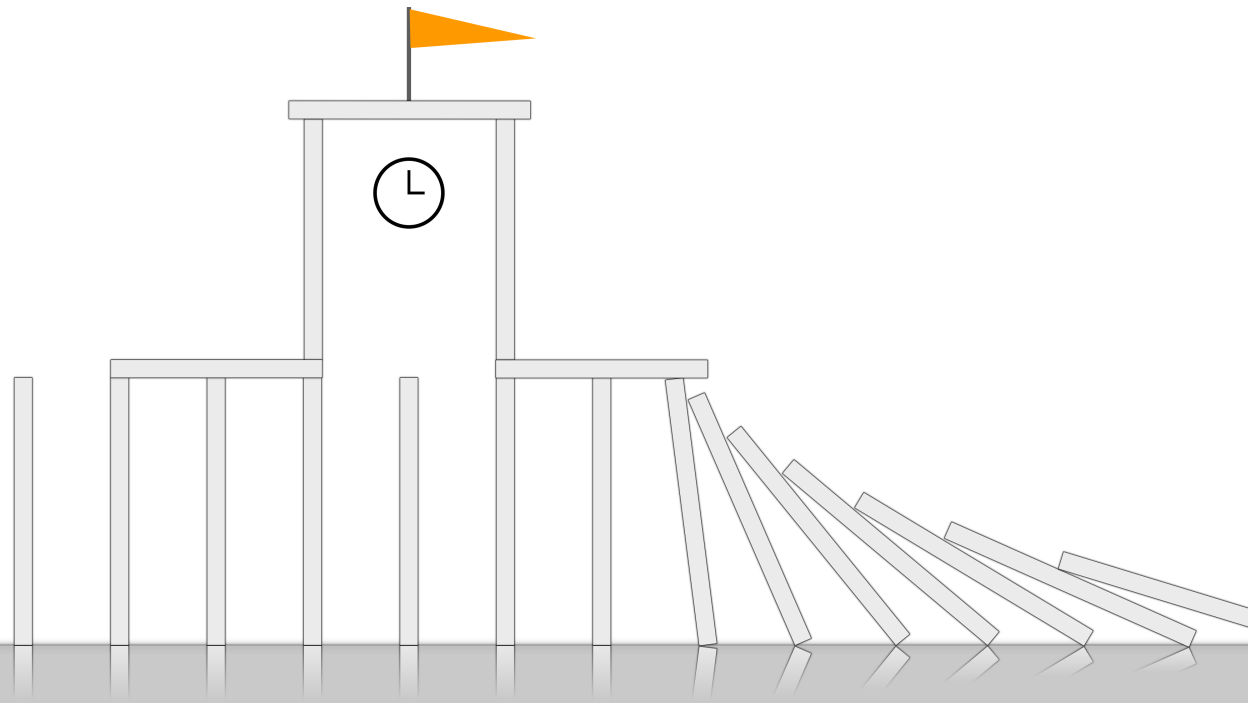
Stockholm Studies in Social Work 40

Stockholm University

Addressing poor educational outcomes among children with out-of-home care experience

Studies on impact, pathways, and interventions

Hilma Forsman



Doctoral Thesis in Social Work at Stockholm University, Sweden 2019

Addressing poor educational outcomes among children with out-of-home care experience

Studies on impact, pathways, and interventions

Hilma Forsman

Academic dissertation for the Degree of Doctor of Philosophy in Social Work at Stockholm University to be publicly defended on Friday 6 December 2019 at 10.00 in Aula Svea, Socialhögskolan, Sveavägen 160.

Abstract

Children with out-of-home care (OHC; foster family/residential care) experience is a high-risk group for future adverse outcomes. With an ambition of supporting the design of effective preventive child welfare measures targeting children in OHC, the overall aim of this thesis is to examine education as a possible intervention path for improving their development and overall life chances.

The thesis consists of four interrelated empirical studies that address different aspects of poor educational outcomes among children with OHC experience by means of analyses of longitudinal survey and register data, and evaluations of two interventions aimed at improving their basic academic skills.

Study I examined the hypothesized causal effect of poor school performance on adverse outcomes in young adulthood among children with OHC experience. The results showed that poor school performance has an impact on later psychosocial problems net of observed and unobserved factors, suggesting that the estimated effects allow for causal interpretations.

Study II explored educational outcomes at different stages in the educational career, and pathways to varied educational outcomes for children with OHC experience and their peers. The results showed that the OHC group had lower educational outcomes across the life course. Yet, by large, their educational pathways did not differ significantly from their peers – cognitive ability and previous school performance had the largest associations with the outcomes in both groups. However, the influence of these factors were weaker in the OHC group whilst the influence of the birth family's attitude towards higher education was stronger.

Study III aimed at furthering our understanding of the book-gifting program the Letterbox Club's potential impact on foster family children's reading skills. The results showed that participation in the program was associated with small improvements. In general, the program was well received by children and carers, and could result in increased reading. The study furthermore suggested that promotion of carer involvement may improve its potential impact.

Study IV explored the process of conducting a structured paired reading intervention involving foster family children and their carers. Findings showed that it is possible to engage carers in interventions targeting the education of children in OHC, but that this is no automatic process – carers need a rationale for getting involved, and support in delivering the intervention.

In sum, this thesis shows that improving the educational outcomes of children in OHC may be a viable intervention path in supporting their life course development, a path that historically has been overlooked. The thesis furthermore shows examples of promising interventions which may improve the basic academic skills of children in OHC. The results also point out that the child welfare system should provide early and continuous educational support, and highlight the importance of addressing adults' attitudes, expectations, and involvement in these children's education.

Keywords: *child welfare, out-of-home care, educational outcomes, impact, pathways, interventions, longitudinal, evaluation.*

Stockholm 2019
http://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-175347

ISBN 978-91-7797-873-2
ISBN 978-91-7797-874-9
ISSN 0281-2851

Department of Social Work

Stockholm University, 106 91 Stockholm

ADDRESSING POOR EDUCATIONAL OUTCOMES AMONG CHILDREN WITH OUT-OF-HOME CARE EXPERIENCE

Hilma Forsman

Stockholm University

Addressing poor educational outcomes among children with out-of-home care experience

Studies on impact, pathways, and interventions

Hilma Forsman

©Hilma Forsman, Stockholm University 2019

ISBN print 978-91-7797-873-2
ISBN PDF 978-91-7797-874-9
ISSN 0281-2851

Cover picture: Hilma Forsman

Printed in Sweden by Universitetsservice US-AB, Stockholm 2019

Acknowledgements

This dissertation stands as a testament to the support of many people, and I would like to take this opportunity to specifically express my gratitude to some of you.

First and foremost I would like to show my deepest appreciation to my amazing team of supervisors – Lars Brännström, Bo Vinnerljung, and Marie Sallnäs – for their continuous guidance and support. Lasse, I am so grateful for your dedication and full-hearted commitment. As my main supervisor you have helped with everything from writing e-mails to planning for my future career. Your passion for statistical analysis had lasting effect. Your efforts to introduce me to sociological theories might not have had an imprint on my performance, but your weighty tomes on my desk have certainly impressed any passer-by. Thanks for regularly checking in on me, intuitively dealing with my angst, and always making me laugh. Bosse, I owe a huge debt to you for first introducing me to, well, all of this. Your unwavering support at the start of this cannot be overestimated, and your devotion to the subject area of my thesis has been a continuous inspiration. I am also grateful for your ability to structure my confusing thoughts on a flipchart, and for having suitable research papers and/or Scanian proverbs for any possible moment in a PhD student's life. Marie, I am deeply grateful for your balanced position, and your incisive comments and feedback on my work. Your good judgement and advice on how to approach new and/or difficult situations have also been much appreciated. Thank you for raising concerns and providing reassurance as needed.

Moving on, I would like to express my gratitude to the CKVO for their financial support. My sincere thanks also goes to Ylva Almquist Brännström for your generous support and patient guiding through codebooks and the virgin territory of structural equation modeling. I would furthermore like to extend thanks to the project managers, social workers, and teachers in the municipalities and organizations who made the intervention projects and evaluations come to life. Moreover, I am indebted to all children and foster carers who participated in the projects, particularly those of you whom so generously shared your views and experiences of the programs.

Advice and comments given by participants at different seminars, members of writing groups, and the NORDLOCH and the Swedish ESPAnet networks have been a great help in improving my texts. Here, I would specifically like

to thank Patrik Karlsson, David Pålsson, Ulla-Karin Schön and Sibel Korkmaz for insightful comments and suggestions on internal research seminars. Special thanks is reserved for Ann-Charlotte Smedler. Your encouragement, analytical rigor and comments at my final seminar helped me to both broaden, and focus my writing on different parts of the thesis.

In addition, I have greatly benefited from the SINGS graduate school, which has provided relevant register-based research knowledge and skills along with invaluable contacts.

Colleagues at the Department of Social Work are furthermore being thanked for support and friendship. To my former and current PhD student colleagues, completing this work would have been all the more painful were it not for the talks, laughter, and occasional tears at PhD institutions such as the lunch hour, our support group, and 'after work' get-togethers – I have been truly blessed for having you around and would like to thank you all.

On an even more personal level I would like to acknowledge my close friends and the group for having kept me pretty happy and reasonably sane throughout this process, the local swimming pool for having counteracted the negative effects of all those hours of poor sitting posture at my desk, and Lundby Dollhouses as well as various streaming services for having provided needed distraction.

Lastly, I owe my deepest gratitude to my family for their profound belief in my abilities all those times I have been in doubt. Mom, your immense practical support, and around the clock delivery of emotional support in both large and small matters have been invaluable – thanks for continuously 'investing' in me. Dad, thank you for teaching me how to write more briefly without losing meaning, for telling me that I am the expert, and for suggesting those much needed mind clearing walks. Elin, you have championed me every step of the way. Your creative and beautiful mind always inspires me. Bengt, during times of academic crisis, you have tolerated and compensated for my physical and mental absence. At times of celebration, you have cooled the perfect special occasion sparkling wine. Thanks for being there for me, for being here with me. And to my dearest Alvar and Vega, thank you for helping me keep things in perspective. I am so grateful for having you in my life.

Stockholm, November 2019
Hilma Forsman

List of studies

The thesis is based on the following studies referred to in the text by their respective Roman numerals.

Study I Forsman, H., Brännström, L., Vinnerljung, B., & Hjern, A. (2016). Does poor school performance cause later psychosocial problems among children in foster care? Evidence from national longitudinal registry data. *Child Abuse & Neglect, 57*, 61-71.

Study II Forsman, H. Exploring educational pathways over the life course in children with out-of-home care experience: A multi-group path analysis. (Submitted).

Study III Forsman, H. (2019). Exploring the Letterbox Club programme's impact on foster children's literacy: Potent intervention or general support? *Oxford Review of Education, 45*, 502-518.

Study IV Forsman, H. (2017). Foster carers' experiences of a paired reading literacy intervention with looked-after children. *Child & Family Social Work, 22*, 409–418.

The published studies are reprinted with the permission of the publishers.

Contents

Introduction 1
Overall aim and outline of the thesis 2

The Swedish context 3
A universal welfare state 3
An inclusive education system 3
A residual child welfare system with a family service approach 4
An out-of-home care system based on risk assessments and compensatory ideas 4
Children with out-of-home care experience – a heterogeneous group 5

Theoretical and empirical framework 7
A life course perspective on children with out-of-home care experience 7
Education – a way out of social disadvantage 8
Developmental social work and turning point interventions 9
Educational outcomes and status of children with out-of-home care experience 10
Deficits in school readiness and pre-academic skills 10
Poor school performance and high rates of special education and grade retention in compulsory school 10
Low completion rates in upper secondary school 12
Low attendance and completion rates in post-secondary education 13
Why do children with out-of-home care experience perform poorly in school and in the educational system? 14
Pre-care experiences and adverse rearing backgrounds 14
Vulnerable and problem-burdened children 15
A failing system 16
Helping children in out-of-home care improve in school and in the educational system 17
Interventions aiming to improve basic academic skills 18

Specific aims of the empirical studies 20

Methods 21
Study designs 21
Study populations and samples 23
Outcomes, covariates and interview data 25
Analytical approaches 26
Reflections on ethics 27

Main findings 29
Study I: Does poor school performance cause later psychosocial problems in children with out-of-home care experience? 29
Study II: Educational pathways over the life course in children with out-of-home care experience 30
Study III: The Letterbox Club program's potential impact on foster family children's reading skills 31
Study IV: Foster carers' experiences of a paired reading intervention 32
Discussion 34
Addressing poor educational outcomes among children with out-of-home care experience 34
Early and continuous efforts to improve educational outcomes 36
Providing educational support – specific issues and general ideas 37
Addressing adults' expectations, attitudes, and involvement 38
Limitations 39
Conclusions and implications 41
Sammanfattning 42
References 44

Introduction

Out-of-home care (OHC) is a far-reaching social intervention where a child is removed from their parents and placed in family-based foster care or institutional settings. In Sweden, the context of this dissertation, around one percent of all children enter into OHC every year (Socialstyrelsen, 2019).

From society's point-of-view, the intention of OHC is to protect children who cannot be safely cared for at home, and to offer improved opportunities for growing and learning in cases where those offered by their birth families are deemed to be insufficient (Fernandez & Barth, 2010). For children in OHC, the state serves *in loco parentis* or in the place of parents. As such, the state bears responsibility for the developmental needs of these children (Smithgall, Gladden, Howard, Goerge, & Courtney, 2004). Yet, research has repeatedly shown that children with OHC experience constitute a high-risk group for future adverse outcomes.

Compared to peers growing up in the family of origin, OHC experienced young adults have elevated risks of various disadvantages in different life domains, including e.g. education, finances, work, social adjustment, mental and physical health (Fernandez & Barth, 2010; Kääriälä & Hiilamo, 2017).

Why do children, removed from abusive and neglectful home environments to supposedly more nurturing and supportive settings, run such a high risk of long-term adverse outcomes? Previous research suggest the compensatory developmental power of OHC is weak (e.g. Berger, Bruch, Johnson, James, & Rubin, 2009; Doyle, 2007, 2008, 2013; Dumaret & Stewart, 1985; Goemans, van Geel, & Vedder, 2015; Vinnerljung, 1996a). However, studies of the long-term developmental effects of OHC struggle with challenges related to lack of data on the actual care given, variations within the OHC group, and selection bias in who enters care, i.e. children who enters OHC and those who remain with their birth family are likely to differ on a host of factors related to future outcomes. It is thereby unclear whether the impact of OHC is generally beneficial, harmful, or inconsequential (Berger et al., 2009). Nevertheless, the dismal findings on later life outcomes among children with OHC experience imply a need for better knowledge about effective interventions and preventive measures for children in OHC.

Successful prevention programs are typically based on the identification and targeting of risk factors that can be influenced (Ferrer-Wreder, Stattin, Lorente, Tubman, & Adamson, 2004). For decades, scholars have claimed that

poor educational outcomes is a major risk factor for youth who leave OHC (e.g. Jackson, 1994). The Swedish legislation stipulates that the child welfare system bears the main responsibility for meeting the needs of children in OHC. This includes taking responsibility for their educational needs by providing access to education, and ensuring that they get adequate support (Mattsson & Vinnerljung, 2016). Unfortunately, studies from all over the Western world have consistently shown that children with OHC experience perform poorly in school and within the educational system (Jackson, 2001; Stone, 2007; Trout, Hagaman, Casey, Reid, & Epstein, 2008).

The links between children's educational outcomes and subsequent life outcomes have been well documented in general populations (Björkenstam et al., 2011; Frønes, 2016; Gauffin, Vinnerljung, Fridell, Hesse, & Hjern, 2013; Jablonska et al., 2009). Previous studies have also shown strong associations between poor school performance among children with OHC experience and their high risks for future adverse outcomes (Berlin, Vinnerljung, & Hjern, 2011; Vinnerljung, Berlin, & Hjern, 2010). Moreover, education seems to mitigate their increased risks of premature death (Almquist et al., 2018).

Taken together, the above does not only suggest that enhancing educational outcomes among children in OHC may help improve their overall life chances – it also implies that this should be a central task for the child welfare system.

Overall aim and outline of the thesis

With an ambition of supporting the design of effective preventive child welfare measures targeting children in OHC, the overall aim of this thesis is to examine education as a possible intervention path for improving their development and overall life chances. The thesis consists of four interrelated empirical studies that address different aspects of poor educational outcomes among children with OHC experience. The purpose of this introductory summary is to outline a broader understanding of theoretical, empirical, and methodological issues central to these studies.

The introduction is organized as follows: First; a brief outline of the Swedish context in terms of the overall characteristics of the welfare state, the educational system, and the child welfare and OHC systems. Second, the thesis' theoretical and empirical framework will be presented. This include concepts from the life course perspective, and developmental social work, as well as empirical findings on educational outcomes in children with OHC experience. Third, based on some of the gaps identified in the current empirical base knowledge, the specific study aims will be outlined. Fourth, methodological considerations and methods used in the four studies will be presented. This is followed by a summary of the main findings of each study. Last, the findings and themes covered throughout this dissertation will be discussed, and implications for policy, practice, and research will be brought forward.

The Swedish context

A universal welfare state

The Swedish welfare state has been theoretically described as a social democratic regime with universalism, holistic social service provision, and relative equality as its main traits (Esping-Andersen, 1999), and an encompassing model characterized by a combination of universal programs and earnings-related benefits for all citizens (Korpi & Palme, 1998). As such, it has the potential to alleviate income inequality, and promote social cohesion, not least through its comprehensive and inclusive education system.

