006 and Sep 2008 in a U.S. city (N=403). (Hernandez-Mekonnen, 2013)	Stable placement over 24 months	Reunification with birth family			Multivariate regression model	Behaviour problems, previous spell, birth parent drug or alcohol issues, birth parent mental health, birth parent homelessness, kinship
	With 45 days entry		.402 (reported adj. probability)	< .001		

	After 45 days entry		.286 (reported adj. probability)	< .001		setting, caseworker knowledge, agency size
	Unstable		.250 (reported adj. probability)	< .001		
All children placed in OOHC with an organisation in a U.S. state between Jun 1978 and May 1979 and followed for five years (N=185). (Lawder et al., 1986)	1-2 placements while in care	Return home or adopted	96% (reported percent)	NR (significant)	NR	
	3+ placements while in care		76% (reported percent)			
Children in OOHC with a goal of adoption in a U.S. state between Oct 1996 and Sep 2001 (N=5,173). (McDonald et al., 2007)	More than one placement setting	Adoption	.416 (reported odds ratio)	.000	Bivariate cox regression	nil
Children aged 4-11 in OOHC for at least 30 days in a U.S. county between Jan 2000 and Jun 2003 (N=1,215). (Pabustan-Claar, 2007)	Number of placements	Reunified, adopted, or achieved permanency	.431 (reported odds ratio)	< .05	Logistics regression	Gender, ethnicity, language spoken, age, abuse type, length in care, number of allegations, # placements, months in kinship care, months in non-kin care
Children aged 5-12 entering new OOHC placement for at least 30 days in a U.S. county between 1999 and 2004 (N=700 families). (Price et al., 2008)	Number of placements while in OOHC	Reunification or adoption	.94 (reported hazard ratio)	.17	Cox hazard regression	Kinship care, age, gender, primary language, days in placement at baseline, # placements at baseline, intervention, interaction between prev placement and intervention status
Children in care in an urban area of Canada between Jan 1970 and Jun 1990 (N=3,448). (Tucker & MacKenzie, 2012)	Placement changes	Exit from OOHC (any exit)	-5.366 (reported est. coefficient)	< .01	Shared frailty model	Gender, unemployment and women in workforce (for available foster homes), economic incentives, time since entry, age, # placement changes, time since last change, interaction of age and placement change
	x age		.0005 (reported association)	< .01	Parametric model	Gender, various economic factors, age, time in care, number of placements
Note. OOHC = out-of-home care, MTFC-P, RCT, IQ, SES, NR = not reported, NS = not significant (p > .05)						

Table 20

Leaving care – planned vs unplanned (N = 2)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Random selection of youth aged 17+	Number of placements	Planned exit from care	.55	< .01	Logistics	Age at entrance, ethnicity, gender,

discharged from OOHC in a U.S. state between Oct 1992 and Sept 1993 (N=252). (McMillen & Tucker, 1999)	while in care	(ref: unplanned)	(reported odds ratio)		regression	reason for entry, number of placements, age at exit, attended independent living programme, parenting substance abuse problems, criminal problems, I.Q., school completion
Children in OOHC whose placements ended over a one year period in the Netherlands (N=168). (van Rooij et al., 2015)	Number of previous placements	Planned vs unplanned exit	-1.36 (reported difference between means)	NS	Chi-square	nil
Note. OOHC = out-of-home care, MTFC-P, RCT, IQ, SES, NR = not reported, NS = not significant (p > .05)						

Table 21

Leaving care – re-entry (N = 7)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Children aged 0-16 who reunified with parents in a U.S. state between Jan and Jun 1988 (N=6,831). (M. E. Courtney, 1995)	Number of placements in previous spell	Re-entry to care	1.104 (reported risk ratio)	< .05	Cox proportional hazards model	Age at exit from care, race, health problems, poverty, last placement setting, stability, time in care before exit
Abused or neglected children reunifying with parents after first spell of OOHC in 1988 at <12 years (N=21,484). (M. E. Courtney et al., 1997)	Number of placements prior to return home	Re-entry to OOHC	.066 (reported association)	.001	Bivariate probit model	
Infants (age 0-1) who entered OOHC between 1990 and 1992 and returned to parents in a U.S. county (N=88). (Frame et al., 2000)	3-4 placements during first spell Ref: 1-2 placements	Re-entry to care	.6 (reported odds ratio)	NS	Bivariate correlation	
Children in OOHC followed for 4.5 years who exited care (N=1,915). (Jonson-Reid, 2003)	4+ placements while in care Ref: 1-3 placements	Re-entering care	1.95 (reported risk ratio)	.01	Cox regression model	Age at exit, ethnicity, gender, final OOH placement setting, length in care, exit type, # placements, services after exit, interactions, reason for previous entry, previous perpetrator of maltreatment
Youth adopted from OOHC in a US state between 1974 and 1982 (N=78). (Kagan & Reid, 1986)	Number of placements pre-adoption	Adoption disruption	NR	< .05	Chi square	nil
Children aged 0-15 who exited OOHC in 2008 in England (N=4,076). (Mc Grath-Lone et al., 2017)	5+ placement changes when in care Ref: none	Re-entry to OOHC within 5 years	1.56 (reported adj. hazard ratio)	< .001	Cox propotional hazard model	Age at exit, ethnicity, reason for entry, previous OOHC experience, placement length, voluntary placement, type of exit from OOHC

