Foster Parenting Practices as Predictors of Foster Child Outcomes

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A thesis submitted to the Faculty of Graduate and Postdoctoral Studies
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Experimental Psychology

School of Psychology, University of Ottawa
Ottawa, Ontario, Canada
June 2008

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GENERAL ABSTRACT

Three studies were undertaken to explore foster parenting practices (parental nurturance, parent-youth conflict, and parent-youth shared activities) as predictors of psychosocial outcomes (pro-social behaviour, emotional disorder, conduct disorder, and indirect aggression) in youths aged 10-17 years and living in foster homes in Ontario from 2001-2004. The first study included cross-sectional hierarchical regression analyses using data collected from 367 foster youths in 2001-2002. The second study replicated cross-sectional analyses with data collected from 439 foster youths in 2002-2003. It also included a longitudinal investigation of 201 foster youth present for both years of the study, permitting a more thorough exploration of reciprocal causal mechanisms. The third study explored the added influence of a fourth parenting practice: parental monitoring, using data collected from 143 foster youths in 2002-2004. Statistical controls included demographic variables (foster youth gender and age) and contextual variables (length of time in foster placement, total number of youth in foster household). It was hypothesized that the same trends observed in broader parenting research would also apply within the context of foster families, and therefore that more frequent engagement in positive parenting practices would predict improved foster youth outcomes. Results for the three studies provided inconsistent support for the hypotheses. Parenting practices, as a set, accounted for a modest, statistically significant increment in the variance explained in several of the foster youth outcomes (and always in the direction expected). However, the predictive power of individual parenting practices varied, with parent-youth conflict serving as the most consistent predictor. Another predictor, parent-youth shared activities, was not significant in any of the regressions. Study limitations were discussed
for each study, including the demand characteristics of the larger research project, the
differing nature of the foster parent-foster youth relationship, and the potential role of
other unaccounted-for moderators. Also, parenting practices were conceptualized as fluid,
reciprocal processes, for which further research is needed to better operationalize and
measure salient aspects. Despite limited findings, the thesis remains an important one in
presenting one of the first looks at the impact of foster parenting at-risk youth in Ontario.
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ORGANIZATIONAL NOTE

This thesis begins with a general introduction presenting a review of relevant literature and outlining the goals for the three studies that follow. Article 1, Article 2 and Article 3 present the results of these studies. They are formatted according to the guidelines stipulated by the specific sources to which they were (or will be) submitted for publication. The first article was published in the book *Promoting resilience in child welfare* (R. J. Flynn, P. M. Dudding, & J. G. Barber [Eds.], 2006). The second and third articles will be submitted for publication in the *Child Welfare* journal. A general discussion follows, summarizing salient research issues, study strengths and limitations, and directions for future research. References and appendices specific to the general introduction and general discussion appear at the end of the thesis.
GENERAL INTRODUCTION

In the past few decades, a sizable body of research has been devoted to understanding the relationship between parents' childrearing strategies and children's developmental outcomes. From macroanalytic research looking at global dimensions of parenting (e.g., parenting styles and attitudes) to microanalytic studies focused on specific socialization behaviours and interactions (e.g., parenting practices and goal-directed parenting behaviours), it has been suggested by some that there are almost as many ways of studying parent-child relationships as there are researchers (Cowan, Powell & Cowan, 1997). For the relatively inexperienced researcher seeking to understand parenting literature, reconciling the various models of parenting styles, typologies, attitudes, practices, and goal-directed behaviours into an overarching and cohesive parenting theory can prove a daunting task. In 1993, Darling and Steinberg confronted this challenge and elaborated an integrated model of parenting, uniting the various research traditions of pioneers such as Baumrind (1971, 1989, 1991), Patterson (1986), and Maccoby and Martin (1983). In their model, Darling and Steinberg (1993) identified parenting styles as "a constellation of attitudes toward the child that are communicated to the child and that, taken together, create an emotional climate in which the parent's behaviours are expressed" (p. 488). Parenting practices represented the parenting behaviours themselves, through which parents express their general parenting style and fulfill their parental duties of "helping their child attain their socialization goals" (p. 493). In this model, therefore, parenting practices were postulated to have the most direct effect on children's developmental outcomes, while parenting styles were considered larger, contextual variables moderating the overall nature of the parent-child relationship.
(Steinberg & Silk, 2002). The present thesis adopts the Darling & Steinberg (1993) conceptualization of parenting and, for this reason, focuses on parenting practices as the best predictors of child outcome.

**Parenting Practices and Effective Parenting Theory**

Numerous studies have demonstrated that parenting practices utilizing warmth, responsiveness, involvement, reasoning, control, and consistency are predictably related to specific outcomes in children’s lives (e.g., academic performance and psychological health) (Eisenberg & Valiente, 2002; Gribble, Cowen, Wyman, Work, Wannon, & Raoof, 1993; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Landy & Tam, 1996; Paulson, Hill & Holmbeck, 1991; see Maccoby & Martin, 1983, for a complete review; Smith, 1994; Steinberg, Mounts, Lamborn & Dornbusch, 1991). This research has gradually evolved into the development of what is now commonly referred to as positive or effective parenting theory. Effective parenting theory has identified key components of what is thought by researchers to represent the most beneficial kind of parenting.

Research has consistently shown that the following parenting practices (among others) are beneficial for children’s development: using warm, positive and accepting behaviours with a child, termed *parental nurturance* (Chao & Willms, 2002; Herman, Dornbusch, Herron & Herting, 1997; Jackson, Fisher & Ward, 1996; Landy & Tam, 1996; Steinberg, Mounts, Lamborn & Dornbusch, 1991), using *positive conflict resolution skills* to solve family arguments (Jackson, Fisher & Ward, 1996; Kashani, Burbach & Rosenberg, 1988; Landy & Tam, 1996; Tesser, Forehand, Brody & Long, 1989), spending time with a child in enjoyable activities, termed *parent-youth cohesion* (Cook & Willms, 2002; Gribble et al., 1993; ; Griswold, 1986; Herman, Dornbusch, Herron & Herting, 1997; Hofferth &
Sandberg, 2001; Jackson, Fisher & Ward, 1996; Racine & Boyle, 2002) and monitoring the daily plans, activities and peer relationships of a child, termed parental monitoring (Borawski, Ievers-Landis, Lovegreen, & Trapl, 2003; Ceballo, Ramirez, Hearn, & Maltese, 2003; Cottrell, Li, Harris, D’Alessandri, Atkins, Richardson, & Stanton, 2003; Li, Feigelman, & Stanton, 2000; Li, Stanton, & Feigelman, 2000; Small & Kerns, 1993).

Conversely, parenting lacking in effective behaviours (e.g., parenting behaviours without warmth and resulting in indifference or neglect) has been linked to negative child outcomes such as psychological and emotional dysfunction (Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Miller, Jenkins & Keating, 2002). There are other important components of effective parenting that have not been mentioned here, such as the reliable provision of physical care and comfort and the use of a consistent, positive style of discipline, etc. (Jackson, Fisher, & Ward, 1996). A detailed description of all effective parenting components is beyond the scope of this thesis. Instead, an examination of the four constructs of interest to this research (parental nurturance, positive conflict-resolution skills, parent-youth cohesion, and parental monitoring) will now be provided. These constructs have been selected mostly because of their dominance in the parenting literature, but also for practical reasons (e.g., availability of appropriate measures).

**Parental nurturance.** Parental nurturance is a construct concerned with “providing a positive atmosphere for the parent-child relationship and the child’s emotional development” (Locke & Prinz, 2002). It is defined as the ability of the parent to consistently display positive, loving, warm and accepting behaviours toward the child, and has been considered by many researchers to be perhaps one of the most important
component of effective parenting (Jackson, Fisher & Ward, 1996; Miller, Jenkins & Keating, 2002; Skinner, Johnson, & Snyder, 2005). In their study of 10,000 high school students from Wisconsin and California, Steinberg, Mounts, Lamborn, and Dornbusch (1991) found parental nurturance (termed parental acceptance/involvement) to be correlated with higher academic achievement and psychosocial maturity, and lower levels of psychological distress (i.e., anxiety, depression, tension and insomnia) and delinquent behaviours (i.e., theft, carrying a weapon, vandalism). Furthermore, these relationships held across a variety of socialization contexts (defined by the authors as a youth's ethnicity, socio-economic status, and family structure). For their investigation, Chao and Willms (2002) examined measures of effective parenting from the National Longitudinal Survey of Children and Youth (NLSCY) that were administered to a sample of 19,000 children between the ages of 2 and 11. They found that parenting practices high in parental nurturance (described as warm, caring, and responsive) were significantly associated with positive child outcomes, including an increased likelihood of displaying pro-social behaviour and a decreased likelihood of having a behaviour problem. Furthermore, the effects of parental nurturance increased with the child's age, suggesting that parental nurturance may be of increasing influence on the child's behaviour as he or she ages. Interestingly, results also revealed that parents tended to become less nurturing as their children matured. Other literature has also found parental nurturance to vary depending on a child's gender. Leaper (2002) for example, noted that parents displayed higher levels of nurturance with daughters as compared to sons. Landy and Tam (1996) also examined measures of effective parenting from the NLSCY administered to a sample of children of various ages (i.e., birth to 23 months, 2 to 3 years, and 4 to 11 years). They
found parental nurturance (termed *positive-interaction parenting*) to be positively associated with a number of children's developmental outcomes, including helping behaviour, quality of social relationships, receptive vocabulary, and motor and social development. The authors posited that parental nurturance improved children's outcomes by serving as a protective factor, thereby contributing to positive adaptation and providing an effective coping resource to the child (a hypothesis that has been supported by others such as Gribble et al., 1993).

*Conflict resolution skills.* Positive parent-child conflict resolution skills can be described as a family's ability to calmly resolve problems through open discussion that encourages verbal give and take, explains the reasoning behind decisions, considers everyone's point-of-view, and values different opinions. Many studies have linked poor child outcomes with a family's inability to employ positive conflict resolution skills to resolve family difficulties. In Landy and Tam's (1996) previously mentioned study, in which NLSCY data were used to examine the link between parenting practices and the development of Canadian children ages 0 to 11 years, conflict resolution skills were also found to be an important component of effective parenting. Specifically, it was found that *family dysfunction*, defined in part as a family showing difficulty communicating and resolving problems, was one of two risk factors that contributed most to lower scores on the child outcome measures (e.g., helping behaviour, motor and social development, quality of social relationships). Similarly, in a study seeking to examine the effects of parent-adolescent conflict on the psychological adjustment of 69 adolescents between the ages of 11 and 14, Tesser, Forehand, Brody and Long (1989) found that an adolescent's scores on measures of cognitive ability and behavioural adjustment were positively
related to their family’s frequency of calm discussions and ability to balance arguments with more positive, open-ended exchanges. Kashani, Burbach, & Rosenberg (1988) investigated intrafamilial conflict resolution to determine whether it played a significant role in the development of adolescent depression. They interviewed 150 adolescents aged 14-16 years and used structured diagnostic interview protocols to sort them into one of three groups: a normal control group, a non-depressed psychiatric control group, and a depressed group. Adolescents then completed a measure designed to assess specific dimensions of intrafamilial conflict resolution. Results demonstrated that compared to the normal control group, both psychiatric control and depressed groups perceived higher levels of verbal aggression and violence to resolve family conflicts, suggesting that negative conflict resolution tactics could represent a non-specific risk factor for adolescent psychopathology. The authors further noted that parent modeling appears to play an important role in intrafamilial conflict resolution. The use of a positive conflict resolution strategy like reasoning by one family member was positively correlated with the use of the same strategy by another family member. Also, adolescents who perceived their parents to be more aggressive and violent during family arguments reported the same behaviours in themselves.

Parent-youth cohesion. It has been suggested that parent-youth cohesion is another important dimension of positive, effective parenting because it is associated with increased feelings of closeness and understanding between parent and child (Paulson, Hill, & Holmbeck, 1991; Shaw & Dawson, 2001) and increased family organization and structure (Morrison & Cooney, 2002). Gribble and colleagues (1993) explained that a parent who is more involved in his or her child’s activities and life is better at
understanding and gauging the child's needs and helping him or her deal with life stressors. The authors added that parent-youth cohesion, in promoting family participation in various activities, serves as a positive modeling experience for children by illustrating a positive coping mechanism for stress. For all these reasons, it is not surprising that parent-youth cohesion has been shown to correlate with outcomes such as children's school-related social behaviour and academic achievement. For instance, the frequency and regularity of certain family activities such as family meals has been demonstrated to allow children to rely on parental predictability and increase their focus on school and related matters (Morrison & Cooney, 2002). Griswold (1986) collected data from 1,715 fourth graders in urban Los Angeles concerning their academic achievement and participation in family activities, such as going to the beach, participating in a family picnic, visiting a public library or museum, and going on trips to places like Marineland and Disneyland. Regression analyses revealed achievement scores to be higher among children who had actively participated with family members in the aforementioned activities. Visits to the public library were the strongest predictor, with the correlation holding across gender and different racial groups. In their study of children aged 2 to 11 years, Cook and Willms (2002) discovered that parent-youth cohesion (termed parental engagement) had a strong positive relationship with a child's pro-social behaviours and was associated with a decrease in the likelihood of the child's developing a behavioural difficulty, such as hyperactivity. One specific component of parent-youth cohesion, the time parents spent reading to their child, had a particularly strong positive correlation with the child's vocabulary skills. It was also strongly negatively correlated to the likelihood of the child's developing behavioural difficulties.
(i.e., hyperactivity, inattention, anxiety, emotional disorder, physical and indirect aggression). Interestingly, much like the results obtained in Chao and Willms' (2002) study of parental nurturance, Cook & Willms (2002) also noted that parent-youth cohesion tended to decrease in frequency as children aged. Using data from 2,380 households (containing 3,563 children) from the 1997 Child Development Supplement to the Panel Study of Income Dynamics, Hofferth and Sandberg (2001) found that time spent in family activities (e.g., household chores, family conversations, common mealtimes) was significantly associated with fewer internalizing and externalizing behavioural difficulties. In another study of a nationally representative sample of Canadian children between the ages of 6 and 11, Racine and Boyle (2002) examined the effects of family functioning on children's behavioural difficulties. Children living in dysfunctional families (defined in part as families lacking parent-youth cohesion) were 35-45% more likely to display a behavioural problem (particularly physical and indirect aggression) than those living in non-dysfunctional families. These effects were shown to increase with the child's age. Gribble and colleagues (1993) conducted in-depth interviews with 131 parent-child pairs and used the number of major life stressors and global child adjustment ratings to classify the children as either stress-affected or stress-resilient. Components of the parent-child relationship were then investigated, one of which was parent-youth cohesion. Termed *parental involvement*, it was defined as the parent's participation both directly in activities with the child and in relevant areas of the child's life. Results showed that parent-youth cohesion was associated with resilient outcomes among children, offering further support for the hypothesis that parent-youth cohesion may be a protective factor in the face of a child's major life stresses.
Parental monitoring. The fourth and final construct, termed parental monitoring, is defined as a parent's knowledge about their youth's daily plans, activities, and peer relationships (Cottrell, Branstetter, Cottrell, Harris, Rishel, & Stanton, 2007; Huebner & Howell, 2003). There is much parenting research linking less frequent parental monitoring to negative youth outcomes, especially adolescent health risk behaviours (e.g., substance use, unsafe sexual practices; Li, Feigelman & Stanton, 2000; Li, Stanton, & Feigelman, 2000), and externalizing difficulties (e.g., increased aggression; Cottrell et al., 2003). For example, Cottrell and colleagues (2003) assessed 270 parent-adolescent dyads in West Virginia and found parental monitoring to be negatively correlated to adolescent smoking, drinking, marijuana use, and sexual involvement. In their survey of 692 adolescents from six different high schools in the Midwest, Borawski, Ievers-Landis, Lovegreen, & Trapl (2003) found parental monitoring to predict lower levels of alcohol use and higher levels of safe-sex practices in young men. Interestingly, they noted that this relationship was not significant for females, and that it attenuated as children got older. Furthermore, in an examination of their study demographic variables, they found that monitoring levels as reported by youths living in foster homes were similar to that of youths living in two-parent homes and households headed by grandparents. Ceballo, Ramirez, Hearn, and Maltese (2003) investigated the relationship between parental monitoring, levels of depression and hopelessness, and exposure to different types of violence. Results from their sample of 163 children (average age $M = 10$, $SD = .87$) from an economically-disadvantaged, high risk neighbourhood in Michigan showed that parental monitoring was directly correlated with lower levels of depression and hopelessness. Yet monitoring was also found to function as a moderator, by buffering the
effects of previous exposure to violence. This effect was only present to a certain extent; it gradually disappeared as the levels of witnessed violence increased. Another series of cross-sectional studies with different samples of African-American youths aged 9-17 years showed increased parental monitoring to be associated with reduced participation in sexual behaviour, alcohol consumption, cigarette smoking, and perpetration of violent crime (Li, Feigelman & Stanton, 2000). Moreover, longitudinal investigations revealed higher levels of parental monitoring to predict lower levels of unprotected sex, drug usage, and drug trafficking (Li, Stanton, & Feigelman, 2000). Finally, the effect of parental monitoring persisted, regardless of the age of participants. This last result has also been found in other studies (Rai, Stanton, Wu, Li, Galbraith, Cottrell, Pack, Harris, D’Alessandri, & Burns, 2003).

The foregoing was a review of broad parenting theory and served to introduce several key concepts of effective parenting practices, namely parental nurturance, positive conflict resolution skills, parent-youth cohesion, and parental monitoring. It should be noted that the studies reviewed presented important methodological and content-related limitations that will be explored in a later section of the introduction. First, however, a review will be made of the pertinent foster parenting literature, including that on the relationship between foster parenting practices and foster child outcomes.

Introduction to the Foster Parenting Literature

A brief history of foster parenting. An in-depth review of foster parenting history is beyond the scope of this document. For our purposes, the following discussion will be limited to the most salient and influential historical events.
Towards the end of the 19th century, societal difficulties in Ontario such as housing, health and employment problems, thought to be caused by the rapid urbanisation and industrialization of the province, resulted in the abandonment of many children to the streets or local orphanages (Ouellette, 2002). Abandoned children were often left to fend for themselves, and typically could only obtain food and housing through a criminal conviction or an apprenticeship, where food and housing was exchanged for child labour (Children’s Aid Society of York Region [CASYR], n.d.; OACAS, n.d.-b). For all intents and purposes, children were considered adults and therefore not seen as vulnerable or in need of any special protection (Children’s Aid Society of Haldimand-Norfolk [CASHN], n.d.). In 1868, the Poor Law Amendment Act made it illegal “for a parent to wilfully neglect to provide for his child” (CASHN, n.d.). In 1874, legislation was enacted to provide protection for abandoned or maltreated children by allowing charitable institutions to intervene on their behalf (CASYR, n.d; OACAS, n.d.-b). This represented the first legislation to recognize that children had specific needs and rights and were independent entities separate from the family (CASHN, n.d.; Ouellette, 2002).

Eighteen eighty-eight marked the institution of the Act for the Protection and Reformation of Neglected Children, which allowed children to become wards of various institutions and charitable organizations, with local governments covering their costs (CASYR, n.d.; OACAS, n.d.-b). The 1890s marked the passage of the Act for the Prevention of Cruelty to and Better Protection of Children (OACAS, n.d.-b) and the opening of the very first Children’s Aid Society in Toronto by famous journalist John Joseph Kelso. (J. J. Kelso went on to establish sixty Children’s Aid Societies in Ontario [McConville, 2002]). This marked the first time in history when the Ontario government
adopted a “parental role” and became directly responsible for the welfare of its children. Charitable agencies such as Children’s Aid Societies became semi-public as they received the power to remove children from their homes, assume the status of legal guardian, and collect monies for the maintenance of wards (CASHN, n.d.; CASYR, n.d.; OACAS, n.d.-b). Children’s Aid Societies continued to expand across the province (McConville, 2002).

In 1912, the sixty Children’s Aid Societies operating within Ontario joined forces and created the Associated Children’s Aid Societies of Ontario (today known as the Ontario Association of Children’s Aid Societies [OACAS]). Its mandate became to promote the welfare of children and coordinate the efforts of all Children’s Aid Societies (CASYR, n.d.; OACAS, n.d.-b). Throughout the years, OACAS has actively participated in the creation and reform of key child welfare legislation, including the original 1984 implementation of the Child and Family Services Act and its subsequent amendments in 2000, 2006, and 2007 (CFSA; 2007). It has seen a shift from social benevolence and charity to professional expertise and empirical research (McConville, 2002; OACAS, n.d.-b), and from privacy to provincial accountability (CASYR, n.d.-b). Its focus has changed from “institutional and protection-oriented services to non-institutional and prevention-oriented services” (OACAS, n.d.-b, p.1). Its legislative awareness has come full circle, from an overemphasis on sexual abuse and the battered child syndrome, to a comprehensive definition of abuse that includes physical, sexual and emotional abuse and neglect (McConville, 2002; Ouellette, 2002).