An inclusive education system

Based on ideas of equal opportunities for children from all social strata, the Swedish education system is known for its long-standing egalitarian goals. From a historical perspective, the 1940s to the 1970s were characterized by continuous educational reforms, initiated from the central state level, and with focus on equality goals. Reforms included e.g. the introduction of a comprehensive nine-year compulsory school (as of this year it encompasses ten years), gradually less tracking and division of children at the lower and upper secondary level, and expansion of tertiary level education as well as adult education. The last decades however are characterized by liberal reforms; the system has been decentralized, and social-inclusive policies have been clearly restricted (Arnesen & Lundahl, 2006; Halldén, 2008).

In Sweden, education is fully subsidized at all levels, and financial aid is available for students at higher levels. The process of educational expansion has furthermore resulted in a larger proportion of the Swedish population reaching higher levels of education. Meanwhile, the qualification requirements for entering and progressing in the labor market has increased, and the number of entrance jobs has decreased (Arnesen & Lundahl, 2006; Lundahl, 2002). As many other countries Sweden has moved towards a knowledge-based economy. Consequently, the labor market outcomes have dramatically worsened for young people with less than tertiary education (Frønes, 2016; OECD, 2019).

A residual child welfare system with a family service approach

In contrast to the generally universal approach of the Swedish welfare state, the child welfare system within the social services has a residual character, and serves those whose needs are unmet by the general system (Hessle & Vinnerljung, 1999). The system is regulated by national legislation, but operated by social workers in 290 different-sized municipalities. A high degree of autonomy in the interpretation of the legal framework in combination with different structural and organizational conditions allow for considerable local variation in the decision-making process, and delivery of services (Wiklund, 2006; Östberg, 2010). Over the last decades there has been an increased emphasis on evidence-based practice, and trends toward professionalization, and privatization of child welfare services (Lundström, Sallnäs, & Shanks, 2018; Sallnäs & Wiklund, 2018).

Theoretically, the Swedish child welfare system is often referred to as a family service system with mandatory reporting (i.e. some professionals are obliged and the public is encouraged to report the suspicion of a child being harmed or in risk of harm). Yet, it also entails policies and practices that lean more toward child protection (Freymond & Cameron, 2006; Gilbert, 1997; Gilbert, Parton, & Skivenes, 2011; Wiklund, 2006). Within this approach, problems and needs, including juvenile offending, are psychosocially framed. The law stipulates far-reaching compensatory ambitions. In meeting children's personal, physical, and social developmental needs, authorities should provide social support to – and in partnership with – the families. Children who show specific signs of unfavorable development, and children at risk should get the support and protection they need through in-home services or treatment, or OHC if it is deemed to be in the best interest of the child (Healy, Lundström, & Sallnäs, 2011; Hessle & Vinnerljung, 1999).

An out-of-home care system based on risk assessments and compensatory ideas

As indicated from the above, OHC in Sweden is generally viewed as a last resort when all other options have failed or been deemed implausible. Whilst most placements are approved by the parents (ca. 75%), substantial risk to the child's health or development due to a problematic home environment or the child's own behavior warrants placement without consent. But the legislation is diffuse with regards to estimation of such risks, and puts great trust in social workers abilities to predict children's development (Backe-Hansen, Höjer, Sjöblom, & Storø, 2013; Hessle & Vinnerljung, 1999; Socialstyrelsen, 2019; Vinnerljung, 1996a).

The main responsibility for meeting the needs of children in OHC lies with the child welfare system. Swedish law particularly stipulates that children in OHC should be provided with good care and access to education, and health (including dental) care. However, the legislation is unclear as to what providing *good* care and *access* actually means, and what actions these wordings imply (Mattsson & Vinnerljung, 2016). Nevertheless, whether the reason for OHC is to improve the child's immediate living situation or long-term development, the intention is to provide the child with something that the birth family could not. The underlying idea of OHC can thus be understood as compensating children for previous deficiencies.

Statutory OHC can be divided into foster family homes (including kinship care), residential homes and supported housing primarily run by private companies, and state-run special homes with secure units. Foster family care is the preferred alternative, and the almost exclusive placement of choice for younger children, whereas adolescents to a larger extent receive care in institutional settings (Socialstyrelsen, 2016, 2019).

Reflective of the child welfare system's family service approach, OHC follows the principle of family reunification once the aim of the care has been fulfilled, and reunification is deemed to be in the best interest of the child. All placements are reviewed every six months, and adoption is rare even among young children with weak prospects of family reunification (Backe-Hansen et al., 2013; Storø, Sjöblom, & Höjer, 2019).

The age range for entering OHC is 0 to 18 years. Yet, most children in OHC who turn 18 remain in care until completion of upper secondary schooling (usually the year they turn 19). Furthermore, if a child is placed without consent due to own behavior – OHC may be prolonged until the age of 21 (Storø et al., 2019). The child welfare system has a general responsibility for supporting care leavers. However, in contrast to the other Nordic countries, there is no legislation that specifically regulates the transition from care to independent life, and care leavers are typically referred to the general social services (Vinnerljung et al., 2015).

Children with out-of-home care experience – a heterogeneous group

Children with OHC experience is a heterogeneous group. During the last years, the number of unaccompanied minors within the Swedish child welfare system has grown rapidly. In 2018 they made up almost 30% of the total OHC population, which has resulted in increased placement rates in general, and increased teenage placements in particular (Socialstyrelsen, 2019). Yet, this particular group is outside the scope of this thesis.

Unaccompanied minors excluded, OHC prevalence and patterns have been fairly stable over the last decades. Around one percent of all children enters

into OHC every year. From a longer perspective, it is estimated that about four percent of all Swedish-born children have been placed in OHC at some point during their childhood years. Around two out of three of these children have been placed in foster family care. Furthermore, approximately one percent of all children basically grow up in societal care. Teenagers constitute the largest subgroup in the OHC population at any given day. Likewise, the risk of being placed for the first time is greatest during the teenage years, but it is relatively high during children's first year of life as well. Also, more boys than girls are placed in care (Lundström & Vinnerljung, 2001; Socialstyrelsen, 2006, 2016, 2019; Vinnerljung, 1996b).

Although information about care histories, e.g. placement lengths and OHC patterns are scarce on a national level, Swedish children with OHC experience (unaccompanied minors excluded) can be divided into four subgroups based on their placement history characteristics (cf. Triseliotis, 1989; Vinnerljung, Brännström, & Hjern, 2015):

- Short care: first placement before age 13, total placement time less than 2 years, a mix of residential and foster family care (the second largest group).
- Intermediate care: first placement before age 13, total placement time 2-5 years, mostly foster family care (the smallest group).
- Long-term care: first placement before age 13, total placement time more than 5 years, almost exclusively foster family care (the third largest group). In this group, the vast majority age out of OHC (Berlin et al., 2011).
- Teen placements: first placement at age 13 or later, regardless of total placement time, a mix of residential and foster family care (the largest group). This group differs a lot from the others since around 40 percent enter care due to juvenile delinquency or substance abuse (Vinnerljung, Sallnäs, & Westermark, 2001).

By historical tradition, the Swedish OHC population is mainly characterized by social selection (Lundström & Sallnäs, 2003). Thus, it has been said that the child welfare system has never been able to 'shed its poverty relief shell' (Sunesson, 2003). Poverty, low education and single parenthood in combination with parental substance misuse or mental health problems are strong indicators (Franzén, Vinnerljung, & Hjern, 2008). In comparison to the US and the UK, experiences of abuse seem less common. Still, many children have witnessed or experienced violence themselves, and some have left their home due to family dysfunctions (i.e. runaways). Additionally, adolescents in particular may have displayed harmful internalizing and externalizing behaviors (Hessle & Vinnerljung, 1999; Khoo, Skoog, & Dalin, 2012).

Theoretical and empirical framework

This thesis is situated within the wider field of research on children and on OHC, which constitute classical core thematic areas within the social work scientific discipline (Martínez, Cobo, Herrera, & Herrera-Viedma, 2015). It concerns the developmental outcomes of children with OHC experience, more specifically through a focus on their education – a subject area which, judging by a study from the 1920s (Theis, 1924), is almost as old as the emergence of social work as an organized profession. More specifically, the thesis evolves around the idea that the child welfare system can improve the development of children in OHC through increased attention to their education. The theoretical and empirical framework that underpins this idea is based on previous research on the educational outcomes of children with OHC experience, and borrows logic and concepts from the life course perspective, and developmental social work.

A life course perspective on children with out-of-home care experience

The life course perspective can be seen as a conceptual framework or meta-theory examining changes in lives – from birth to death – within historical, cultural, and biographical contexts (Elder, Johnson, & Crosnoe, 2003). With its roots in sociology, this broad perspective has been extended and adapted to numerous academic fields including e.g. epidemiology, psychology, and medicine. Moreover, it has been brought forward as useful within social work (Hutchison, 2005, 2019), and child welfare research (White & Wu, 2014), including studies on the educational outcomes of children with OHC experience (Brady & Gilligan, 2018).

The general take is that the life course perspective is grounded on five main principles: 1) human development is a life-long process, 2) people display agency through choices and actions within the opportunities and constraints of their specific context, 3) life courses are shaped by their historical time and place, 4) the developmental consequences of transitions and life events are dependent on their timing in people's lives, and 5) human lives are linked and interdependent. Some key concepts are: trajectories (sequences of roles and experiences), pathways (sets of interrelated trajectories), transitions (changes

in states or roles), and turning points (substantial changes in a trajectory or pathway) (Elder et al., 2003).

An emerging theme within the life course perspective is developmental risk and protection, and a revived focus on how earlier life experiences affect later development, e.g. through cumulative (dis)advantage processes (Hutchison, 2005). Cumulative advantage states that the advantage of a person or group tend to grow over time. The counterpart, cumulative disadvantage, implies that disadvantages accumulate over the life course (DiPrete & Eirich, 2006).

Applying a life course approach to OHC experienced children means that one recognizes the importance of how their early life circumstances shape their lives (Rutter, 1989). In this case, the reason for placement itself can be seen as a sign of serious childhood adversities in terms of e.g. abuse, neglect, parental psychopathology, and/or socioeconomic disadvantages. Drawing on the concept of cumulative disadvantage (DiPrete & Eirich, 2006), it could thus be argued that the clustering of such adverse exposures in childhood may accumulate throughout childhood and continue to gradually worsen across the life course. As previously mentioned, the long-term developmental outcomes in different life-domains among children with OHC experience are in fact exceedingly poor in comparison to same-aged peers in the general population.

However, whilst early deprivations and traumas may accumulate over the life course, this is not to imply that they inevitably lead to a trajectory of disadvantage. The relationship between childhood and adulthood is far more complex than what a simple claim of life course continuities allows (McLeod & Almazan, 2003). In truth, several longitudinal studies have found that children with serious disadvantages at a young age may catch up with their same-aged peers over the life course (Vaillant, 2008; Werner & Smith, 1992, 2001). Consequently, later life experiences may erase or reverse the influence of an adverse childhood (Schulenberg, Maggs, & O'Malley, 2003).

The differences in developmental trajectories within and across different groups have led researchers to study human lives based on principles of risk, protection, and resilience. Knowledge gained from such longitudinal studies about risk processes that can be interrupted and/or protective processes that may be strengthened is then ideally used to design preventive interventions, and to increase the effectiveness of current policies and programs targeting vulnerable and disadvantaged children (Ferrer-Wreder et al., 2004; Fraser, 2004; Jenson & Fraser, 2015; White & Wu, 2014).

Education – a way out of social disadvantage

Education represents one of the most important sources for individual opportunity (Boudon, 1974), and the most robust way out of childhood disadvantage (Pilling, 1990). Education can thus act as a 'social elevator' (Sorokin, 1927).

The associations between educational outcomes and later life outcomes are well documented. For example, Swedish national cohort studies have shown

that poor school performance in compulsory school is strongly associated with elevated risks for e.g. suicide attempts, substance misuse, and serious criminality in young adulthood – regardless of socioeconomic background (Björkenstam et al., 2011; Gauffin et al., 2013; Jablonska et al., 2009; Vinnerljung et al., 2010). Thus, education seems to be an important mediating factor in life course development among children in general (Björkenstam et al., 2016). The coming of knowledge-based economies furthermore highlights the importance of educational attainment for future outcomes (Frønes, 2016).

Studies have also shown strong associations between poor school performance and subsequent risks for adverse outcomes among child welfare populations (Brännström, Vinnerljung, & Hjern, 2015) including children with OHC experience (Berlin et al., 2011; Vinnerljung et al., 2010). However, the mechanisms underlying these associations are not fully understood.

Although education represents an important source for individual opportunity, it is well-established that educational opportunities are not equally distributed across different social classes. Children from less advantaged backgrounds tend to perform worse at school compared to more advantaged peers (e.g. Erikson, Goldthorpe, Jackson, Yaish, & Cox, 2005; Goldthorpe, 1996). Still, vulnerable children's school performance can be improved with appropriate interventions (Arnold & Doctoroff, 2003; Campbell & Ramey, 1994; Campbell et al., 2008; Gottfredson, Wilson, & Najaka, 2002; Ross, Smith, Casey, & Slavin, 1995).

Developmental social work and turning point interventions

A distinct feature of the profession of social work is its focus on induced change (Fraser, 2004). The change function by which it promotes improvement in people's well-being and wider social conditions is often referred to as social work's developmental function (Midgley, 2010). Although developmental social work is often linked to community work, its ideas can also be applied to more mainstream practices such as child welfare. A developmental approach to child welfare means that child protection can be combined with promotion of children's well-being through social investments in the form of specific preventive interventions, such as promotion of early childhood care and education (Conley, 2010). Indeed, such ideas are comparable to the compensatory ambitions of OHC.

Placement into care is a disruption in itself of the life a child has led – a transition – through which life course pathways change. Consequently, OHC has the potential of being a turning point intervention, i.e. a transition that induces significant change in previous pathways by alleviating the influence of earlier childhood adversities and preventing processes of cumulative disadvantage over the life course (White & Wu, 2014). From a developmental and social-investment approach, this dissertation thereby follows the argument

that increased attention to the education of children in OHC may increase OHC interventions' prospects of being such positive turning points.

Educational outcomes and status of children with out-of-home care experience

For decades, empirical research has consistently reported that children with OHC experience tend to perform poorly in school and in the educational system (Jackson, 2001; Trout et al., 2008). The following sections are devoted to describing both the general trends, and some specific findings in European and North American studies on the educational outcomes and status at different stages of their educational careers.

Deficits in school readiness and pre-academic skills

Children from low socioeconomic backgrounds, and those who have been maltreated consistently demonstrate deficits in pre-academic skills and overall school readiness (Pears & Peterson, 2018). Although studies are scarce, research suggests that children in OHC is a particularly vulnerable group.

The cognitive development and socioemotional functioning of children in foster family care may already be lagging behind at age 2, according to a Norwegian study (Jacobsen, Moe, Ivarsson, Wentzel-Larsen, & Smith, 2013). US studies which compared school readiness among foster family children and peers from comparable socioeconomic backgrounds, reported that the foster groups showed developmental lags on both language and cognitive functioning (Pears & Fisher, 2005; Pears, Heywood, Kim, & Fisher, 2011). Similar problems were found in another US study, which followed infants in foster family care. After 5-6 years, these infants had been reunified, adopted, or were still in OHC. Even though the foster family group had been in their current placement for over four years on average, they had significantly lower performance levels compared to both the normative mean and the other study groups (Lloyd & Barth, 2011). Furthermore, a Canadian population-based cohort study reported that the overall school readiness among children in OHC was not better in comparison to siblings or cousins not taken into care (Wall-Wieler et al., 2019).

Poor school performance and high rates of special education and grade retention in compulsory school

The educational status and outcomes of children with OHC experience during their compulsory school years (i.e. ca. age 6-16) has been quite extensively studied over the years.

Studies that have looked into basic academic skills (e.g. reading, spelling, mathematical, and cognitive skills) consistently show that children in OHC perform at lower levels than same-aged peers on standardized achievement tests. A review of educational research on OHC experienced children in the US (mean age=12.9 years) found that they tended to score in the low to low-average range, and were often rated by their teachers as academically at risk (Trout et al., 2008). Furthermore, a US study based on administrative data, reported that the performance gap in reading and math between OHC children and their peers increased over time. However, the performance of the OHC group did not differ from other child welfare groups (Berger, Cancian, Han, Noyes, & Rios-Salas, 2015). Interestingly, a British population-based study revealed that around two thirds obtained lower reading and spelling scores than those predicted by their cognitive test score. Almost one fifth performed at a level that would typically warrant intervention (Rees, 2013).

While there is an overall dearth of Nordic assessments of basic academic skills among children in OHC, findings from small-scale intervention studies also point to below average performance and underperformance with regards to cognitive capacity among Swedish foster family children (Tideman, Vinnerljung, Hintze, & Aldenius, 2011; Tordön, Vinnerljung, & Axelsson, 2014). Studies based on ratings from parents/carers and professionals, indicate that Danish children in OHC, and Norwegian children involved with the child welfare system exhibit similar deficits as reported above (Egelund et al., 2008; Iversen, Hetland, Havik, & Stormark, 2010). Moreover, the Danish study did not find any signs of improvement over time.