Children aged 0 - 17 adopted or placed in permanent guardianship care from OOHC in a U.S. state between 1998 and 2010 and tracked until Jun 2011 (N=51,576). (Rolock & White, 2016)	Number of placement changes in OOHC	Re-entry to OOHC	1.08 (reported hazard ratio)	< .05	Survival analysis	
Note. OOHC = out-of-home care, NR = not reported, NS = not significant (p > .05)						

Table 22

Physical health (N = 4)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
All children in OOHC in a US state between Arp 2008 and Mar 2009 (N=2,248). (J. R. Courtney & Prophet, 2011)	Placement instability	Misc. medically diagnosed condition	1.9 (reported odds ratio)	.001	Forward stepwise binary logistics regression	ID, visual or hearing impairment, physical disability, emotional disturbance, other medically diagnosed condition, reason for entry, re-entry to foster care, previously adopted, kinship placement
Children in OOHC in a U.S. state (N=492). (Lahti, 1982)	Number of placements over 15 months	Health and adjustment	NR	NS		
Children aged 0-18 in OOHC for ≥ 9 months between Jul 1993 and Jun 1995 in a U.S. municipality (N=2,358). (Rubin, Alessandrini, Feudtner, Localio, et al., 2004)	Number of placements (age 2+)	Emergency department visits	NR	.001	Negative binomial model	Age, # of placements, medical foster care, # ED visits, time in care, has ambulatory care setting visit
Longitudinal study of all children in OOHC in 6 U.K. local authorities for 12+ months by Apr 1996 and still in care Apr 1998 (N=249). (Ward & Skuse, 2001)	Number of placements in first year of care	Ongoing health conditions	-0.147 (reported correlation)	.032		nil
Note. OOHC = out-of-home care, NSCAW, CW sample, ID, NR = not reported, NS = not significant (p > .05)						

Table 23

Strengths and resilience (N = 13)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
NSCAW. Children aged 3-10 in family OOHC at baseline and remained in care for 9 months	Placement stability	Cognitive stimulation	.378 (reported odds ratio)	< .0005	Logistics regression analysis	Caregiver race, caregiver gender, child emotional/behavioural problems, instability, cognitive stimulation

(N=336). (Conn, 2012)						
VOYAGES. Youth aged 17 in OOHC in a US state (N=351). (Shpiegel, 2016)	Number of placements	Resilience score	-.22 (reported β)	< .001	Multiple regression analysis	Gender, race, reason for entry, # placements, # school transitions, # entries to custody, legal or mental health problems in family, religious beliefs, extracurricular activities, reading level, other protective factors
RCT of parent training programme with children aged 3-16 in OOHC with serious emotional disturbance in the U.S. with aim of reunification (N=121). (Akin et al., 2015)	Annual placement instability	Social skills T2	-.01 (reported association)	NS	Structural equation model	Socio-emotional functioning baseline and T2, problem behaviour baseline and T2, social skills baseline and T2, annual placement instability
		Social-emotional functioning T2	.2 (reported association	NS		
Children aged 4-17 who entered OOHC in Australia between May 1998 and Apr 1999 (N=235). (Barber & Delfabbro, 2002)	Changed placement in first four months due to behaviour Ref: no behaviour-related change in that time	Social adjustment at 12 months	NR	NS	ANOVA group x time	
Youth aged 5-18 who entered OOHC during a longitudinal study (N=3,066). (Farmer et al., 2008)	Number of placements	Strengths (BERS)	-.01 (reported coefficient)	< .01	Negative binomial model	Race, age, gender, birth family income, behaviour, strengths, child risk, family risk, time in care
Children in OOHC aged 3-17 in the Netherlands (N=446). (Goemans et al., 2016)	Child has previous placement	Prosocial behaviour	-.005 (reported association)	NS	Heirarchical multiple regression	Age, gender, placement history, placement duration, kinship care, foster family composition, other foster children, foster parent view of care, mandated care, plan for reunification, intervention for parents or children, contact
Children aged 5-6 adopted from OOHC who had been 1) unstable in care, 2) stable, or 3) never been in care (N=102). (Lewis et al., 2007)	Number of foster placements while in OOHC	Inhibitory control	8.7 (reported association)	< .01	ANCOVA	Age, verbal intelligence, working memory, placement instability
Longitudinal RCT of children aged 3-6 in a treatment programme in the US (N=78). (Miller, 2008)	Number of pre-study placement changes	Emotional regulation	NR	NS	Linear regression	
		Intelligence performance (WPPSI-R)	-2.35 (reported β)	.041	Linear regression	
Children aged 3-6 in an RCT of a OOHC program in the U.S. (N=93). (Pears et al., 2010)	Number of foster caregivers to date of study	Inhibitory control	-.23	< .05	Path model	Emotional maltreatment severity, age, inhibitory control, general cognitive abilities, indiscriminate friendliness
Studies on youth aged 16-17 in OOHC with disabilities, taking part in a training programme in the U.S. (N=188). (Powers, 2011)	Number of placements pre-study	Autonomy	.07 (reported association)	NS	Multiple regression models	Physical abuse, # family stressors, time in care, race/ethnicity, interactions
		Self-regulation	.072 (reported association)	NS		
		x race	.057 (reported association)	NS		

