



Understanding differences in the outcomes of children and young people across care types

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Introduction

Children and young people in state out-of-home care (OHC) are widely recognised as some of the most vulnerable and 'at-risk' individuals in our community. Research has established that they often come into care with long histories of trauma resulting from chronic exposure to abusive and/or neglectful environments (Murray & Goddard, 2014; Simmel, 2011; Simmel, Morton & Cucinotta, 2012; Schilling, Aseltine & Gore, 2008; Ward, 2009). Research has also established that the consequences of early and chronic exposure to trauma are far-reaching, affecting all aspects of development from neurological structures, to physical health, emotional and psychological wellbeing, identity, relationships and social connectedness (Appleyard, Egeland, van Dulmen & Sroufe, 2005; Edwards, Holden, Felitti & Anda, 2003; Harvey Dorahy, Vertue & Duthie, 2012; Moffitt, 1993).

Recent statistics released by the Australian Institute of Health and Welfare (AIHW) indicate that Victoria has the lowest rate of OHC placements across Australia, with 6.1 per 1,000 children and young people entering OHC in the 2013/2014 financial year (AIHW, 2015). Despite this relatively low rate, over 3,000 children and young people entered care between June 2013 and June 2014 in Victoria alone. Moreover, during the same period, a total of 7,710 children and young people in Victoria were in some form of OHC placement. According to the AIHW data, the number of children and young people entering care continues to exceed the number exiting the system, in turn placing an increased demand on the State's OHC services, and potentially undermining the system's capacity to address the multiple and complex needs of this vulnerable cohort.

While there is a large body of literature investigating various facets of the OHC system, including pathways into care and outcomes post-care, much less is currently known about the different profiles of children and young people in care, and their attendant short and medium-term outcomes. This is an important area of research, especially in an era marked by an increased focus on outcomes and accountability. Understanding the differential needs of children and young people in care, based on their developmental stage, gender and placement type may provide unique insights into service gaps and areas for innovation that can help to ameliorate the impact of OHC placement, and improve the life-course trajectories of these children and young people.

To this end, the following sections will provide a brief review of extant research on the profiles, experiences and outcomes of children and young people in OHC, before moving on to describe the research that forms the basis of this report.

Profiles and outcomes of children and young people in care

A growing body of longitudinal research points to the generally poor outcomes for young people who have exited the OHC system, across multiple life domains. For example, Hook & Courtney (2011) explored the employment outcomes of 602 young adults who had left the OHC system at 17 years of age, and had been followed for an average of seven years. The results showed that compared to youth in the general population, former OHC youth had higher levels of unemployment, lower educational attainment, lower wage earning potential, increased odds of incarceration (for young men in particular), and increased odds of early parenthood for young women. Placement in residential care was found to be one of the strongest predictors of unemployment outcomes. However, the authors also found that young people who were able to stay in care, particularly kinship care up to 21 years of age, had better educational and employment outcomes, compared to those who had exited care at 17 years old.

The Justice System

Research has also found a higher likelihood of juvenile and criminal justice system involvement for young people with child protection and OHC histories. For example, Lee,

Courtney & Hook (2012) utilised longitudinal data from 732 young people who had exited the care system in three large Midwestern states in the US. Four waves of data, spanning a follow-up period of seven years were used to explore the factors that contributed to legal system involvement. Results indicated that males and females followed different trajectories into the criminal justice system based on differential risk and protective profiles. For young women, staying in care post-17 years old did not have an impact on the likelihood of criminal behaviour. However, early parenthood and having a resident child significantly decreased the odds of experiencing a conviction, arrest or incarceration. In contrast, residential care placements and placement instability while in care, significantly increased the odds of arrest, conviction and incarceration.

For young men, placement instability during their OHC placements significantly increased the odds of arrest and incarceration in young adulthood, while being enrolled in school, having achieved a high school diploma, and having at least one resident child significantly decreased the odds of arrest and incarceration. As such, for young men in particular, educational engagement and employment emerged as salient protective factors against criminal justice system involvement. However, as shown by Courtney and Hook (2012), young people in care generally experience poorer education and employment outcomes. This raises a complicated paradox, whereby the factors that promote successful transitions are particularly difficult to achieve for the most complex young people in care.

Factors influence pre-care and in-care experiences

The life-course trajectories of children and young people placed in OHC are impacted by a range of factors, including pre-care and in-care experiences. A large body of literature investigating the impact of these experiences has identified the pervasive effects of maltreatment and adversity across various domains, through the mechanism of disrupted attachments (e.g., Hankin, 2005; Riggs, 2010; Sroufe, 2005). There is comparatively less research, however, investigating the *in-care* experiences of children and young people in OHC. In particular, research exploring how different 'clusters' of children and young people experience OHC, how they develop while in care, and how these 'clusters' may be used to explain post-care trajectories is relatively underdeveloped.

Research into the profiles of children and young people in care has identified a number of interesting patterns. For example, Simmel (2011) investigated the pre-care profiles of 5483 children and young people who came to the attention of Child Protection in the US, with a view to developing differential age-based profiles. Results indicated that young people (aged 11-18 years old) were most likely to be reported to Child Protection due to physical and sexual abuse, to have a prior documented history of maltreatment, and to exhibit significant emotional and behavioural problems, including anxiety, depression and aggression. These young people were also likely to have come from families rated as relying on inappropriate/excessive disciplining strategies and generally poor parenting skills.

Gender differences

Simmel (2011) identified a number of interesting gender differences. For example, during middle childhood (6 to 10 years old) boys were more likely to show clinically significant emotional and behavioural problems, while girls were more likely to have come from households where the primary caregiver had experienced abuse. At the youth stage of development (11 to 18 years old), boys were more likely to have experienced physical abuse, various forms of neglect and other types of maltreatment. They were also more likely to have come from households defined by significant financial hardship, and to show clinically elevated levels of anxiety and depression. Girls on the other hand were more likely to have experienced sexual and emotional abuse and to show clinically significant levels of delinquent behaviour.