Children with OHC experience also tend to have lower grade averages compared to their peers. Analyses of British longitudinal administrative data showed significant attainment gaps between different OHC groups and the general population at age 11 and 16. Although there were subgroup differences, the gap had gradually worsened over time (Sebba et al., 2015).

In the final year of compulsory school, the educational gap between OHC experienced children and their peers seems to be substantial. A Danish cohort study found that one in five in the OHC-group had not completed compulsory school at age 17, compared to one in 25 in the general population (Bryderup & Trentel, 2012). In Swedish national cohort studies, a majority of boys (60%) and 42 percent of girls with long-term OHC experience had low grades in the final year of compulsory school, compared to 22 and 11 percent respectively in the majority population. Low grades were defined as belonging to the 1/6 poorest school performers in the entire same-aged Swedish population. Moreover, boys in this group had significantly lower average grades than majority population boys with similar results from cognitive tests at military conscription (Berlin et al., 2011; Vinnerljung et al., 2010). Analyses of more recent cohorts have shown comparable indications of underperformance amongst both girls and boys with OHC experience (Johansson & Höjer, 2014). Compared to peers, these children are also less likely to repair their low grades

from compulsory school in upper secondary school, or through the inclusive Swedish adult education system (Vinnerljung et al., 2010).

Rates of special education, grade retention, and disciplinary actions have also been used as indicators of educational outcomes among children in OHC. A meta-analysis, mostly based on studies from the US, estimated that about a third of students in OHC qualified for or received special education services. Moreover, one third had been retained, and one fourth had been expelled or suspended at least once during their school careers. Although not all studies included comparisons, those who did showed that these rates exceeded their peers (Scherr, 2007). A high prevalence of special education and grade retention has also been noted in a Danish cohort study (Egelund et al., 2008).

Low completion rates in upper secondary school

Studies on the educational outcomes of OHC experienced children in upper secondary school (i.e. ca. age 15-19) are mostly focused on attendance, drop-outs and completion rates.

A longitudinal US study of children in OHC found that their educational outcomes were worse off compared to a matched group not in care. Children in the OHC group were also more likely to drop out and less likely to obtain a GED (i.e. an alternative qualification in the US and Canada for those who do not earn a high school diploma) (Blome, 1997). Estimates on high school graduation in more recent studies vary depending on site or age at follow-up. Some have reported attainment gaps (Courtney et al., 2007), and/or found that a larger proportion of children with OHC experience finishes with a GED (Pecora, Kessler, et al., 2006; Pecora, Williams, et al., 2006).

Similar findings have been reported from the European YiPPEE project, which assessed further education among children with OHC experience in England, Spain, Hungary, Denmark and Sweden. An overall finding was that these children were less likely than others to progress to upper secondary school and to complete their courses (Jackson & Cameron, 2011). In Sweden, they were almost as likely to apply for and get accepted into upper secondary education as their same-aged peers. However, an alarmingly 60 percent did not finish their education as compared to 18 percent in the comparison group (Johansson & Höjer, 2014). Other Swedish cohort studies have shown that a third of children with long-term OHC experience only had basic education at age 26, compared to one in twelve in the general population. They were also substantially worse off compared to national adoptees (Vinnerljung & Hjern, 2011; Vinnerljung, Öman, & Gunnarson, 2005), and to same-aged peers with similar cognitive capacity at military conscription (Vinnerljung et al., 2010).

Furthermore, longitudinal Norwegian studies have shown that former child welfare clients are more likely to choose the vocational track – a path that leads them away from higher education – than their same-aged peers, even when controlling for their compulsory school grades. In addition, they are less

likely to make the transition to each subsequent school year, i.e. they tend to drop out of school, in particular those who attend the vocational track (Dæhlen, 2014, 2015, 2017).

Low attendance and completion rates in post-secondary education

Previous research has also reported significant disparities in post-secondary educational attainment between young adults with OHC experience and their general population peers.

Research from the US, mostly based on surveys or interviews, have shown that many children with OHC experience either do not attend college at all or drop out without completing their degrees at later stages (Day, Dworsky, Fogarty, & Damashek, 2011; Pecora, Kessler, et al., 2006; Pecora, Williams, et al., 2006). For example, the Midwest Evaluation of the Adult Functioning of Former Foster Youth, a longitudinal study of children with OHC experience, found that around 40 percent had completed at least one year of college by age 26 compared to 72 percent among same-aged peers in a nationally representative sample. Moreover, they were almost six times less likely to have a post-secondary degree (8% vs. 46%) than their counterparts (Courtney et al., 2011). A longitudinal cohort study on care experienced youth found that those enrolled in 2-year colleges were more likely to remain in school than 4-year college attendees (Jones, 2011). Interestingly, results from a case control study showed that, in particular, former OHC students with good performance graduated at a slower rate, compared to low-income first generation students at the same university (Day, Dworsky, & Feng, 2013).

The previously mentioned European YiPPEE project reported that around eight percent of children with OHC experience started post-secondary education, which is five times less than children overall (Jackson & Cameron, 2011). A recent compilation of British administrative data showed that children with OHC experience were much less likely to participate in higher education than the general population, even after accounting for differences in previous educational attainment. Also, those who did proceed tended to start later in life compared to their same-aged peers (Harrison, 2019).

Nordic cohort studies have also shown that children with OHC experience have significantly lower educational attainment in young adulthood compared to their same-aged peers. Very few have a post-secondary degree (Bryderup & Trentel, 2012; Clausen & Kristofersen, 2008; Vinnerljung et al., 2005). Swedish children with long-term OHC experience have lower educational attainment in young adulthood, net of their compulsory school grades. Boys in this group had 50 percent less chance of having a post-secondary degree compared to peers with the same cognitive ability (Vinnerljung et al., 2010). Moreover, the attainment gap between children with OHC experience and their peers seems to persist into midlife (Brännström, Vinnerljung, Forsman, & Almquist, 2017).

Why do children with out-of-home care experience perform poorly in school and in the educational system?

The research review above clearly shows that children with OHC experience have low educational outcomes at all stages of their educational careers across countries and different educational systems. But why are their educational trajectories worse off compared to their peers'? While a number of explanations have been put forward, the replies in the current literature to this basic question tend to be vague. A recent review identified 70 factors associated with educational outcomes for children in OHC. Special education needs, male gender, and minority status were consistently identified as risk factors. Yet, evidence for the other predictors were mixed (O'Higgins, Sebba, & Gardner, 2017). Studies on OHC children's educational outcomes are mostly based on cross-sectional designs, and with some exceptions there is an overall dearth of long-term longitudinal studies (O'Higgins et al., 2017; Stone, 2007). Most studies report on fairly short term outcomes, and focus on links to singular variables. Thus, much of the literature lacks a common explanatory approach (Pears, Kim, & Brown, 2018), and there is a need for more longitudinal studies following OHC children's educational pathways over the life course.

Pre-care experiences and adverse rearing backgrounds

The most common explanation to poor educational outcomes among children with OHC experience involves factors related to their pre-care experiences and often adverse backgrounds. Following a strict interpretation of cumulative disadvantage, it is at times argued that what we see is what we can expect.

Prior research has shown strong associations between low socioeconomic backgrounds and educational underachievement (Arnold & Doctoroff, 2003; Bradley & Corwyn, 2002). Educational inequality is often reproduced across generations through e.g. family structure, parental education, income and wealth – areas in which families involved with the child welfare system tend to be highly disadvantaged (Berridge, 2012; Franzén et al., 2008). Moreover, children in OHC have often been exposed to neglect, abuse, domestic violence, and parental problems including substance misuse, mental health problems, and serious criminality (Khoo et al., 2012). Such adversities have also been linked to poor educational outcomes (Eckenrode, Laird, & Doris, 1993; Fantuzzo & Perlman, 2007; Stone, 2007; Trickett & McBride-Chang, 1995).

Thus, the very sorting mechanisms into care are strongly linked to poor educational outcomes. Consequently, in the same way that such circumstances would place these children at significant risk for adverse life course pathways, they would also place them at risk for poor educational outcomes.

Research assessing the educational outcomes of OHC experienced children has been criticized for not taking their socioeconomic background and/or pre-care experiences into account (e.g. Berridge, 2012). Still, in Swedish national

cohort studies, the high prevalence of poor school performance in compulsory school can only partially be explained by socioeconomic factors in the birth family. Likewise, indications of parental substance misuse, mental health problems, and criminality only account for a small share of the educational gap between children with OHC experience and their peers (Berlin et al., 2011; Vinnerljung et al., 2010; Vinnerljung & Hjern, 2011).

Vulnerable and problem-burdened children

Poor educational outcomes among children with OHC experience may also be explained by adverse factors related to the children, such as lower cognitive ability than majority population peers, and a higher prevalence of behavior and mental health problems as well as special education needs.

The association between cognitive ability and educational outcomes is strong among children in general (Deary, Strand, Smith, & Fernandes, 2007; Foverskov et al., 2019). Since the average cognitive capacity of children in OHC tend to be lower than their peers (Goemans, van Geel, van Beem, & Vedder, 2016; Trout et al., 2008), this will likely add up to an educational gap.

However, worse cognitive functioning does not automatically lead to lower educational outcomes. Studies of foreign-born Swedish adoptees suggest that a good home environment to some extent can compensate the risk of lower grades that lower cognitive capacity may imply (Lindblad, Dalen, Rasmussen, Vinnerljung, & Hjern, 2009). The importance of the environment has also been shown through increases in the cognitive functioning among children who are adopted from families with lower socioeconomic status to families with higher socioeconomic background (Nisbett et al., 2012). Moreover, French studies have shown increases in tested cognitive abilities throughout childhood in children adopted at age 4-6 due to abuse or neglect. In young adulthood, the adoptees' test results were far closer to those of children in families similar to the adoptive family, and much higher compared to siblings who had remained in the birth family (Duyme, Dumaret, & Tomkiewicz, 1999; Schiff, Duyme, Dumaret, & Tomkiewicz, 1982).

Furthermore, whilst some studies indicate a strong relationship between the cognitive ability of children in OHC and school performance (Pears, Fisher, Bruce, Kim, & Yoerger, 2010) others suggest that the correlation is weaker among OHC children than in the general population. As already implied, several studies have shown that children with OHC experience seem to have lower school performance and educational attainment compared to same-aged peers with similar cognitive capacity (Berlin et al., 2011; Johansson & Höjer, 2014; Rees, 2013; Tideman et al., 2011; Vinnerljung et al., 2010).

Previous research has reported that both mental health and behavioral problems are more prevalent among children in OHC compared to their counterparts – at start of, and during the placement (Egelund & Lausten, 2009; Ford, Vostanis, Meltzer, & Goodman, 2007; Goemans et al., 2016; Goemans et al.,

2015; Lloyd & Barth, 2011). The links between such problems and poor educational outcomes are well recognized (Gumora & Arsenio, 2002; Johnson, McGue, & Iacono, 2009). While some studies have reported such associations among children in OHC (Flynn, Tessier, & Coulombe, 2013; Shin, 2003; Tessier, O'Higgins, & Flynn, 2018), evidence on the influence of behavioral problems is somewhat mixed (O'Higgins et al., 2017). Moreover, though behavioral and mental health problems may cause deficits in children's school performance, poor educational outcomes may also cause or increase such problems (Gustafsson et al., 2010; Tremblay et al., 1992).

As previously mentioned, OHC children also constitute a selected group with regards to special education needs, and grade retention (Egelund et al., 2008; Smithgall et al., 2004; Trout et al., 2008). This is partly due to a high share of emotional and behavioral disorders in OHC populations, as described above. Additionally, children with learning and developmental disabilities are more likely to enter OHC (Hill, 2012; Lightfoot, Hill, & LaLiberte, 2011). Involvement in special education programs is associated with poorer educational outcomes among children in OHC (O'Higgins et al., 2017). Studies on the general population have furthermore concluded that such involvement, and grade retention both indicate educational failure, and may impede future school performance (Pallas, 2003).

A failing system

Additional explanations to lower educational outcomes among children with OHC experience can be referred to what has been termed 'a failing system'. British researchers in particular have pointed to authorities' disregard for OHC children's education – a kind of societal neglect (e.g. Fletcher-Campbell & Hall, 1990; Jackson, 1994, 1998, 2001). This include e.g. a division between the education and child welfare systems, social workers not prioritizing education, and a low interest to follow up on the children's school progress. Such disregard is illustrated in a Swedish study of case files of OHC children where the acknowledgement of education was generally perceived as low, and non-existent in one fifth of the cases (Höjer, Lindberg, Nielsen, Gustafsson, & Johansson, 2018).

Many studies also point to low expectations on the children's educational outcomes among both social workers, teachers and carers (Blome, 1997; Egelund et al., 2008; Jackson, 1994; Kjellén, 2010; Tideman et al., 2011; Tordön et al., 2014). Another reoccurring finding is lack of educational support, both during the placement and when leaving care (Ferguson & Wolkow, 2012; Harker, Dobel-Ober, Lawrence, Berridge, & Sinclair, 2003; Höjer & Sjöblom, 2010; Unrau, Font, & Rawls, 2012). Meanwhile, adults' expectations and support are important predictors of educational outcomes, and educational choices for all children, including those in OHC (Cheung, Lwin, & Jenkins, 2012; Flynn et al., 2013; Martin & Jackson, 2002).

Furthermore, entering OHC may be a disruptive educational experience by itself (Smithgall et al., 2004) and many children's OHC trajectories are characterized by frequent school changes and placement instability (Ward, 2009; Webster, Barth, & Needell, 2000). Indeed, such circumstances may obstruct children's learning (Ferguson & Wolkow, 2012), e.g. by inducing gaps of knowledge. Such knowledge gaps, often accumulated over several years, have been prevalent in pedagogical assessments of children in foster family care in Swedish intervention studies (Tideman et al., 2011; Tordön et al., 2014). However, although some studies have reported associations between instability and poor educational outcomes (Clemens, Klopfenstein, Lalonde, & Tis, 2018; Olsen & de Montgomery, 2018), the empirical support is mixed (O'Higgins et al., 2017).

Finally, does OHC placement result in improved educational outcomes? Well, some studies have found a positive association between outcomes and time in OHC, whilst others have not (O'Higgins et al., 2017). For example, a Danish longitudinal cohort study did not see any signs of improvement during the time in OHC (Egelund et al., 2008). Furthermore, in Swedish national cohort studies, there are no associations between school performance and placement duration or age of entry into OHC (Berlin et al., 2011; Vinnerljung et al., 2010; Vinnerljung et al., 2005). Still, it is difficult to assess the system's success or lack thereof. Longitudinal studies are scarce, and few have been designed to allow for valid comparisons to children not in care or to address heterogeneity within the OHC population. Findings are thereby inconclusive.

Helping children in out-of-home care improve in school and in the educational system

From the above, what can we say about the prospects of helping children in OHC improve in school and in the educational system? Firstly, we can conclude that low educational outcomes among OHC experienced children both seem to stem from a composition of adversities often found in this population, and from the child welfare system that supposedly should provide them with better opportunities for educational improvements. The children's backgrounds and other established difficulties are by no means advantageous and may accumulate over the life course. However, the take-away message from this is not to give up on these children – it is to give them more support. Put differently, rather than simply noticing that their poor educational outcomes correlate with well-known adversities, we should focus on how the care system could have a positive influence on their educational performance.

Secondly, findings from studies of the cognitive functioning of children with OHC experience indicate a lower net return on educational outcomes in comparison to their same-aged peers, i.e. they seem to be underperforming in

relation to their capacities. Furthermore, studies on adoptees show that the cognitive capacity of socioeconomically disadvantaged, and maltreated children can be substantially improved over time. Comparisons between cognitive test scores in childhood and at conscription among boys in general suggest that the latter are influenced by educational choices in upper secondary school (Dahlbäck, 1980). This infers that the cognitive ability among children with OHC experience should not be viewed as fixed. Rather, it could be seen as an outcome of intellectual and educational stimulation prior to and during OHC – or the lack thereof. It also implies that there is room for improvement, both in terms of cognitive functioning, and overall educational outcomes.

Thirdly, the educational aspirations of children with OHC experience do not seem to differ that much from those of other children (Courtney, Terao, & Bost, 2004; Dæhlen, 2014). Taken together, there is no reason to believe that OHC could not have a positive influence on their education.

Previous research suggest that children with OHC experience fall behind their peers early on in their educational careers, and preceding educational shortcomings have a negative effect on subsequent, resulting in accumulation of educational disadvantages. Conversely, addressing their poor outcomes early on may have positive – direct and indirect – effects on their entire educational careers (Pears et al., 2018). Given the strong links between early reading and mathematical skills and later school performance (Duncan et al., 2007), targeting basic academic skills seems particularly promising.

Interventions aiming to improve basic academic skills

Despite comprehensive searching strategies, stretching a large time span, different reviews have concluded that interventions specifically targeting the basic academic skills of children in OHC are scarce (Evans, Brown, Rees, & Smith, 2017; Forsman & Vinnerljung, 2012; Heywood, 2014; Liabo, Gray, & Mulcahy, 2013). Thus, in spite of the dismal and alarming results that have been reported about their educational outcomes, little has been done to build such empirically supported interventions. Nevertheless, there are examples of promising programs within this area which can be divided into the following categories:

- *School-readiness programs* which are based on group sessions focused on practicing pre-academic and school-readiness skills, and promote carer involvement, e.g. the KITS program in the US (Pears et al., 2013; Pears, Kim, & Fisher, 2016).
- *Individualized support programs* through which children receive tailored educational support based on systematic assessments of their basic academic skills, e.g. the Swedish Skolfam model (Durbeej & Hellner, 2017;

Heimer, Olsen, & Wennerström, 2015; Holmbom, Olsson, Fröjdlund, Selldén, & Yttermyr, 2016; Tideman et al., 2011; Tordön et al., 2014).