The late 1990s marked the beginning of a turbulent period for the Ontario child welfare system, as a period of “perceived failures” (McConville, 2002) led to systematic
investigation and massive system reform. We now turn our attention to this important period.

*Child welfare reform in Ontario.* Between January 1, 1994 and December 31, 1995, 100 children died despite receiving child welfare services in the province of Ontario (OACAS, 1999). In April 1996, OACAS and the Office of the Coroner for the Province of Ontario, with support from the Ministry of Community and Social Services (MCSS), responded by joining forces to establish the Ontario Child Mortality Task Force (OACAS, 1999). The primary objective of the task force was to “conduct an analysis of child deaths in Ontario cases and to review, analyze and make recommendations regarding coordination of information and services, training, prevention and mechanisms for assessing risks and reviewing deaths”. Additional panels of experts were also formed to further investigate policies and practices of the Ontario child protection system so that shortcomings could be identified and recommendations made to improve them (Ouellette, 2002).

In 1998, the Ontario Government began implementing a series of comprehensive reforms to Ontario’s child protection system, based on the recommendations of the Ontario Child Mortality Task Force and other expert committees. The Child Welfare Reform Agenda included amendments to the *Child and Family Services Act* (implemented in 2000; CFSA, 2007), specifically underlining the paramount purpose of promoting the best interests of the child through enhanced protection of children at risk of neglect and abuse (OACAS, n.d.-b). This amendment triggered an increase in the number of foster care placements (Drolet & Sauvé-Kobylecki, 2006), as neglect and emotional harm also became grounds for protection, and the public’s duty to report was better
Other related initiatives included a new funding framework, increased staffing and improved employee training, the introduction of a common risk assessment system (*Ontario Risk Assessment Model*), and the installation of a new information database to link all CASs (*Child Protection Fast Track System* and the *Comprehensive Child Welfare Information System*) (Ministry of Community, Family and Children's Services, 2000; OACAS, 1999). MCSS also announced its plan to revitalize foster care by means of five major strategies: increasing the daily foster care rate, providing training for foster parents, developing a recruitment strategy, fostering inter-society or regional foster care delivery and collaboration, and instituting provincial implementation of the *Looking After Children: Good Parenting, Good Outcomes* approach (OACAS, 1999).

*Looking After Children* (LAC) was presented as “a new approach to assessing the developmental status of children cared for by child welfare agencies and enhancing their progress toward important developmental goals” (OACAS, 1999, p.11). Amendments (in 2000) to the *Child and Family Services Act* (CFSA, 2007), particularly the adoption of a primary objective of promoting the best interests of the child in accordance with the United Nation’s Convention on the Rights of the Child (Drolet & Sauvé-Kobylecki, 2006; Office of the United Nations High Commissioner for Human Rights, 1989), resulted in a call for a more conscientious evaluation of the objectives of a child’s plan of care in order to ensure greater stability and continuity of services (termed *permanency planning*) (Ouellette, 2002). *Looking After Children* represented an objective, standardized method for achieving this goal. Use of the tool was verbally recommended throughout the province, though agencies were given the final word on whether to
allocate internal funding and personnel toward this endeavour. In 2000, OACAS partnered with the Centre for Research on Community Services (CRCS) at the University of Ottawa to evaluate the implementation of LAC across Ontario (Flynn, Angus, Aubry & Drolet, 1999). The research study spanned four years (2000-2004) and was funded by the Ontario Ministry of Community, Family and Children Services and the Social Sciences and Humanities Research Council of Canada (SSHRC Strategic Grant No. 828-1999-1008). All 53 local Children’s Aid Societies were invited to join the study. The requirement to participate was that an agency implement the LAC instrument by April 2003 with a minimum of 25 foster children in care or with 10% of their overall caseload (whichever was greater). In 2002, an evaluation of the feasibility of using LAC across Canada suggested that “LAC was accepted as an important tool for use in Canadian jurisdictions” (Norgaard & Balla, p.3). In 2006, a policy directive issued by the Ministry of Children and Youth Services required that all Children’s Aid Societies in Ontario implement LAC starting in December 2007, a process which has been guided by OACAS and the newly-created OnLAC Council (OACAS, n.d.-c; Pantin, Flynn, & Runnels, 2006). A more in-depth look at the instrument’s philosophy and approach will now be presented.

The Looking After Children approach. Looking After Children: Good Parenting, Good Outcomes (Ward, 1995) is an innovative approach to planning and monitoring the development of children and youth looked after in out-of-home care. Since its initial conception and development in Britain by a working group (Parker, Ward, Jackson, Aldgate & Wedge, 1991; Ward, Aldgate, Davies, Jackson, Parker & Tizard, 1991) between 1987-1995, use of this approach has grown internationally. Perhaps what
distinguishes *Looking After Children* (LAC) from other instruments assessing parenting and child outcomes is the holistic, comprehensive philosophy behind the approach (OACAS, n.d.-a).

Three important tenets comprise the LAC philosophy. First, rather than abiding by the traditional child welfare policy of reducing harm and offering a minimum level of provision to children in care, LAC adopts a youth-centred, developmental perspective that is directly related to the *Children Act* of 1989 (CA, 1989), then the most recent child welfare legislation in England and Wales. LAC takes a proactive stance and aims at maximizing children's positive developmental outcomes (Child Welfare League of Canada [CWLC], n.d.). Within LAC is the idea that effective parenting must encompass "everything a parent can possibly do to promote a child’s development and well-being through childhood and beyond" (Jackson, Fisher & Ward, 1996, p.5). LAC conceptualizes the roles of government, child welfare agencies, social workers and foster families as those of *corporate parents*. It asks what "regular" parents would want for their children and expects similar goals for children and youth in out-of-home care (Jackson et al., 1996). The goal is for parenting provided by corporate parents to be as close as possible to the aims, behaviours, and quality that one would expect from adequately resourced parents in the general population (Jackson et al., 1996; CWLC, n.d.). LAC employs empirically-supported theory to determine the essential characteristics of parenting, most likely to lead to good outcomes for youth (Jackson et al., 1996). It adopts the position that effective parenting is concerned with responsibilities and not rights. It is not gender specific, nor is it a role confined to biologically-related adults. It sees parenting as malleable because it evolves as children mature into adults.
The LAC approach advocates the promotion of a child's long-term welfare well into adulthood, and not merely during the early years of life. It sees the effective parent as an advocate for the child's rights and as a mediator between the child and the outside world. Finally, it sees parenting as a bidirectional process, wherein parent and child mutually influence each other.

The second tenet of the LAC approach is to emphasize the importance of a strong partnership between foster families and child welfare professionals. The practice of partnership is underlined at every turn in the instrument, from questionnaire items that are posed in turn to social workers, parents and youths, to developmental objectives that are identified and evaluated by all involved. In the LAC approach, there is room for everyone to express his or her opinion, and all participant perspectives (including that of the young person) are given equal weight, respect, and attention. LAC involves putting effective parenting theory into practice in order to improve child outcomes (OACAS, n.d.-a).

The third and final tenet of the LAC approach is the importance of assessing outcomes. Jackson, Fisher and Ward (1996) caution that only through outcome monitoring can one truly know if services have been effective, what their strengths are, and what areas of service may need improvement. They add that in the past, there was a tendency to infer success from the length of a foster placement, with a longer placement meaning more successful child outcomes. Rarely however, were the experiences of vulnerable youth evaluated to see whether they contributed to their long-term health and happiness (p. 14). Systematic outcome assessment and routine program monitoring, such as provided by LAC, are essential in determining how well child welfare services are
performing their intended function (Rossi, Freeman & Lipsey, 1999, p. 191). As such, the LAC instrument is designed for regular, yearly assessment of foster youth outcomes.

The main instrument of the Looking After Children approach is the Assessment and Action Records (AAR). It is employed to assess foster children’s needs, identify the objectives of their plans of care, and monitor their progress toward those objectives (Flynn, Ghazal, Moshenko, & Westlake, 2001). Jackson, Fisher and Ward (1996) stated that this “method of involving users and carers in decisions and plans, and of recording agreements, plans and responsibility for future action [...] is a marriage of philosophy and practice that may succeed in turning good intentions into reality” (p. 13).

The AAR is based on a developmental model of child-rearing (CWLC, n.d.) and therefore uses seven major developmental dimensions to assess a foster child’s developmental progress: health, education, identity, family and social relationships, social presentation, emotional and behavioural development, and self-care skills. Each of the seven dimensions is operationalized into specific parenting behaviours and child outcomes, outlining the types of life experiences, resources, and environments that effective parents strive to provide for their children (CWLC, n.d.). Some of the dimensions are assessed with a series of single-item questions (e.g., the health section), whereas others are made up of a series of Likert-type items that can be formed into multi-item scales (e.g., the emotional and behavioural development section). Specific objectives are found within each section and provide the opportunity for concrete, specific planning regarding the child’s annual plan of care (CWLC, n.d.). The AAR contains questions for the foster child, the foster parent(s) and the child protection worker. Questions are developmentally appropriate and therefore vary according to six
different age categories: ages 0-12 months, 1-2 years, 3-4 years, 5-9 years, 10-14 years, and 15 years and over (OACAS, n.d.-a). As stated previously, it is designed for regular, yearly assessment of foster youth outcomes. Jackson, Fisher and Ward (1996) stated:

The Assessment and Action Records are designed to enable those people responsible for children’s welfare to unpick a link in the chain of events, take a snapshot view of a child’s experience and progress and decide who is going to take responsibility for initiating improvements. They are intended to be used at regular intervals and to feed into a reviewing system so that plans will be constantly monitored and further assessments made to measure progress and identify where future improvements can be made (p. 15).

The AAR was initially developed using empirically supported assumptions about what constituted effective parenting. Subsequent versions of the instrument were also supplemented with information obtained through interviews with a community group of children and their parents (none of whom had prior contact with social services). The goal was to represent all issues thought by most parents of various social groups to be important to the effective parenting of children (Jackson et al., 1996).

There are several advantages to the AAR. First, as it is filled out collaboratively by child protection workers, foster parents, and foster children, it solicits information from multiple informants making for a more accurate identification of the foster child’s needs and a more comprehensive plan of care. In addition, responsibility for carrying out specific objectives from the plan of care can be attributed to the appropriate individuals immediately during the interview process. As the AAR is administered annually, it can also be used to monitor the foster child’s rate of progress toward identified goals.
Decisions and/or modifications to the plan of care can then be made to ensure a more continuous quality and relevance of services (Flynn, Ghazal, Moshenko et al., 2001). Finally, system-wide (provincial) application of the tool can provide policy-makers and other decision-makers with accurate, up-to-date knowledge concerning the current outcomes of foster children and the effectiveness of existing child welfare services (Flynn, Ghazal, Moshenko et al., 2001).

Some critics have suggested that foster parenting will never be able to replicate a “real” parenting relationship as the “selfless character of parental love” is irreplaceable. They go on to say that foster parenting cannot hope to achieve the same levels of continuity as would be expected in a biological parenting relationship (Jackson et al., 1996, p.7). *Looking After Children* makes every effort to counter the insecurity and change caused by youths being placed in care, by emphasizing effective parenting, partnership and annual assessment of developmental progress.

*Current literature on foster parenting.* This introduction to foster parenting literature will conclude with an examination of research studies currently available on foster parenting and foster child outcomes. Numerous studies have suggested that foster children are at an increased risk for suffering from a wide variety of psychological problems (Flynn & Biro, 1998; Hulsey & White, 1989; McIntyre & Keesler, 1986; Stein, Rae-Grant, Ackland, & Avison, 1994; Thompson & Fuhr, 1992), and that these problems had become increasingly complex over the past years (Farris-Manning & Zandstra, 2003). These can include emotional and behavioural problems such as depression, anxiety and aggression (e.g., Hulsey & White, 1989; Stein et al., 1994), interpersonal difficulties such as isolation, detachment and withdrawal (cited in Smith, 1994), and
academic struggles like school dropout and failure (e.g., Flynn & Biro, 1998). Increased rates of comorbid psychopathology have also been noted, up to two or three times higher than the rates found in the general population (e.g., McIntyre & Keesler, 1986; Stein et al., 1994). McIntyre and Keesler (1986) stated that these various difficulties should be expected to some degree given the negative circumstances that typically lead to children’s requiring placement in a foster home (p. 297).

Though most studies have been done with American and European samples, the results noted above have also been replicated with Canadian samples of foster children. For instance, Flynn and Biro (1998) compared the developmental outcomes of 43 foster youths (ages 10 or over) from the Prescott-Russell Children’s Aid Society (today known as Services for Children and Adults of Prescott-Russell) to those of 1,600 Canadian children of comparable age assessed in cycle 1 (1994-95) of the NLSCY (Statistics Canada, 1997). They found that the foster youth sample displayed significantly higher incidences of hyperactivity and inattention, emotional disorder and anxiety, conduct disorder and physical aggression, indirect aggression and property offences. The foster youths were also found to be more seriously disadvantaged in terms of their educational success, a large proportion of the sample having changed schools (for reasons other than natural progression) or received special education services. Thompson and Fuhr (1992) used a battery of psychological assessment measures to investigate psychopathology in a sample of 50 foster children recruited from an urban child welfare office in Alberta. The criterion used was conservative, requiring participants’ scores to be at or above the 98th percentile on two or more of the assessment measures before they were considered to be displaying psychopathology. Sixty-two percent of the sample exhibited some form of
mental disorder, and 80% of the sample scored above the 90th percentile on two or more measures. Furthermore, the overall profile of psychological difficulties suggested that the foster children had disorders that were enduring, costly and difficult to treat (i.e., oppositional and conduct disorder, psychoticism and criminality). The authors concluded that the increased incidence of psychopathology in the sample was not merely indicative of adjustment difficulties incurred by negative life events. Rather, it was also related to serious personality patterns that could lead to difficult to treat adult disturbances (p. 110).

Statistics from the past 15 years corroborate the often negative foster child outcomes suggested by the foregoing literature and paint an increasingly grim picture of young people in need of child welfare services in Canada. For instance, comparisons of the 1993 and 1998 Ontario Incidence Studies of Reported Child Abuse and Neglect indicated that between 1993 and 1998, despite an encouraging decrease in the number of substantiated cases of sexual abuse (44%), the estimated number of child maltreatment investigations had doubled (Trocme & Walsh, 2002). There was a 90% increase in substantiated cases of physical abuse, an 87% increase in substantiated cases of emotional maltreatment, and a 100% increase in substantiated cases of neglect (Trocme & Walsh, 2002). The OACAS (2002, October) also noted that from April 1, 2001 to March 31, 2002, there were 28,805 children and youths placed in substitute care in Ontario, a 32% increase from 1998-1999. Comparisons of the 1998 and 2003 Canadian Incidence Studies of Reported Child Abuse and Neglect (Trocme et al., 2005) showed similarly serious results, with a 78% increase in the rate of investigations over those five years. The rate of substantiated maltreatment cases had risen by 125% (although this was deemed at least partly attributable to a shift in practice that affected the way cases were
classified). This rise in significance was primarily driven by the rate of exposure to domestic violence, which increased by 259%, and the rate of emotional maltreatment, which rose by 276%. Still more research suggested important financial implications. In Ontario in 2003, for example, a soaring number of children were being placed in foster care despite a severe shortage of available foster homes, which left all but two of the 53 Children’s Aid Societies in the province to face a $100-million dollar deficit (Philp, 2003). In short, the number of children presenting to the foster care system with serious emotional and behavioural difficulties continues to escalate, while financial and material resources are increasingly scarce.

Sobering statistics such as these constitute a compelling argument for studying the relationship between foster parenting and foster child outcomes. Understanding the link between them could clarify crucial issues such as whether effective parenting theory applies equally to foster and non-foster families. That is, do the same parenting practices have comparable effects on foster child outcomes? Are there “payoffs” that can be derived by children who are placed in foster care and if so, how large are they? As Smith (1994) stated, it is only by discovering which parenting practices are linked with better outcomes that we can improve the latter.

Unfortunately, there is very little research available that has investigated the relationships between foster parenting practices and foster child outcomes (Haugaard & Hazan, 2002; Smith, 1994). A review of available literature revealed only two studies that have explored the topic.

The first study (Smith, 1994) examined the relationship between foster mother child-rearing practices and attitudes and foster child developmental outcomes. Study
participants included 38 3-6 year old foster children and their foster mothers, recruited from a New York County Department of Social Services. The measures used to examine foster mother child-rearing practices and attitudes were a mixture of self-report and observation measures. They assessed different aspects of child-rearing, such as the ability of the foster mother to provide learning stimulation, warmth and acceptance, language stimulation, etc. Other measures included the degree of pleasure and satisfaction experienced as a foster parent and “maternal annoyance” (or the extent to which caring for the child was upsetting or annoying). The foster child outcomes included internalizing and externalizing difficulties, social competence, and receptive vocabulary skills. The results provided mixed support for Smith’s (1994) hypothesis that effective parenting (termed higher quality child-rearing) was associated with better developmental outcomes. Certain child outcomes, such as internalizing difficulties and receptive vocabulary, did not show significant relationships with any of the parenting variables. On the other hand, effective parenting practices such as the regular provision of a variety of stimulation (e.g., foster parents spending time with their foster children, taking them to the grocery store or to the park), were associated with greater social competence and lower levels of externalizing difficulties (i.e., acting-out behaviours and aggression). Nevertheless, as the study was cross-sectional in nature, no causal inferences could be drawn.

The second study, by Flynn, Perkins, Biro, Lemay, and Lalonde (1999) also examined the associations between parenting and child outcomes in a foster family context. This pilot study was longitudinal, and participants were recruited on a voluntary basis from the caseload of the Prescott-Russell Children’s Aid Society (today known as
Services to Children and Adults of Prescott-Russell). The first-year participants were recruited in 1997 and included 45 foster children and youths aged 4 to 20, and one of their foster parents (most often the mother). The second year participants were recruited in 1998 and included 28 pairs from the first-year sample (many of the first-year participants had left foster care through adoption or had “graduated” to independent living programs). The parenting measures used, drawn from the NLSCY cycle 1 (1994-95) instrument (Statistics Canada, 1997), were the hostile-ineffective parenting scale and the positive-interaction parenting scale. Hostile-ineffective parenting was operationally defined by negative parental behaviours such as yelling at or hitting the child, while positive-interaction parenting was similar to the previously defined construct of parental nurturance. The outcome measures were also taken from the NLSCY and assessed behaviours such as physical aggression, indirect aggression, emotional disorder and anxiety, and pro-social behaviour. The cross-sectional results were mixed. While hostile-ineffective parenting was associated with increased negative foster child outcomes (increased physical aggression, emotional disorder and anxiety and indirect aggression), positive-interaction parenting was generally unrelated to foster child outcomes. One paradoxical result showed that positive-interaction parenting was positively rather than negatively correlated with physical aggression. The authors hypothesized that this result was caused by an elevated level of emotional disorder and aggression in the sample, or was inadvertently reinforcing aggression. The longitudinal analyses did not detect any significant relationships between foster parenting variables and foster child outcomes. The absence of significant relationships may have been due to the small size of the longitudinal sample.
Certain findings from these two studies appear consistent with the broader parenting theory and research presented earlier in the document. Other results are inconsistent and only raise more questions concerning the true nature of the relationship between foster parenting and foster child outcomes. Clearly, much more research is necessary to place foster parenting on a firmer empirical footing.

This concludes the literature review of pertinent parenting and foster care research. Despite the informative nature of the studies presented, it is now necessary to acknowledge their important limitations.

**Limitations of Research Reviewed**

Many of the studies presented in the previous pages presented important limitations of a methodological or content-related nature. For instance, method variance was probably present in those that relied exclusively on self-report data, especially from a single source, whether youths (e.g., Griswold, 1986; Kashani et al., 1988; Li, Feigelman, & Stanton, 2000; Li, Stanton, & Feigelman, 2000; Steinberg, et al., 1991) or parents (e.g., Cook & Willms, 2002; Landy & Tam, 1996). The use of both sources would have been preferable as would data gathered by at least two methods (e.g., self-report and observational data).

The over-representation of White middle-class families (e.g., Tesser et al., 1989), African-American families (in the case of parental monitoring; Li, Feigelman, & Stanton, 2000; Li, Stanton, & Feigelman, 2000; Rai et al., 2003), small sample sizes (e.g., Flynn, Perkins et al., 1999; Smith, 1994; Thompson & Fuhr, 1992) and low volunteer participation rates (e.g., Gribble et al., 1993; Tesser et al., 1989) were other problems in the studies reviewed, and raised questions about the representativeness of some of the
samples. The measures used in some cases were also problematic (Gribble et al., 1993; Racine & Boyle, 2002). For example, some used items about parental attitudes and feelings to assess parenting practices and style, when parenting theory has clearly shown that these are very distinct concepts (Darling & Steinberg, 1993).