Gender differences have also been identified in service system utilisation. Maschi, Schwalbe, Morgen, Gibson & Violette (2009) utilised administrative information on 2482 children and young people aged 12 to 17 years old who had been referred to a social service in a northern state of the US between 1989 and 2004. They identified gender differences across referral sources, past service utilisation and reasons for referral. Specifically, young women were most likely to be referred through private practitioners and school personnel, and to be referred for family conflict, parental separation/re-marriage, teenage pregnancy and parenting, sexual abuse victimisation, health-related problems, depression, suicidal ideation, eating disorders and status offences such as running away from home. Females were also more likely to have received prior services for family planning.

In contrast, males were more likely to have been referred through justice agencies for general mental health problems, drug abuse, behavioural and academic problems, delinquency and correctional system involvement. Males were also more likely to have received prior services for out-patient substance abuse treatment, OHC placements particularly in residential care, court/family case management, probation and juvenile justice.

Client profiles and clusters

Recent research investigating the differential profiles of children and young people in OHC has identified a number of discreet 'clusters' based primarily on demographic characteristics and pre-care experiences. For example, Yampolskaya, Sharrock, Armstrong, Strozier and Swanke (2014) identified three latent groups, derived from administrative data of 33,092 children and young people placed in OHC in Florida, USA.

The first cluster, labelled '*Children with Complex Needs*' accounted for 6% of the total sample. These children were on average 9 years old at first entry into care, were predominantly male and had come from female-headed single family households. The most common pathway into care was due to physical abuse and neglect, although a high proportion of these children had also lost a primary caregiver. There was a very high prevalence of emotional and behavioural difficulties in this group, as well as severe physical health problems, including disabilities. Just over one-fifth of the parents had their parental rights terminated. This group also had the longest median length of stay in OHC (21 months), were 79% less likely than the other groups to experience timely reunification, and 20% less likely to experience timely adoption. Overall, this group was defined by a combination of needs at the individual and family levels.

The second cluster, labelled '*Children in Families with Complex Needs*' was the largest, accounting for 34% of the sample. Children and young people in this group were on average three years old at first entry into care. The defining characteristic of this group was dysfunction at the family level, including parental substance abuse, domestic violence, and absent caregivers. The children themselves, however, showed very few signs of psychological, emotional, behavioural or physical problems. This group had a median length of stay of 11 months, and was the most likely to experience timely reunification.

The final cluster, '*Older Abused Children*', represented 30% of the sample. The group was predominantly female, on average 13 years old at first entry into care, and most likely to have experienced physical, emotional and sexual abuse. They also had the highest probability of having experienced an absent care giver. There was no evidence of physical health problems, but the young people exhibited high levels of emotional and behavioural difficulties. The median length of stay in OHC was 11 months, but this group was 14% less likely to experience timely reunification and four times less likely to experience timely adoption (Yampolskaya et al., 2014).

These results indicate that children and young people in care are not a homogenous group and therefore will have differential needs. However, the focus of these studies has been on pre-care experiences, with limited attention directed to *in-care* factors that can help elucidate outcomes while in care and post-care. A study by Keller, Cusick and Courtney (2007) provides some insights into the way in-care experiences influence trajectories out of care for young people who 'age out' of the OHC system. Data were derived from 732 young people who had exited the care system in two large Midwestern states of the US, and included demographic characteristics, education, OHC experiences, social networks and social support, history of abuse or violent victimisation, mental health, alcohol and/or substance abuse, and delinquency.

Based on these data, Keller et al (2007) identified four latent classes. The first group, labelled '*Distressed and Disconnected*' represented 43% of the sample. These young people were characterised by high levels of instability, placement in residential care, significant behavioural and mental health problems, high rates of violent victimisation, delinquency and involvement in the criminal justice system. They had experienced educational difficulties, social alienation and reported significant distrust and antipathy towards the child welfare system.

The second group was labelled '*Competent and Connected*', and accounted for 38% of the sample. These young people had experienced relatively stable placements, predominantly in kinship and foster care. They were typically satisfied with their in-care experiences, showed evidence of social connections and social support, and had strong educational achievement. There was little evidence of significant emotional or behavioural problems, no evidence of delinquency and little contact with the criminal justice system.

A third group, '*Struggling but Staying*', represented 14% of the sample. These young people were similar to the '*Distressed and Disconnected*' group, but were differentiated by a strong sense of connection to the child welfare system. They were the most likely to report a desire to continue seeking assistance once they had left care, but also had the highest rates of educational difficulties and delinquency.

Finally, less than 5% of the sample were categorised as '*Hindered and Homebound*'. These young people had entered care at later stages of their childhood and early adolescence, and had predominantly experienced kinship care placements. They had the highest levels of early parenthood, and had experienced considerable difficulties with education and employment. However, they were the most likely to report having positive connections and perceived social support (Keller et al., 2007).

The research by Yampolskaya et al (2014) and Keller et al (2007) highlight that children and young people in care have a range of risk factors and needs, some of which are influenced by gender, developmental stage and the type of placement that is experienced. While these studies have employed robust, longitudinal methodologies with very large samples of children and young people, they have not specifically investigated the outcomes of children and young people *while in care* across a range of physical and psychosocial domains. With few exceptions, there is, therefore, a dearth of research that focusses specifically on the short and medium-term outcomes associated with OHC placement.

Emotional and behavioural difficulties

The impact of emotional and behavioural difficulties emerges as common thread in much of the available research. While it is commonly accepted that children and young people in care have a higher prevalence of significant emotional, behavioural and social problems than their peers without OHC experiences, there is some evidence of considerable heterogeneity *amongst* children and young people in care. For example, Neely-Barnes and Whitted (2011)

explored differences in emotional and behavioural difficulties as measured through the Strengths and Difficulties Questionnaire (Goodman, 1997) among a sample of 2,575 young people who were dual clients of child protection and juvenile justice in the US. Results showed a high prevalence of clinically-significant problems, but also a number of gender, race and age-based differences. Specifically:

- Young women showed greater evidence of emotional symptomatology associated with anxiety and depression, compared to young men. Young women also had higher Total Difficulties scores, indicating a higher likelihood of clinically significant emotional and behavioural problems (Neely-Barnes & Whitted, 2011).
- Youth in early adolescence (11-15 years old) had a differential pattern of emotional and behavioural difficulties, compared to youth in later adolescence, specifically in relation to emotional symptoms, conduct problems and hyperactivity.
- Caucasian youth showed greater evidence of conduct problems than African-American youth. Neely-Barnes and Whitted (2011) further reported a significant gender and age interaction for emotional symptoms, such that scores decreased for boys as they aged but remained stable for girls.