- *Strategic interventions* such as having an education liaison as a resource for social workers (Weinberg, Oshiro, & Shea, 2014; Zetlin, Weinberg, & Kimm, 2004).
- *Book-gifting programs* through which children receive books and other learning materials to their home, e.g. the British Letterbox Club (Dymoke & Griffiths, 2010; Griffiths, 2012; Griffiths & Comber, 2011; Griffiths & Comber, 2011; Griffiths, Comber, & Dymoke, 2010; Mooney, Winter, & Connolly, 2016; Roberts, Winter, & Connolly, 2017; Winter, Connolly, Bell, & Ferguson, 2011).
- *Tutoring interventions* in which teachers, carers or volunteers give one-to-one or group-based educational support, e.g. the Canadian adaptation of the Teach Your Children Well model (Flynn, Marquis, Paquet, Peeke, & Aubry, 2012; Harper & Schmidt, 2016; Hickey, 2018), and the British and Swedish adaptation of the paired reading method for children in foster family care (Osborne, Alfano, & Winn, 2010, 2013; Vinnerljung, Tideman, Sallnäs, & Forsman, 2014).

This field of intervention research is characterized by local single shot studies, although some programs have been replicated over the years. With some important exceptions (e.g. the Canadian tutoring intervention), programs tend to use an ad-hoc approach, and most evaluations are based on small samples and often carried out with weak designs. Additionally, far too little is known about how the programs actually work in practice. On the positive side, most interventions – almost regardless of type and location – seem to have made at least some difference. Reading skills have been improved in most studies, while attempts to raise mathematical skills have produced mixed results. This may indicate that reasonably qualified interventions have fair chances of producing positive results (Forsman & Vinnerljung, 2012). However, in the light of the limited research actually done in this field – it is premature to draw any conclusions about the effectiveness of different intervention characteristics, e.g. on ‘what works best’. Thus, there is a need for more research in this area. Furthermore, users, policy makers, and practitioners are not only interested in the effectiveness of interventions. In order to improve the overall impact and delivery of these interventions, there is a need for studies that also look more closely into how they are practiced and received.

Specific aims of the empirical studies

The empirical studies in this dissertation focus on different aspects of poor educational outcomes among children with OHC experience with the intention of addressing some of the identified knowledge gaps within this research area. This include: a) the association between poor school performance in children with OHC experience and later adverse outcomes, b) educational pathways and long-term educational outcomes among children with OHC experience, and c) the knowledge base of interventions targeting the basic academic skills of children in OHC. Based on the above, the intended contribution and specific objectives of the empirical studies are:

a) examining the hypothesized causal effect of poor school performance on subsequent psychosocial problems among children with OHC experience (Study I),
b) exploring educational outcomes at different stages in the educational career, and furthering our understanding of pathways to varied educational outcomes for children with OHC experience (Study II),
c) adding to the overall knowledge base of interventions aimed at improving the basic academic skills of children in OHC through evaluations of a specific book-gifting program (the Letterbox Club) and a tutoring intervention (based on the paired reading method) that have shown promising results in previous studies. This includes questions about reading outcomes, and how the interventions are received and practiced by children and/or their carers (Study III and IV).

In line with the theoretical framework, the thesis thus follows the principle that the design of effective preventive measures targeting children in OHC ideally should be informed by longitudinal studies that increase our awareness of malleable risk and protective factors (Study I and II), and evaluations of interventions that attempt to induce change based on that knowledge (Study III and IV).

Methods

As indicated from the outline of the empirical studies' specific aims, this thesis addresses different types of research questions. The methodological decisions in this dissertation have been made under the assumption that different types of research questions are best answered by different types of study designs (Morgan, 2007; Petticrew & Roberts, 2003). Hence, this thesis incorporates diverse methods. Table 1 and the following description of the methodology provide an overview of the methodological decisions made. The methods section in each article/manuscript, however, provide a more comprehensive description on the methods used in each study.

Study designs

The research question in Study I refers to causal impact, i.e. does poor school performance cause later adverse outcomes. The study design was therefore guided by a counterfactual model, which provides a general framework of reasoning about causality (Rubin, 1974). A central feature is its focus on what would have happened to a group of individuals who receive a treatment if they had not received the treatment. Here, the concept of treatment refers to the exposure of poor school performance. However, since a group of individuals cannot simultaneously lead two different lives, the counterfactual is a hypothetical condition that can never actually happen. A key task for studies on causal impacts is therefore to create reasonable approximations to this physically impossible counterfactual (Morgan & Winship, 2014; Shadish, Cook, & Campbell, 2002).

Experiments, and randomized controlled trials (RCTs) in particular, work by creating a group that can mimic the counterfactual and are therefore well-suited to studying causal relationships (Shadish et al., 2002). However, in the social sciences RCTs are not always possible, practical, ethical or even desirable. Given that it is not plausible to study the causal impact of poor school performance on later life outcomes with an experimental design, Study I had to rely on observational data. Still, with longitudinal prospective cohort data it is possible to estimate the potential outcomes by adopting a statistical modeling strategy that explicitly addresses the sorting process into exposure (i.e. having poor school performance) (Imbens & Wooldridge, 2009).

Table 1. Overview of the methods used in the empirical studies.

	Research question interest	Study design	Sample	Variables/data	Analysis
I	Causal impact of poor school performance	Longitudinal prospective national cohort study	7,522 children placed in OHC < age 13, born 1973-1978	Register data *Outcomes*: economic hardship (age 21), illicit drug use & mental health problems (age 16 to 30-35) *Exposure*: poor school performance 9th grade (age 16), i.e. GPA of <(M-1SD), or no/incomplete grades in key subjects *Covariates*: socioeconomic background, parental psychosocial problems, sex, preterm birth, OHC duration	Inverse-probability weighted regression adjustment
II	Educational pathways – life course development	Longitudinal prospective cohort study	SBC Multigen: 771 children placed in OHC < age 13 & 11,525 non-OHC children, born 1953	Survey and register data *Outcomes*: average school grades 6th & 9th grade (age 13 & 16), educational attainment – pseudoyears (age 62) *Covariates*: socioeconomic background, sex, cognitive ability, school-related factors	Multi-group path analysis
III	Outcomes of the LbC	One-group pretest-posttest design	72 foster family children age 8-11	*Outcome*: reading age development pre/post intervention (background info.)	Paired samples t-test, bivariate analysis
	How LbC was received	Semi-structured interviews	11 children & 13 foster carers, convenience sample	Interview data: use & involvement, views & experiences of the program	Descriptive summaries
IV	The practice of paired reading & how it was received	Semi-structured interviews	15 foster carers, stratified purposive sample	Interview data: practice & compliance, views & experiences of the method, supports/barriers	Case descriptions, thematic analysis

Note: OHC=out-of-home care, GPA=grade point average, M=mean, SD=standard deviation, SBC Multigen=Stockholm Birth Cohort Multigenerational Study, LbC=Letterbox Club

In Study II, the research interest was educational outcomes over the life course among children with OHC experience, and the relationships between factors that may shape their educational pathways. The study was based on a longitudinal prospective cohort study because such design is particularly useful for evaluating the relationship between predictive factors in life course development (Fraser, 2004).

One research interest in Study III was to study the reading outcomes of the Letterbox Club, i.e. the association between participation in the program and reading age development. The study was based on a one-group pretest-posttest design. The tests were performed using an age-standardized instrument, which allows for a comparison of reading age development to the national norm. Such approach could buy some protection against the plausibility of validity threats related to e.g. maturation. The long follow-up time furthermore makes test-retest effects less likely. However, since it was not possible to include a comparison/control group, any improvement cannot be causally tied to the program (Shadish et al., 2002).

Research questions and evaluation objectives referring to e.g. the process of service delivery, the acceptability, and appropriateness of the intervention as well as satisfaction with the service all point to using qualitative methods (Petticrew & Roberts, 2003). Given that Study III asked how the Letterbox Club intervention was received, and Study IV asked how the paired reading intervention was practiced and received, qualitative methods by means of semi-structured interviews with children and/or their carers were employed in both of these studies.

Study populations and samples

All studies focused on children placed in OHC at some point before the age of 13 and/or their foster carers. Consequently, this thesis does not address the previously mentioned largest subgroup in the Swedish population of children with OHC experience of today, i.e. children who had their first entry into OHC during their teens.

Study I was based on a national sample of all children born in Sweden 1973-1978 who were alive in 2008, and who had OHC experience before the age of 13. This group constitute both short, intermediate, and long-term OHC, mainly in foster family care, and mostly due to family-related problems. A small group of children who either had missing grades from the final year of compulsory school or had been granted a disability pension at age 23, were excluded. Consequently, the prevalence of poor school performance in this study is conservative. After these delimitations, the study population consisted of 7,522 persons, who were 30–35 years of age at the time of follow-up. Since this study was aimed at examining the hypothesized impact of poor school performance on later outcomes, the sample was furthermore divided into two

groups; children exposed or unexposed to poor school performance, here defined as a grade point average of <(mean - 1 standard deviation), or no/incomplete grades in key subjects (N=3,722/3,800).

Since Study II aimed to examine the educational pathways of children with OHC experience over the life course, it had to be based on a sample with an even longer follow-up time. This was found in the Stockholm Birth Cohort Multigenerational Study (SBC Multigen), defined as all individuals born in 1953 who were resident in the greater Stockholm metropolitan area ten years later (N=14,608). SBC Multigen was created through a probability matching of the Stockholm Metropolitan Study (SMS) which was de-identified in 1986, and a new data register called RELINK53. Out of the original 15,117 SMS individuals, 14,608 were positively matched (Almquist, Grotta, Vågerö, Stenberg, & Modin, 2019). For the purposes of this study, cohort members who had participated in a school survey in 1966, and who were alive in 2015 were included. Children with only six years of schooling or whose first entry into OHC was during their teens were excluded, leaving an analytical sample of 12,296 individuals. Similar to Study I, the educational outcomes of children with OHC experience are thus biased upwards. Here, the educational pathways of children without OHC experience were used as a comparison. The sample thus comprised of an OHC group (N=771), and a non-OHC group (N=11,525). The OHC group mainly consisted of children with short placements. There was a mix between foster family and residential care. The overwhelming majority were placed due to family-related problems.

Study III – the evaluation of the Letterbox Club – included children aged 8-11, currently placed in foster family care and enrolled in a Letterbox Club project in two counties – Stockholm and Jönköping. This group mainly consisted of long-term placements. Children who were part of another intervention program targeting foster family children's school performance, had poor Swedish language skills or severe special needs were excluded (n = 13). In addition, 13 children did not participate since consent was not received from parents, carers, and/or child caseworkers. In total, 81 children were eligible to participate in the study. Attrition (11.1%) due to drop-out or incomplete test results left an effective analytical sample of 72 children.

Due to practical reasons, the interviews in Study III were based on a convenience sample, including 11 children whose placements were located in or around Stockholm, and their foster carers. The self-selection process probably resulted in an over-representation of participants with positive experiences of the intervention. However, the sample included an additional two carers willing to describe the negative experiences of their children. Thus, a total of 13 carers were interviewed.

Study IV included 15 foster carers to children aged 7-12 with whom they had participated in a paired reading project in seven Swedish municipalities. The stratified purposive sampling procedure was explicitly designed to capture a wide range of carer experiences – positive and negative – including

drop-outs. The selection was based on a compilation and content analysis of all participating carers' weekly reading reports, which resulted in the identification of four different participant categories with regards to how much they had read, and whether they had found the reading problematic or not. The sample consisted of three to four carers from each category, whom had read with one or more children in different ages. Most carers were women, and had in average 11 years' experience of fostering.

Outcomes, covariates and interview data

Study I and II are based on data derived from registers held by Swedish authorities for administrative and research purposes. Study I used indicators of psychosocial problems in young adulthood as outcomes, and poor school performance in the ninth and final year of compulsory school as exposure. The outcomes of interest in Study II were school grades in sixth grade, in ninth grade and educational attainment in middle age (62 years). The choice of covariates was guided by previous research and constrained to data that were recorded in the registers. Both studies used information about sex and socioeconomic background, i.e. maternal/household education, maternal economic hardship/household poverty, and whether the mother was a teenager at the cohort member's birth. Study I also included data on year of birth, preterm birth, placement duration, and indicators of parental psychosocial problems.

In Study II, the inherent limitation with register-based research was to some extent stretched through the use of data from a school survey administered to the children in the 1953 cohort in 1966 (13 years). This included information about cognitive ability on both sexes, and school-related factors such as the birth family's attitude to education, feelings of insecurity at school, classroom misconduct, academic interest, peer status, and their views of future prospects.

Study III used pre/post measurements of the participating children's reading skills (expressed as reading age in years and months). Local teachers assessed the children's decoding alphabetical and orthographic reading skills with two subtests from a national age-standardized test (LäSt: Elwér, Fridolfsson, Samuelsson, & Wiklund, 2016). When the project was staged, this test did not include any subtest assessing reading comprehension. Hence, although comprehension is another important reading skill, it was not an outcome in this study. The tests were administered before and after the children had participated in the project (6-8 months later). Also, the social workers collected basic background information, such as the children's age, sex, native language and placement time in the foster home.

Interview data were used in both Study III and IV. All carers in Study IV and two in Study III were interviewed by telephone. All other interviews took place in the homes of the children and their carers. The interviews were semi-

structured based on an interview-guide consisting mainly of open-ended questions. In both studies, these intended to capture attitudes to reading/school, involvement in, and views and experiences of the Letterbox Club and the paired reading program respectively. However, whilst Study III mainly focused on issues related to the acceptability of, and overall satisfaction with the intervention, i.e. how it was received, Study IV had an additional focus on the practice of the intervention, and furthermore included questions on supports and barriers. All interviews were recorded and ranged in length from 20 to 90 minutes.

Analytical approaches

Descriptive analysis, including bivariate group comparisons when applicable, was conducted on the quantitative data in Study I-III.

In Study I, the hypothesized causal impact of poor school performance on psychosocial problems in young adulthood was estimated by means of inverse-probability weighted regression-adjustment (IPWRA), which is a doubly-robust treatment-effect estimator. It uses the estimated inverse-probability weights of having poor school performance when performing regression adjustment. The IPWRA estimator thus takes account both of the covariates that predict the exposure, and of those that predict the outcomes to account for the nonrandom chance of having poor school performance, and thereby isolates the effect of poor school performance. Furthermore, endogenous treatment-effect models were estimated in order to control for the potential influence of unobserved variables on both exposure assignment and the outcomes (Funk et al., 2011; Wooldridge, 2010).

Study II estimated multi-group path analysis within a structural equation modeling framework (Acock, 2013; Kline, 2015) to explore the cohort's educational pathways, and to examine differences in path coefficients between children with OHC experience and their peers without such experience. Previous studies and the included variables' temporal ordering guided the conceptualization of the statistical model. The statistical analysis followed four steps. First, an unconstrained model in which all parameters were allowed to differ across groups was performed. Second, significantly different parameters between the OHC and the non-OHC group were detected by means of Wald's tests. Third, parameters that were not statistically different across groups were constrained to be equal in a constrained model. Last, estimations of direct, indirect, and total effects for each predictor in the constrained model were performed. To account for missing data, estimation for all models was done using full information maximum likelihood (FIML). Model fit to the data was assessed with conventional fit indices.

In Study III, the Letterbox Club's outcomes in terms of foster family children's reading skills were estimated with paired samples t-tests of average

levels of reading age pre/post intervention. During the course of the six month long intervention, it was expected that a natural reading age development would occur (Shadish et al., 2002). The post intervention results were therefore adjusted for estimated time effects (i.e. the post intervention reading age level was subtracted with the number of months that had passed between the two test points for each individual child). T-tests were performed for each subtest and for a constructed index representing the average level of reading age when results from both subtests were combined. Additionally, effect sizes were calculated, and corresponding test results from previous British evaluations were compiled.

The transcribed interviews in Study III and IV were repeatedly read and categorized into initial codes. The analytical approach in Study III was to condense the rich textual data into brief descriptive summaries guided by the evaluation objectives. Study IV encompassed two different analytical strategies in order to illustrate the typical carer experiences of practicing the paired reading method within each participant category, and to identify commonalities and inconsistences across the data set. Using a case study approach (Creswell, 2012; Yin, 2013), four carers' experiences were summarized into case descriptions, illustrating the characteristics of each participant category. The results were furthermore analyzed thematically (Braun & Clarke 2006) across groups.

Reflections on ethics

Study I and II are based on large-scale de-identified register data, analyzed on a group-level. Such research do not involve invasive procedures, and the imposed risks on the study participants are few (Ludvigsson et al., 2015).

Study II also encompasses survey data. The data collection in SMS was initiated with the School Study in 1966 in which the school survey was administered to all children without approaching their parents. At that time, it was sufficient to obtain consent from the education authorities, teachers' organizations, and the national parents' and school association (Stenberg, 2018). With the legislative development over the last decades, such approach would not have been possible today.