		Psychological empowerment	.147 (reported association)	NS		
		Self-realization	-.184	NS		
		x race	.201	NS		
Caregivers reporting on children in their care in the U.S. (N=348). (Rickert, 2008)	Number of placements prior to study	Reported strengths			Regression analysis	
		Kinship	.00 (reported R^2)	NS		
		Non-kin	.01 (reported R^2)	NS		
Black and Hispanic youth aged 10-18 entering OOHC in a US state between Jul 2005 and Dec 2013 (N=4,022). (Summersett-Ringgold et al., 2018)	Number of placements in first two years of care	Individual strengths (CANS)	0.57 – 0.92 (reported incidence rate ratio)	NS	Negative binomial regression	Individual level strengths (coping, optimism, talents, cultural identity and rituals), family level strengths (family and relationship permanence), community strengths (education, religious, community life)
Longitudinal study of children in OOHC over 8 years in Norway (N=111). (Vis et al., 2016)	Placement disruption during study	Social functioning T2	.22 (reported correlation)	< .01	Bivariate analysis	
Note. OOHC = out-of-home care, RCT, NSCAW, BERS, WPPSI-R, CANS, NR = not reported, NS = not significant (p > .05)						

Table 24

Support / relationships (N = 10)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
Children aged 11+ in OOHC in England (N=109) and carers (N=162). (Beck, 2006)	3+ placement changes in the past 12 months Ref: <3 placements	Report having someone they are close to	4.7	.03	Chi square	
Barnardos Find-A-Family Programme. Longitudinal study of children aged 8+ in OOHC in Australia (N=59). (Fernandez, 2009)	Number of placements	"comfort other people who are upset"	NR (negative)	.02	Chi square	
TAME-S study. Adolescents in OOHC in various U.S. states and a comparison of non-care adolescents (N=167). (Perry, 2006)	Number of different families or homes	Strength of relational networks			OLS regression	Gender, age, placement setting, strength and size of relational networks, frequency of contact with relational networks
		Biological	-.02 (reported correlation)	NS		
		Foster	-.04 (reported correlation)	< .05		
		Peer	.02 (reported correlation)	NS		

Convenience sample aged 12-18 living in same non-kin family OOHC for 12 months in the U.K. (N=51). (Hemmings, 2011)	Number of placements	Peer relationships	NR	< .05	correlation	
Children aged 12 or 13 in non-kin OOHC for between 1-8 years in a US state (N=199). (Leathers, 2002)	# of non-kin placements	Close relationship with foster family	-.08 (reported B)	< .01	Hierarchical regression	Gender, time in care, birth family variables, interactions, group placement, contact
Adolescents aged 12 or 13 with a sibling also in OOHC in 1997 in a U.S. county (N=197). (Leathers, 2005)	Placements pre-study	Foster home integration	-.09 Reported B	NS	Hierarchical regression	Gender, years in OOHC, years in current placement, behavaiour problems, total # siblings, frequency of contact, sibling placement patterns
Random selection of adolescents in non-kin family OOHC in a U.S. county in 1997 and 1998 (N=179). (Leathers, 2006)	End of placement (excl respite and other short term)	Foster home integration	.44 (reported odds ratio)	< .01	Logistic regression analysis	Gender, years in OOHC, # placements pre-study, race, years in placement, placed with siblings, caseworker reported behaviour problems
Black and Hispanic youth aged 10-18 entering OOHC in a US state between Jul 2005 and Dec 2013 (N=4,022). (Summersett-Ringgold et al., 2018)	Number of placements in first two years of care	Number of family/close friends in contact (CANS)	0.87 (reported incidence rate ratio)	< .001	Negative binomial regression	Individual level strengths (coping, optimism, talents, cultural identity and rituals), family level strengths (family and relationship permanence), community strengths (education, religious, community life)
Supporting siblings in foster care study. Randomized controlled trial of children aged 7-15 in OOHC in the US (N-328). (Waid et al., 2017)	Number of placements during study	Foster home integration	-.18 (reported association)	.01	Latent growth curve model	Age, race, gender, behaviour, older/younger sibling, treatment condition, previous # placements, # placements during study, living with siblings, kinship
Children aged 9-18 in OOHC in Australia (N=937). (Withington et al., 2017)	Total number of placements	Child engagement with current caregiver	-.09 (reported factor loading)	NS .054	Structural regression	Relationship with caregiver variables, inclusion, knowledge of care, placement trajectory variables, age, gender, at entry to care, disability, feelings about OOHC, contact
Note. OOHC = out-of-home care, TAME-S, OLD, CANS, NR = not reported, NS = not significant (p > .05)						