The above literature highlights a number of important issues. First, children and young people have a multitude of varied experiences prior to entering care. These experiences have been found to influence a limited range of outcomes while in care, and to extend into a more diverse range of predominantly negative outcomes post-care. Second, there is emerging evidence of differential profiles of children and young people in care. These profiles have been linked with divergent outcomes, especially relating to reunification and the transition from care. Third, and related to the above point, differential profiles have been linked to demographic factors including gender, as well as in-care experiences such as placement type.

Underlying much of this research is the understanding that the outcomes of children and young people in care are developmentally grounded. Despite this, however, there is little research investigating developmental and psychosocial outcomes for children and young people *while in care*, based on their gender, stage of development and care arrangement. This report, therefore, aims to fill this gap by:

- 1) Providing a comprehensive profile of a group of children and young people in OHC care in Victoria
- 2) Investigating the differential, short-term outcomes of these children and young people based on their developmental stage, gender and care setting
- 3) Utilising this data to generate a discussion about the different needs of children and young people in care, informed by an understanding of the influence of developmental progression, gender and the care-context on the in-care outcomes of children and young people.

Method

Sample

Data were drawn from the Looking After Children (LAC) records of 353 children and young people placed in OHC with Anglicare Victoria. LAC records were completed between January 2013 and January 2015. For children and young people who had been in care for more than 12 continuous months during this period, only the most recent LAC record was retained for these analyses. As such, the sample is comprised of 353 *unique* assessments. Table 1 provides information about the demographic characteristics of these children and young people.

Table 1
Demographic characteristics of children and young people in out-of-home care placements provided by Anglicare Victoria between January 2013 and January 2015 (n=353)

Demographics	Proportion (n)
Developmental stage	
Under 12 months old	4.8% (17)
1-2 years old	10.5% (37)
3-4 years old	13.6% (48)
5-9 years old	31.0%(109)
10-14 years old	26.7%(94)
15-17 years old	13.4%(47)
Gender	
Male	52.6% (184)
Female	47.4% (166)
Care setting	
Home-based care	52.3% (181)
Residential care	9.8% (34)
Kinship care	22.3% (77)
Therapeutic foster care	12.4% (43)
Other	3.2% (11)

Note: 'Other' care setting includes Lead Tenant and Adolescent Community Placement (ACP)

As Table 1 shows, there was a relatively even distribution of males and females in this sample. Close to 60% of children were aged between 5 and 14 years old and just under 65% were in home-based care, including Therapeutic Foster Care. Less than 10% of the children and young people in this sample were in residential care. Of the 34 children and young people in residential care, four (3.7%) were 5 to 9 years old, 19 (21.3%) were 10 to 14 years old and 11 (23.4%) were 15 to 17 years old at the time the assessments were conducted.

Materials

LAC Assessment and Progress records (LAC A&P) capture information across seven domains¹, covering physical health, emotional and behavioural/ adjustment difficulties, education, family and social relationships, identity, social presentation and self-care skills. Questions in each domain address developmental needs and milestones across infancy, childhood and adolescence and provide information on the developmental progress of a child/young person while in care. Across the six developmental stages and seven domains, a total of 340 questions were extracted for data analysis.

This report focusses specifically on 20 outcome indicators across six domains. These 20 indicators were chosen as they align with the research literature on the factors that contribute to poorer outcomes among children and young people who have experienced, and exited care. The domains, indicators and the operationalisation of each indicator are presented in Table 2.

Table 2
Outcome domains, indicators and target questions

Domain	Indicator	Question
Health (Physical)	Disabilities	% of children and young people with a severe disability, including developmental delays
	Physical activity	% of children and young people who engage in at least 60 minutes of moderate-to-vigorous physical activity daily
	Alcohol use	% of children and young people who reported drinking alcohol in the previous 12 months
	Illicit drug use	% of children and young people who reported trying an illicit substance in the previous 12 months
	Smoking	% of children and young people who tried cigarettes in the previous 12 months
Health (Mental health)	Emotional and behavioural difficulties	Strengths and Difficulties Questionnaire <i>Emotional Symptoms, Conduct, Hyperactive, Peer Problems, Prosocial</i> scales and total score.
Emotional and social development	Risk behaviour	% of children and young people who engage in behaviour that places them in danger of significant emotional, physical, and/or psychological harm, including death
	Self-care	% of young people who can function independently at a level that is appropriate to their capacity and stage of development
Education	Educational engagement	% of children and young people who are attending school on a full-time basis
	Academic aspirations	% of young people who report they want to pursue post-secondary studies
Placements and stability	Continuity of care (0-9 years old)	% of children who have had 2 or more placement changes since first entering care

¹ The LAC record for infants (under 12 months old) only contains six domains

	Stability (10-17 years old)	% of children and young people who have had 2 or more placement changes in the previous 12 months
Relationships	Contact with siblings	% of children and young people who have regular contact with their siblings
	Social support	% of children and young people who have at least one trusted adult, other than a carer, whom they can turn to for support
Identity and belonging	Self-esteem and self-worth	% of children and young people who report a generally positive view of themselves

The *Strengths and Difficulties Questionnaire* (SDQ: Goodman, 1997) was used as the primary measure of mental health. The SDQ is embedded within the LAC Assessment and Progress records for all children aged 5 to 17, and is comprised of 25 items rated on a 3 point scale, from 0 (Not true) to 2 (Very true). The 25 items are clustered into four 'scales' that correspond to a number of clinical and diagnostic categories as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM) including emotional symptoms (anxiety, depressive symptomatology), conduct problems, hyperactivity and peer problems. An additional scale '*Prosocial*' measures children's and young people's socialisation skills.

Each scale has scores ranging from 0 to 10, where higher scores are indicative of greater 'dysfunction' that signals the potential for clinically significant problems. The only exception is the Prosocial scale, where higher scores are indicative of more adaptive functioning. Four scales (emotional symptoms, conduct problems, hyperactivity and peer problems) are summed to produce a Total Difficulties Score, which ranges from 0 to 40. Here too, higher scores are indicative of greater difficulties in emotional, behavioural and psychosocial functioning.