Study III and IV are based on evaluations of projects were the Letterbox Club and paired reading method respectively, were tested on children in foster family care. In many ways, these children can be seen as a vulnerable and exposed group. Subjecting them to intervention research poses special ethical and safety considerations since the very aim of an intervention is to exercise influence on people's lives (Smedler, 2012). In this case, the risk of harm posed by the interventions themselves was perceived as low. The projects were lead and implemented by the local authorities, and they recruited participants and secured informed consent from the children's legal guardians (i.e.

mostly their birth parents). Participation by children and their foster carers was voluntary, and could be terminated at any point. The previously mentioned exclusion criteria in Study III refer to inclusion in the study of the Letterbox Club, i.e. children who were excluded due to e.g. poor Swedish language skills could still (and did) receive the intervention. Pre/post measurements and background information on the children in Study III were pseudo anonymized, i.e. names and personal identification numbers were replaced with a unique code and the key was kept by the authorities. Hence, the pre/post evaluation did not involve any direct contact with the study participants.

Children and carers who were interviewed in Study III and IV were first contacted by their caseworkers, who informed them about the interviews and secured consent, which was confirmed prior to and during the interviews. Interviewing the children imposed specific ethical considerations. It was vital that the interviews would not be a case of an(other) adult, showing up in their lives, asking questions, and disappearing without providing them with the context for this intrusion. Indeed, exposing these children to more authority personnel posed an argument for some foster carers to decline access to the children. However, from another ethical point of view, giving children an opportunity to voice their views and reflect on their experiences of participating in the intervention program can be considered positive. Nevertheless, when meeting with the children, it was important to confirm their informed consent, to provide them with the context, to set up the frames for the conversation, and throughout focus the questioning on the intervention. Still, this did not always go as planned. Some children immediately started talking about the project, and showed their books. In those cases, formalities such as confirming consent would be brought up later on. Overall, the interview process followed the child. This also meant that the level of active questioning, and carers' involvement during the child interviews varied. In both studies, interviews with the carers were more structured. The interview data in both studies were anonymized. Furthermore, a child-friendly report (Forsman & Bejbom, 2016) in Swedish that summarized the findings of the Stockholm Letterbox Club project was written and sent to the participating children via their caseworkers.

Main findings

Study I: Does poor school performance cause later psychosocial problems in children with out-of-home care experience?

The high prevalence of poor school performance among children with OHC experience has previously been identified as a risk factor for future adverse outcomes. However, if this association is entirely related to selection bias (i.e. differences in background characteristics between children with and without poor school performance), the prospects of developmental returns through social investments in their education are less viable than what has previously been suggested. The aim of Study I was to examine the hypothesized causal effect of poor school performance on psychosocial problems, i.e. economic hardship, illicit drug use, and mental health problems in young adulthood. Guided by the potential outcomes approach, longitudinal register data on more than 7,500 Swedish children with OHC experience were analyzed with doubly robust treatment-effect estimators – an analytical approach which has better prospects of accounting for differences in observed and unobserved background characteristics compared to analyses used in previous studies.

Simple mean comparisons showed that children with poor school performance were more likely to have elevated risks of adverse outcomes in young adulthood, compared to their peers. However, as expected, observed background characteristics differed across groups. Still, controlling for this only slightly reduced the risk differences (RD) and risk ratios (RR). The results showed that poor school performance increased the adjusted risk of suffering from economic hardship by nearly 70 percent (RR=1.68). The corresponding elevated risks of having illicit drug use and mental health problems were more than double (RR=2.41) and 64 percent (RR=1.64) respectively. The adjusted RDs varied between 0.08 and 0.22 depending on the outcome. To some extent, girls and boys differed. Yet, separate analyses did not change the overall conclusions drawn from the analyses using the full sample.

The underlying assumptions of the analytical approach were tested as far as possible, and the results of these subsequent tests were robust and merit causal interpretations. However, while there was no evidence of unobservable factors distorting the estimates, the impact of poor school performance may still reflect some underlying process not observed in the data. Nonetheless, the

rather large effects suggest that it is unreasonable that an unobserved confounder could drive the estimated impact of poor school performance toward zero.

To conclude, Study I showed that poor school performance has a negative impact on later psychosocial problems, and that the estimated effects allow for causal interpretations. Thus, the main contribution of Study I is that it – through its analytical modeling strategy – provides reasonable grounds for assuming that poor school performance among children with OHC experience in itself has a negative impact on their life course development. The study thereby provides validation for promoting change in their adverse developmental pathways through social investments in the form of interventions aimed at improving their educational outcomes. These results are a starting point for further explorations of how such interventions could be designed.

Study II: Educational pathways over the life course in children with out-of-home care experience

A better understanding of the educational pathways of children in OHC is crucial in conceptualizing and designing appropriate interventions targeting their school performance. Utilizing longitudinal survey and register data with a follow-up to age 62, Study II compared educational outcomes over the life course between children with OHC experience and their same-aged peers. Moreover, by means of multi-group path analysis, the study explored differences in educational pathways.

The results showed that the OHC group had lower school grades in sixth grade (age 13), in ninth grade (age 16) as well as lower educational attainment in middle age (age 62). Results from the multi-group path analysis demonstrated that the educational pathways of children with OHC experience by large are similar to those of their same-aged peers. However, the model had more explanatory power in the non-OHC group, suggesting that unobserved factors accounted for a comparatively larger share of the variance in the educational outcomes in the OHC-group. Cognitive ability and previous school performance had the largest loadings on the outcomes. Still, these predictors had significantly weaker influence in the OHC-group, i.e. given the same cognitive capacity and previous achievements, these children seemed to be underperforming in school and in the educational system in comparison to their peers. Still, the positive influence of cognitive ability on educational attainment in middle age was actually stronger, suggesting that the OHC-group was catching up over the life course. Additionally, the combined direct and indirect influence of education levels in the birth family was weaker among children with OHC experience than their counterparts, whilst the birth

family's attitude towards higher education and feelings of insecurity at school were more important.

The contribution of Study II is its longitudinal mapping of educational pathways and long-term educational outcomes among children with OHC experience. The results showed that the educational gap between children with OHC experience and their peers persists over the life course, and that OHC placement before the age of 13 is a strong marker for lower educational outcomes way past childhood. Another central finding was that their educational pathways did not differ that much to those of their same-aged peers. This implies that interventions and policies targeting educational outcomes in this particular group could be informed by theories in general education research. Furthermore, given the profound influence of previous school performance, OHC children should continuously, and early on, be provided with opportunities to reach the highest levels of educational attainment that they can.

Study III: The Letterbox Club program's potential impact on foster family children's reading skills

One intervention that aims at improving the educational outcomes of children in OHC is the book-gifting program the Letterbox Club. Foster family children enrolled in the program become members of a club through which they receive personalized monthly parcels by the post to their home for six months. Each parcel typically contains two books, a number game, a letter to the child, and stationery items. The intervention is directed at the child and targets basic academic skills such as reading and math. Although there is a hope that carers will get involved, this is not expected, and there is no guidance on how they can offer support. By reporting quantitative and qualitative results from a Swedish trial, and compiling findings from previous British evaluations, the aim of Study III was to further our understanding of the program's potential impact on foster family children's reading skills.

Results from the Swedish trial showed that during the course of the intervention, participating children's reading age had improved with 2.5 months more than the expected reading age development, compared to the national norm (standardized mean difference=0.18). The small average improvement associated with program participation was in the same range as results from previous British evaluations. However, differences across the group were rather large, demonstrating that it cannot be expected that all children will benefit from the program. Simple subgroup analyses showed that younger children had made larger gains. The compilation of previous evaluations showed a similar trend.

With some exceptions, the program idea was perceived as likeable by both children and carers, the book-gifting was appreciated, and the content was

described as appealing. Moreover, there were indications of increased reading engagement and carer involvement. Yet, there were also examples of more neutral and even negative responses to the program. Such dissimilarities in acceptability and satisfaction among users might explain some of the variation in reading development across the group. To a large extent, the overall impact of the program seemed to be dependent on individual and contextual factors.

One contribution of Study III is that it is the first evaluation of the Letterbox Club outside of the British context. In comparison to earlier British evaluations, the results showed that the program seemed to work in a similar way in Sweden, which implies that it is transportable across countries. Additionally, this study furthered the discussion about this particular program. The current empirical base knowledge suggests that it is associated with small improvements in foster family children's reading skills. The program is mainly well received, simple to administer, low-cost, and can reach a large number of children. Consequently, the study suggested that the Letterbox Club could be seen as a general supportive measure for promoting well-being and providing basic support to children in OHC. In that sense, the program could act as a supplement to more intense and theoretically-driven interventions. Promotion of carer involvement was proposed as a way of improving its potential impact.

Study IV: Foster carers' experiences of a paired reading intervention

Another intervention targeting foster family children's reading skills, and one that explicitly uses the potential in carer involvement, is the paired reading program. Paired reading is a method for reading tutoring by non-professionals that aims to ensure that the child receives as much help from a reading partner as necessary through modelling, correction, questioning and discussion. The method involves a cycle, moving from reading together to reading alone. In projects involving foster family children and their carers, they read together 20 minutes a day, three times a week for 16 weeks. While previous studies have shown improved reading skills, they provide little insight into the process of service delivery, and reasons as to why some do or do not comply with the program. Since foster carers are the front-line-providers of the intervention, the aim of Study IV was to explore variations in their experiences of conducting it.

The results revealed dissimilar views of the intervention across different participant categories. Carers who had complied with the program generally described it as beneficial and fun, and meant that it had resulted in improved reading skills, and child/carer relations. Carers who had read insufficiently or dropped out, implied that it was needless, too demanding and/or felt as if it had put a strain on their relations with the child. The results pointed to the

importance of getting carers involved in the intervention, of integrating the reading training in the everyday life, and of implementing the method so that it is being practiced according to the participants' conditions and preferences. This seemed to be dependent on a positive carer attitude to the program or reading in general, prioritizing the reading sessions, motivating the child, and having a flexible approach when delivering the intervention.

The main contribution of Study IV is that it showed that it is possible to actively engage carers in interventions targeting the educational outcomes of children in OHC. Furthermore, it provided insights into factors which limited and facilitated program compliance. Whilst paired reading can provide a model for competent reading, the process of conducting the intervention is by no means automatic and both children and carers might need continuous motivational support and 'hands-on' guidance. In particular, the results pointed to the importance of providing carers with a rationale for getting involved. Professionals should also inform them about the meaning of having a flexible approach, and – when necessary – give advice on how to make adaptions in the day-to-day delivery of the intervention.

Discussion

OHC represents one of the most intrusive interventions that the state can make into the lives of children and families. However, it is done with the best interest of the child in mind – to protect, but also to compensate for previous deficits, and to provide improved developmental opportunities. Yet, the dismal findings on OHC experienced children's life outcomes imply a need for better knowledge about effective interventions and preventive measures directed to children enrolled in the care system.

Previous research has indicated that the high prevalence of poor school performance among children with OHC experience may partly explain their high risks for future adverse outcomes (Berlin et al., 2011; Vinnerljung et al., 2010). Based on the idea that effective interventions should target malleable risk factors (Ferrer-Wreder et al., 2004), this implies that interventions aimed at improving their educational outcomes may result in improved overall life outcomes.

With an ambition of supporting the design of effective preventive child welfare measures targeting children in OHC, the overall aim of this thesis was to examine education as a possible intervention path for improving their development and overall life chances. More specifically, it is based on four interrelated empirical studies which have addressed different aspects of poor educational outcomes in this vulnerable group through analyses of longitudinal register and survey data, and evaluations of interventions aimed at improving their basic academic skills.

Addressing poor educational outcomes among children with out-of-home care experience

OHC is per se a disruption – a transition – in disadvantaged children's life course pathways, and as such this thesis argues that it has the potential of being a turning point intervention by disrupting a chain of disadvantage and improving their developmental pathways. As previously argued, this is indeed the underlying idea of placing children in OHC. The findings of Study I strengthened the indication that one way of fulfilling this idea goes through increased focus on these children's education. The study showed that poor school performance among children with OHC experience has a negative impact on

later life course outcomes, and that this impact can be interpreted as causal. Improving the educational outcomes of children in OHC may thereby improve their overall life chances. But what about the child welfare system's prospects of attending to these children's education, and the chances of improving their educational outcomes?

Over the last decades, studies from all over the Western world have shown that children with OHC experience tend to have lower educational outcomes in comparison to their same-aged peers (Jackson, 2001; Stone, 2007; Trout et al., 2008). Hence, although life courses are shaped by their historical time and place (Elder et al., 2003) this educational gap seems to be a constant over time and place – also in Sweden, which is internationally known for its universalistic welfare state, and inclusive educational system. But is this phenomena really insensitive to different contexts?

In Sweden, comparisons between the 1953 cohort in Study II and younger cohorts in previous studies (e.g. Vinnerljung et al., 2010) show signs of an increasing educational gap over time. Recent national figures suggest that the gap has grown even still (Socialstyrelsen, 2018), which is in line with the overall national trend of increased performance gap between socioeconomically advantaged and disadvantaged students (OECD, 2016). Hence, the decentralization of the educational system, and restriction of social-inclusive polices over the last decades (Arnesen & Lundahl, 2006; Halldén, 2008) might have put children with OHC experience at greater risk for poor educational outcomes. However, it is still unclear how different institutional settings affect their education. Comparative research is scarce (see e.g. Jackson & Cameron, 2011; Kääriälä, Berlin, Lausten, Hiilamo, & Ristikari, 2018), and few – if any – studies have specifically examined the influence of different child welfare and educational systems.

Theories of cumulative disadvantage (DiPrete & Eirich, 2006) suggests that the educational pathways of children with OHC experience may be plagued by their often adverse early life experiences. However, their biographical context does not inevitably lead to a trajectory of educational disadvantage. Not all children with OHC experience perform poorly in school and within the educational system. Regrettably, existing research – this thesis included – has not properly addressed the heterogeneity within this group. Hence, although the mainstream pathway is one of poor educational outcomes, the variation in educational trajectories is mostly unknown. More importantly, poor educational outcomes among children with OHC experience are not deterministic. Later life experiences may erase or reverse the influence of earlier adversities (Schulenberg et al., 2003). Findings of underperformance with regards to cognitive ability in Study II and previous research (Johansson & Höjer, 2014; Rees, 2013; Vinnerljung et al., 2010) suggest room for improvement, and catch-ups in relation to their same-aged peers. Evaluations of interventions furthermore indicate that it is possible to improve their basic academic skills (Forsman & Vinnerljung, 2012).

Still, the prospects of inducing change in the educational trajectories of children in care also need to be related to the OHC intervention in itself. A placement can be e.g. two days, two months, two years or an entire childhood. Since the overriding goal of OHC is family reunification, and placements are reviewed every six months, we usually do not have the luxury of knowing beforehand how long a placement will last, and what investments in the children's education are possible. Furthermore, attending to the educational needs of children in OHC is a shared responsibility between the child welfare and school authorities, and the division between these two systems may pose specific problems in addressing the educational outcomes among children in OHC (Socialstyrelsen & Skolverket, 2013). Ultimately, the educational system is responsible for providing education programs that meet children's needs. Nevertheless, the child welfare system has a legislated responsibility of providing access to education for children in OHC. The principle of *in loco parentis* – in the place of parents – implies further ambitions still; as any reasonably good parent the child welfare system should help with school and education (Mattsson & Vinnerljung, 2016). Given the high prevalence of poor school performance in children with OHC experience, and its significance in their developmental pathways, this should also include proactive measures to prevent poor educational outcomes.

Early and continuous efforts to improve educational outcomes

Since the educational gap between children with OHC experience and their peers seems to appear at an early age (e.g. Jacobsen et al., 2013; Pears & Fisher, 2005; Pears et al., 2011), and widen over time (Sebba et al., 2015), children in OHC should be offered early efforts to improve their basic academic skills. The links between early reading and mathematical skills and later educational outcomes are strong in the general population (Duncan et al., 2007). Study II furthermore showed that cognitive ability measured at age 13 (and previous school performance) had the largest influence on subsequent educational outcomes both in children with and without OHC experience.

One of the main principles in the life course perspective is that the developmental consequences of transitions and life events are dependent on their timing in people's lives (Elder et al., 2003). Interestingly, this thesis also suggest that younger children might be more susceptible to interventions targeting their basic academic skills. Study III found such trend in both the Swedish and previous British evaluations of the Letterbox Club. A similar result was reported in the Swedish pre/post evaluation of the paired reading method (Vinnerljung et al., 2014). Interviews with carers in Study IV, also indicated that it was more difficult to motivate older children to participate in the intervention. Overall, experiences of children and/or carers in Study III and IV demonstrated that a specific intervention targeting children in OHC may not be suitable for all at all times. Hence, the principle of timing also

emphasizes the need for continuously offering children with OHC experience possibilities for repairing gaps of knowledge and catch-up growth.

The principle of life-long development (Elder et al., 2003) furthermore suggests that catch-up growth is possible beyond the early schooling years. Indeed, the findings of Study II indicated that such catch-up might occur over the life course. However, few studies have examined the educational pathways of children with OHC experience. Thus, we have limited knowledge about potential critical periods and possible points of intervention beyond the early years. In Study II it was noted that the explained variance of educational outcomes decreased between sixth and ninth grade, which could suggest increased influence of unobservable predictors that are particularly important for OHC experienced children during this time window. Since this coincides with the onset of adolescence, these results could suggest that this is a critical period. Still, more research is needed to verify these notions.