Perhaps the most important limitation is an over-reliance on cross-sectional designs. As most of the research studies reviewed were cross-sectional (e.g., Borawski et al., 2003; Ceballo et al., 2003; Chao & Willms, 2002; Cook & Willms, 2002; Cottrell et al., 2003; Gribble et al., 1993; Hofferth & Sandberg, 2001; Kashani et al., 1988; Landy & Tam, 1996; Racine & Boyle, 2002; Small & Kearns, 1993; Smith, 1994; Stein et al., 1994; Steinberg et al., 1991; Tesser et al., 1989), no causal inferences could be drawn from the results. For example, though it is possible that parental nurturance elicits pro-social behaviour from youth, it is also entirely possible that youth who display pro-social tendencies elicit warm, nurturing responses from parents. There is no way in these designs to determine which behaviour precedes the other, and reverse or reciprocal causality cannot be ruled out. Finally, along with the aforementioned limitations, small effect sizes (e.g., Griswold, 1986; Landy & Tam, 1996; Tesser et al., 1989) and the sheer lack of foster parenting research underlines the need for more methodologically sound research. It is the intention of this thesis to make such a contribution.

General Context of the Thesis: The Larger Project

This thesis was carved out of a larger province-wide project entitled: Improving child protection practice through the introduction of Looking After Children into the 53 local Children’s Aid Societies in Ontario: An implementation and outcome evaluation (Flynn, Angus, Aubry, & Drolet, 1999). This project, funded by the Social Sciences and
Humanities Research Council (SSHRC Strategic Grant No. 828-1999-1008) had three main objectives. The first objective was to evaluate the implementation of the Looking After Children (LAC) approach in various Children's Aid Societies in Ontario. The second objective (to which this thesis is directly related) was to examine whether implementation of the innovative LAC tool were associated with improved developmental outcomes for foster children. The third objective was to conduct an analysis of the cost of foster care and to relate it to foster children's needs and their yearly progress while in foster care (Flynn, Angus, Aubry & Drolet, 1999).

As explained in a previous section of this introduction, the 1998 Ontario child welfare reform included several initiatives, one of which was the suggested provincial implementation of the Looking After Children: Good Parenting, Good Outcomes approach (OACAS, 1999). Use of the approach was verbally recommended throughout the province, though agencies were given the final word on whether to allocate internal funding and personnel toward this endeavour. In 2000, OACAS partnered with the Centre for Research on Community Services (CRCS) at the University of Ottawa in a four year study (2000-2004) to evaluate the implementation of LAC across Ontario (Flynn, Angus, Aubry & Drolet, 1999). At that time, all 53 local Children’s Aid Societies were invited to participate in the study. Interested agencies received assistance from LAC project researchers on implementing the instrument and training staff in its use.

Participating agencies were required to implement the instrument with a minimum of 25 foster children or with 10% of their agency's overall caseload (whichever was greater). The decision as to which foster children were selected was left up to the LAC
coordinator within each agency (i.e., a CAS staff member selected specifically to liaise on the LAC project). An example of the LAC letter of agreement signed by interested agencies can be found in Appendix A. Data collection for the larger project began in 2001 and was completed in 2004.

Involved agencies were provided with copies of the appropriate Canadianized version of the AAR ([AAR-C1] Flynn, Ghazal, Moore, et al., 2001; [AAR-C2] Flynn, Ghazal, & Legault, 2004). Modifications made to the Canadianized version included the addition of several items and standardized measures from the Canadian National Longitudinal Survey of Children and Youth (NLSCY), with important items pertaining to effective parenting behaviours such as methods of resolving parent-child conflict, and the frequency and types of parent-child interactions—all items that have been found to correlate with positive child outcomes in the general population. (See Appendix B for the list of measures used in the thesis.) Despite the stated central importance of the effective parenting construct to the LAC approach, there were no parenting scales in the original AAR instrument and this amendment to the Canadian version is therefore a key modification. In addition, more care was taken to address questions to multiple informants (e.g., foster parents, children/youth and child protection workers), as previous experience suggests these types of items are generally well-received and promote a greater wealth of information (Flynn, Ghazal, Moshenko et al., 2001). More background information was solicited on participants, as well as information on types and intensity of health services received during the year (so that service costs of children in care could be calculated). Finally, the AAR was also cast into computerized form, which allowed for easier data collection and data management.
Specific Objective of the Thesis

The main objective of this thesis was to investigate the relationships between foster parenting practices and foster child outcomes. Specifically, cross-sectional and longitudinal designs were employed to examine whether four effective parenting practices (parental nurturance, positive conflict resolution skills, parent-youth cohesion and parental monitoring) accounted for improvements in four foster youth developmental outcomes (increased pro-social behaviours and decreased levels of emotional disorder and anxiety, and conduct disorder and physical aggression), beyond that accounted for by two demographic (foster gender and age) and two contextual (length of current foster placement, total number of children in foster household) control variables.

As broader parenting research has suggested that effective parenting is correlated with better child developmental outcomes (e.g., Chao & Willms, 2002; Cook & Willms, 2002; Dornbusch et al., 1987; Flynn, Perkins et al., 1999; Griswold, 1986; Hofferth & Sandberg, 2001; Landy & Tam, 1996; Smith, 1994; Steinberg et al., 1991; Tesser et al., 1989), it was expected that the same trends would hold in foster families. Overall thesis hypotheses were therefore that more frequent engagement by foster parents in nurturing behaviours, positive conflict-resolution skills, parental monitoring, and shared activities with their foster youths would be associated with more frequent foster youth pro-social behaviour and less frequent emotional disorder, conduct disorder, or indirect aggression.

Cross-sectional and longitudinal hypotheses for the thesis can be summarized as follows:
Specific Contribution of the Thesis

This thesis represented one of the very first parenting studies conducted within a foster family context. Given the extensive literature available on broader parenting theory and research, it astonishes that so very little of it has investigated the relationships between foster parenting practices and foster child outcomes. Even the original LAC approach (Parker et al., 1991; Ward et al., 1991), despite its stated, central emphasis of
effective parenting, did not contain psychometric measures of parenting practices in its assessment tool. The foster care system is “intended to provide protection, safety, and care to children whose biological families are unable to provide care for them for various reasons” (Human Resources Development Canada [HRDC], 2000). And yet, so little is known about the current standard of care these children are receiving. Is foster parenting as we claim it to be, an opportunity for child growth and development in a safe, nurturing, and stable familial setting (HRDC, 2000)? This thesis attempted to begin providing answers.

Overview of the Present Studies

The first study was an initial attempt to understand the relationship between three parenting practices (parental nurturance, parent-youth conflict resolution, and parent-youth shared activities) and four youth outcomes (pro-social behaviour, emotional disorder, conduct disorder, and indirect aggression) within a foster family context. Data was obtained from the 2001-2002 administration of the second Canadian adaptation of the Assessment and Action Record (AAR-C2; Flynn, Ghazal & Legault, 2004) to a sample of foster youths living in foster homes across Ontario. Cross-sectional hierarchical regression results provided mixed support for the hypothesized relationships between study variables, which we sought to re-evaluate in Study 2.

The second study pursued Study 1’s objective of clarifying the foster parenting-foster youth outcome relationship, this time using data obtained from the assessment of a sample of foster youths living in Ontario in 2002-2003. Cross-sectional and longitudinal analyses were conducted, in an effort to replicate prior results, as well as better explore
reciprocal causal mechanisms. Potential reasons for the limited results obtained were explored.

The third study was also an attempt to further explore the relationship between foster parenting practices and foster youth outcomes, this time by improving the AAR-C2's measurement of salient parenting practices. A new measure of parental monitoring was incorporated into the assessment measures, and data was collected with the help of a mail-out survey. Interpretations for the lack of results are offered in the discussion.

The implications of the findings from these three studies were discussed within each article. Broader issues relating to study findings are explored in the general discussion that follows.
Study 1 – Foster Parenting Practices and Foster Youth Outcomes

Abstract

A good deal of research has linked effective parenting practices to improved psychosocial outcomes in youths. In foster care, the relationship between these variables has received little attention, despite these foster youths being at a higher risk of psychological and behavioural difficulties. The purpose of the present study was to contribute to the very limited amount of research in this area. It examined three foster parenting practices (parental nurturance, parent-youth conflict and parent-youth shared activities) as predictors of four foster youth outcomes (pro-social behaviour, emotional disorder, conduct disorder, and indirect aggression). Participants were 367 youths who were living in foster homes in the province of Ontario from 2001-2002. Foster youths completed the second Canadian adaptation of the Assessment and Action Record (AAR-C2) from Looking After Children, in the context of a conversational interview with their child welfare worker and foster parent. Results from a two-step hierarchical regression procedure provided mixed support for study hypotheses. As predicted, parental nurturance was a significant predictor of increased pro-social behaviour, and decreased conduct disorder and indirect aggression. Also, parent-child conflict was a predictor of more frequent emotional disorder, conduct disorder, and physical aggression. Other predictors, contrary to hypotheses, were unrelated to foster youth outcomes. Factors including the influence of placement duration, the construct validity of parenting variables, and the role of additional moderators may have accounted for the inconsistent, modest effect sizes observed. The challenge of assessing foster parenting practices in a scientifically valid and clinically feasible fashion is discussed.
Study 1 – Foster Parenting Practices and Foster Youth Outcomes

A good deal of research has investigated the relationship between parenting practices and child development in the general population. Nurturance, conflict resolution, and parent-youth cohesion have frequently been linked to positive outcomes in children. *Parental nurturance,* the consistent display by parents of loving, warm and accepting behaviour toward their children, is seen by many researchers as one of the most important components of effective parenting (Jackson, Fisher & Ward, 1996; Miller, Jenkins & Keating, 2002). It has been found related, in children, to greater academic achievement, psychosocial maturity, pro-social behaviour, and social relationship quality, as well as less psychological distress and delinquent behaviour (Chao & Willms, 2002; Landy & Tam, 1996; Steinberg, Mounts, Lamborn, & Dornbusch, 1991). *Conflict resolution,* the settling of family problems through calm and open discussion, providing reasons for decisions, and considering everyone’s point of view, has been linked, in children and adolescents, to more positive motor, cognitive, and social development, better psychological adjustment, higher-quality social relationships (Landy & Tam, 1996; Tesser, Forehand, Brody, & Long, 1989), and lower risk of psychopathology (Kashani, Burbach, & Rosenberg, 1988). *Parent-youth cohesion,* consisting of closeness and understanding between parents and children (Gribble, Cowen, Wyman, Work, Wannon, & Raoof, 1993; Morrison & Cooney, 2002; Paulson, Hill, & Holmbeck, 1991; Shaw & Dawson, 2001), has been associated, in children, with higher academic achievement and pro-social behaviour (Cook & Willms, 2002; Griswold, 1986) and lower levels of anxiety, conduct disorder, and indirect aggression (Cook & Willms, 2002; Hofferth & Sandberg, 2001; Racine & Boyle, 2002).
In foster care, the relationship between foster parenting practices and foster child outcomes has received virtually no attention (Haugaard & Hazan, 2002), despite the fact that young people in foster care are at higher risk of psychological and behavioural difficulties, such as anxiety, depression, or physical aggression (Flynn & Biro, 1998; Hulsey & White, 1989; McIntyre & Keesler, 1986; Stein, Rae-Grant, Ackland, & Avison, 1994) as well as academic problems, including school dropout and grade failure (Flynn & Biro, 1998). Smith (1994) found that positive foster-parent practices, including nurturance, were unrelated to young children’s internalizing difficulties or receptive vocabulary but were associated with greater social competence and fewer externalizing difficulties. Flynn, Perkins, Biro, Lemay, and Lalonde (1999) found that negative foster parenting practices, such as yelling, were associated with higher levels of physical aggression, emotional distress and anxiety, and indirect aggression in foster youths, although positive parenting was unrelated to these foster youth outcomes.

The present study was intended to contribute to the very limited amount of research on the relationship between foster parenting practices and outcomes among young people in out-of-home care. We expected that effective substitute parenting would contribute to the attainment of resilient outcomes by youths in care, based on the assumption that the effects of foster parenting are similar (even if not identical) to those of parenting in the general population. We derived three hypotheses, by analogy, from the general-population parenting research. First, we hypothesized that foster parenting practices would account for a statistically significant increment in the variance accounted for in each of several foster youth outcomes, beyond that accounted for by the basic demographic variables of foster youth gender and age and two contextual variables,
namely, the duration of the young person’s current foster placement and the number of children (whether foster children or not) in the foster parent’s household. Second, we hypothesized that more frequent engagement by foster parents in nurturant or cohesive parenting practices would be associated with more frequent foster youth pro-social behaviour and less frequent emotional disorder, conduct disorder, or indirect aggression. Third, we hypothesized that more frequent engagement by foster parents in conflictual parenting practices would be associated with less frequent foster youth pro-social behaviour and more frequent emotional disorder, conduct disorder, and indirect aggression.

Method

Sample

The participants were 367 young people (185 females and 182 males) who in 2001-2002 were living in foster homes that were either administered by not-for-profit Children’s Aid Societies (CASs) in the province of Ontario (91%) or operated by for-profit organizations in Ontario from which the CASs purchased foster care services. The young people in care ranged in age from 10 to 17 years ($M = 13.40$, $SD = 2.19$, $Mdn = 13$). Some participants entered the foster care system at birth, while others had been adolescents at the time of entry ($M = 7.87$, $SD = 3.76$, $Mdn = 8$). The reasons most often cited for the current admissions to care were caregiver capacity (30%), physical/sexual harm by commission (26%), harm by omission (16%), and abandonment/separation (15%). The designations of their current foster care placements were as follows: regular (63%), specialized (17%, for youth with special needs), special treatment (12%, for youths with especially challenging behaviour), provisional (6%, for youths in special
arrangements such as kinship care); and other (2%). Most of the young people were wards of the province of Ontario, either Crown wards (88%) or Society wards (7%). They had been in their current placements for several years, on average ($M = 3.38$, $SD = 1.49$, $Mdn = 2$). Parental responsibility had been legally and permanently transferred from the families of origin to the government of Ontario in the case of the Crown wards and temporarily in the instance of the Society wards (most of whom were in the process of becoming permanent Crown wards). The government of Ontario, in turn, had delegated the day-to-day exercise of its parenting responsibility to the local Children’s Aid Societies that were partners in the research. Most of the foster parents taking care of the young people had considerable experience as foster parents ($M = 7.88$, $SD = 6.87$, $Mdn = 6$). The total number of children in their households, including their own children as well as their foster youths, ranged from 1 to 8 ($M = 3.38$, $SD = 1.49$, $Mdn = 3$).

**Procedures**

*Data collection.* The study sample was drawn from a larger group of young people in the substitute care of 23 local Children’s Aid Societies (CASs) in Ontario during 2001-2002. The CASs were partners in a larger longitudinal study of the implementation and outcomes of Looking after Children: Good Parenting, Good Outcomes (Flynn, Angus, Aubry, & Drolet, 1999). Looking After Children is a developmentally oriented approach to out-of-home care that originated in the UK and has the goal of improving outcomes through enhancing the quality of substitute or “corporate” parenting (Ward, 1995). Each participating CAS had agreed to use the second Canadian adaptation of the Assessment and Action Record (AAR-C2; Flynn, Ghazal, & Legault, 2004) from Looking After Children to assess the needs and monitor the progress of 25 children or adolescents in its
care, or 10% of its in-care caseload, whichever was greater. In light of the longitudinal
nature of the research, each CAS had also agreed to select, as much as possible, young
people who were likely to remain in care for the duration of the three-year study (2001-
2004). The choice of which young people and child welfare workers would take part was
left up to each local CAS. After receiving training in the Looking After Children
approach, the young person's child welfare worker completed the AAR-C2 in the context
of a conversational interview that typically included the youth in care, the foster parent
who was most knowledgeable about the young person's daily routine and functioning,
and the youth's child welfare worker. The conversational interview lasted from 1 to 4
sessions.

*Imputation of missing values.* In the measures to be described later (in the Measures
section), the rate of missing data at the item level was typically low to very low, in the 0-
6% range, and most often it was in the 1-3% range. In imputing missing values, we
followed Schafer and Graham's (2002) recommendation and used the EM (Expectation-
Maximization) algorithm, an option in SPSS that provides maximum-likelihood estimates
for missing values.

*Instrument: Second Canadian Adaptation of the Assessment and Action Record (AAR-C2)*

Like the original version of the AAR developed in the UK (Ward, 1995), our
version of the tool, AAR-C2 (Flynn et al., 2004), covers seven Looking After Children
outcome domains: health, education, identity, family and social relationships, social
presentation, emotional and behavioural development, and self-care skills. The
participants in the present sample were assessed with the AAR-C2 forms intended for
youths between 10 and 14 years of age, or for those 15 years of age and over.
To enable ready comparisons between the functioning of young people in out-of-home care and that of their age peers in the general Canadian population, the AAR-C2 has incorporated numerous standardized items and multi-item scales from the National Longitudinal Survey on Children and Youth (NLSCY; Statistics Canada & Human Resources Development Canada, 1995). This measurement strategy allows comparisons, on many developmental outcomes, of the progress made by young people in care with that of their age peers in the general Canadian population. The availability of the general population of children and youths as a normative comparison group greatly facilitates the study of resilience among youths in care (Flynn, Ghazal, Legault, Vandermeulen, & Petrick, 2004). It is also consistent with the basic principle of Looking After Children that outcome targets and expectations for young people in care should be on the same level as those for young people in the general population, even though the needs of young people in care may often be greater.

Measures of Foster Parenting Practices

It is important to note that in the AAR-C2, the foster parent rather than the foster youth was the respondent for the three parenting measures, whereas in the NLSCY, the youth rather than the parent responded to these measures. This was an exception to our general rule, according to which the source of information (i.e., the parent or the youth) for AAR-C2 measures was the same as in the NLSCY (for the same measures). We made an exception to this principle in constructing the parenting practice measures for two reasons. First, we wished to avoid a potentially negative reaction on the part of foster parents who, we feared, might have objected to what they may have seen as an evaluation of their parenting practices by their foster youths. Second, by obtaining data from two
different sources, we wanted to avoid the “method effect” (i.e., inflated correlations) that would probably have been produced had the source of information been the same for the parenting practice and outcome measures.

*Parental nurturance.* We used factor analysis and reliability analysis to derive this six-item scale and the other two foster parenting scales to which the foster parents responded during the AAR-C2 conversational interview. It was a slightly shorter version of the original NLSCY nurturance scale from which we omitted one item because it overlapped conceptually with an item in the parent-child conflict scale. The six-item scale had good internal consistency reliability in the present sample (Cronbach’s alpha = .80). Sample items included “How often do you praise [your foster child]?” and, “How often do you make sure that [your foster child] knows that he/she is appreciated?” The response options, on a five-point scale, ranged between “Never” and “Always”, with a total possible scale score between zero and 24. A higher score indicated more frequent use of a warmer, more nurturant foster parenting style.

*Parent-youth conflict.* We derived this eight-item measure through psychometric analyses, omitting two items from the original 10-item NLSCY scale due because they appeared to us to be ambiguous and lacking in construct validity in the context of foster care. The eight-item scale had acceptable internal consistency in the present sample (Cronbach’s alpha = .75). Foster parents rated the frequency of their behaviour and that of their foster youths on items such as “We make up easily when we have a fight” (reversed) and, “When we argue, we stay angry for a very long time.” The response options, on a five-point scale, ranged from “Not at all” to “Almost all or all of the time”,
with the total possible score running from zero to 32. A higher score indicated more frequent engagement in conflictual parenting.

*Parent-youth shared activities.* We constructed this six-item scale as a shorter version of the original eight-item NLSCY parent-child cohesion scale. The first item that we dropped had ambiguous content and the second was not applicable to foster families. We changed the name of the scale to reflect the fact that the AAR-C2, like the NLSCY, had operationalized the concept of cohesion in terms of shared activities. The six-item scale had a somewhat low but still acceptable level of internal consistency in the present sample (Cronbach’s alpha = .64). Foster parents rated the frequency with which they engaged in shared activities with their foster youths. Sample items were “How many days a week do you watch television together?” and, “How many days a week do you do a family project or family chores together?” The six response options ranged from “Every day” to “Rarely or never,” with a total possible scale score between zero and 30. A higher score signified more frequent shared activities.