The five scales and the total score can be converted to a clinical score, reflecting broad-based age-norms. These clinical cut-off points are used to identify the proportion of the population showing elevated signs of emotional and behavioural difficulties that can signal the need for clinical intervention.

Analytic strategy

A number of bivariate analyses were conducted to test for relationships between developmental stage, gender, placement type and the 20 outcome indicators listed in Table 2. With the exception of the SDQ scales and total score, all variables were dichotomised. As such, chi-square analyses were chosen as the most appropriate analysis for these data. For the developmental stage comparisons, children and young people were categorised into the five developmental stages, including infancy (0 to 2 years old), early childhood (3 to 4 years old), middle childhood (5 to 9 years old), early adolescence (10 to 14 years old) and late adolescence (15 to 17 years old).

Placement type was also dichotomised into foster care (1) and other (0), residential care (1) and other (0) or kinship care (1) and other (0). For each outcome indicator, three separate chi-square analyses were conducted to test for associations between placement type and the specific outcome being investigated. Finally, gender was dichotomised, with males as the reference category.

For the SDQ data, three multivariate analyses of variance (MANOVAs) were conducted to test for relationships between the five SDQ scales and gender, placement type and developmental stage, as well as the interactions between these categories. An additional three univariate analyses of variance (ANOVAs) were conducted to test for the unique relationship between the Total Difficulties Score of the SDQ and gender, developmental stage and placement type. Interaction effects were also included in these analyses.

Given the large number of tests conducted on these data, a Bonferroni correction was applied to reduce the risk of accepting a statistically significant effect that was due to the quantity of analyses, rather than a true effect in the data. Based on the number of analyses the adjusted alpha level is $p < .000$. Although this represents a very conservative test of significance, it is nevertheless required to limit the potential for false conclusions.

Results

Demographic profile

A number of chi-square analyses were conducted to test for differences in placement setting by developmental stage. None of the comparisons were significant at the adjusted alpha level. However, a number of patterns were evident in the data, with young children more likely to have been placed in foster care than older children and young people. These patterns were particularly pronounced when the infant and early childhood categories were contrasted against the adolescent categories.

The inverse pattern was observed for placements in residential care. As shown in Table 3, older children, especially those aged between 10 and 17 years old, were significantly more likely to be placed in residential care compared to very young children, and children in middle childhood. *The greatest difference can be found between the two developmental extremes, with 15-17 year old young people being close to 17 times more likely to be in residential care, compared to infants and very young children.* In addition, these data show that the proportion of children and young people in residential care only starts to increase at age 10, however even then only one-fifth of 10 to 14 year olds, and less than one-quarter of 15-17 year olds are in this care type.

Table 3
Residential care placement comparisons by developmental stage

Comparison	% (n)		χ^2	Odds ratio
10-14 years old vs 0-2 years old	0% (53)	21.3% (89)	13.06	15
10-14 years old vs 5-9 years old	3.7% (109)	21.3% (89)	14.92	7.11
15-17 years old vs 0-2 years old	0% (53)	23.4% (47)	13.94	16.9
15-17 years old vs 3-4 years old	0% (47)	23.4% (47)	12.46	15.3
15-17 years old vs 5-9 years old	3.7% (109)	23.4% (47)	14.72	8.03

Note: all comparisons are significant at $p < .000$

Developmental stage comparisons were also conducted for kinship care placements, although no statistically significant differences were identified. This may be a function of the small number of children and young people across all age groups who were placed in kinship care settings in this sample.

Outcomes of children in care by developmental stage

Children and young people across different developmental stages were compared on the outcome indicators listed in Table 2. Some of these indicators are age-specific while others are applicable to all children and young people, regardless of their age or stage of development. Descriptive statistics by age group for all indicators analysed in this report are provided in Table 4. Information about emotional and behavioural difficulties is presented in a separate section.

Table 4
Descriptive statistics for outcome indicators across developmental stages

Indicator	Age group				
	0-2 years old % (n)	3-4 years old % (n)	5-9 years old % (n)	10-14 years old % (n)	15-17 years old % (n)
<i>Physical health</i>					
Disabilities	31.4% (16)	41.7% (20)	21.7% (23)	17.2% (16)	27.9% (12)
Physical activity	-	-	-	53.7% (44)	31% (13)
Alcohol use	-	-	-	20% (12)	50% (20)
Illicit drug use	-	-	-	4.5% (3)	32.5% (13)
Tobacco/ smoking	-	-	-	11.8% (8)	45% (18)
<i>Emotional and social development</i>					
Risk behaviour	-	-	-	23.3% (20)	58.5% (24)
Self-care	-	-	-	-	40.9% (18)
<i>Education</i>					
Full-time attendance	-	-	86.5% (90)	86.7% (978)	54.3% (25)
Academic aspirations	-	-	-	60.7% (34)	60% (18)

<i>Placements and stability</i>					
Continuity of care	15.4% (8)	23.4% (11)	39.4% (41)	-	-
Placement stability	-	-	-	14.6% (12)	21.4% (9)
<i>Relationships</i>					
Contact with siblings	17.9% (7)	11.1% (3)	20.6% (13)	18.8% (13)	12.2% (5)
Trusted adult	-	-	-	91.9% (68)	88.6% (31)
<i>Identity and belonging</i>					
Positive self-view	-	-	-	48.1% (39)	47.7% (18)

A number of patterns can be observed in Table 4. For example:

- The highest rates of disabilities are concentrated amongst the younger age groups, but the oldest age group is over-represented in rates of substance use and risk-taking behaviour.
- A much greater proportion of younger school-age children were attending school on a full-time basis, compared to older adolescents. However, the 5-9 year old group had also experienced considerable disruption in their placements since their entry into care. This pattern is mirrored in the older age group, who had experience considerable placement instability over the 12 months preceding the LAC assessment.
- Contact with siblings was low across all age groups, especially among the early childhood and late adolescence groups.