Results from French adoption studies (Duyme et al., 1999; Schiff et al., 1982), and Swedish intervention studies (Durbeej & Hellner, 2017; Tideman et al., 2011; Tordön et al., 2014) imply that the protective processes of cognitive development may be strengthened. As already mentioned, previous studies also suggest that interventions targeting foster family children's basic academic skills can yield positive results (Forsman & Vinnerljung, 2012). However, it should be noted that it is unclear whether such improvements are sustained over time. Therefore, although improved skills at one point may have buffering effects (Pears et al., 2018), we should not assume that this will be enough to improve outcomes throughout the educational career. Consequently, children in OHC should be provided with opportunities to maintain academic progress, and to reach the highest levels that they can at each stage of their educational careers. But what can we say about the design and delivery of such educational support?

Providing educational support – specific issues and general ideas

Previous research has shown that poor educational outcomes among children with OHC experience may stem from a wide range of factors. These include factors associated with their pre-care experiences and often adverse background, vulnerabilities and problems on an individual level, and issues related to the system itself (Ferguson & Wolkow, 2012; O'Higgins et al., 2017). When attending to their educational needs we should therefore acknowledge that these children may be exposed to risk factors such as possible trauma, mental health problems, special education needs, and school/placement instability which warrant concern, and possibly specifically tailored educational support.

Nonetheless, the findings of Study II suggest that by large, the educational pathways of children with OHC experience do not differ significantly from those of their same-aged peers. Thus, although these children may be exposed to specific risk factors, efforts to improve their educational outcomes may also

be informed by wider educational and sociology of education research (cf. Berridge, 2012).

Studies of children with OHC experience appear mostly in the child welfare literature, and few have been produced in education research. Furthermore, the conceptualization of educational issues in this group is relatively poor (Stone, 2007). Likewise, interventions tend to use an ad-hoc approach and lack theoretical foundations (Forsman & Vinnerljung, 2012). Programs with stronger empirical support are those based on tutoring (e.g. Flynn et al., 2012) – a supportive measure which is theoretically based, and has robust empirical support in studies of general population groups (Ritter, Barnett, Denny, & Albin, 2009). The use of the paired reading method with children in foster family care and their carers (Osborne et al., 2010; Vinnerljung et al., 2014) is another example of how programs that have already proven successful in improving educational outcomes among majority peers or other socially disadvantaged groups may be imported and possible adapted to children in OHC. Rather than searching for 'the best' intervention, the findings of this thesis suggest that we should look into a number of useful interventions.

Also, educational research on children from disadvantaged backgrounds (Erikson et al., 2005; Goldthorpe, 1996), and previous studies on child welfare clients' educational transitions (Dæhlen, 2015, 2017) point out that school performance alone do not shape their educational careers – educational choices also matter (cf. Boudon, 1974). This may partly explain why children with OHC experience in Study II had lower educational outcomes compared to peers with the same level of previous school performance. Similar findings have also been reported in previous studies with more recent cohorts (e.g. Vinnerljung et al., 2010). The principle of agency within the life course perspective put forward that choices are made within the opportunities and constraints of people's specific context (Elder et al., 2003). In that respect, the choice of not pursuing the education that their school performance allows for may be reflective of not perceiving these educational transitions as possible and/or feasible. Providing OHC children with incentives to continue education may thus be another viable path in improving their educational outcomes. Such incentives could be linked to e.g. reduced costs of higher education, which benefit other educationally disadvantaged groups (Erikson & Jonsson, 1996). Additionally, the attitude towards and expectations on their education among adults in the systems responsible for their education and care can either motivate or discourage them from making ambitious educational choices.

Addressing adults' expectations, attitudes, and involvement

Within the life course perspective, the principle of interlinked lives points out that human lives are interdependent, and that relationships shape lives (Elder et al., 2003). Unfortunately, previous studies have demonstrated that the educational careers of children with OHC experience seem to be characterized

by a lack of supportive and caring adults who take an interest in their education (Ferguson & Wolkow, 2012; Harker et al., 2003; Höjer & Sjöblom, 2010; Unrau et al., 2012). In fact, both social workers, teachers and carers tend to have low expectations on their educational outcomes (Blome, 1997; Egelund et al., 2008; Jackson, 1994; Kjellén, 2010; Tideman et al., 2011; Tordön et al., 2014). It seems logical that such circumstances may have a negative influence on their education through e.g. social labeling, and by imposing constrains in how they construct their educational trajectories via their educational choices.

Meanwhile, support and encouragement to do well in school are important predictors of educational outcomes, and educational choices for all children, including those in OHC (Cheung et al., 2012; Flynn et al., 2013; Martin & Jackson, 2002). Moreover, Study II showed that the birth family's attitude towards higher education had a stronger positive influence on educational outcomes in the OHC group compared to their same-aged peers. In other words, addressing poor educational outcomes among children with OHC experience should include addressing the attitudes, expectations and involvement among adults in charge of their education and care.

In particular, the findings of this thesis indicate that foster carers may play an important role in interventions targeting foster family children's basic academic skills. Study IV showed that carer attitude and involvement were important factors in the practice and delivery of the paired reading program – an intervention which has been associated with improved reading skills in previous pre/post evaluations (Osborne et al., 2010; Vinnerljung et al., 2014). Also, while their involvement varied, the majority did comply with the program. Likewise, a RCT evaluation of a Canadian project showed that using foster carers as tutors can result in improved reading and mathematical skills (Flynn et al., 2012). Furthermore, although the Letterbox program does not build on carer involvement, Study III indicated that carers, in varying degrees, did get involved in the process. Similar findings have also been reported in previous evaluations (Griffiths, 2012). Hence, whilst both Study III and IV indicated that carers need support in their supporting role, these results also suggest that it is possible to engage foster carers in the education of children in care, and that their active involvement may result in improved outcomes.

Limitations

While this thesis has shown that poor school performance has a negative impact on later outcomes, it has provided limited insights into how this would occur. Furthermore, the challenge of estimating causal impacts can be formidable. In Study I, the main caveat is that non-random assignment to exposure introduces selection bias. Although the modeling strategy explicitly addressed this issue, it was restricted to information that could be retained from registers. Whereas Study II encompassed more information on the study population, it

also lacked data on e.g. placement stability, the care environment, educational support, school changes, and indications of early mental health problems, all of which could be meaningful for our understanding of OHC experienced children's educational pathways, and for how their educational outcomes may impact their life chances.

In Study III, the study design did not allow for causal interpretations of the Letterbox Club's impact on foster family children's reading skills. Without a matched control it is not possible to rule out that the noted improvements were due to some other factor(s). Furthermore, although the interviews provided some insights into how the intervention could result in improved reading, this process is not clear.

As previously mentioned, none of the studies were able to sufficiently address or explore heterogeneity in the OHC groups. Excluding teenage placements addressed some of the problems related to heterogeneity. Yet, it should be acknowledged that the OHC populations in Study I and II both encompassed variations with regards to care experiences, which were not controlled for. Although Study III was based on a comparatively homogenous OHC group, the small sample size limited the possibility of performing meaningful subgroup analyses. This complicates possibilities of interpreting what meaning the results may have for different groups of children in the care system.

In Study III, it seems likely that the self-selection to the interviews resulted in an over-representation of positive program experiences. The sampling procedure in Study IV was explicitly designed to address such issues. Nevertheless, Study IV lacked input from the children themselves. Moreover, it was based on retrospective talks about the intervention, not on actual observations of practicing it. Hence, the knowledge of how both of these interventions work in practice is still limited.

Lastly, the empirical studies in this thesis draw on a variety of timeframes and regions for sampling or selection of data. Study I and II are based on OHC experienced children born in the 1970s and 1950s respectively. Thus, one might ask how this historical data can be applied to children who are currently involved with the child welfare system. The educational system and the constitution of the OHC population have changed over the years (see Study II for a more thorough review). Yet, there is little reason to assume that the importance of educational outcomes for overall life development has been reduced, rather the opposite. In knowledge-based economies, education has become increasingly decisive in young people's life course pathways, putting those at risk of school failure at even larger risks for social exclusion (Frønes, 2016). Hence, the issue of directing child welfare attention to education is more urgent today than before.

Conclusions and implications

In conclusion, the studies of this thesis have shown that poor school performance in children with OHC experience may cause later adverse outcomes, which supports the notion that improving their educational outcomes may be a viable intervention path in improving their life course development. Furthermore, whilst the educational gap between OHC experienced children and their peers seems to persist over the life course, there are examples of promising interventions, initiated by the child welfare system, which may improve their basic academic skills. In particular, the findings of this thesis point to the importance of providing early and continuous educational support, of considering issues both specific to children in OHC and findings from general education research, and of addressing attitudes, expectations, and involvement among adults in charge of their education and care.

While the child welfare system is responsible for the education of children in OHC, this is not to say that the child welfare services should be the sole or even main providers of either general preventive educational measures or specific catch-up interventions. However, they are responsible for making sure that children in OHC are provided with adequate support by the schools, and foster carers/care institutions, and should encourage the children and aid them with practical/financial support to proceed with their education.

Consequently, it seems reasonable that the child welfare system should be a system where school-age children's schooling and learning prerequisites are systematically assessed when entering OHC. Such assessments allow for detection of gaps of knowledge and early signs of school failure, but may also inform school and care providers of the children's educational needs. The child welfare system also needs close links to schools and the educational system, e.g. through special education liaisons. Furthermore, recruitment of care providers and training of foster families should be done with the children's education in mind.

Finally, some pointers to future research include more evaluations of interventions targeting the educational outcomes of children in OHC, and longitudinal studies of their educational pathways. In particular, such studies should attempt to identify variation in the context of their educational trajectories, through e.g. systematically sex-stratified analysis. A further understanding of the nature and scope of the heterogeneity in this group will increase our knowledge about risk processes that can be interrupted and/or protective processes that may be strengthened, which in turn may be used to improve the effectiveness of interventions and policies that address their educational outcomes.

Sammanfattning

Barn med erfarenhet av samhällsvård klarar sig sämre som vuxna i jämförelse med andra jämnåriga barn. Utifrån en ambition att stödja utvecklingen av verksamma förebyggande åtgärder riktade till placerade barn är det övergripande syftet med denna avhandling att undersöka utbildning som en möjlig interventionsväg för att förbättra deras framtidsutsikter.

Avhandlingen bygger på fyra empiriska studier som har undersökt olika aspekter av dåliga utbildningsutfall bland placerade barn genom analyser av longitudinella enkät- och registerdata samt utvärderingar av två skolstödjande insatser inriktade på att förbättra placerade barns läsförmåga.

Studie I undersökte sambandet mellan dåliga skolprestationer och ogynnsamma utfall i ung vuxen ålder bland barn med erfarenhet av samhällsvård. Resultaten visade att dåliga skolprestationer har en negativ påverkan på framtida psykosociala problem också efter att hänsyn tagits till observerade och (möjligt inflytande av) icke observerade bakgrundsfaktorer. Detta pekar på att skolprestationers påverkan på senare utfall kan tolkas som kausalt.

Studie II undersökte utbildningsutfall vid olika stadier i utbildningskarriären och vägar till olika utbildningsutfall bland barn med erfarenhet av samhällsvård och jämnåriga barn utan sådan erfarenhet. Resultaten visade att samhällsvårdsgruppen hade sämre utbildningsutfall över livsförloppet. På det stora hela skiljde sig dock inte deras utbildningsvägar så mycket från deras jämnårigas – kognitiv förmåga och tidigare skolprestationer hade störst betydelse för utfallen i båda grupperna. Däremot var inflytandet av dessa faktorer svagare i samhällsvårdsgruppen medan familjens attityd till högre utbildning var viktigare.

Studie III syftade till att fördjupa kunskapen om vilken möjlig påverkan bokgåvoprogrammet ’Letterbox Club’ kan ha på placerade barns läsförmåga. Resultaten visade ett samband mellan deltagande i programmet och små förbättringar av läsförmågan. Överlag togs programmet emot väl av både barn och familjehemsföräldrar och tycktes även kunna resultera i ökad läsning. Ett större fokus på familjehemmens deltagande i programmet skulle möjligtvis kunna förbättra insatsens potential att leda till mer betydande förbättringar av barnens läsförmåga.

Studie IV undersökte genomförandet av ett program där placerade barn läste tillsammans med sina familjehemsföräldrar utifrån en strukturerad parläsningsmetod. Resultaten visade att det är möjligt att involvera familjehem i

skolstöjande insatser riktade till barn i samhällsvård, men att detta inte är någon automatisk process – familjehemsföräldrar behöver en drivkraft för att engagera sig och stöd i genomförandet av programmet.

Sammantaget visar avhandlingen att förbättringar av samhällsvårdade barns utbildningsutfall kan vara en möjlig väg för att också förbättra deras framtida utveckling, en väg som tidigare till stor del har förbisetts. Avhandlingen visar vidare att det finns exempel på lovande skolstödjande insatser och att socialtjänsten bör verka för att placerade barn får tidigt och återkommande skolrelaterat stöd, men resultaten pekar också på vikten av att arbeta med vuxnas attityder till, förväntningar på och engagemang i barnens skolgång.

References

Acock, A. C. (2013). *Discovering structural equation modeling using Stata: Revised edition*. Texas: Stata Press.

Almquist, Y. B., Grotta, A., Vågerö, D., Stenberg, S.-Å., & Modin, B. (2019). Cohort profile update: The Stockholm birth cohort study. *International Journal of Epidemiology*. doi:10.1093/ije/dyz185

Almquist, Y. B., Jackisch, J., Forsman, H., Gauffin, K., Vinnerljung, B., Hjern, A., & Brännström, L. (2018). A decade lost: Does educational success mitigate the increased risks of premature death among children with experience of out-of-home care? *Journal of Epidemiology and Community Health, 72*, 997-1002.

Arnesen, A. L., & Lundahl, L. (2006). Still social and democratic? Inclusive education policies in the Nordic welfare states. *Scandinavian Journal of Educational Research, 50*, 285-300.

Arnold, D. H., & Doctoroff, G. L. (2003). The early education of socioeconomically disadvantaged children. *Annual Review of Psychology, 54*, 517-545.

Backe-Hansen, E., Höjer, I., Sjöblom, Y., & Storø, J. (2013). Out of home care in Norway and Sweden: Similar and different. *Psychosocial Intervention, 22*, 193-202.

Berger, L. M., Bruch, S. K., Johnson, E. I., James, S., & Rubin, D. (2009). Estimating the "impact" of out-of-home placement on child well-being: Approaching the problem of selection bias. *Child Development, 80*, 1856-1876.

Berger, L. M., Cancian, M., Han, E., Noyes, J., & Rios-Salas, V. (2015). Children's academic achievement and foster care. *Pediatrics, 135*, 109-116.

Berlin, M., Vinnerljung, B., & Hjern, A. (2011). School performance in primary school and psychosocial problems in young adulthood among care leavers from long term foster care. *Children and Youth Services Review, 33*, 2489-2497.

Berridge, D. (2012). Educating young people in care: What have we learned? *Children and Youth Services Review, 34*, 1171-1175.

Björkenstam, C., Weitoft, G. R., Hjern, A., Nordström, P., Hallqvist, J., & Ljung, R. (2011). School grades, parental education and suicide: A national register-based cohort study. *Journal of Epidemiology and Community Health, 65*, 993-998.

Björkenstam, E., Dalman, C., Vinnerljung, B., Weitoft, G. R., Walder, D. J., & Burström, B. (2016). Childhood household dysfunction, school performance and psychiatric care utilisation in young adults: A register study of 96 399 individuals in Stockholm County. *Journal of Epidemiology and Community Health, 70*, 473-480.

Blome, W. W. (1997). What happens to foster kids: Educational experiences of a random sample of foster care youth and a matched group of non-foster care youth. *Child and Adolescent Social Work Journal, 14*, 41-53.

Boudon, R. (1974). *Education, opportunity, and social inequality: Changing prospects in western society*. New York: John Wiley.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. *Annual Review of Psychology, 53*, 371-399.

Brady, E., & Gilligan, R. (2018). The life course perspective: An integrative research paradigm for examining the educational experiences of adult care leavers? *Children and Youth Services Review, 87*, 69-77.

Bryderup, I. M., & Trentel, M. Q. (2012). *Tidligere anbragte unge og uddannelse*. Århus: Klim.

Brännström, L., Vinnerljung, B., Forsman, H., & Almquist, Y. B. (2017). Children placed in out-of-home care as midlife adults: Are they still disadvantaged or have they caught up with their peers? *Child Maltreatment, 22*, 205-214.

Brännström, L., Vinnerljung, B., & Hjern, A. (2015). Risk factors for teenage childbirths among child welfare clients: Findings from Sweden. *Children and Youth Services Review, 53*, 44-51.

Campbell, F. A., & Ramey, C. T. (1994). Effects of early intervention on intellectual and academic achievement: A follow-up study of children from low-income families. *Child Development, 65*, 684-698.

Campbell, F. A., Wasik, B. H., Pungello, E., Burchinal, M., Barbarin, O., Kainz, K., . . . Ramey, C. T. (2008). Young adult outcomes of the Abecedarian and CARE early childhood educational interventions. *Early Childhood Research Quarterly, 23*, 452-466.

Cheung, C., Lwin, K., & Jenkins, J. M. (2012). Helping youth in care succeed: Influence of caregiver involvement on academic achievement. *Children and Youth Services Review, 34*, 1092-1100.

Clausen, S.-E., & Kristofersen, L. B. (2008). *Barnevernsklienter i Norge 1990–2005: En longitudinell studie*. Oslo: Norwegian Social Research.

