Differences in the Factors Associated with Out-of-Home Placement for Children and Youth

Della Knoke, Deborah Goodman, Bruce Leslie, Nico Trocmé

Résumé

L'hébergement en milieu de garde externe est la forme d'intervention la plus intensive et la plus coûteuse dans le secteur de la protection de l'enfance. Partout en Amérique du Nord, le taux d'hébergement et le nombre d'enfants en milieu de garde substitut ont augmenté de façon draconienne. La décision d'héberger un enfant en milieu de garde externe exige de peser de multiples facteurs interdépendants, tels que la capacité d'assumer un rôle parental, la gravité des mauvais traitements, le degré de coopération des fournisseurs de soins et les caractéristiques des enfants. Selon des études antérieures, les instruments d'évaluation structurée des risques sont utiles pour identifier les enfants qui courent un risque supérieur en vue d'un hébergement subséquent. L'une des limites de ces études est qu'elles supposent implicitement que le lien entre les facteurs de risque et l'hébergement est le même à tous les stades de développement des enfants. La présente étude traite de cette question. Dans un échantillon de 3 676 enfants provenant de deux grandes agences ontariennes de protection de l'enfance, on examine les facteurs de risque associés à l'hébergement en milieu externe pour les enfants de moins de 12 ans ainsi que pour les jeunes âgés de 12 à 16 ans. Les mauvais traitements subis ainsi qu'une gamme de facteurs associés à la famille, aux fournisseurs de soins et aux enfants étaient liés à la décision d'héberger les enfants. Par contre, dans le cas des jeunes âgés de 12 à 16 ans, leur admission était associée à des préoccupations concernant leur comportement et leur santé mentale et aux indices de mauvaises relations entre les parents et les adolescents. Une meilleure compréhension des différences liées au développement dans les facteurs associés à l'hébergement en milieu de garde aidera à identifier les ressources nécessaires à l'amélioration des efforts de prévention de ces hébergements.

When concerns for child welfare warrant the involvement of child protective services, a range of service options may be considered. Many families receive ongoing services while their children remain at home. However, when the safety and well-being of a child is in question, the agency may remove a child from the family home and place that child in substitute or "out-of-home" care (e.g., family-based foster care, group care). Placement in out-of-home care represents one of the most intensive child welfare service responses. The decision to remove a child from the family home and place him or her into substitute care requires weighing multiple interacting factors. Ultimately, the threat to the child's physical safety and well-being if left at home must be weighed against the potential negative psychosocial consequences of removing the child (Buehler, et al., 2000; Courtney and Barth, 1996; Davidson-Arad, et al., 2003; Dumaret, et al., 1997). If the child is assessed as being at significant risk for future maltreatment, the potential consequences of not removing the child may include minor to severe physical injuries, and increased likelihood of a variety of negative long-term physical, cognitive, psychological and behavioural sequelae (Dallam, 2001; Saunders, Berliner and Hanson, 2001; Widom, 2000). While placing a child in out-of-home care is only one form of intensive service, it is a proxy indicator for high service need and represents the most intrusive and most costly forms of child welfare intervention. In many jurisdictions, out-of-home care constitutes the single largest child welfare expenditure (Barth, Berrick and Gilbert, 1994; Ontario Association of Children's Aid Societies [OACAS], 2005).

PLACEMENT IN OUT-OF-HOME CARE REPRESENTS ONE OF THE MOST INTENSIVE CHILD WELFARE SERVICE RESPONSES.

Across North America, the rate of placement and the number of children in substitute care have increased dramatically (Anglin, 2002; Denby and Curtis, 2003; Rivers, et al., 2002; Wertheimer, 2002). In the US the rate of admission to care increased from 4.7 per 1000 in 1980, to 7.7 per 1000 in 2000 (Wertheimer, 2002). Data from the US Administration for Children and Families (2006) indicates that after remaining relatively stable between 2000 and 2003, the number of children entering care increased slightly in 2004 and 2005. The second Canadian Incidence Study of Reported Child Abuse and Neglect (CIS2003) (Trocmé, et al., 2005) provides the only national estimates of the rate of admissions in Canada. The CIS2003 documented an increase in the number of children who enter care from 5,307 (1.1 per 1,000 children in Canada under the age of 16) in 1998, to 8,260 (1.74 per 1,000) in 2003. Since the CIS2003 examines case decisions that occur during the course of child maltreatment investigations (i.e., the first 30 days), these figures underestimate the incidence of admissions to care in Canada. Nonetheless, the data illustrate the significant increase in the rate of placement at the point of investigation. Other data indicate that increases have been noted in several provinces. The number of children in out-of-home care rose 38% in British Columbia and approximately 60% in Alberta between 1996 and

2002 (cited in Trocmé and Chamberland, 2003). According to the OACAS, admissions to care increased by 38% between 1998/1999 and 2001/2002 (OACAS, 2002) and increases continue to be noted. Substitute care was provided at a rate of 9.23 per 1,000 children in the 2004–2005 fiscal year, an increase from 8.44 per 1000 in 2001/2002 (OACAS, 2005).