*Measures of Foster Youth Outcomes*

Preliminary factor and reliability analyses showed that the AAR-C2 youth outcome measures, taken from the NLSCY, could be used without change. As in the NLSCY, it was the youth who responded to these AAR-C2 outcome measures.

*Pro-social behaviour.* This scale, consisting of 10 items, had good internal consistency in the present sample (Cronbach’s alpha = .84). Sample items included “I try to help someone who has been hurt” and, “I encourage other people my age who cannot do things as well as I can”. The three response options for this scale and the other outcome scales were “Never or not true, “Sometimes or somewhat true,” and “Often or
very true." The total scale score could range from zero to 20, with a higher score signifying that the foster youth assisted or comforted other young people more frequently.

*Emotional disorder.* This eight-item scale had good internal consistency in the present sample (Cronbach’s alpha = .81). Sample items included “I am unhappy, sad or depressed” and, “I worry a lot.” The total score could range from zero to 16, with a higher score indicating more frequent anxious or depressive behaviour on the part of the foster youth.

*Conduct disorder.* This 6-item scale had good internal consistency (Cronbach’s alpha = .80). Sample items included “I get into many fights” and, “I am cruel, I bully, or I am mean to others.” The total score could range from zero to 12, with a higher score indicating more frequent physically aggressive behaviour on the part of the foster youth.

*Indirect aggression.* This five-item scale had good internal consistency (Cronbach’s alpha = .78). Sample items included “When I am mad at someone, I try to get others to dislike him/her” and “When I am mad at someone, I say bad things behind his/her back”. The total score could range from zero to 10, with a higher score indicative of more frequent indirect or “relational” aggression.

*Data Analysis*

To test the study hypotheses, we used a two-step hierarchical regression procedure. At step 1, we regressed each of the outcome variables on two demographic variables (the foster youth’s gender and age) and two contextual variables (the number of years the foster youth had been in his or her current placement, and the total number of children in the household in which the foster youth resided). (In preliminary analyses, we also
explored two other contextual variables: the foster parent’s education level, and his or her years of experience as a foster parent. These were never statistically significant, however, and were dropped.) At step 2, we added the three parenting practice variables to the regression model, to discover whether the three foster parenting practices would account for a statistically significant increment in each of the outcome variables, beyond the variance already explained by the four demographic or contextual variables. We also conducted exploratory moderated-regression analyses, to discover whether the demographic or contextual variables moderated (i.e., affected the strength of) the relationships between the three foster parenting practices and the four foster youth outcomes.

Results

Intercorrelations. Table 1 shows the correlations among the study variables, in the full sample of 367 youths (i.e., before the removal of outliers in two of the four hierarchical regression analyses). Gender was not related to any of the three parenting practices but was significantly correlated with three outcome variables: girls reported higher levels of pro-social behaviour and emotional disorder, whereas boys reported higher levels of conduct disorder. Age was significantly related to one foster parenting practice and two foster youth outcomes: older youth were less likely to be involved in parent-youth shared activities and also reported lower levels of conduct disorder and indirect aggression. The total number of children in the household was negatively related to one parenting practice, parental nurturance, and one youth outcome, emotional disorder. A greater number of years spent by the youth in his or her current placement
was positively related to one parenting practice, parent-child conflict, and negatively to two youth outcomes, emotional disorder and indirect aggression.

Table 1. Intercorrelations among four demographic or contextual variables, three foster parenting practices, and four foster youth outcomes (N = 367)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
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<tr>
<td>(m = 1, f = 0)</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>2. Age (in years)</td>
<td>-.08</td>
<td>--</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>3. Total number of children in house</td>
<td>-.15**</td>
<td>-.06</td>
<td>--</td>
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<td></td>
<td></td>
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<td></td>
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<tr>
<td>4. Youth's years in current placement</td>
<td>.003</td>
<td>.03</td>
<td>-.03</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>5. Parental nurturance</td>
<td>.01</td>
<td>-.04</td>
<td>-.11*</td>
<td>.01</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Parent-youth conflict</td>
<td>.08</td>
<td>-.05</td>
<td>-.06</td>
<td>.15**</td>
<td>-.28***</td>
<td>--</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>7. Parent-youth shared activities</td>
<td>.08</td>
<td>-.27***</td>
<td>-.01</td>
<td>.07</td>
<td>.23***</td>
<td>-.08</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Youth pro-social behaviour</td>
<td>-.26***</td>
<td>.01</td>
<td>-.02</td>
<td>.10</td>
<td>.22***</td>
<td>-.10</td>
<td>.07</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Youth emotional disorder</td>
<td>-.11*</td>
<td>.03</td>
<td>-.13*</td>
<td>-.21***</td>
<td>-.14**</td>
<td>.14**</td>
<td>-.08</td>
<td>-.11*</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Youth conduct disorder</td>
<td>.20***</td>
<td>-.12*</td>
<td>.001</td>
<td>-.10</td>
<td>-.15**</td>
<td>.31***</td>
<td>.04</td>
<td>-.33***</td>
<td>.34***</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>11. Youth indirect aggression</td>
<td>-.06</td>
<td>-.17***</td>
<td>.07</td>
<td>-.17***</td>
<td>-.17***</td>
<td>.13*</td>
<td>.04</td>
<td>-.18***</td>
<td>.35***</td>
<td>.48***</td>
<td>--</td>
</tr>
<tr>
<td>Mean (or %)</td>
<td>49.59%</td>
<td>13.40</td>
<td>3.38</td>
<td>3.26</td>
<td>19.35</td>
<td>5.40</td>
<td>14.86</td>
<td>12.68</td>
<td>4.78</td>
<td>2.24</td>
<td>2.19</td>
</tr>
<tr>
<td>SD</td>
<td>--</td>
<td>2.19</td>
<td>1.49</td>
<td>2.90</td>
<td>2.77</td>
<td>3.98</td>
<td>4.65</td>
<td>4.08</td>
<td>3.31</td>
<td>2.35</td>
<td>2.19</td>
</tr>
</tbody>
</table>

Note. *p < .05 (two-tailed) **p < .01 (two-tailed) ***p < .001 (two-tailed)

Of the parenting practices, nurturance was significantly correlated to all four outcomes, with greater nurturance predictive of more frequent pro-social behaviour, as expected, and less frequent emotional disorder, conduct disorder, and indirect aggression, also as expected. Greater parent-child conflict was not related to the youth's level of pro-social behaviour, but as anticipated, was associated with higher levels of the three negative outcomes. Finally, contrary to our expectations, more frequent engagement in parent-child shared activities was not related to any of the youth outcomes.
Hierarchical regression analyses. In preliminary analyses, we carried out log and square-root transformations in the case of skewed variables, namely, years in current placement, parent-child conflict, conduct disorder, and indirect aggression. These transformations reduced skewness but produced unacceptably high kurtosis and, moreover, failed to eliminate all outliers. Thus, instead of employing data transformations, we adopted the alternative procedure of carrying out screening regression runs on the untransformed (i.e., raw) variables, examining the standardized residuals larger than ±3.3 (Tabachnick & Fidell, 1996). There were no outliers in the regressions for pro-social behaviour and emotional disorder, four in that for conduct disorder, and two in that for indirect aggression. The results of the regressions with the untransformed variables, in which any outliers had been removed, proved to be virtually identical to the regressions with the transformed variables. We thus report in Table 2 only the findings obtained with the untransformed (raw) variables, because they are considerably easier to interpret.

As the note at the bottom of Table 2 indicates, the foster parenting practices, introduced as a set at step 2, accounted for a significant increment in the variance in each of the youth outcomes, beyond that accounted for by the demographic variables of gender and age and the contextual variables of total number of children in the household and the number of years the child had been in the current placement. The increments due to the set of three foster parenting practices were 5% in the case of youth pro-social behaviour, 4% for emotional disorder, 11% for conduct disorder, and 5% for indirect aggression.

Regarding the predictive power of the demographic and contextual variables, at step 2 male gender predicted less frequent pro-social behaviour and lower emotional
disorder ($p < .06$), as well as greater conduct disorder. Older age was associated with lower indirect aggression, whereas a larger number of children in the household predicted more frequent emotional disorder. A longer time spent by the youth in the current placement was related to greater pro-social behaviour ($p < .06$) and lower emotional disorder, conduct disorder, and indirect aggression.

Table 2. Summary of hierarchical regression of the four foster youth outcomes on four demographic or contextual variables and three foster parenting practices

<table>
<thead>
<tr>
<th>Step and Predictors</th>
<th>Youth pro-social behaviour ($N = 367$)</th>
<th>Youth emotional disorder ($N = 367$)</th>
<th>Youth conduct disorder ($N = 363$)</th>
<th>Youth indirect aggression ($N = 365$)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender ($m = 1, f = 0$)</td>
<td>-.27***</td>
<td>-.09</td>
<td>.22***</td>
<td>-.07</td>
</tr>
<tr>
<td>Age</td>
<td>-.02</td>
<td>.04</td>
<td>-.11*</td>
<td>-.17***</td>
</tr>
<tr>
<td>Total number of youth in house</td>
<td>-.06</td>
<td>.11*</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>Youth’s years in current placement</td>
<td>.10a</td>
<td>-.21***</td>
<td>-.10a</td>
<td>-.16**</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender ($m = 1, f = 0$)</td>
<td>-.27***</td>
<td>-.10a</td>
<td>.19***</td>
<td>-.09</td>
</tr>
<tr>
<td>Age</td>
<td>-.003</td>
<td>.04</td>
<td>-.09</td>
<td>-.15**</td>
</tr>
<tr>
<td>Total number of youth in house</td>
<td>-.04</td>
<td>.11*</td>
<td>.04</td>
<td>.03</td>
</tr>
<tr>
<td>Youth’s years in current placement</td>
<td>.10a</td>
<td>-.23***</td>
<td>-.14**</td>
<td>-.18***</td>
</tr>
<tr>
<td>Parental nurturance</td>
<td>.19***</td>
<td>-.08</td>
<td>-.11*</td>
<td>-.18***</td>
</tr>
<tr>
<td>Parent-youth conflict</td>
<td>-.04</td>
<td>.16**</td>
<td>.30***</td>
<td>.11*</td>
</tr>
<tr>
<td>Parent-youth shared activities</td>
<td>.04</td>
<td>-.02</td>
<td>.03</td>
<td>.06</td>
</tr>
</tbody>
</table>

*Note. In the regressions for conduct disorder and indirect aggression, the sample size ($N$) was less than 367 because outliers had been removed. Coefficients are beta ($\beta$) coefficients (i.e., standardized partial regression coefficients). In the hierarchical regression for pro-social behaviour, $R^2 = .08$ ($p < .001$) for step 1; $\Delta R^2 = .05$ ($p < .001$) for step 2. For emotional disorder, $R^2 = .07$ ($p < .001$) for step 1; $\Delta R^2 = .04$ ($p < .001$) for step 2. For conduct disorder, $R^2 = .07$ ($p < .001$) for step 1; $\Delta R^2 = .11$ ($p < .001$) for step 2. For indirect aggression, $R^2 = .06$ ($p < .001$) for step 1; $\Delta R^2 = .05$ ($p < .001$) for step 2.

$^* p < .05$ (two-tailed) $^** p < .01$ (two-tailed) $^*** p < .001$ (two-tailed) $^* p < .06$ (two-tailed)
Concerning the three foster parenting practices as predictors, a higher level of nurturance was associated with greater pro-social behaviour and lower conduct disorder and indirect aggression. Greater parent-child conflict predicted higher levels of all three negative foster youth outcomes, emotional disorder, conduct disorder, and indirect aggression. Finally, the level of parent-child shared activities was unrelated to any of the outcomes.

*Moderated regression analyses.* We explored the possibility that the demographic and contextual variables may have moderated (i.e., affected the strength of) the relationship between the foster parenting practices and the foster youth outcomes. We formed multiplicative terms by multiplying each of the three parenting practices by each of the demographic and contextual variables (i.e., by the potential moderators [Baron & Kenny], 1986). For each potential moderator (e.g., gender), we entered the set of three multiplicative terms involving that variable as an additional (i.e., third) step in the previously described regression equations, for each of the four youth outcomes. In no instance did the set of multiplicative terms account for a statistically significant increment in the amount of variance explained in any of the four youth outcomes. Thus, there was no evidence that the demographic or contextual variables moderated the relationship between the foster parenting practices and the foster youth outcomes.

**Discussion**

Overall, the results provided some, albeit mixed, support for our hypotheses. On the one hand, there were three supportive findings. First, the three foster parenting variables, as a set, did indeed account for a statistically significant increment in the variance explained in each of the youth outcomes, beyond that accounted for by the
demographic and contextual variables. Moreover, these significant increments were not attributable to the use of a single source of information (i.e., method variance), given that the foster parents provided the information on the parenting practices whereas the foster youths furnished the data on outcomes. Second, parental nurturance was a significant predictor of more frequent pro-social behaviour and less frequent conduct disorder and indirect aggression. Third, parent-child conflict was a predictor of more frequent emotional disorder, conduct disorder, and physical aggression.

On the other hand, three results were contrary to our hypotheses. First, more frequent parental nurturance was unrelated to emotional disorder. Second, less frequent foster-parent engagement in conflict with their foster youths was unrelated to the frequency of the youths' pro-social behaviour. Third, more frequent participation by fosters parents in activities with their foster youths was unrelated to any of the youth outcomes.

The increments of between 4-11% in the variance in the outcomes attributable to the parenting practices were consistent, in that they were found for each of the outcomes. Except in the case of conduct disorder, however, these increments were relatively modest. This latter finding is congruent with the results reported in most general-population studies (Maccoby & Martin, 1983). Lamborn, Mounts, Steinberg & Dornbusch (1991) and Steinberg et al. (1991), for example, found consistent but only modest effects of parenting in large samples of US adolescents. In addition, several specific factors in the present research context may also help explain the modest increments in the variance accounted for that we observed. First, the young people had been in their current placements for an average (median) of two years, such that the
behaviour of many, like the parenting practices of many of their foster parents, may have stabilized, with the resultant low behavioural variability explaining the modest correlations observed. Stronger covariation between foster parenting practices and foster youth outcomes might be found during times of transition, such as during the first few weeks or months of a new placement. Second, it is possible that moderators other than those examined here (e.g., foster youth age at first admission to care, or reason for admission; foster parent gender, socio-economic status, ethnic match with the youth in care, or amount of training for the foster parent role; or nature of the foster care placement, such as regular vs. specialized) may moderate (i.e., affect) the strength of the relationship between foster parenting practices and foster youth outcomes. We intend to investigate these possibilities, both cross-sectionally and longitudinally, in future analyses of our growing data base. Third, the fact that our parenting data came from the foster parents, whereas the outcome data came from the foster youths, probably reduced or eliminated the inflated correlations that are likely to be present in studies in which either parents or youths serve as the single source of data.

The fact that neither age nor gender moderated the relationship between foster parenting practices and foster child outcomes was congruent with the results of other studies (e.g., Lamborn, Mounts, Steinberg, & Dornbusch, 1991). This finding was contrary to the meta-analysis of Rothbaum and Weisz (1994), however, who found that the association between the quality of parenting and the absence of externalizing difficulties was stronger among older children and preadolescent boys (although only in analyses involving mothers rather than fathers).
Regarding the contextual variables, a lack of prior research on these variables as moderators made interpretation of our exploratory results difficult. Moreover, in the wider parenting literature, the number of children in the household has been used mainly as a predictor rather than as a moderator. Cook & Willms (2002) found that this variable was associated with higher parental nurturance and cohesion, whereas Racine and Boyle (2002) found that it was unrelated to family functioning. The length of time the youth has been in his or her current placement, on the other hand, has been studied mainly as an outcome rather than as a predictor of moderator, in placement-disruption research aimed at identifying factors related to greater placement stability (e.g., Lipscombe, Farmer & Moyers, 2003).

Another issue to be addressed in future analyses, when we have accumulated sufficient longitudinal data, is that of the causal direction of effects. For example, the fact that in the present study youths who had been in their current placements for a longer period of time had greater pro-social behaviour as well as lower levels of emotional disorder, conduct disorder, and indirect aggression may reflect either a beneficial effect of foster care (i.e., foster care may have led to improvements across the four youth behaviours), or a selection effect (i.e., more difficult youths may have been removed from foster care), or both. The cross-sectional nature of our data does not allow us to decide which of these possibilities is the most tenable. We plan to examine this issue in the future longitudinally.

How best to assess foster parenting practices in a scientifically valid and clinically feasible fashion should become a research priority, especially for the resilience-oriented Looking After Children approach, the subtitle of which ("Good Parenting, Good
Outcomes”) emphasizes the central role that foster parenting is assumed to play in improving foster youths’ adaptation. In the present study, the measure of parent-child shared activities (our NLSCY-derived operationalization of the construct of parenting cohesion) was unrelated to any of the outcomes. This finding was contrary to previous research which, although limited (Larson & Verma, 1999), has suggested that the frequency of certain parent-child activities is related to such outcomes such as pro-social behaviour (Cook & Willms, 2002), emotional difficulties (Cook & Willms, 2002; Hoffert & Sandberg, 2001), and resilience to stress (Gribble et al., 1993). The fact that we did not find such links may be because shared parent-youth activities are simply not relevant to foster youth outcomes or, more probably, because of a lack of construct validity in our measure of this parenting practice. That is, the construct of parent-child shared activities (which has also been referred to as cohesion, engagement, or involvement) has been considered by some (Shaw & Dawson, 2001) to be poorly defined. As a result, we have only limited understanding of its most salient features, such as the key family aspects to be assessed, their duration or the intensity of parental involvement in them (Cook & Willms, 2002; Larson & Verma, 1999). Thus, the results of our study may mean that the sheer frequency of shared activities is less important in foster care as a facet of parent-youth cohesion than the quality and meaning of such activities for the participants, especially the young person in care. Other studies point in this direction. Steinberg et al. (1991) stated that children’s experience of their parents’ behaviours is just as important, developmentally, as the way in which the parents characterize their own behaviours. Flynn, Robitaille and Ghazal (in press) found that the perceptions of young people in care of their female foster parents as understanding, fair, affectionate, and close to them, were
very strongly related to the young people's satisfaction with their current placements 
($r[409] = .73, p < .001$).

To improve the measurement of foster parenting in the AAR-C2, we have incorporated into the most recent (2005) revision of the instrument a new measure (answered by the foster parent) of the degree to which foster parents monitor the behaviour and peer relationships of their foster youths. We have also added a similar measure to which foster youths will respond. These new measures replace one (responded to by the foster parent) that had unacceptably low internal consistency in the present study, precluding its use. We hope that these and other ongoing improvements in the AAR-C2 will lead to enhanced understanding of the influence of foster parenting practices on resilient outcomes among young people in care. Important in its own right, this issue is crucial for Looking After Children, with its emphasis on the benefits of high-quality substitute parenting.
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Author Note

We gratefully acknowledge the financial support for the Looking After Children in Ontario (OnLAC) project received from the Social Sciences and Humanities Research Council (strategic grant 828-1999-1008, awarded to Robert Flynn, principal investigator; co-investigators, Tim Aubry, Marie Drolet, and Douglas Angus). We are also grateful for the additional financial support received from the Ministry of Children and Youth Services of Ontario (grant made to the Ontario Association of Children’s Aid Societies [OACAS]), Social Development Canada (grant made to the Child Welfare League of Canada [CWLC]), and Services to Children and Adults of Prescott-Russell (SEAPR). We also thank our organizational partners—OACAS, CWLC, and SEAPR—and participating local Children’s Aid Societies, as well as the many young people, child welfare workers, supervisors, foster parents, and group home workers who have been or remain participants in the OnLAC project.
Study 2 – A Second Look at Foster Parenting Practices and Foster Youth

Outcomes: Year-2 Cross-Sectional and Longitudinal Findings

Abstract

This study was intended as further contribution to the largely unexplored research area examining the role of foster parenting practices in enhancing foster youth outcomes. It investigated the role of three foster parenting practices (parental nurturance, parent-youth conflict and parent-youth shared activities) as predictors of four foster youth outcomes (pro-social behaviour, emotional disorder, conduct disorder, and indirect aggression). The study was a continuation of a previous investigation of 367 youths living in foster homes in the province of Ontario from 2001-2002 (year 1). The second Canadian adaptation of the Assessment and Action Record from Looking After Children was administered to a second wave of foster youths, living in foster homes in the province of Ontario in 2002-2003 (N=439; year 2). This allowed for cross-sectional and longitudinal analyses. In cross-sectional results, the three foster parenting variables, as a set, accounted for significant variance in each of the foster youth outcomes. Also, parent-youth conflict was a significant predictor of more frequent emotional disorder, conduct disorder, and indirect aggression. Other predictors were unrelated to foster youth outcomes, and longitudinal analyses (N=201) did not produce any significant results. Contextual factors, including length of current placement and year-1 attrition rates, were identified as potential reasons for the lack of variability in foster parenting practice and foster youth outcome levels, as well as the subsequently small effect sizes observed. The construct validity for parent-youth shared activities was questioned, given that this variable failed to predict any significant results for two consecutive waves of data.
collection. The need for further research to identify the salient features of parenting practices and better operationalize research constructs was discussed.
Study 2 – A Second Look at Foster Parenting Practices and Foster Youth

Outcomes: Year-2 Cross-Sectional and Longitudinal Findings

There is much research linking positive parenting practices such as parental nurturance (i.e., the consistent display of loving, warm and accepting behaviour toward children), conflict resolution (i.e., the settling of family problems through calm and open discussion, providing reasons for decisions, and considering everyone’s point of view), and parent-youth cohesion (i.e., consisting of closeness and understanding between parents and children), to improved child and adolescent outcomes in the general population (e.g., Chao & Willms, 2002; Cook & Willms, 2002; Griswold, 1986; Hofferth & Sandberg, 2001; Kashani, Burbach, & Rosenberg, 1988; Landy & Tam, 1996; Racine & Boyle, 2002; Steinberg, Mounts, Lamborn, & Dornbusch, 1991; Tesser, Forehand, Brody, & Long, 1989).