Chi-square tests were conducted to statistically test the patterns described above. Only four tests were significant at the adjusted alpha level²: full-time school attendance, risk-taking behaviour, illicit drug use and smoking. Results showed that:

- Children in middle childhood (5 to 9 years old) were 5.4 times more likely to be attending school on a full-time basis than young people in late adolescence (15 to 17 years old, $\chi^2(1) = 18.46$, $p < .000$, OR = 5.4).
- Conversely, young people in late adolescence were 4.7 times more likely to have engaged in risk-taking behaviour ($\chi^2(1) = 15.26$, $p < .000$, OR = 4.7), 13 times more likely to have tried illicit substances ($\chi^2(1) = 15.19$, $p < .000$, OR = 13), and 6.9 times more likely to have smoked cigarettes in the 12 months preceding the LAC

² Four tests were significant under less restrictive alpha levels, including: disabilities, alcohol consumption, physical activity and continuity of care. For the disabilities indicator, there was a trend towards younger children (3-4 years old) being more likely to be diagnosed with a severe disability than older children and young adolescents. The pattern for alcohol consumption was the same as that described above for illicit substances and smoking, with a greater proportion of older adolescents relative to younger adolescents, engaging in these activities. The physical activity indicator showed a pattern towards younger adolescents being more physically active than their older counterparts. Finally, the continuity of care indicator showed a pattern towards infants experiencing considerably less disruptions in their placements, compared to children in the middle childhood stage (5-9 years old).

assessment ($\chi^2(1) = 15.22, p < .000, OR = 6.9$) compared to young people in early adolescence (10-14 years old).

Outcomes of children in care by care-type

All children and young people were coded as being in either foster, kinship or residential care. While it is likely that many had experienced multiple placements throughout their time in care, for the purpose of these analyses placement-type was coded based on the living arrangement at the time of the most recent LAC assessment. Due to small sample sizes, young people in Lead Tenant, Adolescent Community Placements (ACP) and therapeutic foster care were excluded from the sample.

The final sample for these analyses included: 181 (62%) children and young people in foster care, 34 (11.6%) children and young people in residential care, and 77 (26.4%) children and young people in kinship care. Table 5 provides descriptive information about the children and young people by placement type across all outcome indicators.

Table 5
Descriptive statistics for outcome indicators by placement type

Indicator	Placement type		
	Foster care % (n)	Residential care % (n)	Kinship care % (n)
<i>Physical health</i>			
Disabilities	29.3% (63)	12.5% (4)	20.8% (16)
Physical activity	56.5% (39)	16.7% (4)	52.9% (9)
Alcohol use	20% (11)	59.1% (13)	27.3% (3)
Illicit drug use	8.5% (5)	31.8% (7)	0
Tobacco/ smoking	15.3% (9)	47.8% (11)	15.4% (2)
<i>Emotional and social development</i>			
Risk behaviour	19% (12)	66.7% (20)	25% (5)
Self-care	40.9% (9)	50% (5)	40% (2)
<i>Education</i>			
Full-time attendance	87.1% (122)	48.5% (16)	88.7% (47)
Academic aspirations	59.6% (28)	57.1% (8)	42.9% (6)
<i>Placements and stability</i>			
Continuity of care	29.1% (44)	50% (2)	30.4% (14)
Placement stability	11.1% (7)	36% (9)	9.1% (2)
<i>Relationships</i>			
Contact with siblings	13.7% (20)	15.2% (5)	30.6% (15)
Trusted adult	93.7% (59)	77.8% (14)	88.9% (16)
<i>Identity and belonging</i>			
Positive self-view	61.4% (116)	42.9% (12)	54% (34)

A number of patterns can be seen in Table 5, including:

- A much higher proportion of children and young people in residential care had experienced poor outcomes compared to children and young people in foster and kinship care. This was particularly evident in the areas of alcohol use, illicit drug use and smoking, risk-taking behaviour, and placement disruptions. In contrast, a greater proportion of children and young people in foster care relative to residential care, had experienced positive outcomes, especially in the areas of physical activity, full-time school attendance, social support, and positive self-view.
- A higher proportion of children and young people in foster and kinship care had severe disabilities, relative to residential care. To the extent that home-based care placements are better able to meet the needs of children and young people with disabilities, this may be considered a positive outcome.
- A similar proportion of children and young people in kinship care were attending school full-time, relative to foster care placements. However, a much higher proportion of children and young people in kinship care had regular contact with siblings.

Despite these patterns, only two tests were significant at the adjusted alpha level, namely risk-taking behaviour and educational engagement. Children and young people in foster care were 4.8 times *less* likely to engage in risk-taking behaviour, compared to children and young people in residential and kinship care ($\chi^2(1) = 15.72$, $p < .000$, OR = 0.21). For educational engagement, children and young people in residential care were 6.3 times *less* likely to be attending school on a full-time basis, compared to children and young people in foster and kinship care ($\chi^2(1) = 24.21$, $p < .000$, OR = 0.16)³.

Outcomes of children in care by gender

Gender differences in the OHC outcomes are rarely explicitly investigated, and existing research is equivocal regarding the role that gender places in the experiences and outcomes of children and young people in care. The following analyses therefore provide some insight into potential areas where gender differences can influence outcomes.

The sample was relatively evenly distributed on gender, with 184 (52.7%) males and 165 (47.3%) females. Table 6 provides descriptive statistics for males and females on all outcome indicators.

³ An additional 9 tests were significant under a less restrictive alpha level. These included: disabilities, physical activity, alcohol consumption, illicit drug use, cigarette smoking, full-time school attendance (foster care comparisons), continuity of placements, contact with siblings, and positive self-view. The general pattern of these comparisons was for children and young people in foster care to have been achieving more positive outcomes, relative to children in residential and kinship care. The only two exceptions were disabilities and sibling contact. For the disabilities indicator children and young people in foster care had a greater likelihood of being diagnosed with a severe disability, whereas children and young people in kinship care had a greater likelihood of experiencing regular contact with their siblings.

Table 6
Descriptive statistics for outcome indicators, by gender

Indicator	Gender	
	Male % (n)	Female % (n)
<i>Physical health</i>		
Disabilities	22.3% (39)	30.1% (39)
Physical activity	56.7% (38)	35.7% (20)
Alcohol use	25% (14)	39.5% (17)
Illicit drug use	13.1% (8)	17.8% (8)
Tobacco/ smoking	23.7% (14)	22.9% (11)
<i>Emotional and social development</i>		
Risk behaviour	33.3% (23)	36.8% (21)
Self-care (15-17 years old only)	30.8% (8)	55.6% (10)
<i>Education</i>		
Full-time attendance	81.1% (107)	80.4% (86)
Academic aspirations (15-17 years old only)	58.7% (27)	62.5% (25)
<i>Placements and stability</i>		
Continuity of placements (0-9 years old only)	27.4% (29)	32.6% (31)
Stability of placements (10-14 years old only)	16.2% (11)	18.2% (10)
<i>Relationships</i>		
Contact with siblings	15.8% (21)	19.4% (20)
Trusted adult	86.2% (50)	94.1% (48)
<i>Identity and belonging</i>		
Positive self-view	55.3% (88)	57.9% (77)

As can be seen, there were few indicators where large differences were observed between males and females. This pattern was confirmed in the bivariate analyses, none of which were significant at the adjusted alpha level⁴.