Increases in the rate of out-of-home placement are well documented and are hypothesized to be related to a complex set of interacting factors (Barbell and Freundlich, 2001; Swann, 2006). Three main sets of factors appear to underlie the increases in placement. First, Barbell and Freundlich (2001) suggest that standards for acceptable family functioning have increased the numbers of children who are eligible for protection and for placement. Increased awareness—both public and professional—about the duty to report, expanding definitions of maltreatment (e.g., the growing number of cases of substantiated inappropriate punishment, emotional maltreatment and exposure to domestic violence) and the inclusion of children at risk of harm in addition to those who have experienced harm may contribute to a larger number of children coming in contact with and entering the child welfare system. Second, services and supports to families experiencing difficulty have eroded (e.g., prevention and early intervention services, financial benefits, access to treatment services). Finally, the tensions between child and family focused goals have resulted in policy shifts and in fluctuations in admissions. Recent concerns about foster care drift, the disproportionate number of ethno-racial minority children in care, indeterminate stays in care and the inadequate provision of services to families prompted change in US federal legislation that requires "reasonable effort" be made to provide services to keep families intact, as long as these efforts do not compromise the safety or well-being of children (Bagdasaryan, 2004). In Ontario, the recent transformation of child welfare services includes admission prevention as one of its seven "pillars of permanence" and includes providing additional supports to families to enable children to be cared for safely in their family homes.

[S]TANDARDS FOR ACCEPTABLE FAMILY FUNCTIONING HAVE INCREASED THE NUMBERS OF CHILDREN WHO ARE ELIGIBLE FOR PROTECTION AND FOR PLACEMENT.

Factors Associated with Placement in Out-of-Home Care

Knowledge of the factors that lead to admission informs case planning and the strategic allocation of resources strategies to effectively ameliorate circumstances that place children at risk for placement. Research has identified a variety of factors that increase the likelihood that a child will be placed in substitute care. Children may be separated from their parents for a variety of reasons including abuse and neglect, parental condition or absence, or parent-child conflict. Parental factors that increase the likelihood of out-of-home placement include caregiver mental or physical illness, parental stress, substance abuse, criminal involvement

and/or economic disadvantage, such as homelessness and housing instability (Besinger, et al., 1999; Cohen-Schlanger, et al., 1995; Leslie, 2005; Widom, 1991; Zuravin and DePanfilis, 1997). Placement is more likely among families with histories of maltreatment and domestic violence (Zuravin and DePanfilis, 1997). Poor family co-operation with child welfare intervention (Feldman, 1990), caregiver readiness for change (Littell and Girvin, 2005) and the persistence of abusive or neglectful behaviour, despite the provision of child welfare services, may also present cause for removing a child from the family home (Panel on Research on Child Abuse and Neglect, 1993). Numerous studies document ethno-racial differences in the likelihood that a child will be placed in out-of-home care. Studies in the US indicate that African-American children are much more likely than White children to be admitted to care (Courtney, et al., 1996; Pérez, O'Neil and Gesiriech, 2003). Both US and Canadian studies document a higher rate of placement among Aboriginal than non-Aboriginal children (Ards, et al., 2003; Trocmé, et al., 2004). However, several studies find no ethno-racial differences in the rate of placement once the effect of other variables, such as socio-economic status, and caregiver and maltreatment characteristics are taken into account in statistical analyses. Finally, child characteristics are related to placement decisions. The chances of placement in out-of-home care are greater among children with physical, emotional or behavioural problems (Lindsay, 1992; Needell and Barth, 1998).

THE CHANCES OF PLACEMENT IN OUT-OF-HOME CARE ARE GREATER AMONG CHILDREN WITH PHYSICAL, EMOTIONAL OR BEHAVIOURAL PROBLEMS....

Age and Placement

Data from the US suggest that placement rate by age has a bimodal distribution. The two peaks in placement rate correspond to children five years of age or younger (38%) and youth aged 11 to 15 (29%) (Massinga and Pecora, 2004). Research on the factors that increase risk for admission to care typically fails to take age-related differences into account. The present study examines differences between children and youth in the reasons for child welfare involvement, in the rate of entry or "admission" into care and the risk factors associated with placement in out-of-home care.