Unfortunately, the amount of research investigating the relationship between positive parenting practices and improved youth outcomes within foster families remains scarce, and has provided varying findings. In her sample of preschool-aged foster children, Smith (1994) found that positive foster parent practices, including parental nurturance, were unrelated to internalizing difficulties, but were associated with greater social competence and fewer externalizing difficulties. Flynn, Perkins, Biro, Lemay, and Lalonde (1999) found that negative foster parenting practices (e.g., getting angry and yelling) were associated with higher levels of both internalizing and externalizing difficulties in foster youths aged four to 20 years. On the other hand, parental nurturance, termed positive parenting, was unrelated to foster youth outcomes.
These studies, although ambitious in their investigation of a heretofore largely unexplored research area, presented certain methodological limitations. For example, method variance, particularly a reliance on self-reported data from a single source, and limited sample size, raised questions about statistical power, sample representativeness, and the generalizability of findings.

Our initial study (see Perkins-Mangulabnan & Flynn, 2006) was intended to contribute to the inadequate amount of research in this area, and to remedy some of the limitations of previous studies. It investigated the relationship between three foster parenting practices (i.e., parental nurturance, conflict-resolution, and parent-youth cohesion) and four types of foster youth outcomes (i.e., pro-social behaviour, emotional disorder and anxiety, conduct disorder and indirect aggression). These variables were operationalized using standardized, multi-item measures completed by both the foster parent and the foster child, thereby reducing any method effect. In addition, because the study was carved from a broader longitudinal study of the implementation and outcomes of Looking After Children: Good Parenting, Good Outcomes (Flynn, Angus, Aubry, & Drolet, 1999), the sample size was drawn from youth in the substitute care of twenty-three Children’s Aid Societies (CASs) in the province of Ontario in 2001–2002. This permitted an adequate sample size of 367 foster youths, ranging in age from 10 to 17 years, and thereby provided increased statistical power and improved sample representativeness.

Despite these methodological improvements, the study’s findings remained mixed. The foster parenting variables, as a set, accounted for a statistically significant increment in the variance explained in each of the foster youth outcomes. Taken
individually however, the foster parenting practices were less consistent, in that they did not produce the expected associations with each of the foster child outcomes. Parental nurturance was associated with an increase in pro-social behaviour and fewer externalizing difficulties (conduct disorder and indirect aggression), although it was unrelated to internalizing problems (emotional disorder and anxiety). Increased parent-child conflict was unrelated to pro-social behaviour, but was associated with increased internalizing and externalizing difficulties. Parent-youth cohesion, operationalized as the frequency of participation in shared activities, was unrelated to any of the foster youth outcomes.

Despite a few similarities between the above-mentioned findings and those of Smith (1994), and Flynn et al., (1999), the overall dearth of research in this area does not yet permit the establishment of any broad trends. Differing sample composition and size will continue to limit generalizability for some time. For instance, even though Smith (1994) and Perkins-Mangulabnan and Flynn (2006) both found parental nurturance to be associated with fewer externalizing difficulties, it is difficult to equate the outcomes of 38 preschool-aged foster children (Smith, 1994) to the identical causal mechanism in effect for a sample of 367 foster youths and adolescents (Perkins-Mangulabnan & Flynn, 2006). The modest increments in explained variance for both these studies suggest that there are other key variables yet to be identified.

Varying operationalization and measurement of variables also remains an especially challenging obstacle to accurate interpretation and aggregation of results. For example, it is difficult to know whether parent-child shared activities are simply irrelevant to foster youth outcomes, or whether there is a lack of construct validity in the
way this parenting practice is measured. Even within the larger parenting literature, there is controversy surrounding the defining and measuring of this construct (Shaw & Dawson, 2001).

One thing remains certain: Continued research is the only way to enhance our limited understanding of the foster parent–foster child relationship. From repeated exploration, the salient features of these complex interactions will be further delineated and properly assessed. The present study represents another important step in this direction.

The second Canadian adaptation of the Assessment and Action Record (AAR-C2; Flynn, Ghazal, & Legault, 2004), from Looking After Children: Good parenting, Good Outcomes (Flynn et al., 1999), was administered to 439 youths living in foster homes in the province of Ontario in 2002–2003. Cross-sectional analyses were conducted, permitting us to test for the replicability of 2001–2002 results. The aforementioned two years of cross-sectional data (i.e., 2001-2002, and 2002-2003) were then combined into a single dataset so that longitudinal analyses could be performed. This provided for a more thorough examination of the causal mechanisms underlying any effects. We continued to expect that effective foster parenting would contribute to improved outcomes by youths in care, based on our previous assumption that the effects of foster parenting are similar to those of parenting in the general population. Therefore, our hypotheses remained as follows: First, that foster parenting practices would account for a statistically significant increment in the variance accounted for in each of four foster youth outcomes, beyond that accounted for by our control variables (i.e., foster youth gender and age, the duration of the young person’s current foster placement, and the
number of children in the foster parent’s household). Second, that more frequent engagement by foster parents in nurturant or cohesive parenting practices would be associated with more frequent foster youth pro-social behaviour and less frequent emotional disorder, conduct disorder, or indirect aggression. And finally third, that more frequent engagement by foster parents in conflictual parenting practices would be associated with less frequent foster youth pro-social behaviour and more frequent emotional disorder, conduct disorder, and indirect aggression.

Method

Sample

*Year-2 cross-sectional participants.* This sample consisted of 439 foster youths, 181 of whom were participants of the study in year 1 (i.e., 2001-2002) and 258 of whom joined the study in year 2 (2002-2003). Fifty percent of the sample were males and 50% were females, and participants ranged in age from 10 to 17 years ($M = 13.59$, $SD = 2.16$, $Md = 14$). Some youth had been in foster care since birth, while others had entered foster care system within the last few years ($M = 7.73$, $SD = 3.97$, $Md = 8$). The reasons most often cited for their current admissions to foster care were: caregiver capacity (32%), physical/sexual harm by commission (25%), harm by omission (17%), abandonment/separation (13%), and emotional harm (5%). The designations of their current foster care placements were: regular (61%), specialized (16%, for youth with special needs), special treatment (15%, for youths with behavioural difficulties), and provisional (6%, for youths in special arrangements such as kinship care). At the time of data collection (2002-2003), participants were living in foster homes that were either administered by not-for-profit Children’s Aid Societies (CASs) in the province of Ontario.
(87%), or operated by for-profit organizations in Ontario from which the CASs purchased foster care services (7%). Most of the young people were either Crown wards (85%) or Society wards (7%) of the province of Ontario and had been in their current placements for an average of four years ($M = 3.95$, $SD = 3.11$, $Mdn = 3$). Parental responsibility had been legally and permanently transferred from the families of origin to the government of Ontario in the case of the Crown wards, and temporarily in the instance of the Society wards (most of whom were in the process of becoming permanent Crown wards). The government of Ontario, in turn, had delegated the day-to-day exercise of its parenting responsibility to the local Children’s Aid Societies that were partners in the research. Most of the foster parents had considerable experience in fostering ($M = 8.53$, $SD = 7.83$, $Mdn = 6$). The total number of children in their households, including their own children as well as their foster youths, ranged from 1 to 10 ($M = 3.20$, $SD = 1.61$, $Mdn = 3$).

**Longitudinal study participants.** This sample consisted of 201 foster youths for whom data had been collected during both year 1 (i.e., 2001-2002) and year 2 (i.e., 2002-2003) of the study. The number of longitudinal participants ($N=201$) was different than that of “repeat” participants in the year-2 cross-sectional sample ($N=181$) for two reasons. First, like in our prior (year-1) study (Perkins-Mangulabnan & Flynn, 2006), we chose to include in our cross-sectional samples only those participants who were between the ages of 10 and 17 years old. Therefore, those who turned 18 years of age during the second year of the study were automatically eliminated from the year-2 cross-sectional dataset. Second, as the focus of our research was to examine the relationship between foster parenting practices and foster youth outcomes, participants in other types of placements (e.g., group homes, kinship care) were eliminated. As a result, those participants who
were in foster homes in year 1 but transferred to a different type of placement in year 2, were eliminated from the year-2 cross-sectional dataset. In the end, in order to allow for a maximum longitudinal sample size and improve statistical power, those participants who had met full inclusion criteria in year 1 of the study were ultimately included in the longitudinal analyses. (As a precaution, separate regression analyses were run on both longitudinal sets \([N=181 \text{ and } N=201]\) and did not present any significant differences.)

Fifty percent of the longitudinal sample were males and 50% were females.

Participants were approximately one year older in year 2 of the study \((M = 13.98, SD = 1.94, Mdn = 14)\), as compared to year 1 \((M = 12.86, SD = 1.89, Mdn = 13)\). The age range upon first entering foster care varied from one to fifteen years \((M = 7.45, SD = 3.66, Mdn = 7.50)\). The reasons most often cited for a foster youth’s current admissions to foster care were: physical/sexual harm by commission (31%), caregiver capacity (29%), abandonment/separation (15%), harm by omission (14%), and emotional harm (5%). The designations of their current foster care placements were: regular (64%), specialized (15%, for youth with special needs), special treatment (12%, for youths with behavioural difficulties), and provisional (7%, for youths in special arrangements such as kinship care). During the first year of data collection (i.e., 2001-2002), participants were living in foster homes that were either administered by not-for-profit Children’s Aid Societies (CASs) in the province of Ontario (92%), or operated by for-profit organizations in Ontario from which the CASs purchased foster care services (8%). However, during the second year of data collection (i.e., 2002-2003), placements were more varied. They predominantly remained not-for-profit (86%) and for-profit foster home placements (6%), but not-for-profit group homes (3%), purchased-care group homes (3%), and
kinship care placements (2%) were also included. This suggested that for 8% of the sample, previous year-1 foster home placements were possibly no longer available or perhaps placement breakdown had occurred. There were slightly more Crown wards in year 2 (from 89% in year 1 to 92%) and slightly fewer Society wards (from 7% in year 1 to 3% in year 2). Most of the young people had been in their current placements for approximately one year longer than at their year-1 assessments ($M = 3.96$, $SD = 3.35$, $Mdn = 3$), and foster parents acquired an average of one year additional experience in fostering ($M = 8.72$, $SD = 7.94$, $Mdn = 7$). The total number of children in foster parent’s households, including their own children as well as their foster youths, ranged from 1-8 children in year 1 ($M = 3.30$, $SD = 1.44$, $Mdn = 3$) to 1-10 children in year 2 ($M = 3.22$, $SD = 1.87$, $Mdn = 3$).

**Procedures**

As stated previously, the study samples were drawn from a larger project investigating the implementation and outcomes of Looking After Children: Good Parenting, Good Outcomes in the 53 local CASs in the province of Ontario, Canada between 2001-2004 (Flynn et al., 1999). Looking After Children is an approach that originated in the UK; its developmental approach and aim to improve the outcomes of foster youth by enhancing the quality of substitute or “corporate” parenting have been well documented elsewhere (see Ward, 1995), and will not be reviewed here. Likewise, as the data collection procedure and the study instrument (i.e., the second Canadian adaptation of the Assessment and Action Record [AAR-C2]; Flynn et al., 2004) remained the same as in our first study, the reader is referred to those pages for further details.
Perkins-Mangulabnan & Flynn, 2006). The measures used from the AAR-C2 are briefly reviewed below.

**Measures of Foster Parenting Practices**

The foster parent most knowledgeable as to the foster youth’s status and functioning was the respondent for these three measures.

**Parental nurturance scale.** This six-item scale assessed the frequency of behaviours associated with a positive, warm and accepting parenting style, such as smiling and listening to the foster child. The total possible score ranged between zero and 24, with a higher score indicating more frequent nurturing behaviours. Good internal consistency reliability was found for both the year-1 study (α = .80; Perkins-Mangulabnan & Flynn, 2006), and the current study [α = .80 in the cross-sectional sample, and α = .80 – α = .77 in the longitudinal sample (years 1 and 2, respectively)].

**Parent-youth conflict scale.** This eight-item scale assessed the frequency of usage of negative conflict-management tactics between foster parent and foster child (e.g., yelling, stomping out of the room, refusing to talk to one another, etc.). The total possible score ran from zero to 32, with a higher score indicated more frequent engagement in conflictual parenting. Internal consistency reliability was good in the year-1 sample (α = .75; Perkins-Mangulabnan & Flynn, 2006), but fluctuated significantly in subsequent samples of this study [α = .70 in the cross-sectional sample, and α = .73 – α = .54 in the longitudinal sample (years 1 and 2, respectively)].

**Parent-youth shared activities scale.** This six-item scale rated the frequency with which foster parents engaged in shared activities with their foster youths. The total possible score ranged between zero and 30. A higher score signified more frequently
shared activities. Internal consistency scores were somewhat low but still acceptable in both year-1 ($\alpha = .64$; Perkins-Mangulabnan & Flynn, 2006) and year-2 samples ($\alpha = .70$). However, values in the longitudinal sample fluctuated more significantly ($\alpha = .57$ and $\alpha = .65$, years 1 and 2, respectively).

**Measures of Foster Youth Outcomes**

The foster youth was the respondent for the four AAR-C2 outcome measures.

*Pro-social behaviour scale.* This 10-item scale examined the extent to which the foster youth demonstrated an interest in the welfare of others and a tendency to be helpful. The total score ranged from zero to 20, with a higher score signifying more frequent pro-social behaviours. Internal reliability consistency for this 10-item scale was favourable in the year 1 sample ($\alpha = .84$; Perkins-Mangulabnan & Flynn, 2006) as well as in the present study [$\alpha = .86$ in the cross-sectional sample, and $\alpha = .84 - \alpha = .85$ in the longitudinal sample (years 1 and 2, respectively)].

*Emotional disorder and anxiety scale.* This eight-item scale measured the extent to which foster youths displayed symptoms common to anxiety and depression (e.g., crying, worrying, etc.). The total score ranged from zero to 16, with a higher score indicating more frequent anxious or depressive behaviour on the part of the foster youth. Good internal consistency reliability was found for both the year-1 study ($\alpha = .81$; Perkins-Mangulabnan & Flynn, 2006), and the current study [$\alpha = .82 - \alpha = .83$ in the longitudinal sample (years 1 and 2, respectively)].

*Conduct disorder and physical aggression scale.* This 6-item scale measured the extent to which the foster youth displayed aggressive behaviours, such as threatening and physically attacking people. The total score ranged from zero to 12, with a higher score
indicating more frequent physically aggressive behaviour on the part of the foster youth. Internal reliability consistency for this 6-item scale was good in the year-1 sample (\( \alpha = .80 \), Perkins-Mangulabnan & Flynn, 2006) and the present study [\( \alpha = .82 \) in the cross-sectional sample, and \( \alpha = .80 - \alpha = .85 \) in the longitudinal sample (years 1 and 2, respectively)].

**Indirect aggression.** This five-item scale looked at less straightforward manifestations of aggression, such as betraying confidences and spreading rumours. The total score ranged from zero to 10, with a higher score indicative of more frequent indirect or “relational” aggression. Internal reliability consistency for this 5-item scale ranged from \( \alpha = .78 \) in the year-1 sample (Perkins-Mangulabnan & Flynn, 2006) to similar values in the present study [\( \alpha = .84 \) in the cross-sectional sample, and \( \alpha = .78 - \alpha = .84 \) in the longitudinal sample (years 1 and 2, respectively)].

**Data Analysis**

**Imputation of missing values procedure.** In imputing missing values for the measures, we followed Shafer and Graham’s (2002) recommendation and used the EM (Expectation-Maximization) algorithm, an option in SPSS that provides maximum-likelihood estimates for missing values. As with study 1 (Perkins-Mangulabnan & Flynn, 2006), the rate of missing data at the item level in the measures was low, within the 0-5% range.

**Variable transformations and screening for outliers.** Log and square-root transformations were undertaken for four positively skewed variables, including: the foster youth’s length of time spent in current placement, parent-child conflict, conduct disorder, and indirect aggression. As was the case for our previous study (Perkins-
Mangulabnan & Flynn, 2006), these transformations reduced skewness but produced unacceptably high kurtosis and, moreover, failed to eliminate most outliers. Thus, data transformations were eventually abandoned. Instead, we adopted the alternative procedure of carrying out screening regression runs on the untransformed (i.e., raw) variables, examining the standardized residuals larger than ± 3.3 (Tabachnick & Fidell, 1996). In the cross-sectional analyses, there was no outlier in the regression for pro-social behaviour, one outlier in the regression for emotional disorder, four in that for conduct disorder, and five in that for indirect aggression. In the longitudinal analyses, there was no outlier in the regression for indirect aggression, one outlier in the regression for pro-social behaviour, one in that for emotional disorder, and one in that for conduct disorder. In all cases, the results of the regressions with the untransformed variables, in which any outliers had been removed, proved to be virtually identical to the regressions with the transformed variables. For ease of interpretation, only the findings obtained with the untransformed (raw) variables will be reported here.

*Sample attrition and homogeneity*. As mentioned previously, 181 of the foster youths making up the study sample were year-1 participants (i.e., joined the study in 2001-2002), whereas 258 of the foster youths joined the study in year 2 (i.e., 2002-2003). Given that the year-1 sample included 367 foster youths, this means that the year-2 study incurred a 51% participant attrition rate. In order to investigate this elevated attrition rate, several attempts were made with the CASs concerned to access relevant information and obtain explanations. These attempts were largely unsuccessful, and little to no data was obtained on the whereabouts of those participants who were no longer in the study. Using our available data, we chose to compare those participants who stayed for year 2 (n=181)
to those who left the study after year 1 (n=186) on key variables including: demographic variables (e.g., foster child age and gender), contextual variables (e.g., age when first placed in care, reason for admission to foster care, current status and type of placement, etc.), foster parenting practice variables, and foster youth outcome variables. Chi-square tests were used for the categorical variables and independent-sample t-tests were used for the continuous variables. Four significant differences were found between the two groups. First, the foster youth’s age was significant ($t = 6.49, p < .000$). Those who left the study after the first year ($M = 14.09, SD = 2.28$) were an average of 1.4 years older than remaining participants ($M = 12.69, SD = 1.84$). Second, participants who left after the first year of the study were an average of one year older ($M = 8.33, SD = 3.87$) upon first being placed in foster care ($t = 2.28, p < .05$), as compared to remaining foster youths ($M = 7.39, SD = 3.60$). Third, when assessed in year-1 of the study, the “attrition” group had been in their current foster placements an average of six month’s less time ($t = -2.16, p < .05; M = 3.05, SD = 2.67$) than their remaining counterparts ($M = 3.50, SD = 3.11$). And finally, foster parents of those participants who remained in the study reported spending more time in shared activities with their foster youths ($M = 15.50, SD = 4.10$) than the foster parents whose foster youths were not part of the study in year 2 ($t = -2.60, p < .01; M = 14.25, SD = 5.07$).

The 181 “repeat” participants from year 1 were also compared to the 258 participants new to year 2. No significant differences between the two groups were found save one, suggesting that the two groups formed a homogeneous year-2 sample (Table 1). The only significant result was the duration of the foster youth’s current placement ($t = 4.06, p < .000$), with foster youths who joined the study in year 1 ($M = 4.19, SD = 3.32$)
having spent an average of 1.23 years longer in their current foster home placements as compared to those foster youths who joined the study in year 2 \((M = 2.97, SD = 2.85)\). We had already planned to include the foster youth’s years in current placement as a covariate in subsequent regressions, thus controlling for the potential effects of this difference in any further analyses.