⁴ Only one analysis was significant under a less restrictive significance level, namely physical activity, where a greater proportion of males than females had engaged in at least 60 minutes of daily moderate-to-vigorous physical activity.

Emotional and behavioural difficulties: Age, placement and gender comparisons

To examine differences by developmental stage, gender and placement type on emotional and behavioural differences, the five scales of the SDQ were tested separately from the total score. This was done to reduce the impact of collinearity between the total score and four of the SDQ scales (see Table 7).

Table 7
Correlations between SDQ scales and total score

	Emotional	Conduct	Hyperactivity	Peer	Prosocial	Total
Emotional	-	.27**	.29**	.34**	-.09	.67**
Conduct		-	.53**	.40**	-.43**	.76**
Hyperactivity			-	.28**	-.29**	.76**
Peer				-	-.35**	.67**
Prosocial					-	-.39**

** $p < .01$

Table 7 also shows that almost all correlations were significant and in the moderate to strong range. The only exception was the correlation between emotional symptoms and prosocial skills or behaviour, which was negative and non-significant. This indicates that among this sample of children and young people, there was no association between internalising problems and socialisation skills.

The differential SDQ profiles of children and young people across developmental stages, by gender and by placement type are presented in Table 8. A number of patterns are observable from these data.

- From a developmental perspective, children in middle childhood had higher scores on emotional symptoms, conduct problems, hyperactivity and total difficulties. This group also had the lowest score on prosocial skills/behaviour, indicating a greater tendency towards poorer social skills and adaptive social functioning.
- Gender-based patterns can also be seen in Table 8, with males scoring higher on conduct problems, hyperactivity, peer problems and total difficulties, but scoring lower on prosocial skills/behaviour.
- Children and young people in residential care had the highest average scores on emotional symptoms, conduct problems, peer problems and total difficulties, and the lowest scores on prosocial skills/behaviour. Interestingly, children and young people in kinship care had the highest average scores on hyperactivity.

SDQ scales

To examine these patterns further, three MANOVAs were conducted to test the effects of age, gender and placement type, as well as their interactions on SDQ profiles. Two tests were significant at the adjusted alpha level. Specifically, there was a significant effect of gender on pattern of emotional and behavioural difficulties ($V = 0.11$, $F(5, 223) = 5.63$, $p < .000$). Further, separate univariate ANOVAs revealed significant differences on:

- Emotional symptoms ($F(1,227) = 7.04$, $p < .01$), with females scoring significantly higher than males
- Hyperactivity ($F(1,227) = 4.97$, $p < .05$), with males scoring significantly higher than females
- Prosocial skills/behaviour ($F(1,227) = 5.66$, $p < .05$), with females showing significantly social skills than males.

There was also a significant effect of placement type on the emotional and behavioural profiles of children and young people in care ($V = 0.15$, $F(10,446) = 3.51$, $p < .000$). Separate univariate ANOVAs showed significant differences on two scales.

- There was a significant relationship between placement type conduct problems ($F(2,226) = 3.44$, $p < .05$) with post-hoc tests indicating that children and young people in residential care scored significantly higher than children and young people in foster care and kinship care.
- There was also a significant effect of placement type on peer problems ($F(2,26) = 11.67$, $p < .000$).

Post-hoc tests on this variable showed three significant relationships.

- Children and young people in residential care scored significantly higher on this scale than those in foster or kinship care.
- Children and young people in kinship care scored significantly higher than children and young people in foster care.
- There were no significant effects of developmental stage on the emotional and behavioural profiles of the SDQ. There were also no significant interaction effects.

Total Difficulties Score

Three univariate ANOVAs were also conducted to test for differences across developmental stage, gender and placement type on the Total Difficulties Score of the SDQ. As with the multivariate tests above, interaction terms were included in these analyses. Only one test was significant at the adjusted alpha level, with an effect of placement type on the Total Difficulties Score, $F(2,186) = 8.34$, $p < .000$.

Post-hoc tests revealed two group differences.

- Children and young people in residential care scored significantly higher on this scale than children and young people in foster care.
- Children and young people in kinship care scored significantly higher than children and young people in foster care.

Importantly, the average Total Difficulties Score for the residential care group fell within the 'very high' range of clinical scores, whereas both the kinship and foster care groups were within the 'slightly raised' range. There was no effect of age or gender on the Total Difficulties Score, nor were any of the interaction terms significant⁵.

⁵ The age x gender interaction was significant under a less restrictive alpha level ($p = .02$). Supplementary analyses indicate that young males had high scores in middle childhood, which declined sharply in early adolescence and then plateaued into late adolescence. The opposite pattern was seen for females, who had relatively stable scores from middle childhood to early adolescence, and then experienced a sharp increase in late adolescence.