Youth admitted to care present distinct service needs and challenges for child welfare services. Holmbeck and colleagues (2000) argued that adolescence "is characterized by more biological, psychological, and social role changes than any other stage of life except infancy" (p. 335). Risk of problems may also increase when these changes are paired with significant life stresses (Weisz and Hawley, 2002). Youth who enter care tend to remain in care longer than younger children (Widom, 1991), are less likely than younger children to have family-based care (Wertheimer, 2002), are less likely to be adopted (US DHHS 2001a, as cited in Wertheimer, 2002), and are more likely to remain in care until the age of

independence, referred to as "aging out" in the system (Massinga and Pecora, 2004; Wertheimer, 2002). For example, Massinga and Pecora (2004) estimated that 47% of the children in care in the United States in 2001 were older than 11 years of age. Rates of placement disruption are high among youth (Barber and Delfabbro, 2003; Sinclair, Gibbs and Wilson, 2000; Triseliotis, et al., 1995). Instability in living arrangements may have deleterious effects on education, the development and continuity of relationships and sense of belonging and permanence. In addition, there has been an increase in the proportion of youth in care manifesting significant behavioural difficulty and distress (Sinclair, Garnett and Berridge, 1995; Triseliotis, et al., 1995; Packman and Hall, 1998). Indeed, Lipscombe, Moyers, and Farmer (2003) suggest that substitute care may be "one of the main services provided when serious difficulties arise for parents in looking after their teenage children" (pg. 243). More systematic study is needed to better understand the developmental differences in the concerns presenting to child welfare and the relationship between these clinical characteristics and out-of-home placement.

Risk Factors and Placement in Out-of-Home Care

THE GLOBAL RISK RATING PROVIDES A BASIS FOR TARGETING TREATMENT RESOURCES, WITH MORE INTENSIVE SERVICES ALLOCATED TO CHILDREN WITH HIGHER LEVELS OF RISK....

Studies suggest that structured risk assessment instruments assist in identifying the subgroup of children who are likely to require child welfare placement (Baird and Wagner, 2000; English, et al., 1993). Primary objectives of structured risk assessment are to support the safety of children and to create a systematic approach to service allocation. The global risk rating provides a basis for targeting treatment resources, with more intensive services allocated to children with higher levels of risk (Camasso and Jagannathan, 2000; DePanfilis and Zuravin, 2001; English and Pecora, 1994). In addition to providing a global estimate of overall risk, the items included in these instruments generally reflect a range of family and child characteristics that are related to the likelihood of subsequent maltreatment. Ratings on these individual risk elements may be used to guide case planning and intervention (English and Pecora, 1994).

Risk assessment instruments are frequently developed and implemented with little or no research to establish validity or reliability (English, et al., 1993; Rycus and Hughes, 2003; Wald and Woolverton, 1990). Thus, the extent to which many commonly used instruments improve the consistency and accuracy of worker judgments is unknown. Despite these limitations, structured risk assessment provides a means for systematically documenting workers' clinical impressions of a range of family, caregiver and child characteristics. Assessment of various aspects of family, caregiver and child functioning for the purpose of estimating level of risk for

future maltreatment may also provide useful information about the situations or family circumstances that increase the likelihood of placement in out-of-home care.

Two studies have examined the relationship between child welfare placement and individual risk factors from the Risk Assessment Tool (RAT) of the Ontario Risk Assessment Model (ORAM) (Leschied, et al., 2003; Leslie and O'Connor, 2003). These studies suggest that the profile of high-risk ratings on individual elements of the RAT may assist in identifying cases that are more likely to involve future placement. The RAT is one of three assessment instruments included in the ORAM and was implemented across the province in 1998 (Leslie and O'Connor, 2003). Completion of the RAT involves a full protection investigation and assists in estimating the ongoing level of risk to the child until the next scheduled assessment (Leschied, et al., 2003). The instrument includes 22 risk elements, grouped into the following five risk domains:

1. family;
2. caregiver;
3. abuse or neglect;
4. intervention; and
5. child risk influences.

A global or overall risk rating is also provided by workers based upon the assimilation of information about risk from the individual elements (Leslie and O'Connor, 2003).

[O]F THE FIVE RISK DOMAINS, FAMILY AND CAREGIVER FACTORS ARE PARTICULARLY INFLUENTIAL IN THE DECISION TO ADMIT A CHILD INTO CARE.

Leslie and O'Connor (2003) found that three risk elements on the RAT—"family ability to cope with stress," "abuse or maltreatment of caretakers as child" and "intent and acknowledgement of responsibility"—were most frequently rated high risk among children in care. In a recent study, Leschied, et al., (2003) examined the relationship between placement in out-of-home care and risk elements from the RAT in a sample of 450 children receiving child protective services in London, Ontario. Of the 22 risk items included, item analyses revealed that four items (family ability to cope with stress, availability of social supports, caregiver's motivation and caregiver's co-operation with intervention) differentiated the children admitted from those who remained at home with 76% accuracy in classification. These studies suggest that risk assessment tools assist in identifying the subset of children who are more likely to require admission to care. They also suggest that, of the five risk domains, family and caregiver factors are particularly influential in the decision to admit a child into care. One limitation of these studies is that

by combining children of all ages in analyses, relationships that differ by age and developmental stage may be obscured. The present study seeks to refine analyses of these relationships by examining age-related differences in the factors related to out-of-home placement.

Present Study

The current study employed a longitudinal design to examine whether children and youth differ in the reasons for child welfare involvement, in the likelihood of entering care, and in the risk factors associated with placement. Given the high costs of out-of-home care, the complex service and treatment needs and reduced likelihood of leaving care, improved understanding of the factors related to the placement of youth as compared to younger children is expected to inform admission prevention efforts.