Table 1. Comparison of foster youths who joined the study in Year 1 (2001-2002) and those who joined the study in Year 2 (2002-2003) on (a) categorical and (b) continuous variables

<table>
<thead>
<tr>
<th>(a)</th>
<th>Joined in Year 1 ((n=181))</th>
<th>Joined in Year 2 ((n=258))</th>
<th>Overall Sample ((n=439))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
</tr>
<tr>
<td>Foster youth gender</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>94</td>
<td>52</td>
<td>130</td>
</tr>
<tr>
<td>Female</td>
<td>87</td>
<td>48</td>
<td>128</td>
</tr>
<tr>
<td>(b)</td>
<td>Joined in Year 1 ((n=181))</td>
<td>Joined in Year 2 ((n=258))</td>
<td>Overall Sample ((n=439))</td>
</tr>
<tr>
<td>Variable</td>
<td>(\bar{x})</td>
<td>(SD)</td>
<td>(\bar{x})</td>
</tr>
<tr>
<td>Age (in years)</td>
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<td>1.85</td>
<td>13.44</td>
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<td>Total number of youth in household</td>
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<td>Years in current foster placement</td>
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<td>3.32</td>
<td>2.97*</td>
</tr>
<tr>
<td>Parental nurturance</td>
<td>19.64</td>
<td>2.53</td>
<td>20.09</td>
</tr>
<tr>
<td>Parent-youth conflict resolution</td>
<td>5.46</td>
<td>3.92</td>
<td>4.88</td>
</tr>
<tr>
<td>Youth pro-social behaviour</td>
<td>12.43</td>
<td>4.07</td>
<td>12.35</td>
</tr>
<tr>
<td>Youth emotional disorder</td>
<td>4.57</td>
<td>3.26</td>
<td>4.56</td>
</tr>
<tr>
<td>Youth conduct disorder</td>
<td>1.91</td>
<td>2.36</td>
<td>2.17</td>
</tr>
<tr>
<td>Youth indirect aggression</td>
<td>1.94</td>
<td>2.22</td>
<td>1.90</td>
</tr>
</tbody>
</table>

\*p \leq 0.001
Cross-sectional hierarchical regression analyses. A two-step hierarchical regression procedure was used. At step 1, we regressed each of the four outcome variables on two demographic variables (the foster youth’s gender and age) and two contextual variables (the number of years the foster youth had been in the current placement, and the total number of children in the foster family household). At step 2, we added the three parenting practice variables to the regression model, to discover whether they accounted for a statistically significant increment in each of the outcome variables, beyond that already explained by the two contextual and two demographic variables.

Longitudinal hierarchical regression analyses. A three-step hierarchical regression procedure was used. At step 1, we regressed each of the year-2 foster youth outcome variables on the four year-1 foster youth outcome variables. At step 2, the four demographic/contextual variables were included. In the third and final step, we added the three foster parenting practice variables into the regression model.

Moderated regression analyses. We also conducted exploratory moderated-regression analyses, to discover whether the demographic or contextual variables affected the strength of the relationships between the three foster parenting practices and the four foster youth outcomes. Multiplicative terms were formed by multiplying each of the three parenting practices by each of the demographic and contextual variables (i.e., by the potential moderators; Baron & Kenny, 1986). For each potential moderator (e.g., gender), we entered the set of three multiplicative terms involving that variable as an additional step in each of the regression equations.
Results

Intercorrelations. Table 2 shows the correlations among the study variables, in the full sample of 439 youths (i.e., before the removal of outliers in three of the four hierarchical regression analyses).

Table 2. Intercorrelations among the two demographic variables, two contextual variables, three foster parenting practices, and four foster youth outcomes in the year-2 cross-sectional sample (N = 439)

| Variable                              | 1  | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  |
|---------------------------------------|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Gender (m = 1, f = 0)              |    |     |     |     |     |     |     |     |     |     |     |     |
| 2. Age (in years)                     |   -0.07 |     |     |     |     |     |     |     |     |     |     |
| 3. Total number of youth in house     | -0.02 | -0.14** |     |     |     |     |     |     |     |     |     |
| 4. Youth’s years in current placement |   0.01 | 0.03 | -0.14** |     |     |     |     |     |     |     |     |
| 5. Parental nurturance                |    |     |     |     |     |     |     |     |     |     |     |
| 6. Parent-youth conflict              |   0.02 | 0.02 | -0.11* | 0.11* | -0.34*** |     |     |     |     |     |
| 7. Parent-youth shared activities     |    |     |     |     |     |     |     |     |     |     |     |
| 8. Youth pro-social behaviour         |   0.10* | -0.27*** | 0.005 | 0.05 | 0.39*** | -0.09 |     |     |     |     |
| 9. Youth emotional disorder           |   0.07 | 0.04 | 0.05 | -0.16*** | -0.09 | 0.23*** | -0.02 | -0.02 |     |     |
| 10. Youth conduct disorder            |   0.16*** | -0.13** | 0.10* | -0.05 | -0.06 | 0.26*** | 0.07 | -0.17*** | 0.38*** |     |
| 11. Youth indirect aggression         |   0.09 | -0.13** | 0.11* | -0.11* | 0.000 | 0.12* | 0.07 | -0.10* | 0.40*** | 0.52*** |     |

| Mean (or %)                           |    |     |     |     |     |     |     |     |     |     |     |
| SD                                    |    |     |     |     |     |     |     |     |     |     |     |

Note. *p ≤ .05 (two-tailed) **p ≤ .01 (two-tailed) ***p ≤ .001 (two-tailed)

Gender was significantly related to one foster parenting practice and two foster youth outcome variables: male foster youths were more likely to be involved in shared activities with their foster parents ($r = .10$, $p ≤ .05$) and reported higher levels of conduct disorder ($r = .16$, $p ≤ .001$), whereas female foster youths reported higher levels of pro-
social behaviour \(r = -0.24, \rho \leq 0.01\). Age was significantly related to two foster parenting practices: parental nurturance \(r = -0.10, \rho \leq 0.05\) and parent-youth shared activities \(r = -0.27, \rho \leq 0.001\) occurred less frequently with older foster youths \(r = -0.14, \rho \leq 0.01\). Older foster youths were more likely to be staying in foster homes with fewer children. They also reported lower levels of conduct disorder \(r = -0.13, \rho \leq 0.01\) and indirect aggression \(r = -0.13, \rho \leq 0.01\). Foster parents with a higher number of children in their households reported less parent-child conflict \(r = -0.11, \rho \leq 0.05\), while foster children placed in households with more children reported higher rates of conduct disorder \(r = 0.10, \rho \leq 0.05\) and indirect aggression \(r = 0.11, \rho \leq 0.05\). A greater number of years spent by the foster youth in his or her current placement was positively related to one parenting practice, parent-child conflict \(r = 0.11, \rho \leq 0.05\) and to one foster youth outcome, pro-social behaviour \(r = 0.11, \rho \leq 0.05\). It was negatively related to levels of emotional disorder \(r = -0.16, \rho \leq 0.001\) and indirect aggression \(r = -0.11, \rho \leq 0.05\). Parental nurturance was positively related to the frequency of parent-child shared activities \(r = 0.39, \rho \leq 0.001\) and foster youth pro-social behaviour \(r = 0.13, \rho \leq 0.01\), and negatively related to parent-youth conflict \(r = -0.34, \rho \leq 0.001\). A higher frequency of foster parent-youth conflict was positively correlated to increased emotional disorder \(r = 0.23, \rho \leq 0.001\), conduct disorder \(r = 0.26, \rho \leq 0.001\), and indirect aggression \(r = 0.12, \rho \leq 0.05\). Interestingly, foster parent-child shared activities did not correlate significantly with any of the foster youth outcomes. Increased foster youth pro-social behaviour was associated with less reported conduct disorder \(r = -0.17, \rho \leq 0.001\) and indirect aggression \(r = -0.10, \rho \leq 0.05\). Foster
youth difficulties (i.e., emotional disorder, conduct disorder and indirect aggression) also tended to correlate negatively with one another.

Cross-sectional hierarchical regression analyses. Table 3 shows the results of the hierarchical regression. The foster parenting practices, introduced as a set in step 2, accounted for a significant increment in the variance in each of the youth outcomes, beyond that accounted for by the demographic variables (i.e., foster youth gender and age) and the contextual variables (i.e., total number of children in the household and years spent in current foster placement) introduced in step 1. The increments in variance explained by the set of three foster parenting practices were 2% in the case of youth pro-social behaviour, 7% for emotional disorder, 9% for conduct disorder, and 2% for indirect aggression.

Regarding the predictive power of the demographic and contextual variables, at step 2 male gender predicted less frequent pro-social behaviour ($\beta = -.25, \rho \leq .001$) and indirect aggression ($\beta = -.10, \rho \leq .05$), and increased conduct disorder ($\beta = .21, \rho \leq .001$). Older foster youth age was associated with less indirect aggression ($\beta = -.12, \rho \leq .05$), whereas a larger number of children in the foster household predicted more frequent conduct disorder ($\beta = .12, \rho \leq .05$). A longer time spent by the foster youth in his or her current placement was related to greater pro-social behaviour ($\beta = .11, \rho \leq .05$), and lower emotional disorder ($\beta = -.20, \rho \leq .001$) and indirect aggression ($\beta = -.11, \rho \leq .05$).

Concerning the three foster parenting practices as predictors, greater foster parent-foster youth conflict predicted higher levels of all three negative foster youth outcomes, emotional disorder ($\beta = .26, \rho \leq .001$), conduct disorder ($\beta = .31, \rho \leq .001$), and indirect
aggression ($\beta = .16, p \leq .01$). Parental nurturance and parent-youth shared activities did not predict any of the foster youth outcomes.

Table 3. Summary of cross-sectional hierarchical regression of the four foster youth outcomes on two demographic variables, two contextual variables and three foster parenting practices

<table>
<thead>
<tr>
<th>Step and Predictors</th>
<th>Youth pro-social behaviour ($N = 439$)</th>
<th>Youth emotional disorder ($N = 438$)</th>
<th>Youth conduct disorder ($N = 435$)</th>
<th>Youth indirect aggression ($N = 434$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (m = 1, f = 0)</td>
<td>-0.25***</td>
<td>-0.06</td>
<td>0.20***</td>
<td>-0.10*</td>
</tr>
<tr>
<td>Age</td>
<td>-0.08</td>
<td>0.03</td>
<td>-0.10*</td>
<td>-0.13**</td>
</tr>
<tr>
<td>Total number of youth in house</td>
<td>-0.07</td>
<td>0.03</td>
<td>0.08</td>
<td>0.07</td>
</tr>
<tr>
<td>Youth's years in current placement</td>
<td>0.10*</td>
<td>-0.17***</td>
<td>-0.01</td>
<td>-0.09*</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (m = 1, f = 0)</td>
<td>-0.25***</td>
<td>-0.06</td>
<td>0.21***</td>
<td>-0.10*</td>
</tr>
<tr>
<td>Age</td>
<td>-0.08</td>
<td>0.06</td>
<td>-0.08</td>
<td>-0.12*</td>
</tr>
<tr>
<td>Total number of youth in house</td>
<td>-0.07</td>
<td>0.06</td>
<td>0.12*</td>
<td>0.08</td>
</tr>
<tr>
<td>Youth's years in current placement</td>
<td>0.11*</td>
<td>-0.20***</td>
<td>-0.04</td>
<td>-0.11*</td>
</tr>
<tr>
<td>Parental nurturance</td>
<td>0.10</td>
<td>-0.002</td>
<td>0.01</td>
<td>0.02</td>
</tr>
<tr>
<td>Parent-youth conflict</td>
<td>-0.07</td>
<td>0.26***</td>
<td>0.31***</td>
<td>0.16**</td>
</tr>
<tr>
<td>Parent-youth shared activities</td>
<td>-0.01</td>
<td>0.04</td>
<td>0.03</td>
<td>0.03</td>
</tr>
</tbody>
</table>

Note. In the regressions for conduct disorder and indirect aggression, the sample size ($N$) was less than 367 because outliers had been removed. Coefficients are beta ($\beta$) coefficients (i.e., standardized partial regression coefficients). In the hierarchical regression for pro-social behaviour, $R^2 = .08$ ($p \leq .001$) for step 1; $\Delta R^2 = .02$ ($p \leq .05$) for step 2. For emotional disorder, $R^2 = .04$ ($p \leq .01$) for step 1; $\Delta R^2 = .07$ ($p = .001$) for step 2. For conduct disorder, $R^2 = .06$ ($p \leq .001$) for step 1; $\Delta R^2 = .09$ ($p \leq .001$) for step 2. For indirect aggression, $R^2 = .04$ ($p \leq .001$) for step 1; $\Delta R^2 = .02$ ($p \leq .05$) for step 2.

*$p \leq .05$ (two-tailed)  **$p \leq .01$ (two-tailed)  ***$p \leq .001$ (two-tailed)  *$p < .06$ (two-tailed)

Comparison of means in longitudinal sample. Table 4 summarizes the results of the paired $t$-tests comparing the demographic variables, contextual variables, foster
parenting practices and foster youth outcomes. As these results demonstrate, there is little to no significant change in the means of these variables from year 1 to year 2. The only significant changes were foster child age \((t = 4.06, p \leq .000)\) and years in current placement \((t = 4.06, p \leq .000)\). Thus in year 2, participants were on average one year older and had been in their foster placements one year longer than when assessed in year 1.

**Table 4. Comparison of means, standard deviations and paired t-tests for longitudinal demographic variables, contextual variables, foster youth outcome variables and foster parent practice variables \((N = 201)\)**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Year 1 (2001-2002)</th>
<th>Year 2 (2002-2003)</th>
<th>(t)</th>
<th>(df)</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foster youth age (in years)</td>
<td>12.86</td>
<td>13.96</td>
<td>-28.66*</td>
<td>200</td>
<td>.000</td>
</tr>
<tr>
<td>Total number of youth in household</td>
<td>3.30</td>
<td>3.22</td>
<td>.61</td>
<td>200</td>
<td>.54</td>
</tr>
<tr>
<td>Years in current foster placement</td>
<td>3.42</td>
<td>3.96</td>
<td>-2.83*</td>
<td>200</td>
<td>.005</td>
</tr>
<tr>
<td>Parental nurturance</td>
<td>19.46</td>
<td>19.59</td>
<td>-.79</td>
<td>200</td>
<td>.43</td>
</tr>
<tr>
<td>Parent-youth conflict resolution</td>
<td>5.38</td>
<td>5.36</td>
<td>.06</td>
<td>200</td>
<td>.96</td>
</tr>
<tr>
<td>Parent-child shared activities</td>
<td>15.54</td>
<td>15.01</td>
<td>1.73</td>
<td>200</td>
<td>.09</td>
</tr>
<tr>
<td>Youth pro-social behaviour</td>
<td>12.72</td>
<td>12.47</td>
<td>.91</td>
<td>200</td>
<td>.37</td>
</tr>
<tr>
<td>Youth emotional disorder</td>
<td>4.84</td>
<td>4.70</td>
<td>.57</td>
<td>200</td>
<td>.57</td>
</tr>
<tr>
<td>Youth conduct disorder</td>
<td>2.21</td>
<td>1.98</td>
<td>1.41</td>
<td>200</td>
<td>.16</td>
</tr>
<tr>
<td>Youth indirect aggression</td>
<td>2.20</td>
<td>2.02</td>
<td>1.20</td>
<td>200</td>
<td>.23</td>
</tr>
</tbody>
</table>

*Note: A Bonferroni correction was used here such that each paired-t was tested at the \(a/10 = .005\) level of significance.*
Longitudinal hierarchical regression analyses. As Table 5 demonstrates, neither the demographic and contextual variables introduced at step 2, nor the foster parenting practices introduced as a set at step 3, accounted for any significant increment in the variance of the foster youth outcomes beyond that accounted for by the year-1 dependent variables.

Moderated regression analyses. For both cross-sectional and longitudinal analyses, in no instance did the set of multiplicative terms account for a statistically significant increment in the amount of variance explained in any of the outcomes. Thus, there was no evidence that the demographic or contextual variables moderated the relationship between the foster parenting practices and the foster youth outcomes.

Discussion

The results provided limited support for our hypotheses. Specifically, there were two supportive findings in the cross-sectional analyses, which replicated those of our first study (Perkins-Mangulabnan & Flynn, 2006). First, the three foster parenting practices, as a set, accounted for a statistically significant increment in the variance explained in each of the foster youth outcomes beyond that accounted for by the demographic and contextual variables. Second, parent-youth conflict was a predictor of more frequent emotional disorder, conduct disorder, and indirect aggression.

On the other hand, several results were contrary to our study hypotheses. Parent-youth conflict was unrelated to pro-social behaviour. In addition, parental nurturance and parent-youth shared activities did not predict any of the youth outcomes. Finally, in the longitudinal analyses, none of the relationships between variables were significant.
Table 5. Summary of longitudinal hierarchical regression of the four foster youth outcomes on two demographic variables, two contextual variables and three foster parenting practices

<table>
<thead>
<tr>
<th>Step and Predictors</th>
<th>Youth pro-social behaviour ((N = 200))</th>
<th>Youth emotional disorder ((N = 200))</th>
<th>Youth conduct disorder ((N = 200))</th>
<th>Youth indirect aggression ((N = 200))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foster youth outcome (year 1)</td>
<td>.56***</td>
<td>.51***</td>
<td>.54***</td>
<td>.52***</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foster youth outcome (year 1)</td>
<td>.52***</td>
<td>.52***</td>
<td>.53***</td>
<td>.49***</td>
</tr>
<tr>
<td>Foster youth gender ((m=1, f=0))</td>
<td>- .11</td>
<td>- .01</td>
<td>.10</td>
<td>- .10</td>
</tr>
<tr>
<td>Foster youth age</td>
<td>.05</td>
<td>.06</td>
<td>-.02</td>
<td>-.09</td>
</tr>
<tr>
<td>Total number of youth in house</td>
<td>-.04</td>
<td>-.02</td>
<td>.06</td>
<td>.003</td>
</tr>
<tr>
<td>Youth’s years in current placement</td>
<td>.06</td>
<td>.03</td>
<td>.05</td>
<td>-.04</td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foster youth outcome (year 1)</td>
<td>.53***</td>
<td>.49***</td>
<td>.48***</td>
<td>.48***</td>
</tr>
<tr>
<td>Foster youth gender ((m=1, f=0))</td>
<td>- .11</td>
<td>- .03</td>
<td>.10</td>
<td>- .11</td>
</tr>
<tr>
<td>Foster youth age</td>
<td>.05</td>
<td>.07</td>
<td>-.003</td>
<td>-.08</td>
</tr>
<tr>
<td>Total number of youth in house</td>
<td>-.05</td>
<td>-.01</td>
<td>.06</td>
<td>.01</td>
</tr>
<tr>
<td>Youth’s years in current placement</td>
<td>.05</td>
<td>.001</td>
<td>.03</td>
<td>-.05</td>
</tr>
<tr>
<td>Foster parent nurturance</td>
<td>-.05</td>
<td>.02</td>
<td>-.02</td>
<td>.02</td>
</tr>
<tr>
<td>Foster parent-youth conflict</td>
<td>-.01</td>
<td>.15*</td>
<td>.11</td>
<td>.07</td>
</tr>
<tr>
<td>Foster parent-youth shared act.</td>
<td>-.01</td>
<td>-.03</td>
<td>.02</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note. In the regressions for pro-social behaviour, emotional disorder and conduct disorder, the sample size was \(N = 200\) because an outlier had been removed. Coefficients are beta \((\beta)\) coefficients (i.e., standardized partial regression coefficients). In the hierarchical regression for pro-social behaviour, \(R^2 = .32\) \( (p \leq .001)\) for step 1; \(\Delta R^2 = .02\) \( (ns)\) for step 2; \(\Delta R^2 = .002\) \( (ns)\) for step 3. For emotional disorder, \(R^2 = .26\) \( (p \leq .001)\) for step 1; \(\Delta R^2 = .005\) \( (ns)\) for step 2; \(\Delta R^2 = .02\) \( (ns)\) for step 3. For conduct disorder, \(R^2 = .29\) \( (p \leq .001)\) for step 1; \(\Delta R^2 = .02\) \( (ns)\) for step 2; \(\Delta R^2 = .01\) \( (ns)\) for step 3. For indirect aggression, \(R^2 = .27\) \( (p \leq .001)\) for step 1; \(\Delta R^2 = .02\) \( (ns)\) for step 2; \(\Delta R^2 = .004\) \( (ns)\) for step 3.