Clemens, E. V., Klopfenstein, K., Lalonde, T. L., & Tis, M. (2018). The effects of placement and school stability on academic growth trajectories of students in foster care. *Children and Youth Services Review, 87*, 86-94.

Conley, A. (2010). Social development, social investment and child welfare. In J. Midgley & A. Conley (Eds.), *Social work and social development: Theories and skills for developmental social work* (pp. 31-54). New York: Oxford University Press.

Courtney, M., Dworsky, A., Brown, A., Cary, C., Love, K., & Vorhies, V. (2011). *Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 26*. Chicago: Chapin Hall, University of Chicago.

Courtney, M. E., Dworsky, A. L., Cusick, G. R., Havlicek, J., Perez, A., & Keller, T. E. (2007). *Midwest evaluation of the adult functioning of former foster youth: Outcomes at age 21*. Chicago: Chapin Hall, University of Chicago.

Courtney, M. E., Terao, S., & Bost, N. (2004). *Midwest evaluation of the adult functioning of former foster youth wave 1: Three state findings*. Chicago: The University of Chicago.

Creswell, J. W. (2012). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: SAGE Publications.

Dæhlen, M. (2014). Child welfare clients' first step away from higher education: The influence of school performances, educational aspirations and background factors on choosing the vocational track after compulsory school. *Nordic Social Work Research, 4*, 22-36.

Dæhlen, M. (2015). School performance and completion of upper secondary school in the child welfare population in Norway. *Nordic Social Work Research, 5*, 244-261.

Dæhlen, M. (2017). Child welfare clients and educational transitions. *Child & Family Social Work, 22*, 317-329.

Dahlbäck, O. (1980). *Intelligence development of young individuals*. Stockholm: Stockholm University.

Day, A., Dworsky, A., & Feng, W. (2013). An analysis of foster care placement history and post-secondary graduation rates. *Research in Higher Education Journal, 19*, 1-17.

Day, A., Dworsky, A., Fogarty, K., & Damashek, A. (2011). An examination of post-secondary retention and graduation among foster care youth enrolled in a four-year university. *Children and Youth Services Review, 33*, 2335-2341.

Deary, I. J., Strand, S., Smith, P., & Fernandes, C. (2007). Intelligence and educational achievement. *Intelligence, 35*, 13-21.

DiPrete, T. A., & Eirich, G. M. (2006). Cumulative advantage as a mechanism for inequality: A review of theoretical and empirical developments. *Annual Review of Sociology, 32*, 271-297.

Doyle Jr, J. J. (2007). Child protection and child outcomes: Measuring the effects of foster care. *American Economic Review, 97*, 1583-1610.

Doyle Jr, J. J. (2008). Child protection and adult crime: Using investigator assignment to estimate causal effects of foster care. *Journal of Political Economy, 116*, 746-770.

Doyle Jr, J. J. (2013). Causal effects of foster care: An instrumental-variables approach. *Children and Youth Services Review, 35*, 1143-1151.

Dumaret, A., & Stewart, J. (1985). IQ, scholastic performance and behaviour of sibs raised in contrasting environments. *Journal of Child Psychology and Psychiatry, 26*, 553-580.

Duncan, G. J., Dowsett, C. J., Claessens, A., Magnuson, K., Huston, A. C., Klebanov, P., . . . Brooks-Gunn, J. (2007). School readiness and later achievement. *Developmental Psychology, 43*, 1428-1446.

Durbeej, N., & Hellner, C. (2017). Improving school performance among Swedish foster children: A quasi-experimental study exploring outcomes of the Skolfam model. *Children and Youth Services Review, 82*, 466-476.

Duyme, M., Dumaret, A.-C., & Tomkiewicz, S. (1999). How can we boost IQs of "dull children"? A late adoption study. *Proceedings of the National Academy of Sciences, 96*, 8790-8794.

Dymoke, S., & Griffiths, R. (2010). The Letterbox Club: The impact on looked-after children and their carers of a national project aimed at raising achievements in literacy for children aged 7 to 11 in foster care. *Journal of Research in Special Educational Needs, 10*, 52-60.

Eckenrode, J., Laird, M., & Doris, J. (1993). School performance and disciplinary problems among abused and neglected children. *Developmental Psychology, 29*, 53-62.

Egelund, T., Andersen, D., Hestbæk, A.-D., Lausten, M., Knudsen, L., Olsen, R., & Gerstoft, F. (2008). *Anbragte børns udvikling og vilkår: Resultater fra SFI's forløbsundersøgelser af årgang 1995* (Vol. 8). Köpenhamn: SFI.

Egelund, T., & Lausten, M. (2009). Prevalence of mental health problems among children placed in out-of-home care in Denmark. *Child & Family Social Work, 14*, 156-165.

Elder, G. H., Johnson, M. K., & Crosnoe, R. (2003). The emergence and development of life course theory. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 3-19). Boston, MA: Springer.

Elwér, Å., Fridolfsson, I., Samuelsson, S., & Wiklund, C. (2016). *LäSt: Test i läsförståelse, läsning och stavning för åk 1-6*. Stockholm: Hogrefe.

Erikson, R., Goldthorpe, J. H., Jackson, M., Yaish, M., & Cox, D. R. (2005). On class differentials in educational attainment. *Proceedings of the National Academy of Sciences, 102*, 9730-9733.

Erikson, R., & Jonsson, J. O. (1996). The Swedish context: Educational reform and long-term change in educational inequality. In R. Erikson & J.O. Jonsson (Eds.), *Can education be equalized? The Swedish case in comparative research* (pp. 65-93). Boulder, Colorado: Westview Press.

Esping-Andersen, G. (1999). *Social foundations of postindustrial economies*. Oxford: Oxford University Press.

Evans, R., Brown, R., Rees, G., & Smith, P. (2017). Systematic review of educational interventions for looked-after children and young people: Recommendations for intervention development and evaluation. *British Educational Research Journal, 43*, 68-94.

Fantuzzo, J., & Perlman, S. (2007). The unique impact of out-of-home placement and the mediating effects of child maltreatment and homelessness on early school success. *Children and Youth Services Review, 29*, 941-960.

Ferguson, H. B., & Wolkow, K. (2012). Educating children and youth in care: A review of barriers to school progress and strategies for change. *Children and Youth Services Review, 34*, 1143-1149.

Fernandez, E., & Barth, R. P. (2010). *How does foster care work? International evidence on outcomes*. London: Jessica Kingsley Publishers.

Ferrer-Wreder, L., Stattin, H., Lorente, C. C., Tubman, J. G., & Adamson, L. (2004). *Successful prevention and youth development programs: Across borders*. New York: Kluwer/Plenum

Fletcher-Campbell, F., & Hall, C. (1990). *Changing Schools? Changing People? A study of the education of children in care*. Slough: National Foundation for Educational Research.

Flynn, R. J., Marquis, R. A., Paquet, M.-P., Peeke, L. M., & Aubry, T. D. (2012). Effects of individual direct-instruction tutoring on foster children's academic skills: A randomized trial. *Children and Youth Services Review, 34*, 1183-1189.

Flynn, R. J., Tessier, N. G., & Coulombe, D. (2013). Placement, protective and risk factors in the educational success of young people in care: Cross-sectional and longitudinal analyses. *European Journal of Social Work, 16*, 70-87.

Ford, T., Vostanis, P., Meltzer, H., & Goodman, R. (2007). Psychiatric disorder among British children looked after by local authorities: Comparison with children living in private households. *The British Journal of Psychiatry, 190*, 319-325.

Forsman, H., & Bejbom, J. (2016). *Letterbox Club för barn i familjehem*. Stockholm: Stiftelsen Allmänna Barnhuset.

Forsman, H., & Vinnerljung, B. (2012). Interventions aiming to improve school achievements of children in out-of-home care: A scoping review. *Children and Youth Services Review, 34*, 1084-1091.

Foverskov, E., Mortensen, E. L., Holm, A., Pedersen, J. L. M., Osler, M., & Lund, R. (2019). Socioeconomic position across the life course and cognitive ability later in life: The importance of considering early cognitive ability. *Journal of Aging and Health, 31*, 947-966.

Franzén, E., Vinnerljung, B., & Hjern, A. (2008). The epidemiology of out-of-home care for children and youth: A national cohort study. *British Journal of Social Work, 38*, 1043-1059.

Fraser, M. W. (2004). Intervention research in social work: Recent advances and continuing challenges. *Research on Social Work Practice, 14*, 210-222.

Freymond, N., & Cameron, G. (2006). *Towards positive systems of child and family welfare: International comparisons of child protection, family service, and community caring systems*. Toronto: University of Toronto Press.

Frønes, I. (2016). The absence of failure: Children at risk in the knowledge based economy. *Child Indicators Research, 9*, 247-260.

Funk, M. J., Westreich, D., Wiesen, C., Stürmer, T., Brookhart, M. A., & Davidian, M. (2011). Doubly robust estimation of causal effects. *American Journal of Epidemiology, 173*, 761-767.

Gauffin, K., Vinnerljung, B., Fridell, M., Hesse, M., & Hjern, A. (2013). Childhood socio-economic status, school failure and drug abuse: A Swedish national cohort study. *Addiction, 108*, 1441-1449.

Gilbert, N. (1997). *Combatting child abuse: International perspectives and trends*. Oxford: Oxford University Press.

Gilbert, N., Parton, N., & Skivenes, M. (2011). *Child protection systems: International trends and orientations*. New York: Oxford University Press.

Goemans, A., van Geel, M., van Beem, M., & Vedder, P. (2016). Developmental outcomes of foster children: A meta-analytic comparison with children from the general population and children at risk who remained at home. *Child Maltreatment, 21*, 198-217.

Goemans, A., van Geel, M., & Vedder, P. (2015). Over three decades of longitudinal research on the development of foster children: A meta-analysis. *Child Abuse & Neglect, 42*, 121-134.

Goldthorpe, J. H. (1996). Class analysis and the reorientation of class theory: The case of persisting differentials in educational attainment. *British Journal of Sociology, 47*, 481-505.

Gottfredson, D. C., Wilson, D. B., & Najaka, S. S. (2002). School-based crime prevention. In L. Sherman, D. Farrington, B. Welsh, & D. L. MacKenzie (Eds.), *Evidence-based crime prevention* (pp. 56-164). London: Routledge.

Griffiths, R. (2012). The Letterbox Club: An account of a postal club to raise the achievement of children aged 7 to 13 in foster care. *Children and Youth Services Review, 34*, 1101-1106.

Griffiths, R., & Comber, C. (2011). *The Letterbox Club in Wales: Evaluation report 2009-2011*. Leicester: University of Leicester, School of Education.

Griffiths, R., & Comber, C. (2011). *Letterbox Green 2010: An evaluation of the Letterbox Club pilot for children in secondary school*. London: Booktrust.

Griffiths, R., Comber, C., & Dymoke, S. (2010). *The Letterbox Club 2007-2009: Final evaluation report.* Leicester: University of Leicester, School of Education.

Gumora, G., & Arsenio, W. F. (2002). Emotionality, emotion regulation, and school performance in middle school children. *Journal of School Psychology, 40*, 395-413.

Gustafsson, J.-E., Allodi Westling, M., Åkerman, A., Eriksson, C., Eriksson, L., Fischbein, S., . . . Ogden, T. (2010). *School, learning and mental health: A systematic review*. Stockholm: Royal Swedish Academy of Sciences.

Halldén, K. (2008). The Swedish educational system and classifying education using the ISCED-97. In S. Schneider (Ed.), *The International Standard Classification of Education (ISCED-97): An evaluation of content and criterion validity in 15 European countries* (pp. 253-267). Mannheim: MZES.

Harker, R. M., Dobel-Ober, D., Lawrence, J., Berridge, D., & Sinclair, R. (2003). Who takes care of education? Looked after children's perceptions of support for educational progress. *Child & Family Social Work, 8*, 89-100.

Harper, J., & Schmidt, F. (2016). Effectiveness of a group-based academic tutoring program for children in foster care: A randomized controlled trial. *Children and Youth Services Review, 67*, 238-246.

Harrison, N. (2019). Patterns of participation in higher education for care-experienced students in England: Why has there not been more progress? *Studies in Higher Education*. doi:10.1080/03075079.2019.1582014

Healy, K., Lundström, T., & Sallnäs, M. (2011). A comparison of out-of-home care for children and young people in Australia and Sweden: Worlds apart? *Australian Social Work, 64*, 416-431.

Heimer, L., Olsen, M., & Wennerström, A. (2015). *Projektrapport Skolfam Malmö stad*. Malmö: IFO, Malmö stad.

Hessle, S., & Vinnerljung, B. (1999). *Child Welfare in Sweden: An overview*. Stockholm: Stockholm University.

Heywood, K. A. M. (2014). Supporting children in the care of the local authority: Academic interventions and in-school relationship factors. Newcastle: Newcastle University.

Hickey, A. (2018). *Improving academic outcomes for children in foster care through tutoring or working memory training: Three randomized trials.* Ottawa: University of Ottawa.

Hill, K. M. (2012). The prevalence of youth with disabilities among older youth in out-of-home placement: An analysis of state administrative data. *Child Welfare, 91*, 61-84.

Holmbom, A., Olsson, A., Fröjdlund, B., Selldén, L., & Yttermyr, M. (2016). *Rapport Skolfam Uppsala kommun 2012–2015*. Uppsala: Socialförvaltningen och Utbildningsförvaltningen, Uppsala kommun.

Hutchison, E. D. (2005). The life course perspective: A promising approach for bridging the micro and macro worlds for social workers. *Families in Society, 86*, 143-152.

Hutchison, E. D. (2019). An update on the relevance of the life course perspective for social work. *Families in Society*. doi:10.1177/1044389419873240

Höjer, I., Lindberg, H., Nielsen, B., Gustafsson, J.-E., & Johansson, H. (2018). Recognition of education and schooling in case files for children and young people placed in out-of-home care. *Children and Youth Services Review, 93*, 135-142.

Höjer, I., & Sjöblom, Y. (2010). Young people leaving care in Sweden. *Child & Family Social Work, 15*, 118-127.

Imbens, G. W., & Wooldridge, J. M. (2009). Recent developments in the econometrics of program evaluation. *Journal of Economic Literature, 47*, 5-86.

Iversen, A. C., Hetland, H., Havik, T., & Stormark, K. M. (2010). Learning difficulties and academic competence among children in contact with the child welfare system. *Child & Family Social Work, 15*, 307-314.

Jablonska, B., Lindberg, L., Lindblad, F., Rasmussen, F., Östberg, V., & Hjern, A. (2009). School performance and hospital admissions due to self-inflicted injury: A Swedish national cohort study. *International Journal of Epidemiology, 38*, 1334-1341.

Jackson, S. (1994). Educating children in residential and foster care. *Oxford Review of Education, 20*, 267-279.

Jackson, S. (1998). Educational success for looked-after children: The social worker's responsibility. *Practice, 10*, 47-56.

Jackson, S. (2001). The education of children in care. In S. Jackson (Ed.), *Nobody ever told us school mattered: Raising the educational attainments of children in public care* (pp. 11-53). London: BAAF.

Jackson, S., & Cameron, C. (2011). *Final report of the YiPPEE project - WP12: Young people from a public care background: Pathways to further and higher education in five European countries*. London: The University of London.

Jacobsen, H., Moe, V., Ivarsson, T., Wentzel-Larsen, T., & Smith, L. (2013). Cognitive development and social-emotional functioning in young foster children: A follow-up study from 2 to 3 years of age. *Child Psychiatry & Human Development, 44*, 666-677.

Jenson, J. M., & Fraser, M. W. (2015). *Social policy for children and families: A risk and resilience perspective*. Thousand Oaks, CA: Sage Publications.

Johansson, H., & Höjer, I. (2014). Sweden: A long and winding road. In S. Jackson & C. Cameron (Eds.), *Improving the participation of young people in care in further and higher education: European research and practice* (pp. 215-250). London: Jessica Kingsley Publishers.

Johnson, W., McGue, M., & Iacono, W. G. (2009). School performance and genetic and environmental variance in antisocial behavior at the transition from adolescence to adulthood. *Developmental Psychology, 45*, 973-987.

Jones, L. (2011). The first three years after foster care: A longitudinal look at the adaptation of 16 youth to emerging adulthood. *Children and Youth Services Review, 33*, 1919-1929.

Khoo, E., Skoog, V., & Dalin, R. (2012). In and out of care: A profile and analysis of children in the out-of-home care system in Sweden. *Children and Youth Services Review, 34*, 900-907.

Kjellén, G. (2010). *Att läsa är livsviktigt: Om familjehemsplacerade barns läsning och skolgång*. Stockholm: Stiftelsen Allmänna Barnhuset.

Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). New York: Guilford Publications.

Korpi, W., & Palme, J. (1998). The paradox of redistribution and strategies of equality: Welfare state institutions, inequality, and poverty in the Western countries. *American Sociological Review, 63*, 661-687.

Kääriälä, A., Berlin, M., Lausten, M., Hiilamo, H., & Ristikari, T. (2018). Early school leaving by children in out-of-home care: A comparative study of three Nordic countries. *Children and Youth Services Review, 93*, 186-195.

Kääriälä, A., & Hiilamo, H. (2017). Children in out-of-home care as young adults: A systematic review of outcomes in the Nordic countries. *Children and Youth Services Review, 79*, 107-114.

Liabo, K., Gray, K., & Mulcahy, D. (2013). A systematic review of interventions to support looked-after children in school. *Child & Family Social Work, 18*, 341-353.