Methods

Case information was extracted from administrative databases for two agencies: The Children's Aid Society of Toronto (CAST) and the Catholic Children's Aid Society (CCAS) of Toronto. The study sample was limited to cases opened within the fiscal year April 1, 2002 to March 31, 2003. To ensure independence of the cases, one child per family was randomly selected. Cases were followed until March 31, 2004 to determine whether placement in out-of-home care occurred. The minimum follow up period was 12 months (e.g., if opened March, 2003) and the maximum was almost 2 years (e.g., if opened April, 2002). The total number of children included in the study was 3,676 (1,942 from CAST and 1,734 from the CCAS).

The study included children from birth to 16 years of age. The sample was divided into two age groups: birth to age 11 (children; N=2,715) and age 12 to 16 (youth; N=961). For families with more than one case opening during this period, only information that pertained to the first opening was included. Select characteristics were extracted from agency databases based upon the information available at that case opening. Extracted case information included overall risk rating and ratings for individual risk elements, select characteristics of the child (age and gender), reason for service and prior case openings for the family. Information about risk was taken from the first risk assessment after case opening. Children without completed risk assessments were excluded.

Two types of analyses were conducted. First, chi-square analyses were conducted to examine the relationship between placement and reason for service and between placement and risk assessment ratings. The analyses examined whether there were statistically significant differences in the proportion of children placed compared to the proportion not placed within each age group. Second, logistic regression analyses were used to examine whether the highest score in each risk domain contributed significantly to subsequent placement. Risk ratings for the individual elements could not be used in

multivariate analyses because 66% of the cases examined had missing data or "insufficient information" ratings for at least one of the 22 risk elements. Since logistic regression uses list-wise deletion of cases with missing information, the inclusion of individual elements would result in a sample with too many missing cases to be representative. Insufficient information was most frequently noted for primary "Caregiver Abuse or Neglect" influences (31% of children and 32% of youth). Instead, the highest-risk score in each of the five risk domains were entered simultaneously into the regression model.

The reason for service was determined by the *Ontario Child Welfare Eligibility Spectrum* codes (OACAS, 2000). In Ontario, each case that comes to the attention of a Children's Aid Society is assessed with regard to its eligibility for services at the time of referral. Seventeen eligibility codes cluster into the following seven categories:

1. physical harm by commission;
2. sexual harm by commission;
3. harm by omission (i.e., neglect);
4. emotional harm;
5. abandonment or separation (including parent-child conflict and difficulty managing child behaviour);
6. caregiver capacity; and
7. request for services.

Differences in the proportion of children and youth placed by primary category of eligibility were examined.

The relationship between placement and overall risk rating and between placement and ratings on each of the twenty-two risk elements of the RAT of the ORAM were examined. The overall risk rating was rated on a five-point ordinal scale ranging from no or low risk, to high risk. In each case, the worker made a clinical judgment about the overall risk rating, considering the information collected on the other 22 risk items. The score was not empirically derived. In practice, the 22 risk elements are also rated on a five-point scale. In the present study, individual risk elements were collapsed from five to three levels of risk. No or low, and moderately low levels of risk were collapsed to provide an index of lower risk. Moderately high- and high-risk categories were collapsed to reflect ratings on the high end of the risk spectrum. Empty data fields and worker responses coded as "insufficient information" or "not applicable" were each treated as missing in these analyses. Estimates were not included in the tables when there were insufficient cases ($N \leq 5$) to provide a reliable estimate. Separate analyses were conducted for children and youth to allow comparison between the two age groups in the factors identified.

The results of bivariate and multivariate analyses are presented first for children, followed by analyses for youth and a discussion of the differences in the patterns of findings for these two age groups.

Results

Children (0–11): Bivariate Analyses

Eleven percent of children under the age of 12 were placed in out-of-home care during the two-year study period (N=297). The average number of months between opening and placement was 3.8 months, with 66% of all placements occurring within the first three months following case opening and 78% within 6 months. Comparable proportions of male and female children were placed during the study period (11.7% for females and 10.6% for males). On average, children placed in care had 1.3 prior family openings, compared to 1.0 prior openings for children who were not placed ($t[1, 2713] = 4.86$, $p < 0.05$).

As illustrated in Table 1 "Abandonment or Separation" and "Caregiver Capacity" had the highest rates of placement among children under 12 (16.1% and 15.7%, respectively). Children with "Emotional Harm" as the primary eligibility code were least likely to be placed in out-of-home care, with a rate that was approximately half that of other eligibility codes (4.5%).

Approximately 40% of children under the age of 12 rated high risk were placed in out-of-home care.

Overall Risk Rating

Approximately 40% of children under the age of 12 rated high risk were placed in out-of-home care. The proportion of children with a high overall risk rating who were placed was approximately 15 times greater than children with a moderately low-risk rating. It is important to note that, although children placed in-care are more likely to have higher overall risk ratings, the majority of children rated high risk are not placed. These findings indicate that overall risk level accounts for only a portion of the variance in placement. To assess whether placement may be related to particular types of risk factors, the influence of individual risk items on placement is examined below.