\*\(p \leq .05\) (two-tailed)  \**\(p \leq .01\) (two-tailed)  \***\(p \leq .001\) (two-tailed)  \(ns = non-significant\)
In terms of the cross-sectional findings, the increments of between 2 and 9% in the variance in the outcomes attributable to the parenting practices were consistent with our year-1 study. Though the effect sizes were slightly smaller than our year-1 findings (where increments ranged between 4 and 11%), they remained consistent with broader parenting research suggesting that the effect size in this type of study tends to be smaller (Maccoby & Martin, 1983). In addition, our collecting of study data from two different sources (i.e., foster parent and foster youth) likely played a role by reducing the “method effect” (i.e., inflated correlations) often produced when the source of information is the same for both predictor and outcome variables.

The lack of prior research in this area makes the absence of longitudinal findings in this study difficult to interpret. One possibility is that there is no long-term causal mechanism operating between foster parenting practices and foster youth outcomes, and therefore that there is no beneficial effect of foster parenting. Another possibility is that of a reciprocal causal mechanism not being considered by the present study variables. On the other hand, contextual factors in our research offer potential explanations for both small effect sizes and the absence of longitudinal results. For instance, foster youths in this study had typically been in their placements for an average of four years. It is highly possible that both parenting and foster youth outcomes may have largely stabilized by this time, thus explaining the modest correlations observed (and the poor alpha values for two of the parenting practice scales). This certainly seemed to be the case with regards to the longitudinal sample, for which the t-tests did not reveal any significant year-to-year changes (except for foster youth age and years in current placement). It would be interesting in future studies to administer the AAR-C2 shortly after placement and/or
within the first few months following a placement, to investigate whether stronger covariation between foster parenting practices and foster youth outcomes might be found at this important time of transition.

Alternately, one could argue that the elapsed time period of one year between assessments may have been insufficient for any significant change to occur. Adolescence is a time of great transition, where youths negotiate new levels of independence, and work on developing self-concept. For foster youths, these tasks are often slowed, compounded by factors including the influence of past trauma and a resulting impaired capacity for attachment (Gilligan, 2000; Lipscombe, Farmer, & Moyers, 2003). Positive foster parenting practices must be displayed in a consistent manner, in order to create a secure base from which foster youths can explore opportunities for self-efficacy and self-worth (Downes, 1992; as cited in Lipscombe, Moyers, & Farmer, 2004). The time period required for the creation of this type of secure base possibly exceeds our measurement period of twelve months. Future cycles of data will be useful in exploring this hypothesis further.

Another possible explanation is that the lack of change may reflect a maintaining, rather than a further deterioration of foster youth outcomes. Taussig, Clyman, and Landsverk (2001) followed a cohort of 149 children (aged 7 to 12 years) who entered the foster care system in San Diego, California between May 1990 and October 1991. Interviews took place an average of six months after the youths entered foster care, and then a second time approximately six years later. Those who ultimately returned to their biological parents (termed 'reunified') were compared to those who remained in foster care (i.e., either in non-relative foster care, relative foster care, or some type of group
placement). Results showed that reunification status was a significant predictor of increased negative outcomes, including internalizing difficulties, risk behaviours (e.g., substance use), and problems with authority (e.g., arrests). These findings, although limited in their generalizability, offer some evidence that foster parenting may be serving as a protective factor against increasing foster youth difficulties.

Lack of change in parenting practices and foster youth behaviours, both within the cross-sectional and longitudinal samples, may also have been related to the elevated attrition level (51%) for this study. One wonders whether there was an inadvertent selection effect, where participants who left the study after year 1 were those whose behavioural difficulties were more pronounced and might therefore have produced greater variability and stronger covariation. The significant differences yielded by exploratory t-tests, specifically that foster youths who had left the study had entered foster care later, been in their placements for shorter a time, and engaged in less shared activities with their foster parents, lend some credibility to this hypothesis. Although participants who left the study after year 1 were, in all other ways similar to those participants who remained, these comparisons were based on data measurements taken at Time-1 (2001-2002), and it is impossible to know how these participants may have differed (e.g., behavioural difficulties, exposure to specific stressors) twelve months later.

The fact that neither demographic nor contextual variables moderated the relationship between foster parenting practices and foster child outcomes is consistent with our first-year study (see Perkins-Mangulabnan & Flynn, 2006 for a discussion) as well as the findings of other researchers (e.g., Lamborn, Mounts, Steinberg, & Dornbusch, 1991). However, as was stated in our first study, a lack of prior research,
particularly on the study's contextual variables as moderators, made interpretation of our exploratory results difficult. The true influence of these variables as potential moderators cannot be ruled out until more research is done.

The failure of parental nurturance and parent-child shared activities to predict foster youth outcomes is contrary to findings in broader parenting research. For example, research on shared parent-youth activities, although limited (Larson & Verma, 1999), has suggested that the frequency of certain parent-youth activities is related to outcomes such as pro-social behaviour (Cook & Willms, 2002), emotional difficulties (Cook & Willms, 2002; Hoffert & Sandberg, 2001) and resilience to stress (Gribble, Cowen, Wyman, Work, Wannon, & Raoof, 1993). Similarly, research on parental nurturance has found it to be associated with increased pro-social behaviour (Chao & Willms, 2002), and lower levels of psychological distress (e.g., anxiety and depression; Steinberg, Mounts, Lamborn, & Dornbusch, 1991). The fact that we did not find such links in our own study may be because parental nurturance and shared parent-youth activities are simply not relevant to foster youth outcomes. Perhaps the increasingly complex presentation of children to foster care due to their rising number of difficulties, emotional or otherwise (Farris-Manning, & Zandstra, 2003), has rendered these constructs less effective. For instance, given the negative, often abusive histories of foster children, it is highly possible that the nature of the foster parent-foster youth relationship differs from that of a typical parent-youth relationship, and consequently that nurturing behaviours on the part of the foster parent elicit different reactions from the foster youth than those typically observed. Yet another possibility is that there is a lack of construct validity in our measurement of these parenting practices. This appears more probable for the construct
of parent-youth shared activities, which unlike parental nurturance, failed to predict any foster youth outcomes in our initial study in addition to our current one. Problems in defining the construct of parent-child shared activities (which has also been referred to as cohesion, engagement, or involvement) has already been acknowledged by other researchers (e.g., Shaw & Dawson, 2001). As mentioned before, research on this construct has been limited (Larson & Verma, 1999). More salient features of the construct that have yet to be identified, such as the quality and meaning of such activities for the foster youth, may provide a better basis for operationalizing the construct. Certainly, the issue of how best to measure foster parenting practices will continue to be an important one for which further foster family-specific research is necessary before achieving definite answers. One of our future studies examining the predictive ability of foster parenting practices will seek to continue improving measurement in this area, by incorporating a new measure of the degree to which foster parents monitor the plans, activities and peer relationships of their foster youths. This will represent another important step forward in our attempts to understand the complex, dynamic relationship that is that of a foster parent and a foster youth.
References


Landy, S., & Tam, K. K. (1996). Yes, parenting does make a difference to the


Author Note

We gratefully acknowledge the financial support for the Looking After Children in Ontario (OnLAC) project received from the Social Sciences and Humanities Research Council (strategic grant 828-1999-1008, awarded to Robert Flynn, principal investigator; co-investigators, Tim Aubry, Marie Drolet, and Douglas Angus). We are also grateful for the additional financial support received from the Ministry of Children and Youth Services of Ontario (grant made to the Ontario Association of Children’s Aid Societies [OACAS]), Social Development Canada (grant made to the Child Welfare League of Canada [CWLC]), and Services to Children and Adults of Prescott-Russell (SEAPR). We also thank our organizational partners—OACAS, CWLC, and SEAPR—and participating Ontario Children’s Aid Societies, as well as the many young people, child welfare workers, supervisors, foster parents, and group home workers who have been or remain participants in the OnLAC project.
Study 3 – Foster Parenting Practices and Foster Youth Outcomes: Cross-Sectional

Findings Examining the Predictive Ability of Foster Parent Monitoring

Abstract

This study continued to investigate the role of three parenting practices (parental nurturance, parent-youth conflict and parent-youth shared activities) as predictors of four youth outcomes (pro-social behaviour, emotional disorder, conduct disorder, and indirect aggression) in foster families. It was designed as a follow-up to two previous cross-sectional and longitudinal examinations of samples of foster youths aged 10-17 years and living in foster homes between 2001-2003. The study involved the incorporation of a new construct, termed parental monitoring, into the set of foster parenting practice variables. Data was collected through the administration of the AAR-C2 as well as a mail-out survey. Participants included 143 foster youths who were living in foster homes in the province of Ontario in either 2002-2003 (N = 100) or 2003-2004 (N = 43). Cross-sectional hierarchical analyses showed that the four parenting practices, as a set, accounted for a statistically significant increment in the variance explained in two of the four foster youth outcomes (emotional disorder and conduct disorder). Higher levels of parent-youth conflict significant predicted increased emotional disorder and conduct disorder. Increased parental monitoring predicted lower levels of conduct disorder. No other significant results were noted. The continued impact of foster placement duration, lack of sample variability, and other potential moderators was discussed. Parenting practices were conceptualized as dynamic, fluid, reciprocal processes, for which further research was needed so that their salient aspects could be better operationalized and measured.
Study 3 – Foster Parenting Practices and Foster Youth Outcomes: Cross-Sectional
Findings Examining the Predictive Ability of Foster Parent Monitoring

*Looking After Children* (LAC) is a youth-centered, needs-driven approach that was designed to maximize the developmental outcomes of young people in care (Parker, Ward, Jackson, Aldgate, & Wedge, 1991). One of the elements that distinguished the LAC approach upon its initial conception was its conceptualization of the role of the substitute caregiver as that of a “corporate parent,” whose parenting should be as close as possible to the aims, behaviours, and quality that one would expect from adequately resourced parents in the general population (Jackson, Fisher, & Ward, 1996). As such, it was the intent of the LAC to use empirically-supported theory in order to determine the essential characteristics of parenting most likely to lead to good outcomes for youth (Jackson et al., 1996).

Despite this central focus on using effective parenting theory to enhance foster youth outcomes, the original LAC instrument employed for planning and monitoring the needs of young people in care, the Assessment and Action Record (AAR; Ward, Aldgate, Davies, Jackson, Parker, & Tizard, 1991), did not contain any parenting measures. When the AAR was adapted for Canadian usage, as part of an implementation and outcome evaluation of LAC into the 53 local Children's Aid Societies in Ontario (OnLAC project; Flynn, Angus, Aubry, & Drolet, 1999), parenting scales operationalizing important dimensions of effective parenting practice were introduced into the instrument. These standardized scales were taken from the Canadian National Longitudinal Survey of Children and Youth (NLSCY), a joint venture of Human Resources Canada and Statistics Canada to generate knowledge about the development of Canadian children (Statistics
Canada, 1997, 1999, & 2001). Among the scales added were a measure of parental nurturance (\textit{The Parental nurturance scale}; Statistics Canada, 1999), a measure of parent-youth conflict (\textit{The Conflict tactics scale}, Statistics Canada, 1999), and a measure of parent-youth shared activities (\textit{The Parent-child cohesion scale}, Statistics Canada, 1999). Research has consistently shown these three constructs to be linked to beneficial outcomes for children's development (Chao & Willms, 2002; Cook & Willms, 2002; Gribble, Cowen, Wyman, Work, Wannon, & Raoof, 1993; Jackson et al., 1996; Kashani, Burbach & Rosenberg, 1988; Landy & Tam, 1996; Racine & Boyle, 2002; Steinberg, Mounts, Lamborn & Dornbusch, 1991; Tesser, Forehand, Brody & Long, 1989).

To date, we have conducted two studies within the OnLAC research project to determine whether the three above-mentioned parenting practices (parental nurturance, parent-youth conflict, and parent-youth shared activities) predicted improvement in four foster youth outcomes: pro-social behaviour (behaviours demonstrating an interest in the welfare of others), emotional disorder (symptoms common to anxiety and depression), conduct disorder (physically aggressive behaviours), and indirect aggression (gossiping, rumour-spreading, sharing confidential secrets with a third party). The first study of a sample of 367 foster youths (assessed in years 2001-2002 of the OnLAC project) produced mixed results (Perkins-Mangulabnan & Flynn, 2006). Although parenting practices, as a set, were significant predictors of foster youth outcomes, several of the expected relationships were not significant. Still, parental nurturance was found to predict increased pro-social behaviour, decreased conduct disorder, and decreased indirect aggression. Parent-child conflict was a significant predictor of more frequent emotional disorder, conduct disorder, and physical aggression. Our second study of 439 foster
youths assessed in years 2002-2003, and of 201 youths assessed in both 2001-2002 and 2002-2003, also produced mixed findings (Perkins & Flynn, 2008). As in our previous study, the three foster parenting variables, as a set, accounted for a significant proportion of the cross-sectional variance in each of the foster youth outcomes. Also, parent-youth conflict was a significant predictor of more frequent emotional disorder, conduct disorder, and indirect aggression. Unfortunately, no other significant results were found.

Several factors were considered for the lack of significant results in these studies, one of them being whether the most salient parenting practices were truly being captured. One important parenting practice that we felt had not been considered to date was that of parental monitoring. Defined as a parent’s knowledge about their youth’s daily plans, activities, and peer relationships (Cottrell, Branstetter, Cottrell, Harris, Rishel, & Stanton, 2007; Huebner & Howell, 2003), numerous studies have linked higher levels of this construct to decreases in adolescent health risk behaviours (e.g., substance use, unsafe sexual practices; Li, Feigelman & Stanton, 2000; Li, Stanton, & Feigelman, 2000), and externalizing difficulties (e.g., increased aggression; Cottrell, Li, Harris, D’Alessandri, Atkins, Richardson, & Stanton, 2003). For example, Cottrell, Li, and colleagues (2003) found parental monitoring to be negatively correlated to adolescent smoking, drinking, marijuana use, and sexual involvement. Borawski, Levers-Landis, Lovegreen, & Trapl (2003) found parental monitoring to predict lower levels of alcohol use and higher levels of safe-sex practices in young men. Results from a study by Ceballo, Ramirez, Hearn, and Maltese (2003) showed that parental monitoring was directly correlated with lower levels of depression and hopelessness. As well, it acted, to some extent, as a buffer from the effects of childhood exposure to violence. Parental monitoring has been shown to be a
reliable predictor of the above-noted outcomes in several cross-sectional (Li, Feigelman & Stanton, 2000; Rai et al., 2003) and longitudinal investigations (Li, Stanton, & Feigelman, 2000; Yang, Stanton, Li, Cottrell, Galbraith, & Kaljee, 2007).

In a bid to continue improving measurement of foster parenting in the AAR tool, a new measure of parental monitoring was therefore incorporated into the third Canadian adaptation of the AAR. Although the original Canadian version of the AAR had contained a similar scale (derived from the My Parents and Me scale of the NLSCY; Statistics Canada, 1999), it had to be abandoned because of unacceptably low internal consistency (e.g., α = .40 in 2001-2002 sample, α = .31 in 2002-2003 sample). We replaced it with an adaptation of The Parental Monitoring Scale, originally created by Silverberg & Small (1993; as cited in Small & Kearns, 1993) and further developed by Small & Kearns (1993), Li, Stanton & Feigelman (2000), and Li, Feigelman, & Stanton (2000). It was our hope that the addition of this new, empirically-supported measure, would improve the AAR’s measurement of foster parenting practices and subsequent prediction of foster youth outcomes.

The present study aimed to further contribute to the very limited amount of research on the relationship between foster parenting practices and foster youth outcomes. It was built on our previous two studies, described earlier in this section (Perkins & Flynn, 2008; Perkins-Mangulabnan & Flynn, 2006), by exploring the relationships between the same variables, but with the influence of parental monitoring added into the parenting practice set. Our hypotheses were as follows: First, that foster parenting practices would account for a statistically significant increment in the variance accounted for in each of four foster youth outcomes, beyond that accounted for by our
control variables (i.e., foster youth gender and age, the duration of the young person’s current foster placement, and the number of children in the foster parent’s household). Second, that more frequent engagement by foster parents in nurturance, monitoring, and shared activities with the foster youth would be associated with increased foster youth pro-social behaviour and decreased emotional disorder, conduct disorder, or indirect aggression. Third, we expected that more frequent engagement by foster parents in conflictual parenting practices would be associated with less frequent foster youth pro-social behaviour and more frequent emotional disorder, conduct disorder, and indirect aggression.

Method

Sample

The study participants were 143 youths (55% male and 45% female) who in 2002-2004 were living in foster homes in the province of Ontario. Ninety-five percent of these youths were in agency-based foster homes (i.e., foster homes administered by local Children’s Aid Societies [CASs]), while 5% were in affiliated foster care (i.e., foster homes licensed by an outside/private agency from which CASs purchased services). Participants ranged in age from 10 to 17 years \( (M = 13.65, SD = 1.65, Mdn = 13.00) \), and had first entered foster care between one and fifteen years ago \( (M = 7.11, SD = 3.82, Mdn = 7.00) \). Reasons for their current admissions to foster care included: physical/sexual harm by commission (34%), caregiver capacity (25%), abandonment/separation (19%), harm by omission (12%), and emotional harm (4%). The designations of their current foster care placements were: regular (59%), special treatment (21%, for youths with behavioural difficulties), specialized (11%, for youth with special needs), and provisional
(8%, for youths in special arrangements such as kinship care). Most of the participants in the sample were Crown wards (91%), for whom parental responsibility had been legally and permanently transferred from the family of origin to the government of Ontario (and in turn to the local CAS). Others were Society wards (3%) or youths under temporary care agreements (3%), for whom the transfer of parental responsibility was the same as for Crown wards, although temporary in nature. Foster youths had been in their current placements for an average of 4.43 years ($SD = 3.18$, $Mdn = 4.00$), and foster parents had an average of 9.05 years of experience in providing foster care ($SD = 7.84$, $Mdn = 7.00$). The total number of children in foster parent’s households (including their own biological children as well as the foster youths) ranged from 1 to 7 children ($M = 3.26$, $SD = 1.80$, $Mdn = 3.00$).

**Instruments**

*Looking After Children: The second Canadian adaptation of the Assessment and Action Record (AAR-C2).* The participants in this study were drawn from a larger project investigating the implementation and outcomes of Looking After Children: Good Parenting, Good Outcomes in 53 local CASs in the province of Ontario, Canada between 2001-2004 (Flynn, Angus, Aubry, & Drolet, 1999). Looking After Children is a developmentally oriented approach to out-of-home care that originated in the UK (Ward, 1995). It aims to improve foster youth outcomes through enhancing the quality of substitute or “corporate” parenting, as per its fundamental principle that outcome expectations for foster youth should be equivalent to those for young people in the general population (even though foster youth needs may be greater) (Jackson, Fisher, & Ward, 1996). The main instrument of the Looking After Children project is the second
Canadian adaptation of the Assessment and Action Record (AAR-C2; Flynn, Ghazal & Legault, 2004) which, like the original UK version of the tool, assesses seven youth outcome domains: health, education, identity, family and social relationships, social presentation, emotional and behavioural development, and self-care skills.

*Foster parent survey.* In our goal to continue improving the measurement of foster parenting practices in the AAR-C2, a new parental monitoring measure was introduced during our most recent revision of the instrument (2005). This parental monitoring measure was designed to replace a similar one that we abandoned in our earlier parenting practice studies (e.g., Perkins-Mangulabnan & Flynn, 2006), due to its unacceptably low internal consistency. In order to try and obtain data on the new measure for previous cycles of study participants, the measure was sent out in survey form. It was included as the fifth section of a larger mail-out survey, investigating the relationship between the perceived utility of the AAR-C2 and process variables influencing its successful implementation (Pantin, Flynn, & Runnels, 2006). A copy of the section of the survey pertinent to this study can be found in Appendix A.

**Measures Used in the Present Study**

With the exception of the Parental Monitoring Scale, the measures used in this study have been thoroughly documented elsewhere and will not be reviewed here (see Perkins-Mangulabnan & Flynn, 2006). The following section lists only their total possible scores and respective reliabilities. The adapted Parental Monitoring Scale is fully described.

The foster parent most knowledgeable as to the foster youth's status and functioning was the respondent for these four parenting practice measures.
Parental nurturance scale. This six-item scale had a total possible score ranging between zero and 24, with a higher score indicating more frequent nurturing behaviours. Internal consistency reliability for this scale ranged between $0.77 \leq \alpha \leq 0.80$ in our past research (Perkins & Flynn, 2008; Perkins-Mangulabnan & Flynn, 2006), and performed similarly in the current study ($\alpha = 0.76$).

Parent-child conflict scale. This eight-item scale had a total possible score that ran from zero to 32, with a higher score indicating more frequent engagement in negative conflict resolution practices. Internal consistency reliability has varied significantly in past samples, producing Cronbach's alpha values of $\alpha = 0.54$, and $0.70 \leq \alpha \leq 0.75$ (Perkins & Flynn, 2008; Perkins-Mangulabnan & Flynn, 2006), but was acceptable in this one ($\alpha = 0.74$).