Table 25

Relationships – attachment (N = 6)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
CICS. Children aged 4-11 in OOHC in an Australian state (N=621). (Tarren-Sweeney, 2008a)	Time in current placement/time in care	Attachment problems (ACC)	-.2 (reported β)	< .05	Linear regression model	Gender, reading difficulties, ID, pre-care factors, age at entry to care, kinship care, various carer factors, expected reunification,
Foster children aged 36-99 months in Germany (N=49). (Bovenschen et al., 2016)	Number of placement changes	Attachment security (Q-set)	NR	NS	Multiple regression analysis	Attachment variables, foster parent support and respect, age at placement, time in placement, # placement changes, maltreatment severity, birth parent maltreatment, birth parent contact, gender

Children placed between aged 5-11 in OOHC intending to be adopted (N=99). (Dance & Rushton, 2005)	Disrupted placement at T3	Lack of attachment to mother at T2	8.79 (reported odds ratio)	.005	Multiple logistics regression model	Age at placement, behaviour problems T1, T2, overactivity T1, T2, maternal sensitivity T1, T2, rejection by birth parents, attachment to mother T1, T2, # moves and returns home
Longitudinal study of children aged 0-6 entering a new placement in two regions of Germany (N=55). (Lang et al., 2016)	Number of placement changes before study	Attachment security (Q-sort)			Hierarchical multiple regression	Step 1: age at placement, gender, Time 1 score Step 2: number placement changes, biological parent mental illness Step 3: T1 authoritative parenting, caregiver profession
		baseline	-.22 (reported β)	< .10		
		12 months	.02 (reported β)	NS		
Children aged 6-12 living in family OOHC in a US state (N=219). (Lehmann et al., 2013)	Number of placements	Reactive attachment disorder	1.56 (reported odds ratio)	< .05	Binary logistics regression	nil
RCT of a parenting intervention with children in OOHC in the US between Apr 2007 and Mar 2010 (N=210). (Pasalich et al., 2016)	Number of placements pre-study	Attachment security postintervention (Toddler Attachment Sort-45)	-.2 (reported β)	.004	Regression	Placement changes, attachment security at baseline and post-intervention, gender, age, ethnicity, failed reunifications, time between baseline and follow up, caregiver type, caregiver education
Note. OOHC = out-of-home care, CICS = children in care study, ACC = , ID = intellectual disability, NS = not significant (p > .05)						

APPENDIX E

Correlations of placement instability with populations no longer in care or leaving care

Table 26

Arrests / Criminal activity (N = 9)

Setting/population	Instability measure	Variable	Relationship	Significance (p)	Statistical analysis	Controls for:
BCS70. Adults aged 30 responding to a survey, part of an ongoing longitudinal study (N=431 previously in OOHC). (Dregan & Gulliford, 2012)	Number of placements Ref: no public care	Criminal convictions			Multiple logistics regression	Age, gender, ethnicity, maternal age, parental social class, # siblings, birthweight, premature birth, breastfeeding, maternal/paternal education, maternal smoking/drinking during pregnancy
	1 placement		1.95 (reported odds ratios)	< .01		
	2 + placements		2.77 (reported odds ratios)	< .001		
Survey of young people formerly in OOHC aged 16-23 in England (N=261). (Barn & Tan, 2012)	Number of placements while in care	Criminal activity			Logistic regression	age, gender, race, time in care, # placements, victim of crime, homelessness, school exclusion, unemployment, self-esteem, life skills, interactions
			4.46 (reported odds ratio)	NS		
	x Self-esteem		1 (reported odds ratio	NS		

	x Life skills		.73 (reported odds ratio	< .05		
Adults who had entered OOHC for the first time between 1990 and 1993 U.S. county (N = 1,235). (Baskin & Sommers, 2011)	Number of physical locations while in care.	Total arrests	2.27 (reported odds ratio)	< .000	Cox regression analysis	Age, gender, race/ethnicity, age at placement, instability, type of abuse
		Violent crime arrests	2.14 (reported odds ratio)	< .000		
		Non-violent crime arrests	1.73 (reported odds ratio)	< .000		
		District attorney charges	1.90 (reported odds ratio)	< .000		
Maltreated youth with juvenile and adult court contact in the U.S. 63.8% OOHC experience (N=711). (DeGue & Widom, 2009)	Placement moves	Adult arrests			Chi square analysis	
	1		45.4 (reported coefficient)	< .001		
	3+		76.3 (reported coefficient)			
		Adult and juvenile arrests				
	1		23.7 (reported coefficient)	< .001		
	3+		61.8 (reported coefficient)			
		Any violent arrests				
	1		19.6 (reported coefficient)	< .001		
	3+		42.1 (reported coefficient)			
Youth who turned 17 while in OOHC with and without disabilities in a U.S. state between 2006-2008 (N=2,188). (Hill, 2011)	Number of placements	Adult corrections			Logistics regression	Permanency plan for youth, participation in preparatory program, time in placements
		Has disability	1.0 (reported odds ratio)	NS		
		No disability	1.0 (reported odds ratio)	NS		
All children born in 1983 and 1984 in a U.S. county with 30+ days in OOHC (N=145). (Huang et al., 2016)	Number of placements Ref: one	Juvenile arrest by age 18 or after			Cox regression	Gender, race, neglect or abuse, # placements, neighbourhood difference factors
	Two		1.35 (reported odds ratio)	NS		
	Three		2.66 (reported odds ratio)	NS		
	Four+		6.29 (reported odds ratio)	< .06		
Adults who exited foster care at age 18 in 1969-1970 and did not live with family or	4+ placements while in care	Number of court appearances			Mann-Whitney U test	Gender, time in care