Table 1 Proportion of Children (0–11) and Youth (12–16) Placed in Out-of-Home Care by Eligibility Category and Overall Risk Rating

	% Placed	
	Children (N=2,715)	Youth (N=961)
Case Characteristic		
Primary Eligibility Codes	***	***
Physical Harm by Commission	8.5%	15.3%
Sexual Harm by Commission	8.1%	23.3%
Harm by Omission	11.3%	16.5%
Emotional Harm	4.5%	8.4%
Abandonment or Separation	16.1%	35.1%
Caregiver Capacity	15.7%	7.6%
Request for Services	10.7%	0
Overall Risk Rating	***	***
No or Low Risk	--	0
Moderately Low Risk	2.8%	13.3%
Intermediate Risk	5.0%	17.0%
Moderately High Risk	14.0%	28.6%
High Risk	41.4%	30.0%

***p≤0.001, **p≤0.01, *p≤0.05
-- N≤5

Individual Risk Elements

Table 2 presents the proportion of children under the age of 12 placed at each risk level for the individual risk elements. The difference between the proportions of children placed at higher-risk, as compared to lower-risk levels provides an index of the strength of the bivariate relationship between the risk element and placement. Significant chi-square values are noted in the table below and indicate that the proportion of children who are placed in out-of-home care differs across levels of risk.

With the exception of two risk items, higher-risk ratings were associated with higher rates of placement. Level of risk for family violence did not differentiate children who were placed in out-of-home care from those who were not. Although, the effect of "Access by Perpetrator to Child" was statistically significant, higher-risk ratings were associated with lower rates of placement. For this factor, higher rates of placement were evident for "limited access of perpetrator to child with effective adult supervision" (moderately low-risk rating). For the vast majority of items, the proportion of children placed at the moderately high- to high-risk level was two to three times greater than the proportion placed at the lowest-risk level. For example, 20% of children with a moderately high- to high-risk rating for family living conditions were placed in out-of-home care, compared to nine percent of the children who were rated low risk

on this item. Twenty-four percent of the children who had a primary caregiver with low or no motivation to meet the child's needs (higher risk) were placed, compared to seven percent of the children rated as no to low risk on this factor. Being rated higher risk on a variety of risk factors was found to be associated with entry into care for children.

Table 2 Proportion of Children (0–11) Placed in Out-of-Home Care by Risk Element (N=2,715)

Risk Element	% Placed			
	No or Low to Moderately Low	Inter-mediate	Moderately High to High	Signifi-cance
Family Risk Influences				
Family Violence	10%	10%	11%	***
Cope with Stress	5%	7%	14%	***
Social Supports	7%	12%	16%	***
Living Conditions	9%	10%	20%	***
Identity and Interaction	7%	9%	14%	***
Primary Caregiver Risk Influences				
Caregiver Abuse or Neglect	8%	8%	19%	***
Caregiver Alcohol or Drug Use	8%	15%	21%	***
Caregiver Expectations of Child	7%	11%	18%	***
Caregiver Acceptance of Child	9%	13%	21%	***
Caregiver Physical Capacity	10%	15%	18%	*
Caregiver Mental or Emotional Capacity	7%	13%	20%	***
Abuse or Neglect Risk Influences				
Access by Perpetrator to Child	12%	10%	9%	**
Intent or Responsibility	8%	11%	17%	***
Severity of Abuse or Neglect	8%	9%	17%	***
History of Abuse or Neglect	9%	9%	19%	***
Intervention Risk Influences				
Caregiver Motivation	7%	12%	24%	***
Caregiver Co-operation	7%	11%	19%	***
Child Risk Influences				
Child Vulnerability	5%	9%	15%	***
Child Response to Caregiver	9%	11%	23%	***
Child Behaviour	10%	14%	17%	**
Child Mental Health and Development	10%	14%	15%	*
Child Physical Health and Development	11%	15%	29%	***

***p≤0.001, **p≤0.01, *p≤0.05

Multivariate Analyses of Highest-Risk Rating in Each Risk Domain

Table 3 summarizes the findings of the logistic regression analysis for children. Coefficients representing the effect of each factor on the odds of placement and the p-values associated with each factor are presented. Multivariate analyses indicate a pattern of findings similar to those found in bivariate analyses. Among children under the age of 12, the highest-risk score in family, caregiver and child risk domains were statistically significantly related to placement in out-of-home care. The factor that showed the strongest relationship to placement for this age group was highest primary caregiver risk rating. Each unit increase in highest-risk rating increased the odds of placement by a factor of three. Increases in child and family ratings increased the likelihood of placement by a factor of 2.4 and 1.6, respectively. The effect of highest intervention rating approached statistical significance ($p=0.055$). When controlling for highest-risk ratings in the other four risk domains, the abuse or neglect factor had no significant effect on the odds of placement. This finding suggests that the influence of the abuse or neglect factors on placement that was documented in the bivariate analyses is explained by other risk factors included in the model.