Lightfoot, E., Hill, K., & LaLiberte, T. (2011). Prevalence of children with disabilities in the child welfare system and out of home placement: An examination of administrative records. *Children and Youth Services Review, 33*, 2069-2075.

Lindblad, F., Dalen, M., Rasmussen, F., Vinnerljung, B., & Hjern, A. (2009). School performance of international adoptees better than expected from cognitive test results. *European Child & Adolescent Psychiatry, 18*, 301-308.

Lloyd, E. C., & Barth, R. P. (2011). Developmental outcomes after five years for foster children returned home, remaining in care, or adopted. *Children and Youth Services Review, 33*, 1383-1391.

Ludvigsson, J. F., Håberg, S. E., Knudsen, G. P., Lafolie, P., Zoega, H., Sarkkola, C., . . . Nørgaard, M. (2015). Ethical aspects of registry-based research in the Nordic countries. *Clinical Epidemiology, 7*, 491-508.

Lundahl, L. (2002). Sweden: Decentralization, deregulation, quasi-markets - and then what? *Journal of Education Policy, 17*, 687-697.

Lundström, T., & Sallnäs, M. (2003). *Klass, kön och etnicitet i den sociala barnavården*. Stockholm: Stockholm University.

Lundström, T., Sallnäs, M., & Shanks, E. (2018). Stability and change in the field of residential care for children: On ownership structure, treatment ideas and institutional logics. *Nordic Social Work Research*. doi:10.1080/2156857X.2018.1541016

Lundström, T., & Vinnerljung, B. (2001). Omhändertagande av barn under 1990-talet. In M. Szebehely & Å. Bergmark (Eds.), *Välfärdstjänster i omvandling: Antologi från Kommittén Välfärdsbokslut* (pp. 289-336). Stockholm: Fritzes Offentliga Publikationer.

Martin, P. Y., & Jackson, S. (2002). Educational success for children in public care: Advice from a group of high achievers. *Child & Family Social Work, 7*, 121-130.

Martínez, M. A., Cobo, M. J., Herrera, M., & Herrera-Viedma, E. (2015). Analyzing the scientific evolution of social work using science mapping. *Research on Social Work Practice, 25*, 257-277.

Mattsson, T., & Vinnerljung, B. (2016). *Barn i familjehem: Förslag på åtgärder som skulle göra skillnad för samhällets mest utsatta*. Stockholm: SNS Förlag.

McLeod, J. D., & Almazan, E. P. (2003). Connections between childhood and adulthood. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 391-411). Boston, MA: Springer.

Midgley, J. (2010). The theory and practice of developmental social work. In J. Midgley & A. Conley (Eds.), *Social work and social development: Theories and skills for developmental social work* (pp. 3-28). New York: Oxford University Press.

Mooney, J., Winter, K., & Connolly, P. (2016). Effects of a book gifting programme on literacy outcomes for foster children: A randomised controlled trial evaluation of the Letterbox Club in Northern Ireland. *Children and Youth Services Review, 65*, 1-8.

Morgan, D. L. (2007). Paradigms lost and pragmatism regained: Methodological implications of combining qualitative and quantitative methods. *Journal of Mixed Methods Research, 1*, 48-76.

Morgan, S. L., & Winship, C. (2014). *Counterfactuals and causal inference*. New York: Cambridge University Press.

Nisbett, R. E., Aronson, J., Blair, C., Dickens, W., Flynn, J., Halpern, D. F., & Turkheimer, E. (2012). Intelligence: New findings and theoretical developments. *American Psychologist, 67*, 130-159.

O'Higgins, A., Sebba, J., & Gardner, F. (2017). What are the factors associated with educational achievement for children in kinship or foster care: A systematic review. *Children and Youth Services Review, 79*, 198-220.

OECD. (2016). *PISA 2015 results (Volume I): Excellence and equity in education*. Paris: OECD Publishing

OECD. (2019). *OECD employment outlook 2019: The future of work*. Paris: OECD Publishing.

Olsen, R. F., & de Montgomery, C. J. (2018). Revisiting out-of-home placed children's poor educational outcome: Is school change part of the explanation? *Children and Youth Services Review, 88*, 103-113.

Osborne, C., Alfano, J., & Winn, T. (2010). Paired Reading as a literacy intervention for foster children. *Adoption & Fostering, 34*, 17-26.

Osborne, C., Alfano, J., & Winn, T. (2013). Paired reading as an intervention for foster children. In S. Jackson (Ed.), *Pathways through education for young people in care* (pp. 116-126). London: BAAF.

Pallas, A. M. (2003). Educational transitions, trajectories, and pathways. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 165-184). Boston, MA: Springer.

Pears, K., & Fisher, P. A. (2005). Developmental, cognitive, and neuropsychological functioning in preschool-aged foster children: Associations with prior maltreatment and placement history. *Journal of Developmental & Behavioral Pediatrics, 26*, 112-122.

Pears, K. C., Fisher, P. A., Bruce, J., Kim, H. K., & Yoerger, K. (2010). Early elementary school adjustment of maltreated children in foster care: The roles of inhibitory control and caregiver involvement. *Child Development, 81*, 1550-1564.

Pears, K. C., Fisher, P. A., Kim, H. K., Bruce, J., Healey, C. V., & Yoerger, K. (2013). Immediate effects of a school readiness intervention for children in foster care. *Early Education & Development, 24*, 771-791.

Pears, K. C., Heywood, C. V., Kim, H. K., & Fisher, P. A. (2011). Prereading deficits in children in foster care. *School Psychology Review, 40*, 140-148.

Pears, K. C., Kim, H. K., & Brown, K. L. (2018). Factors affecting the educational trajectories and outcomes of youth in foster care. In E. Trejos-Castillo & N. Trevino-Schafer (Eds.), *Handbook of foster youth* (pp. 208-222). New York: Routledge.

Pears, K. C., Kim, H. K., & Fisher, P. A. (2016). Decreasing risk factors for later alcohol use and antisocial behaviors in children in foster care by increasing early promotive factors. *Children and Youth Services Review, 65*, 156-165.

Pears, K. C., & Peterson, E. (2018). Recognizing and addressing the effects of early adversity on children's transitions to kindergarten. In A. J. Mashburn, J. LoCasale-Crouch, & K. C. Pears (Eds.), *Kindergarten transition and readiness: Promoting cognitive, social-emotional, and self-regulatory development* (pp. 163-183). Cham: Springer International Publishing.

Pecora, P. J., Kessler, R. C., O'Brien, K., White, C. R., Williams, J., Hiripi, E., . . . Herrick, M. A. (2006). Educational and employment outcomes of adults formerly placed in foster care: Results from the Northwest Foster Care Alumni Study. *Children and Youth Services Review, 28*, 1459-1481.

Pecora, P. J., Williams, J., Kessler, R. C., Hiripi, E., O'Brien, K., Emerson, J., . . . Torres, D. (2006). Assessing the educational achievements of adults who were formerly placed in family foster care. *Child & Family Social Work, 11*, 220-231.

Petticrew, M., & Roberts, H. (2003). Evidence, hierarchies, and typologies: Horses for courses. *Journal of Epidemiology & Community Health, 57*, 527-529.

Pilling, D. (1990). *Escape from disadvantage*. London: Falmer Press.

Rees, P. (2013). The mental health, emotional literacy, cognitive ability, literacy attainment and 'resilience'of 'looked after children': A multidimensional, multiple-rater population based study. *British Journal of Clinical Psychology, 52*, 183-198.

Ritter, G. W., Barnett, J. H., Denny, G. S., & Albin, G. R. (2009). The effectiveness of volunteer tutoring programs for elementary and middle school students: A meta-analysis. *Review of Educational Research, 79*, 3-38.

Roberts, J., Winter, K., & Connolly, P. (2017). The Letterbox Club book gifting intervention: Findings from a qualitative evaluation accompanying a randomised controlled trial. *Children and Youth Services Review, 73*, 467-473.

Ross, S. M., Smith, L. J., Casey, J., & Slavin, R. E. (1995). Increasing the academic success of disadvantaged children: An examination of alternative

early intervention programs. *American Educational Research Journal, 32,* 773-800.
Rubin, D. B. (1974). Estimating causal effects of treatments in randomized and nonrandomized studies. *Journal of Educational Psychology, 66,* 688-701.
Sallnäs, M., & Wiklund, S. (2018). *Socialtjänstmarknaden: Om marknadsorientering och konkurrensutsättning av individ- och familjeomsorgen*. Stockholm: Liber.
Scherr, T. G. (2007). Educational experiences of children in foster care: Meta-analyses of special education, retention and discipline rates. *School Psychology International, 28,* 419-436.
Schiff, M., Duyme, M., Dumaret, A., & Tomkiewicz, S. (1982). How much could we boost scholastic achievement and IQ scores? A direct answer from a French adoption study. *Cognition, 12,* 165-196.
Schulenberg, J. E., Maggs, J. L., & O'Malley, P. M. (2003). How and why the understanding of developmental continuity and discontinuity is important. In J. T. Mortimer & M. J. Shanahan (Eds.), *Handbook of the life course* (pp. 413-436). Boston, MA: Springer.
Sebba, J., Berridge, D., Luke, N., Fletcher, J., Bell, K., Strand, S., . . . O'Higgins, A. (2015). *The educational progress of looked after children in England: Linking care and educational data*. Oxford & Bristol: University of Oxford & University of Bristol.
Shadish, W., Cook, T., & Campbell, D. (2002). *Experimental and quasi-experimental designs for generalized causal inference.* Boston: Houghton Mifflin.
Shin, S. H. (2003). Building evidence to promote educational competence of youth in foster care. *Child Welfare, 82,* 615-632.
Smedler, A.-C. (2012). Forskningsetik. In K. Sundell (Ed.), *Att göra effektutvärderingar* (pp. 57-89). Stockholm: Socialstyrelsen & Gothia förlag.
Smithgall, C., Gladden, R. M., Howard, E., Goerge, R., & Courtney, M. (2004). *Educational experiences of children in out-of-home care*. Chicago: Chapin Hall Center for Children.
Socialstyrelsen. (2006). *Social rapport 2006*. Stockholm: Socialstyrelsen.
Socialstyrelsen. (2016). *Individ- och familjeomsorg: Lägesrapport 2016*. Stockholm: Socialstyrelsen.
Socialstyrelsen. (2018). *Öppna jämförelser 2018: Placerades utbildning och hälsa*. Stockholm: Socialstyrelsen.
Socialstyrelsen. (2019). *Statistik om socialtjänstinsatser till barn och unga 2018*. Stockholm: Socialstyrelsen.
Socialstyrelsen & Skolverket. (2013). *Placerade barns skolgång och hälsa: Ett gemensamt ansvar*. Stockholm: Socialstyrelsen & Skolverket.
Sorokin, P. A. (1927). *Social mobility*. New York: Harper & Brothers.

Stenberg, S.-Å. (2018). *Born in 1953: The story about a post-war Swedish cohort, and a longitudinal research project*. Stockholm: Stockholm University Press.

Stone, S. (2007). Child maltreatment, out-of-home placement and academic vulnerability: A fifteen-year review of evidence and future directions. *Children and Youth Services Review, 29*, 139-161.

Storø, J., Sjöblom, Y., & Höjer, I. (2019). A comparison of state support for young people leaving care in Norway and Sweden: Differences within comparable welfare systems. *Child & Family Social Work, 24*, 393-399.

Sunesson, S. (2003). Socialt arbete: En bakgrund till ett forskningsämne. In Högskoleverket (Ed.), *Socialt arbete: En nationell genomlysning av ämnet* (pp. 75-131). Stockholm: Högskoleverket.

Tessier, N. G., O'Higgins, A., & Flynn, R. J. (2018). Neglect, educational success, and young people in out-of-home care: Cross-sectional and longitudinal analyses. *Child Abuse & Neglect, 75*, 115-129.

Theis, S. V. S. (1924). *How foster children turn out: A study and critical analysis of 910 children who were placed in foster homes by the state charities aid associaition and who are now eighteen years of age or over*. New York: State Charities Aid Association.

Tideman, E., Vinnerljung, B., Hintze, K., & Aldenius, A. (2011). Improving foster children's school achievements: Promising results from a Swedish intensive study. *Adoption & Fostering, 35*, 44-56.

Tordön, R., Vinnerljung, B., & Axelsson, U. (2014). Improving foster children's school performance: A replication of the Helsingborg study. *Adoption & Fostering, 38*, 37-48.

Tremblay, R. E., Masse, B., Perron, D., LeBlanc, M., Schwartzman, A. E., & Ledingham, J. E. (1992). Early disruptive behavior, poor school achievement, delinquent behavior, and delinquent personality: Longitudinal analyses. *Journal of Consulting and Clinical Psychology, 60*, 64-72.

Trickett, P. K., & McBride-Chang, C. (1995). The developmental impact of different forms of child abuse and neglect. *Developmental Review, 15*, 311-337.

Triseliotis, J. (1989). Foster care outcomes: A review of key research findings. *Adoption & Fostering, 13*, 5-17.

Trout, A. L., Hagaman, J., Casey, K., Reid, R., & Epstein, M. H. (2008). The academic status of children and youth in out-of-home care: A review of the literature. *Children and Youth Services Review, 30*, 979-994.

Unrau, Y. A., Font, S. A., & Rawls, G. (2012). Readiness for college engagement among students who have aged out of foster care. *Children and Youth Services Review, 34*, 76-83.

Vaillant, G. E. (2008). *Aging well: Surprising guideposts to a happier life from the landmark study of adult development*. Boston: Little, Brown.

Wall-Wieler, E., Roos, L. L., Lee, J. B., Urquia, M. L., Roos, N. P., Bruce, S., & Brownell, M. (2019). Placement in care in early childhood and school readiness: A retrospective cohort study. *Child Maltreatment, 24*, 66-75.

Ward, H. (2009). Patterns of instability: Moves within the care system, their reasons, contexts and consequences. *Children and Youth Services Review, 31*, 1113-1118.

Webster, D., Barth, R. P., & Needell, B. (2000). Placement stability for children in out-of-home care: A longitudinal analysis. *Child Welfare, 79*, 614-632.

Weinberg, L. A., Oshiro, M., & Shea, N. (2014). Education liaisons work to improve educational outcomes of foster youth: A mixed methods case study. *Children and Youth Services Review, 41*, 45-52.

Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood*. Ithaca: Cornell University Press.

Werner, E. E., & Smith, R. S. (2001). *Journeys from childhood to midlife: Risk, resilience, and recovery*. Ithaca: Cornell University Press.

White, K. R., & Wu, Q. (2014). Application of the life course perspective in child welfare research. *Children and Youth Services Review, 46*, 146-154.

Wiklund, S. (2006). *Den kommunala barnavården.* Stockholm: Stockholm University.

Vinnerljung, B. (1996a). *Fosterbarn som vuxna*. Lund: Lund University.

Vinnerljung, B. (1996b). Hur vanligt är det att ha varit fosterbarn. *Socialvetenskaplig Tidskrift, 313*, 166-179.

Vinnerljung, B., Berlin, M., & Hjern, A. (2010). Skolbetyg, utbildning och risker för ogynnsam utveckling hos barn. In Socialstyrelsen (Ed), *Social rapport 2010* (pp. 227-266). Stockholm: Socialstyrelsen.

Vinnerljung, B., Brännström, L., & Hjern, A. (2015). Disability pension among adult former child welfare clients: A Swedish national cohort study. *Children and Youth Services Review, 56*, 169-176.

Vinnerljung, B., Forsman, H., Jacobsen, H., Kling, S., Kornør, H., & Lehmann, S. (2015). *Barn kan inte vänta: Översikt av kunskapsläget och exempel på genomförbara förbättringar*. Stockholm: Nordens Välfärdsenter.

Vinnerljung, B., & Hjern, A. (2011). Cognitive, educational and self-support outcomes of long-term foster care versus adoption: A Swedish national cohort study. *Children and Youth Services Review, 33*, 1902-1910.

Vinnerljung, B., Sallnäs, M., & Westermark, P. K. (2001). *Sammanbrott vid tonårsplaceringar*. Stockholm: CUS/Socialstyrelsen.

Vinnerljung, B., Tideman, E., Sallnäs, M., & Forsman, H. (2014). Paired Reading for foster children: Results from a Swedish replication of an English literacy intervention. *Adoption & Fostering, 38*, 361-373.

Vinnerljung, B., Öman, M., & Gunnarson, T. (2005). Educational attainments of former child welfare clients: A Swedish national cohort study. *International Journal of Social Welfare, 14*, 265-276.

Winter, K., Connolly, P., Bell, I., & Ferguson, J. (2011). *Evaluation of the effectiveness of the Letterbox Club in improving educational outcomes among children aged 7-11 years in foster care in Northern Ireland*. Belfast: Centre for Effective Education, Queen's University Belfast.

Wooldridge, J. M. (2010). *Econometric analysis of cross section and panel data*. Cambridge, MA: MIT press.

Yin, R. K. (2013). *Case study research: Design and methods*. Thousand Oaks, CA: Sage.

Zetlin, A., Weinberg, L., & Kimm, C. (2004). Improving education outcomes for children in foster care: Intervention by an education liaison. *Journal of Education for Students Placed at Risk, 9*, 421-429.

Östberg, F. (2010). *Bedömningar och beslut: Från anmälan till insats i den sociala barnavården.* Stockholm: Stockholm University.