relatives in an Australian state (N=491). (Kraus, 1981)		Male	NR	NS		
		Female	NR (positive)	< .03		
		Time to first conviction				
		Male	NR (positive)	< .05		
		Female	NR (negative)	< .01		
		Imprisonment				
		Male	NR	NS		
		Minor Convictions				
		Male	NR (positive)	< .01		
Post-care children born between 1985 and 1994 who had in-home CWS services in a U.S. county (N=19,433). (Shook et al., 2013)	Number of OOH placements	Any involvement with juvenile justice	1.07 (reported odds ratio)	< .001	Regression model	Age, gender, ethnicity, time in placement, experience of group care, runaway behaviour, aged out, mental health problems, substance use
		Any time spent in county jail	.99	NS		
Adult outcomes for adolescents who entered family-based OOHC in 1991 in Sweden (N=776). (Vinnerljung & Sallnäs, 2008)	Negative or unplanned breakdown of initial placement.	Probation or more at age 20-24	2.0 (reported odds ratio)	< .01	Logistics regression	Gender, immigrant background, reason for placement, length of placement, placement setting, teen pregnancy

Note. OOHC = out-of-home care, NR = not reported, NS = not significant (p > .05)

Table 27

Behaviour – externalising (N = 1)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
CLAS. Post-adoption study of children in a US state (N=293 families). (Simmel et al., 2001)	Number of placements prior to current study	Antisocial behaviour			Multivariate analyses	Current age, gender, age at placement, # OOHC placements, type of abuse, birth parent factors, adoptive parent readiness
		After 2, 4, 8 years	.009 - .119 (reported β)	NS		
		Oppositional defiant disorder				
		After 2, 4 years	.084 - .136 (reported β)	NS		
		After 8 years	.157 (reported β)	< .05		
		Total BPI				
		2 years	.106 (reported β)	NS		

		4 years	.141 (reported β)	< .05		
		8 years	.145 (reported β)	< .05		

Note. OOHC = out-of-home care, NR = not reported, NS = not significant (p > .05)

Table 28

Education (N = 5)

Setting/population	Instability measure	Variable	Relationship	Significance (p)	Statistical analysis	Controls for:
Casey. Interviews with young people who had been in OOHC in the U.S. (N=1,068). (Garcia et al., 2012)	Total number of placements while in care divided by total time in care	Not completing High School			Multivariate logistics regression	Gender, age, circumstances of leaving care, service use, preparation to leave care, satisfaction with foster care
		Latino	1.09 (reported odds ratio)	NS		
		Afr. American	4.09 (reported odds ratio)	< .001		
		Caucasian	1.13 (reported odds ratio)	NS		
Casey. Adults aged 20-51 who had been in OOHC 12+ months in various U.S. states (N=1,609). (Pecora et al., 2006)	Placement disruption	Completing high school while in care			Logistics regression	Gender, ethnicity, age at entry, birth family variables, medical and psychological history, parental rights, reason for placement, services received, pregnancy in care, kinship, criminal activity in care, relationship with Casey staff, relationship last OOHC family
	2 fewer placements/year		3.1 (reported odds ratio)	NR (sig.)		
	2 more placements/year		.33 (reports odds ratio)	NR (sig.)		
Casey. Adults aged 20-49 who had been in care for 12+ months (N=810). (Villegas et al., 2014)	Number of placements ≤4 placements)	Achieved GED or higher	1.72 (reported odds ratio)	.000	Ordinal logistics regression	Ethnicity, age, disability, reason for placement, age at entry, total time in OOHC, planned exit from care, # school changes
Youth who turned 17 while in OOHC with and without disabilities in a U.S. state between 2006-2008 (N=2,188). (Hill, 2011)	Number of placements	Gets funding for postsecondary education and training			Logistics regression	Permanency plan for youth, participation in preparatory program, time in placements
		Has disability	1.0 (reported odds ratio)	NS		
		No disability	1.0 (reported odds ratio)	NS		
Questionnaires completed by young people who had been in OOHC in England (N=256). (Jackson & Martin, 1998)	Number of placements in care	Academic achievement post-care	NR	NS	Correlation	nil