Table 3 Estimated Effect on Placement of Highest-Risk Rating in Each Risk Domain for Children (0–11)

Risk Domain	Coefficient	Effect on the Odds	p-Value
Family	0.48	1.6	<0.001
Caregiver	1.09	3.0	<0.001
Abuse or Neglect	0.04	1.0	0.774
Intervention	0.43	1.5	0.055
Child	0.89	2.4	<0.001

Youth (12–16): Bivariate Analyses

The rate of placement among youth is almost double that of children under the age of 12 (19.9% vs. 10.9% respectively; N=191). The average number of months between opening and placement for youth was 4 months. A similar temporal pattern of placement was evident for children and youth. Almost two thirds of all placements for youth occurred within the first three months following case opening and three quarters were placed within 6 months. Identical proportions of male and female youth were placed during the study period (19%). In contrast to children under 12, youth placed in care did not come from families that had a significantly higher average number of prior case openings. On average, youth placed in care had 1.7 prior case openings, as compared to 1.5 for youth who were not placed during the 12 to 24 month follow-up.

As illustrated in Table 1, "Abandonment or Separation" and "Sexual Harm by Commission" had the highest rates of placement among youth (35.1% and 23.3% respectively). Youth provided service for abandonment or separation were two times more likely than children

under 12 to be admitted to care. In contrast, when "Caregiver Capacity" was cited as a primary reason for service, children were approximately twice as likely as youth to be placed ($\chi^2=7.52$, df=1, p=0.006). Youth were only slightly more likely than children under 12 to have physical or sexual harm by commission as a primary eligibility code. However, when these forms of maltreatment were noted, rates of placement among youth were 1.8 (physical harm) and 2.9 (sexual harm) times higher than for children ($\chi^2=8.10$, df=1, p=0.004 and $\chi^2=6.24$, df=1, p=0.013, respectively).

Overall Risk Rating

Youth were more likely than children under 12 to be placed at all but the highest-risk level. In general, increases in placement rate were evident among youth as risk level increased. Youth rated moderately high or high risk overall were more than twice as likely to be placed as youth rated moderately low risk. However, 30% of youth with overall ratings at the intermediate- or lower-risk levels were admitted to care, in contrast to approximately eight percent of children under the age of 12. The higher rate of placement of youth at lower-risk levels suggests that factors other than the overall level of risk may play a larger role in placement decisions for youth than younger children. Approximately 70% of youth in the sample rated high risk were not placed during the study period, compared to 59% of children under 12.

Individual Risk Elements

Table 4 presents the proportion of youth placed for each risk level for each of the 22 risk elements. Fewer family and primary caregiver risk factors were related to the placement status of youth. Higher-risk ratings for family difficulty "Cop[ing] with Stress" and "Identity and Interaction" (negative family interactions) increased the chances of youth being placed by a factor of 1.6 and 2.0, respectively. Two of six caregiver risk factors were related to placement among youth. Unrealistic caregiver expectations of the youth were associated with higher rates of placement. Youth with higher-risk ratings on the "Caregiver Acceptance of Child" factor (i.e., had primary caregivers who "disapprove of and resent" or "reject and are hostile") were two times more likely to be placed than youth with lower-risk ratings on this risk element. More than one-third of youth with primary caregivers who had higher-risk ratings on this item were placed, as compared to one in five children. Youth were almost two times more likely to be placed when caregiver motivation to meet the child's needs was low or absent.

The influence of several child risk factors on placement status was more striking among youth than children under 12. For example, 15% of children rated as high risk on the "Child Mental Health and Development" factor were placed, as compared to 40% of youth. Seventeen and 23% of children rated as higher risk on the "Child Behaviour" and "Child Response to Caregiver" elements were placed, as compared to 36% and 37% of youth. Having a higher-risk rating, as compared to a lower-risk rating on the child behaviour factor increased the likelihood of placement three fold for youth and 1.7 fold for children under 12.

Table 4 Proportion of Youth (12–16) Placed in Out-of-Home Care by Risk Element (N=961)

Risk Element	% Placed			
	No or Low to Moderately Low	Inter-mediate	Moderately High to High	Signifi-cance
Family Risk Influences				
Family Violence	19%	22%	20%	
Cope with Stress	14%	17%	23%	*
Social Supports	19%	19%	23%	
Living Conditions	19%	--	--	
Identity and Interaction	11%	24%	22%	**
Primary Caregiver Risk Influences				
Caregiver Abuse or Neglect	19%	22%	21%	
Caregiver Alcohol or Drug Use	20%	15%	19%	
Caregiver Expectations of Child	16%	20%	26%	*
Caregiver Acceptance of Child	16%	21%	35%	***
Caregiver Physical Capacity	21%	14%	--	
Caregiver Mental or Emotional Capacity	20%	20%	16%	
Abuse or Neglect Risk Influences				
Access by Perpetrator to Child	20%	--	18%	
Intent or Responsibility	17%	22%	22%	
Severity of Abuse or Neglect	17%	20%	24%	
History of Abuse or Neglect	18%	22%	23%	
Intervention Risk Influences				
Caregiver Motivation	17%	21%	29%	**
Caregiver Co-operation	19%	21%	24%	
Child Risk Influences				
Child Vulnerability	22%	12%	24%	
Child Response to Caregiver	15%	23%	36%	***
Child Behaviour	11%	22%	37%	***
Child Mental Health and Development	14%	30%	40%	***
Child Physical Health and Development	21%	50%	--	