Table 8
Descriptive statistics for SDQ profiles by developmental stage, gender and placement type

	Emotional symptoms M (SD)	Conduct problems M (SD)	Hyperactivity M (SD)	Peer problems M (SD)	Prosocial skills/behaviour M (SD)	Total Difficulties Score M (SD)
Developmental stage						
Middle childhood (<i>n</i> =105)	3.64 (2.52)	3.72 (2.39)	6.00 (2.75)	3.01 (2.04)	6.69 (2.57)	16.32 (7.13)
Early adolescence (<i>n</i> =86)	3.31 (2.48)	3.22 (2.42)	4.76 (2.32)	3.23 (2.09)	6.91 (2.33)	14.52 (6.45)
Late adolescence (<i>n</i> =43)	3.29 (2.39)	3.22 (2.42)	5.25 (2.79)	3.36 (2.05)	6.98 (2.56)	15.36 (7.59)
Gender						
Male (<i>n</i> =126)	3.09 (2.36)	3.50 (2.39)	5.91 (2.77)	3.26 (2.01)	6.39 (2.54)	15.78 (6.89)
Female (<i>n</i> =107)	3.86 (2.56)	3.32 (2.49)	4.83 (2.41)	3.02 (2.11)	7.34 (2.31)	15.11 (7.17)
Placement						
HBC (<i>n</i> =112)	3.24 (2.44)	3.18 (2.34)	4.98 (2.72)	2.63 (2.05)	7.29 (2.43)	14.04 (7.22)
Residential care (<i>n</i> =34)	4.00 (2.73)	4.35 (2.46)	5.82 (2.53)	4.44 (2.08)	5.56 (1.86)	18.62 (6.56)
Kinship care (<i>n</i> =46)	3.88 (2.14)	3.17 (2.13)	5.90 (2.75)	3.43 (1.87)	6.79 (2.61)	16.59 (6.26)

Discussion

The results of this project confirm that children and young people in OHC have differential needs, based on their developmental stage, gender and care-setting. Consistent with current, developmentally-informed policies, young people in early and late adolescence were 15 times more likely to be placed in residential care than infants and young children. The converse pattern was observed for foster care placement, which included a higher proportion of young children. These developmental patterns were also observed when children and young people were compared on a range of psychosocial and placement outcomes. Children in middle childhood (5 to 9 years old) were more likely to be attending school on a full-time basis compared to older adolescents. In contrast, older adolescents were significantly more likely to have engaged in behaviour that signalled a high risk of serious, adverse outcomes, and to have consumed alcohol and illicit substances. Older adolescents were also significantly more likely to have smoked than their younger counterparts. Contrary to prior research, however, there were no age differences on any measure of emotional or behavioural difficulties.

The observed age differences in this study highlight the central importance of developmentally informed approaches to working with children and young people, especially in the context of OHC. While there is an overt emphasis on developmentally appropriate placement decisions and settings, there is also a need to ensure that the developmental progression of older adolescents is monitored. The results presented in this report show that young people aged 15 to 17 years old were the most likely to experience a range of negative outcomes that influence life-course trajectories into early adulthood and beyond (Hook & Courtney, 2011; Lee et al., 2012; Odgers et al., 2008). While this age group may represent a particularly difficult cohort to engage, they are also on the cusp of exiting the care system with a risk/need profile that increases their likelihood of continued and potentially entrenched involvement with a range of social welfare and criminal justice systems. Research has also shown that this age group is likely to experience early parenthood (Keller et al., 2007), which in combination with the outcomes discussed above, increases the chances for intergenerational involvement in the child and family welfare system.

Developmentally-grounded outcomes are likely influenced by the care-setting that a child or young person experiences. It is widely accepted that residential care placements are characterised by a relative absence of stability, exacerbated by a range of factors, from staffing structures to the complex histories of trauma and their attendant sequelae exhibited by the children and young people in these settings. While there has been a dearth of research exploring the differential profiles of children in foster, residential and kinship care, the results discussed above point to an important area of difference, namely, that younger children are most likely to be placed in home-based care arrangements. Beyond this difference, the current study identified two differential outcomes by placement-type. Children and young people in foster care were significantly less likely to engage in risk taking behaviour, compared to any other care arrangement. In contrast, children and young people in residential care were six times less likely to be attending school on a full-time basis compared to their counterparts in foster and kinship care.

Differential outcomes by placement type were also identified on the measures of emotional and behavioural difficulties. Children and young people in residential care scored significantly higher on conduct problems and peer problems than children in foster or kinship care. Interestingly, children and young people in kinship care also scored higher than their foster care counterparts on this scale. Children and young people in residential care also had significantly higher Total Difficulties Scores than children and young people in foster care, and this pattern was also found for children in kinship care. Put simply, children and young people in foster care scored consistently lower on all measures of emotional and

behavioural difficulties relative to children and young people in kinship and residential care, with the residential care group scoring the highest across all measures.

A number of additional patterns were identified, but due to the large number of tests and the conservative significance level, these were not considered significant. Nevertheless, these analyses point to a differential pattern whereby children and young people in residential care experience a larger number of poor outcomes across various domains. This is an important finding, as it confirms the potential for the long-term, negative impact of restrictive placements. As research has identified, young people who experience residential care placements are the least likely to achieve high school academic qualifications, and the most likely to experience unemployment, significant substance abuse and mental health problems, and extensive criminal justice system involvement (Hook & Courtney, 2011; Keller et al., 2007; Lee et al., 2012; Neely-Barnes & Whitted, 2011).

To date, however, researchers have not specifically investigated the in-care outcomes of children and young people by the type of placement they have experienced. In this respect, this study represents one of the few attempts to map these differential outcomes, and points to a number of system-based deficits in the supports offered to children and young people in residential care in particular. Moreover, the results reported here highlight that children and young people in kinship care experience a range of negative outcomes, especially in comparison to their counterparts in foster care. For example, a greater proportion of children in kinship, compared to foster care, had tried alcohol and engaged in risky behaviour. Moreover a lower proportion of children and young people in kinship care reported having a positive sense of self, or someone they could trust in a time of crisis or need.

There were, however, a number of positive trends associated with kinship care. The kinship care group had the highest proportion of full-time school attendance, and the highest proportion of children and young people who had regular contact with their siblings. None of the children and young people in kinship care in this sample reported having taken illicit substances in the 12 months preceding the LAC assessment, in contrast to 8.5% of children and young people in the foster care group. This last finding should be interpreted with caution due to the very low numbers of older children in kinship care captured in this study. Nevertheless, the rate of alcohol use and smoking was also reasonably low, indicating that on these outcomes, young people in kinship care fare better than their peers in residential care. Given the increase in kinship care placements in recent years, there is clearly a need for more research into the profiles and experiences of children and young people in these care arrangements.

Finally, despite extant research pointing to considerable gender differences in pathways into care, service utilisation and experiences of care, very few gender differences were observed in this study. The exception was the mental health domain. Consistent with prior research, females in this study scored significantly higher than males on emotional symptoms linked to anxiety and depression, but also showed greater evidence of 'prosocial' behaviour. In contrast, males scored higher than females on hyperactivity.