Report about youth who emancipated from OOHC between 1991 and 1997 in a U.S. state (N=10,224). (Needell et al., 2002)	5+ placements during time in care	Received credit at community college	.70 (reported odds ratio)	< .05	Logistics regression analysis	Age at entry, race/ethnicity, reason for removal, last placement type, county size, gender
Adult outcomes for adolescents aged 13-16 who entered family-based OOHC in 1991 in Sweden (N=776). (Vinnerljung & Sallnäs, 2008)	Negative or unplanned breakdown of initial placement.	Only basic education at age 25	1.8	< .01	Logistics regression	Gender, immigrant background, reason for placement, length of placement, placement setting, teen pregnancy

Note. OOHC = out-of-home care, NR = not reported, NS = not significant (p > .05)

Table 29

Employment (N = 6)

Setting/population	Instability measure	Variable	Relationship	Significance (p)	Statistical analysis	Controls for:
Young people aged 16-18 who had been in OOHC in England (N=106). (Dixon, 2007)	Number of movements in care	Doing well in career outcomes	NR (negative)	.039	NR	
Youth aged 17+ exiting OOHC in three U.S. states. (N=731). (Hook & Courtney, 2011)	Total number of placements	Employed 20+ hours/week	.98 (reported odds ratio)	NS	Multivariate logistics regression	Age, employment-related factors, state, ethnicity, reading level, education level, criminal activity, gender, has own child, experience of abuse or neglect, placement setting, years in care past age 18
		Hourly wage among those employed	.002 (reported odds ratio)	≤ .01		
Random selection of youth aged 17+ discharged from OOHC in a U.S. state between Oct 1992 and Sept 1993 (N=252). (McMillen & Tucker, 1999)	Number of placements while in care	Employed at exit from care	.63 (reported odds ratio)	< .01	Logistics regrssion	Age at entrance, ethnicity, gender, reason for entry, number of placements, age at exit, attended independent living programme, parenting substance abuse problems, criminal problems, I.Q., school completion
Report about youth who emancipated from OOHC between 1991 and 1997 in a U.S. state (N=10,224). (Needell et al., 2002)	5+ placements during time in care Ref: 1 placement	Received financial assistance after care			Cox regression analysis	Age at entry, race/ethnicity, reason for removal, last placement type, county size
		Male	NR	NS		
		Female	1.43 (reported hazard ratio)	< .05		
		Received other disability-related financial assistance	NR	NS		
		Received medical-indigence related assistance	NR	NS		
Adult outcomes for adolescents aged 13-16 who entered family-based OOHC in 1991 in Sweden (N=776). (Vinnerljung &	Negative or unplanned breakdown of initial placement.	Substantial social assistance at age 25	1.5	< .01	Logistics regression	Gender, immigrant background, reason for placement, length of placement, placement setting, teen

Sallnäs, 2008)						pregnancy
Outcomes for adolescents who exited OOHC in England (N=106). (Wade & Dixon, 2006)	Placement movement in care	Career outcome	NR (Negative)	< .04 - .01	NR	NR

Note. OOHC = out-of-home care, NR = not reported, NS = not significant (p > .05)

Table 30

General adult functioning (N = 6)

Setting/population	Instability measure	Variable	Relationship	Significance (p)	Statistical analysis	Controls for:
BCS70. Adults aged 30 responding to a survey, part of an ongoing longitudinal study (N=431 adults formerly in OOHC). (Dregan & Gulliford, 2012)	Number of placements Ref: no OOHC	Low self-efficacy			Multiple logistics regression	Age, gender, ethnicity, maternal age, parental social class, # siblings, birthweight, premature birth, breastfeeding, maternal/paternal education, maternal smoking/drinking during pregnancy
	1 placement		1.48 (reported odds ratios)	NS		
	2 + placements		3.57 (reported odds ratios)	< .001		
Adults discharged from OOHC in Australia between Sept 1992 and Aug 1993 (N=47). (Cashmore & Paxman, 2006)	Number of placements in care	4-5 years post care Adult functioning "successful"	NR	NS	Regression analysis	Number of problems in care, self-reported level of social support, instability, felt security, continuity of relationships after care
		After care mobility	.51 (reported correlation)	.001	Correlation	nil
Longitudinal evaluation of adults formerly in OOHC in 3 U.S. states between age 19-26 (N=732). (Dworsky et al., 2013)	Total number of placements in care	Homelessness	1.163 (reported odds ratio)	< .01	Discrete-time hazards model	Race, gender, care setting, abuse, runaway, mental health or substance abuse issues, incarceration, close to adult, delinquency behaviour, education, sexual orientation, social support
Youth transitioning from OOHC to independence aged 17-19 at baseline (N=351). (Shpiegel, 2016)	Number of placements in the past 12 months	Resilience (education attainment, avoid teen pregnancy, homelessness, mental illness, substance abuse, criminal involvement)	-.22 (reported risk ratio)	< .001	Multiple regression	Step 1: gender, race Step 2: type of abuse, spells in care, school changes, birth family legal problems, birth family MH problems Step 3: view of world, religiosity, extracurricular activities, reading level, likes school, helpful caseworker, helpful people at placement
Interview with adults who had turned 18 while in OOHC between Jul 2004 and Jun 2008 in a U.S. state (N=98). (Stott, 2012)	Number of foster care placement changes before age 18	Risky sexual behaviour (# partners, birth control use)	.06 (reported coefficient)	< .10 NS	Linear regression analysis	Gender, race/ethnicity, parental drug abuse, parental DV, parental poverty, parental incarceration, pre-