***p≤0.001, **p≤0.01, *p≤0.05
-- N≤5

Multivariate Analyses of Highest-Risk Rating in Each Risk Domain

Table 5 summarizes the findings of the logistic regression analysis for youth. In contrast to the findings observed for children, the only factor that was related to placement among youth was the highest child risk rating. Each one unit increase in child risk rating increased the odds of placement by a factor of 3.4. The bivariate effects of family and caregiver factors (negative interactions, family difficulty coping with stress, and caregiver disapproval, resentment or rejection) on placement were not significant once the effect of child risk factors was considered.

Table 5 Estimated Effect on Placement of Highest-Risk Rating in Each Risk Domain for Youth

Risk Domain	Coefficient	Effect on the Odds	p-Value
Family	-0.32	0.7	0.11
Caregiver	-0.14	0.9	0.61
Abuse or Neglect	0.01	1.0	0.95
Intervention	0.47	1.6	0.11
Child	1.22	3.4	<0.001

Discussion

The present study identified several factors related to placement in out-of-home care. The age of the index child was related to the likelihood of placement. Youth in this sample were almost twice as likely to be placed as children under the age of 12 (19.9% vs. 10.9%, respectively). Some age-related differences were also evident in the type of maltreatment or maltreatment risk associated with higher rates of placement. For both age groups, higher rates of placement were associated with "Abandonment or Separation" but this was much more likely to be the case for youth than children under the age of 12. Since this reason for service includes caregiver-child conflict and/or child behaviour concerns, and placement among youth was most likely to be associated with youth behaviour, mental health concerns or poor response to the primary caregiver, this finding is not surprising. Children under 12 were more likely than youth to be admitted to care when "Caregiver Capacity" was the primary concern. This difference is consistent with the analyses of the risk assessment factors that indicate that caregiver risk factors play a larger role in the placement of children than youth. When "Sexual Harm" or "Emotional Harm" was the primary reason for service, larger proportions of youth than children were placed. The reason for the greater likelihood of placement among youth presenting with these forms of maltreatment is unclear. More refined analyses that control for differences in the nature and severity of the acts perpetrated may be important in understanding these effects.

In general, higher overall risk ratings were associated with higher rates of placement than lower-risk ratings for both age groups. However, the relationship between overall risk rating

and placement was stronger for children. Children given an overall high-risk rating were fifteen times more likely to be placed than children at the moderately low-risk level. In contrast, only a two-fold increase was evident among youth. Youth were more likely than children under 12 to be placed at all but the highest-risk level. Thirty percent of youth with overall risk ratings at the intermediate or lower levels were admitted to care, in contrast to approximately eight percent of children under the age of 12. In these cases, the lower overall risk rating during the initial assessment may not reflect accurately subsequent service need or risk at the time of placement. Since the follow-up period for tracking any admission was a maximum of 24 months, circumstances may have deteriorated by the time of placement. The fact that almost four times the proportion of youth rated as intermediate or lower risk were subsequently placed suggests that situations involving youth may be more difficult to ameliorate or may be more likely to deteriorate to the point where placement is necessary.

THE LARGE PROPORTION OF CHILDREN AND YOUTH RATED AT HIGH RISK FOR SUBSEQUENT MALTREATMENT WHO ARE *NOT* PLACED IS SOMEWHAT SURPRISING.

It is also important to note that, although higher overall risk ratings increase the chances that a child or youth will be placed, the majority of children rated high risk were not admitted to care. Approximately 59% of children under the age of 12 and 70% of youth with an overall high-risk rating were not placed during the study period. The large proportion of children and youth rated at high risk for subsequent maltreatment who are *not* placed is somewhat surprising. However, it is important to note that a variety of other family-based interventions may be provided, ameliorating the risk and the need for subsequent removal of the child or children from the home. A key question that emerges is what factors differentiate high-risk cases that respond to family-based services from high-risk cases that require admission. Analyses of the individual risk factors associated with placement in the present study provide some insight into these factors.