Recent years have seen a surge in research exploring the long-term outcomes of young people who have exited the OHC system. This research is providing important insights into the impact of OHC placement into adulthood, highlighting the significant barriers that many young people face as they exit care and transition into adult roles and social structures. Based on the available evidence, the general consensus is bleak. Young people who exit OHC are more likely to experience a range of negative outcomes linked to poor educational attainment, increased risk of significant and prolonged mental health and substance abuse problems, increased risk of unemployment and underemployment, and greater odds of entrenched criminal system involvement. For some, these outcomes are ameliorated

through exposure to stable and therapeutic care environments. For others, the ability to remain in stable placements beyond their 21st birthday can also promote positive outcomes, especially in the areas of educational attainment (Courtney & Dworsky, 2006).

Although it is important to develop a stronger understanding of the long-term outcomes of children and young people who have experienced OHC, it is equally important to understand their development *while in care*. This study provides some insights into the way individual and system level factors, including age, gender and placement type, can influence a broad range of developmental and psychosocial outcomes. The results indicate that it is necessary to consider the differential profiles of children and young people in care as these are likely to interact in multiple and complex ways to influence post-care trajectories. Given the current trends towards greater number of children and young people entering care with increasingly complex needs, and staying in care for longer periods of time, understanding the differential risk and need profiles of these young people could assist in better targeting resources to improve outcomes in care and beyond.

References

- Appleyard, K., Egeland, B., van Dulmen, M.H.M., & Sroufe, A. (2005). When more is not better: The role of cumulative risk in child behaviour outcomes. *Journal of Child Psychology and Psychiatry*, 46(3), 235-245. doi: 10.1111/j.1469-7610.2004.00351.x
- Australian Institute of Health and Welfare. (2015). *Child Protection Australia: 2013-14. Child welfare series no. 61. Cat. No. CWS 52*. Canberra: AIHW.
- Courtney, M.E., & Dworsky, A. (2006). Early outcomes for young adults transitioning from out-of-home care in the USA. *Child and Family Social Work*, 11(3), 209-219.
- Edwards, V.J., Holden, G.W., Felitti, V.J., & Anda, R.F. (2003). Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: Results from the Adverse Childhood Experiences Study. *The American Journal of Psychiatry*, 160(8), 1453-1460. doi: 10.1176/appi.ajp.160.8.1453
- Goodman, R. (1997). The Strengths and Difficulties Questionnaire: A research note. *The Journal of Child Psychology and Psychiatry*, 38(5), 581-586.
- Hankin, B.L. (2005). Childhood maltreatment and psychopathology: Prospective tests of attachment, cognitive vulnerability, and stress as mediating processes. *Cognitive Therapy and Research*, 29(6), 645-671. doi: 10.1007/s10608-005-9631-z.
- Harvey, S.M., Dorahy, M.J., Vertue, F.M., & Duthie, S. (2012). Childhood psychological maltreatment and perception of self, others, and relationships: A phenomenological exploration. *Journal of Aggression, Maltreatment & Trauma*, 21, 237-255. doi: 10.1080/10926771.2012.665428.
- Hook, J.L., & Courtney, M.E. (2011). Employment outcomes of former foster youth as young adults: The importance of human, personal, and social capital. *Children and Youth Services Review*, 33(10), 1855-1865. doi: 10.1016/j.childyouth.2011.05.004.
- Keller, T.E., Cusick, G.R., & Courtney, M.E. (2007). Approaching the transition to adulthood: Distinctive profiles of adolescents aging out of the child welfare system. *Social Service Review*, 81(3), 453-484.
- Lee, J.S., Courtney, M.E., & Hook, J.L. (2012). Formal bonds during the transition to adulthood: Extended foster care support and criminal/legal involvement. *Journal of Public Child Welfare*, 6(3), 255-279. doi: 10.1080/15548732.2012.683336.
- Maschi, T., Schwalbe, C.S., Morgen, K., Gibson, S., & Violette, N.M. (2009). Exploring the influence of gender on adolescents' service needs and service pathways. *Children and Youth Services Review*, 31, 257-264. doi: 10.1016/j.childyouth.2008.07.018.
- Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, 100(4), 674-701. doi:10.1037/0033-295X.100.4.674.
- Murray, S., & Goddard, J. (2014). Life after growing up in care: Informing policy and practice through research. *Australian Social Work*, 6(1), 102-117. doi: 10.1080/0312407X.2013.868010.

Neely-Barnes, S., & Whitted, K. (2011). Examining the social, emotional and behavioral needs of youth involved in the child welfare and juvenile justice systems. *Journal of Health & Human Services Administration, 34*(2), 206-238.

Odgers, C. L., Moffitt, T. E., Broadbent, J. M., Dickson, N., Hancox, R. J., Harrington, H., . . . Caspi, A. (2008). Female and male antisocial trajectories: From childhood origins to adult outcomes. *Development and Psychopathology, 20*(2), 673-716. doi:10.1017/s0954579408000333

Riggs, S.A. (2010). Childhood emotional abuse and the attachment system across the life cycle: What theory and research tell us. *Journal of Aggression, Maltreatment & Trauma, 19*(1), 5-51. doi: 10.1080/10926770903475968

Schilling, E.A., Aseltine, R.H., & Gore, S. (2008). The impact of cumulative childhood adversity on young adult mental health: Measures, models, and interpretations. *Social Science & Medicine, 66*, 1140-1151.

Simmel, C. (2011). Demographic profiles of children reported to the child welfare system. *Journal of Public Child Welfare, 5*, 87-110. doi: 10.1080/15548732.2011.542728.

Simmel, C., Morton, C., & Cucinotta, G. (2012). Understanding extended involvement with the child welfare system. *Children and Youth Services Review, 34*, 1974-1981. doi: 10.1016/j.chilyouth.2012.06.007.

Sroufe, L.A. (2005). Attachment and development: A prospective, longitudinal study from birth to adulthood. *Attachment & Human Development, 7*(4), 349-367. doi: 10.1080/14616730500365928.

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

Yampolskaya, S., Sharrock, P., Armstrong, M.I., Strozier, A., & Swanke, J. (2014). Profile of children placed in out-of-home care: Association with permanency outcomes. *Children and Youth Services Review, 36*, 195-200. doi: 10.1016/j.chilyouth.2013.11.018.