						18 IPV, type of abuse
Outcomes for adolescents who exited OOHC in England (N=106). (Wade & Dixon, 2006)	Placement movement in care	Post-care instability	NR	NS	NR	NR
		Post-care housing outcomes	NR	NS		

Note. OOHC = out-of-home care, NR = not reported, NS = not significant (p > .05)

Table 31

Mental health (N = 10)

Setting/population	Instability measure	Variable	Relationship	Significance (p)	Statistical analysis	Controls for:
BCS70. Adults aged 30 responding to a survey, part of an ongoing longitudinal study (N=431 formerly in OOHC). (Dregan & Gulliford, 2012)	Number of placements Ref: no OOHC	Depression			Multiple logistics regression	Age, gender, ethnicity, maternal age, parental social class, # siblings, birthweight, premature birth, breastfeeding, maternal/paternal education, maternal smoking/drinking during pregnancy
	1 placement		1.97 (reported odds ratios)	< .01		
	2+ placements		1.86 (reported odds ratio)	< .01		
		Life dissatisfaction				
	1 placement		1.15 (reported odds ratio)	NS		
	2+ placements		2.06 (reported odds ratio)	< .001		
CLAS. Post-adoption study of children in a US state (N=293 families). (Simmel et al., 2001)	Number of placements prior to current study	Anxiety/Depression			Multivariate analyses	Current age, gender, age at placement, # OOHC placements, type of abuse, birth parent factors, adoptive parent readiness
		2 years	.138 (reported β)	NS		
		4 years	.172 (reported β)	< .01		
		8 years	.084 (reported β)	NS		
Casey. Adults who had been in OOHC 12+ months in the U.S. (N=388). (Anctil et al., 2007)	Total number of placements divided total years in OOHC	Self-esteem (RSE)	-.03 to .00 (reported standardized coefficient)	NS	Hierarchical regression analysis	Gender, age, ethnicity, reason for entry, age at entry, felt loved, helpfulness of foster parent, relationship with adult, use of MH services, placement instability, employment training, tutoring
		Mental health (SF-12v2)	.06 to .07 (reported standardized coefficient)	NS		

		Total DSM-IV diagnosis	.10 to .12 (reported standardized coefficient)	< .05		service used, ILS, I.Q.
Casey. Adults aged 20-51 who had been in OOHC for 12+ months in 13 US states (N=708). (Jackson et al., 2011)	Rate of placement change (# placements / years in care) Ref: < .61 moves/year	PTSD in the past year			Multivariate regression	Ethnicity, gender, age at interview, poverty, clinical problems, type of maltreatment, revictimization, placement change rate, kinship care, interactions
	Medium .62 – 1.23 moves/year		1.03 (reported odds ratio)	NS		
	High > 1.24 moves/year		1.17 (reported odds ratio)	NS		
Casey. Adults placed in OOHC two U.S. states between Jan 1988 and Sep 1988 and in care 12+ months (N=659). (White et al., 2009)	Number of placements Ref: 8+ placements	Has no depression			?	Reason for placement, maltreatment, mental/physical problems, demographic factors
	4-7 placements		1.8 (reported odds ratio)	< .05		
	3 placements		1.3 (reported odds ratio)	NS		
Female adults aged 18-71 who had been in OOHC in the U.S. responding to an online survey between Oct 2011 and Feb 2012 (N=101). (Bruskas, 2013)	Number placements	Sense of coherence	-.08 (reported associations)	.66	Stepwise multiple linear regression	Step 1: # ACES pre-foster care Step 2: # ACES during care, number placements (age at entry, years in OOHC, # school changes, placement setting excluded due to weak bivariate correlations with psychosocial wellbeing)
		Psychological distress	-.10 (reported associations)	.18		
Youth aged 16-18 being discharged from OOHC in Australia between Sept 1992 and Aug 1993 (N=47). (Cashmore & Paxman, 2006)	Number of placements in care	Perceived emotional security on exit from care			correlation	nil
		Secure	2.3 (mean # placements)	< .001		
		Moderate	5.5 (mean # placements)			
		Insecure	9.5 (mean # placements)			
Interviews with adults who had been part of Casey OOHC programme in U.S. (N=1,068). (Garcia et al., 2012)	Total number of placements while in care divided by total time in care	Diagnosed with at 1+ mental health disorder			Multivariate logistics regression	Gender, age, circumstances of leaving care, service use, preparation to leave care, satisfaction with foster care
		Latino	1.48 (reported odds ratio)	NS		
		Afr. American	1.69 (reported odds ratio)	NS		
		Caucasian	1.4 (reported odds ratio)	< .01		
Adults aged 20-49 who were in OOHC	Number of placements	Mental health diagnosis	.366	< .001	Logistic	Ethnicity, perceived agency