The individual risk elements related to placement differed by age group. Among children under 12, bivariate analyses revealed that higher-risk ratings on all but two factors ("Family Violence" and "Access by Perpetrator to Child") statistically significantly increased the likelihood of placement during the 12 to 24 month follow-up period. For the vast majority of risk factors, the proportion of children placed at the higher-risk level was two to three times greater than the proportion placed at the lower-risk level. The prominence of caregiver and family factors in decisions to admit a child has been documented in other studies (Lescheid, et al., 2003; Leslie and O'Connor, 2003). Higher-risk ratings on the "Child Risk Influences" also increased the likelihood of placement in children. The significant influence of caregiver, child- and family-risk ratings on the likelihood of placement was also evident in multivariate analyses. "Abuse or Neglect" risk influences and

"Intervention" influences were not significant in the multivariate analyses, indicating that the variance accounted for by these factors is explained by other risk factors in the model.

In contrast, among youth, bivariate analyses indicated that most family, primary caregiver and abuse or neglect risk influences were unrelated to placement. In other words, for most of the risk factors examined, youth were as likely to be placed when they were rated no to low risk as when they were rated as higher risk. In the present study, family difficulty coping with stress, negative family interactions ("Identity and Interaction"), unrealistic caregiver expectations, rejection or disapproval of the youth ("Caregiver Acceptance of Child") and low caregiver motivation to meet the youth's needs were associated with higher rates of placement. The influence of three "Child Risk Influences" (behaviour, mental health and response to caregiver) was more pronounced for youth than children. Other studies document differences in the characteristics of the families of maltreated youth as compared to maltreated children. For example, in contrast to parents of younger children, parents of adolescent victims have been found to have higher average household incomes and educational levels and are less likely to have a parental history of abuse (Berdie, et al., 1983; Garbarino, Schellenbach and Sebes, 1986). The influence of child characteristics was reinforced by multivariate analyses that indicated that the highest-risk rating on "Child Risk Influences" was the only factor that was statistically significantly related to subsequent placement among youth. The differential contribution of child risk factors by age group suggests that they may be more strongly related to placement for youth than children under 12. The salience of child characteristics in youth admissions also reinforces concerns that the child welfare system is becoming a "de facto public behavioral health care system" (Lyons and Rogers, 2004). The factors that increase risk for placement among youth suggest that admission prevention requires greater capacity to effectively address youth behaviour and mental health issues and services to assist their caregivers in more effectively managing these challenges.

THE SALIENCE OF CHILD CHARACTERISTICS IN YOUTH ADMISSIONS ALSO REINFORCES CONCERNS THAT THE CHILD WELFARE SYSTEM IS BECOMING A "DE FACTO PUBLIC BEHAVIORAL HEALTH CARE SYSTEM...."

STUDY LIMITATIONS

Several limitations of the present study must be considered. First, the psychometric properties of the RAT are unknown and thus, it is unclear whether the individual items measure the constructs they purport to measure. Second, logistic regression analyses indicate that the amount of variance explained by the highest-risk ratings is only 11% for children and 6% for youth. Thus, while these factors are associated with greater likelihood of placement, particularly among children under 12, most of the variance in placement is

unexplained. The present analyses do not examine interactions. It is likely that particular combinations of risk factors have synergistic effects, resulting in greater impact on the likelihood of placement than is evident in the effects of individual factors. Third, the length and type of placement were not examined. Some admissions to care may have been brief and the factors related to brief and longer-term placement may be different. Also, the rate of placement for children in the present study may be underestimated if children are more likely than youth to be placed in informal kinship care. Fourth, only risk ratings for the primary caregiver were examined. The characteristics of other adults involved in the child's care are undoubtedly important in understanding both the risks and protective factors in the home environment. Finally, the primary intention of the present study was to identify factors at case opening that are associated with subsequent admission to care. Although use of the first risk assessment after the first case opening in the fiscal year is appropriate for these purposes, it may not accurately reflect the level or nature of the risks present for the child at the time of placement. For example, circumstances may change considerably over the follow-up period. Some proportion of children or youth rated lower risk at the index opening may have had cases closed and re-opened under different circumstances and with higher-risk ratings. The study collected information on the reason for service (i.e., primary eligibility code) at the point of intake. Reasons for service may change as information is collected over the course of the investigation and thus, information collected at intake may not reflect case dynamics at the point of admission to care. In other words, the present study identifies the factors associated with higher risk for subsequent placement but not the factors that precipitate placement.

Conclusion

Despite the study limitations, the factors related to entry into care appear to be different for children and youth. Research that collapses these age groups obscures significant differences in the factors associated with placement and in the service needs of children and youth. These findings suggest there are important age-related differences in the services required to support families in order to prevent out-of-home placement.

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Acknowledgements

We gratefully acknowledge support for study analyses from the Canadian Institutes of Health Research under grant 43277.

Della Knoke is a PhD Candidate at the Faculty of Social Work, University of Toronto and a Research Associate at the Centre of Excellence for Child Welfare. She has a Master of Arts degree in Applied Psychology.

Deborah Goodman, PhD, is the Supervisor of Research at the CAST.

Bruce Leslie, MSW, is the Manager of Quality Assurance at the CCAS of Toronto.

Nico Trocmé, PhD, is the Philip Fisher Chair in Social Work, Centre for Research on Children and Families at McGill University and the Research Director of the Centre of Excellence for Child Welfare.