between 1966 and 1998 in 13 US states (N=805). (Garcia et al., 2015)	divided by time in care	(CIDI)	(reported b)		regression	helpfulness, mental or physical disability as child, gender, age, length of abuse, birth parent factors
Report about youth who emancipated from OOHC between 1991 and 1997 in a U.S. state (N=10,225). (Needell et al., 2002)	5+ placements during time in care	Mood	5.51 (reported odds ratio)	< .05	Logistics regression analysis	Age at entry, race/ethnicity, reason for removal, last placement type, county size, gender
		Behaviour	6.60 (reported odds ratio)	< .05		
		Psychosis	4.45 (reported odds ratio)	< .05		
		Anxiety	4.57 (reported odds ratio)	< .05		
		Adjustment	4.63 (reported odds ratio)	< .05		
		Other	4.56 (reported odds ratio)	< .05		
Young adults aged 18-21 who had been in OOHC in a U.S. state interviewed by phone (N=114). (Stott, 2009)	Number of placements	Depression	.31 (reported association)	< .05	Linear regression analysis	Gender, race/ethnicity, parental substance use, parental domestic violence, parental poverty, parental incarceration, neglected, physical or sexual abused, IPV pre-age 18
		Self-esteem	.1 (reported association)	NS		
Adult outcomes for adolescents who entered family-based OOHC in 1991 in Sweden (N=776). (Vinnerljung & Sallnäs, 2008)	Negative or unplanned breakdown of initial placement.	Hospital care for mental health issues at age 20-24	1.8 (reported odds ratio)	< .01	Logistics regression	Gender, immigrant background, reason for placement, length of placement, placement setting, teen pregnancy

Note. OOHC = out-of-home care, MH, ILS, IQ, ACES, BCS70, CIDI, PTSD, IPV, NR = not reported, NS = not significant (p > .05)

Table 32

Substance abuse (N = 3)						
Setting/population	**Instability measure**	**Variable**	**Relationship**	**Significance (p)**	**Statistical analysis**	**Controls for:**
BCS70. Adults aged 30 responding to a survey, part of an ongoing longitudinal study (N=431). (Dregan & Gulliford, 2012)	Number of placements Ref: no public care	Alcohol abuse			Multiple logistics regression	Age, gender, ethnicity, maternal age, parental social class, # siblings, birthweight, premature birth, breastfeeding, maternal/paternal education, maternal smoking/drinking during pregnancy
	1 placement		1.01 (reported odds ratio)	NS		
	2+ placements		1.40 (reported odds ratio)	NS		
		Smoking Ref: no public care				

	1 placement		1.58 (reported odds ratio)	< .05		
	2+ placements		1.94 (reported odds ratio)	< .001		
		Drug use Ref: no public care				
	1 placement		0.88 (reported odds ratio)	NS		
	2+ placements		1.45 (reported odds ratio)	NS		
Study of youth in OOHC aged 16-17 transition to adulthood in a U.S. state (N=683). (Okpych & Courtney, 2017)	Average number of placements per year in care.	Substance use disorder	3.2 (reported odds ratio)	< .001	Logistics regression	Age at entry, time in care, placement instability, re-entry to care, primary placement setting, maltreatment type
		Alcohol use disorder	5.75 (reported odds ratio)	< .001		
Interview with adults who had turned 18 while in OOHC between Jul 2004 and Jun 2008 in a U.S. state (N=98). (Stott, 2012)	Number of foster care placement changes before age 18	Substance use (including alcohol, marijuana, and other recreational or hard drugs)	.06 (reported coefficient)	< .05	Linear regression analysis	Gender, race/ethnicity, parental drug abuse, parental DV, parental poverty, parental incarceration, pre-18 IPV, type of abuse

Note. OOHC = out-of-home care, RCT, IPV, NR = not reported, NS = not significant (p > .05)

Table 33

Support / relationships (N = 3)

Setting/population	Instability measure	Variable	Relationship	Significance (p)	Statistical analysis	Controls for:
Longitudinal study of youth discharged from OOHC in Australia between Sept 1992 and Aug 1993 (N=47). (Cashmore & Paxman, 2006)	75% of time in one placement	Wide source of support 4-5 years after care	8.6 (reported correlation)	.014	correlation	nil
RCT comparing youth aged 17 leaving OOHC in a life skills training programme (N=223) and not in a training programme (N=246). (Greeson et al., 2015)	Number of foster homes since first entering care	Change in social support over 1 year	0.01 (reported b)	NR	Multilevel longitudinal models	Model 1,2: means and time Model 3: 16 variables Model 4: interactions of variables with time
		Interaction with time	-.03 (reported b)	NR		
Adults aged 18-21 who had been in OOHC in a U.S. state interviewed by phone (N=114). (Stott, 2009)	Number of placements	Network orientation	.26	< .05	Linear regression analysis	
		Connectedness in last placement	-.34	< .05		

Note. OOHC = out-of-home care, RCT, IPV, NR = not reported, NS = not significant (p > .05)