Parent-child shared activities scale. The score for this six-item scale ranged between zero and 30, with a higher score indicating a higher frequency of shared foster-parent foster-youth activities. Internal consistency has been low ($0.64 \leq \alpha \leq 0.70$) to problematic ($\alpha = 0.57$) for this scale in the past (Perkins & Flynn, 2008; Perkins-Mangulabnan & Flynn, 2006). Its value for the current study was ($\alpha = 0.67$).

Parental monitoring. We used factor analysis and reliability analysis to derive this six-item scale. The original version comprised 10 items (see Appendix A), taken from the Parental Monitoring Scale originally developed by Silverberg and Small (1993), further developed and modified by researchers including (but not limited to) Small and Kearns (1993), Li, Feigelman, and Stanton (2000), and Li, Stanton, and Feigelman (2000). The scale has shown consistent internal consistency reliability, whether in 10-item form ($\alpha = 0.84$; Ceballo et al., 2003), 8-item form ($\alpha = 0.87$, Small & Kearns, 1993) or 6-item form (
We omitted one item because it appeared to us to be lacking in construct validity in the context of foster care. The six-item version was chosen over the 8-item and 9-item versions because it provided the cleanest 1-component structure and strongest internal consistency reliability ($\alpha = .86$). (Selected items are identified by an asterisk in Appendix A.) Sample items included “My foster child/youth talks to me about the plans he or she has with friends,” and “I know who the friends of my foster child/youth are.” Response options, on a five-point scale, ranged between “Never” and “Always,” with a total possible score of between zero and 24. A higher score signified increased monitoring of the foster youth’s daily plans, activities, and peer relationships.

The foster youth was the respondent for these four outcome measures.

**Pro-social behaviour scale.** This 10-item scale had a total score that ran from zero to 20, with a higher score signifying more frequent pro-social behaviours. Internal reliability consistency has generally been good, ranging from $0.84 \leq \alpha \leq 0.86$ in the past (Perkins & Flynn, 2008; Perkins-Mangulabnan & Flynn, 2006), and at $\alpha = .86$ in the current study.

**Emotional disorder and anxiety scale.** This eight-item scale had a total possible score of 16. A higher score indicated more frequent anxious or depressive foster youth behaviours and feelings. Internal consistency reliability has also been consistently favourable for this scale in the past ($0.81 \leq \alpha \leq 0.83$; in Perkins & Flynn, 2008 and Perkins-Mangulabnan & Flynn, 2006), as well as in the current study ($\alpha = .83$).

**Conduct disorder and physical aggression scale.** This 6-item scale comprised a total possible score of 12, with a higher score indicating more frequent physically
aggressive behaviour on the part of the foster youth. Internal reliability consistency has
also been good for this scale in past studies ($0.80 \leq \alpha \leq 0.85$; in Perkins & Flynn, 2008 and
Perkins-Mangulabnan & Flynn, 2006) and currently ($\alpha = 0.85$).

*Indirect aggression.* The total score for this five-item scale ranged from zero to
10, with a higher score indicating more frequent indirect or “relational” foster youth
aggression. Internal reliability consistency for the present study was good ($\alpha = 0.85$), and
remained consistent with prior results ($\alpha = 0.78$ and $\alpha = 0.84$; Perkins & Flynn, 2008 and

*Data collection*

*AAR-C2.* Within the guidelines of the larger Ontario Looking After Children
(OnLAC) research project (Flynn et al, 1999), each participating CAS had agreed to use
the AAR-C2 to assess the needs and monitor the progress of 25 youths in its care or 10%
of its in-care caseload, whichever was greater. Although the choice of which young
people would take part in the study was left up to each local CAS, they had agreed to
select, as much as possible, foster youths who were likely to remain in care for the
duration of the three-year study (2001-2004). The AAR-C2 was administered in the
context of a conversational interview that typically included the foster youth, the foster
parent most knowledgeable about the foster youth’s daily routine and functioning (most
often the foster mother), and the child welfare worker in charge of the case.

Conversational interviews lasted from 1 to 4 sessions. Data for this study was drawn from
research project. Information for all variables, except parental monitoring, stems from
this database. Participants were assessed with the AAR-C2 versions intended for youths aged 10-14 years of age or 15 years and over.

Foster parent survey. Pantin and colleagues (2006) used Dillman's (1978) Total Design Method to collect the mail-out data. Only the portions of the mail-out applicable to the present study are described here. A survey package, containing a survey questionnaire, an accompanying letter introducing the researchers and the nature of study, two copies of an informed consent form (one for the foster parent to keep, one to be returned with the questionnaire), and a stamped self-addressed return envelope, was mailed to each of the foster parents in their preferred language (see Appendix A for copies of the accompanying letter and informed consent form). A second letter was sent approximately one week later, thanking those who had already mailed back their questionnaires and inviting those who had not yet to do so. About one month later, a new package of individually addressed envelopes was sent to all non-responders. A final survey package was sent by registered mail approximately four weeks later. From this method, a total of 146 responses were obtained from a pool of 229 potential participants, for an effective response rate of 64% (based on Dillman, 1991). Of the 146 responses obtained, 143 met criteria for this study (e.g., in foster homes as opposed to kinship care, between the ages of 10-17). Among the final group of 143 participants, 100 foster youths had joined the study in year 2 (2002-2003) and 43 had joined the study in year 3 (2003-2004).

Data Analysis

Imputation of missing values procedure. In imputing missing values for the measures, we followed Shafer and Graham’s (2002) recommendation and used the EM
(Expectation-Maximization) algorithm, an option in SPSS that provides maximum-likelihood estimates for missing values. As with study 1 (Perkins-Mangulabnan & Flynn, 2006) and study 2 (Perkins & Flynn, 2008), the rate of missing data at the item level in the measures was low, within the 0-7% range, and most often within the 1-3% range.

Variable transformations and screening for outliers. Log and square-root transformations were undertaken for four skewed variables, including: the foster youth’s length of time spent in current placement, parent-child conflict, conduct disorder, and indirect aggression. As was the case for our previous studies (Perkins & Flynn, 2008; Perkins-Mangulabnan & Flynn, 2006), transformations either had no effect, reduced skewness but produced unacceptably high kurtosis, and failed to eliminate outliers. Thus, data transformations were abandoned and we carried out screening regression runs on the untransformed (i.e., raw) variables while examining the standardized residuals larger than ± 3.3 (Tabachnick & Fidell, 1996). There were three outliers in the regression for conduct disorder, and one outlier in the regression for indirect aggression.

Sample homogeneity. As mentioned previously, 100 of the foster youths making up the study sample were year-2 participants (i.e., joined the study in 2002-2003), whereas 43 of the foster youths joined the study in year 3 (i.e., 2003-2004). In order to verify that these two subgroups formed a homogeneous sample, we chose to compare their respective means for the study variables, including: the demographic variables (foster child age and gender), contextual variables (years in current foster placement, and total number of children living in foster household), foster parenting practice variables (parental nurturance, parent-youth conflict, parent-youth shared activities, and parental monitoring), and foster youth outcome variables (prosocial behaviour, emotional
disorder, conduct disorder, and indirect aggression). Chi-square tests were used for the categorical variables and independent-sample t-tests were used for the continuous variables. No significant differences were found between the two groups, suggesting that they could be considered as one homogeneous cross-sectional sample.

Hierarchical regression analyses. A two-step hierarchical regression procedure was used. At step 1, we regressed each of the four outcome variables on two demographic variables (the foster youth’s gender and age) and two contextual variables (the number of years the foster youth had been in the current placement, and the total number of children in the foster family household). At step 2, we added the four parenting practice variables to the regression model, to discover whether they accounted for a statistically significant increment in each of the outcome variables, beyond that already explained by the two contextual and two demographic variables.

Moderated regression analyses. We also conducted exploratory moderated-regression analyses, to discover whether the demographic or contextual variables affected the strength of the relationships between the four foster parenting practices and the four foster youth outcomes.

Multiplicative terms were formed by multiplying each of the four parenting practices by each of the demographic and contextual variables (i.e., by the potential moderators; Baron & Kenny, 1986). For each potential moderator (e.g., gender), we entered the set of four multiplicative terms involving that variable as an additional step in each of the regression equations.
Results

*Intercorrelations.* Table 1 shows the correlations among the study variables in the sample of 143 (i.e., before the removal of outliers in two of the four hierarchical regression analyses).

Table 1: Intercorrelations among the two demographic variables, two contextual variables, four foster parenting practices, and four foster youth outcomes (N = 143)

<table>
<thead>
<tr>
<th>Variable</th>
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</thead>
<tbody>
<tr>
<td>1. Gender (m = 1, f = 0)</td>
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<td>2. Age (in years)</td>
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<td>3. Total # of youth in house</td>
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<td>4. Years in placement</td>
<td>-.18*</td>
<td>.02</td>
<td>-.08</td>
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<td>5. Parental nurturance</td>
<td>-.16*</td>
<td>.20*</td>
<td>-.12</td>
<td>.10</td>
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<td>6. Parent-youth conflict</td>
<td>-.04</td>
<td>-.14</td>
<td>-.14</td>
<td>.01</td>
<td>-.25**</td>
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<td>7. Parent-youth shared act.</td>
<td>-.05</td>
<td>-.02</td>
<td>-.11</td>
<td>-.05</td>
<td>.34***</td>
<td>-.10</td>
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<td>8. Parental monitoring</td>
<td>-.09</td>
<td>-.10</td>
<td>.16*</td>
<td>.08</td>
<td>.16*</td>
<td>-.26**</td>
<td>.24**</td>
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<td>9. Youth prosocial beh.</td>
<td>-.14</td>
<td>.04</td>
<td>-.03</td>
<td>.30***</td>
<td>.06</td>
<td>-.15</td>
<td>-.05</td>
<td>.19*</td>
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<tr>
<td>10. Youth emot. disorder</td>
<td>-.14</td>
<td>-.05</td>
<td>.07</td>
<td>-.12</td>
<td>-.08</td>
<td>.26**</td>
<td>-.003</td>
<td>-.11</td>
<td>-.18*</td>
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<td>11. Youth conduct dis.</td>
<td>.13</td>
<td>-.13</td>
<td>.16*</td>
<td>-.08</td>
<td>-.15</td>
<td>.20*</td>
<td>.02</td>
<td>-.26**</td>
<td>-.32***</td>
<td>.42***</td>
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<tr>
<td>12. Youth indirect agg.</td>
<td>-.32***</td>
<td>-.21*</td>
<td>.04</td>
<td>-.09</td>
<td>.04</td>
<td>.01</td>
<td>.07</td>
<td>-.09</td>
<td>-.21*</td>
<td>.51***</td>
<td>.46***</td>
<td>--</td>
</tr>
</tbody>
</table>

Mean (or %) | 55% | 13.65 | 3.26 | 4.43 | 19.48 | 5.75 | 15.07 | 20.87 | 12.59 | 4.79 | 1.96 | 1.76 |
SD | -- | 1.65 | 1.80 | 3.18 | 2.52 | 3.86 | 4.57 | 3.09 | 4.17 | 3.30 | 2.39 | 2.20 |

Note. *p ≤ .05 (two-tailed) **p ≤ .01 (two-tailed) ***p ≤ .001 (two-tailed) ^p < .06 (two-tailed)

In terms of the demographic and contextual variables, gender was significantly related to one contextual variable and one foster youth outcome. Specifically, female foster youths were more likely to have been in their current foster placements for a longer
period of time \((r = -0.18, \rho \leq 0.05)\) and reported higher levels of indirect aggression \((r = -0.32, \rho \leq 0.001)\). (There was also a trend for the foster parents of female foster youths to report a higher frequency of parental nurturance \([r = -0.16, \rho \leq 0.06]\).) Foster gender age was significantly related to one parenting practice and one foster youth outcome. Parents of older foster youths reported higher levels of parental nurturance \((r = 0.20, \rho \leq 0.05)\) and older foster youths were less likely to report indirect aggression \((r = -0.21, \rho \leq 0.05)\). Total number of children in the foster household was not significantly related to any of the study variables, although its relationship with two variables approached significance. An increased number of children in the foster household tended to be related to elevated levels of parental monitoring and conduct disorder (both \(r = 0.16, \rho \leq 0.05\)). A greater number of years spent by the foster youth in his or her current placement was positively related to pro-social behaviour \((r = 0.30, \rho \leq 0.001)\).

Foster parenting practices tended to correlate to one another as expected. Positive foster parenting practices (i.e., parental nurturance, shared parent-youth activities, and parental monitoring) tended to correlate positively with one another, and negatively with parent-youth conflict. Correlations with foster youth outcomes were not as consistent. Parental nurturance and parent-youth shared activities were not related to any foster youth outcomes. Parent-youth conflict, on the other hand, was significantly related to increased levels of foster youth emotional disorder \((r = 0.26, \rho \leq 0.01)\) and conduct disorder \((r = 0.20, \rho \leq 0.05)\). A higher frequency of parental monitoring was associated with increased foster youth pro-social behaviour \((r = 0.19, \rho \leq 0.05)\) and decreased foster youth conduct disorder \((r = -0.26, \rho \leq 0.01)\). Increased foster youth pro-social behaviour was associated with less reported emotional disorder \((r = -0.18, \rho \leq 0.05)\), conduct disorder \((r =
-32, \( \rho \leq .001 \)), and indirect aggression \( (r = -.21, \rho \leq .05) \). Also as expected, foster youth difficulties (i.e., emotional disorder, conduct disorder and indirect aggression) also correlated negatively with one another.

Cross-sectional hierarchical regression analyses. The foster parenting practices, introduced as a set in step 2, accounted for a significant increment in the variance in two of the four foster youth outcomes, beyond that accounted for by the demographic and contextual variables introduced in step 1 (Table 2). The increments in variance explained by the set of four parenting practices were 8% for emotional disorder and 16% for conduct disorder. Despite the non-significant steps for the regressions of foster youth prosocial behaviour and indirect aggression, significant relationships of specific parenting practice variables are reported below.

Regarding the predictive power of the demographic and contextual variables at step 2, female gender predicted increased indirect aggression \( (\beta = -.34, \rho \leq .001) \), and decreased conduct disorder \( (\beta = .25, \rho \leq .001) \). (There was also a trend toward increased emotional disorder.) Increased foster youth age predicted less indirect aggression \( (\beta = -.27, \rho \leq .001) \), whereas a larger number of children in the foster household predicted more frequent conduct disorder \( (\beta = .23, \rho \leq .01) \). Lengthier foster placements predicted increased pro-social behaviour, but also a tendency toward increased conduct disorder.

Concerning the four foster parenting practices as individual predictors, greater foster parent-foster youth conflict predicted higher levels of emotional disorder \( (\beta = .25, \rho \leq .01) \) and conduct disorder \( (\beta = .20, \rho \leq .05) \). Parental monitoring predicted decreased foster youth conduct disorder \( (\beta = -.29, \rho \leq .001) \), and tended toward significance in its positive relationship with prosocial behaviour, and negative relationship with indirect
aggression. Parental nurturance and parent-youth shared activities did not predict any of the foster youth outcomes.

Table 2. Summary of cross-sectional hierarchical regression of the four foster youth outcomes on two demographic variables, two contextual variables and four foster parenting practices

<table>
<thead>
<tr>
<th>Step and Predictors</th>
<th>Youth pro-social behaviour (N = 143)</th>
<th>Youth emotional disorder (N = 143)</th>
<th>Youth conduct disorder (N = 140)</th>
<th>Youth indirect aggression (N = 142)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (m=1, f=0)</td>
<td>-.09</td>
<td>-.17</td>
<td>.27***</td>
<td>-.33***</td>
</tr>
<tr>
<td>Age</td>
<td>.03</td>
<td>-.04</td>
<td>-.12</td>
<td>-.24**</td>
</tr>
<tr>
<td>Total number of youth in household</td>
<td>-.01</td>
<td>.05</td>
<td>.15*</td>
<td>.001</td>
</tr>
<tr>
<td>Youth's years in current placement</td>
<td>.28***</td>
<td>-.15</td>
<td>.10</td>
<td>-.13</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender (m=1, f=0)</td>
<td>-.09</td>
<td>-.16*</td>
<td>.25***</td>
<td>-.34***</td>
</tr>
<tr>
<td>Age</td>
<td>.03</td>
<td>-.01</td>
<td>-.10</td>
<td>-.27***</td>
</tr>
<tr>
<td>Total number of youth in household</td>
<td>-.07</td>
<td>.11</td>
<td>.23**</td>
<td>.03</td>
</tr>
<tr>
<td>Youth's years in current placement</td>
<td>.26**</td>
<td>-.13</td>
<td>.13*</td>
<td>-.11</td>
</tr>
<tr>
<td>Parental nurturance</td>
<td>-.03</td>
<td>-.02</td>
<td>-.09</td>
<td>.03</td>
</tr>
<tr>
<td>Parent-youth conflict</td>
<td>-.13</td>
<td>.25**</td>
<td>.20*</td>
<td>-.08</td>
</tr>
<tr>
<td>Parent-youth shared activities</td>
<td>-.09</td>
<td>.04</td>
<td>.10</td>
<td>.08</td>
</tr>
<tr>
<td>Parental monitoring</td>
<td>.16*</td>
<td>-.08</td>
<td>-.29***</td>
<td>-.17*</td>
</tr>
</tbody>
</table>

Note. In the regressions for conduct disorder and indirect aggression, the sample size (N) was less than 367 because outliers had been removed. Coefficients are beta (β) coefficients (i.e., standardized partial regression coefficients). In the hierarchical regression for pro-social behaviour, $R^2 = .10$ (p ≤ .01) for step 1; $ΔR^2 = .05$ (ns) for step 2. For emotional disorder, $R^2 = .05$ (ns) for step 1; $ΔR^2 = .08$ (p ≤ .05) for step 2. For conduct disorder, $R^2 = .11$ (p ≤ .01) for step 1; $ΔR^2 = .16$ (p ≤ .001) for step 2. For indirect aggression, $R^2 = .17$ (p ≤ .001) for step 1; $ΔR^2 = .03$ (ns) for step 2.

*p ≤ .05 (two-tailed)  **p ≤ .01 (two-tailed)  ***p ≤ .001 (two-tailed)  * .05 ≤ p < .09 (two-tailed)

ns = non-significant
Moderated regression analyses. In no instance did the set of multiplicative terms account for a statistically significant increment in the amount of variance explained in any of the foster youth outcomes. Thus, there was no evidence that the demographic or contextual variables moderated the relationship between the foster parenting practices and the foster youth outcomes.

Discussion

Overall, there were very few significant results in this study that supported our hypotheses. Three positive results were found in partial support of our predictions. First, the four parenting practices, as a set, accounted for a statistically significant increment in the variance explained in two of the four foster youth outcomes. Second, parent-youth conflict was a significant predictor of increased emotional disorder and conduct disorder. Third, increased parental monitoring predicted lower levels of conduct disorder (it also tended toward significance with pro-social behaviour and indirect aggression, however these regressions were non-significant, and therefore will not be discussed any further at this time).

Among those findings that did not support our hypotheses were the non-significant regressions for pro-social behaviour and indirect aggression. Furthermore, two of the four parenting practices, parental nurturance and parent-youth shared activities did not predict any foster youth outcomes.

The increments in variance explained for emotional disorder ($\Delta R^2 = .08$, $p \leq .05$) and conduct disorder ($\Delta R^2 = .16$, $p \leq .001$) remain both modest and consistent with those found in our previous studies (Perkins & Flynn, 2008; Perkins-Mangulabnan & Flynn, 2006). The same reasons suggested for these smaller increments in our previous studies
also apply in this case. Specifically, the length of foster youths' placements in their foster homes increases an average of one year with each wave of data collection. One may hypothesize that both parenting practices and foster youth outcomes continue to stabilize, so that little variability remains to be detected by the study predictors. (This might also partly explain some of the non-significant results, as several of the correlations and beta-values appear to drop with every year of the study.) Stabilization of behaviours and reduced variability may also result from foster parenting practices serving as protective factors, and therefore preventing any further deterioration of foster youth outcomes that might have occurred had youth left foster care (see Perkins & Flynn, 2008; and Taussig, Clyman, & Landsverk, 2001 for further details).

The small-sized increments also suggest that there are factors that moderate the foster parenting-foster youth relationship other than those considered in this study. For instance, Cole (2005) found that a caregiver's parenting practices were influenced by that caregiver’s motivation for fostering infants, and ultimately affected the type of attachment formed by infants to their foster parents. Ceballo and colleagues (2003) found the effects of parental monitoring on foster youth outcomes varied, depending on that youth’s level of exposure to trauma. The more violence experienced or witnessed by the child, the less parental monitoring was likely to effect change in preventing and/or reducing adolescent risk behaviours. This could be investigated in future waves of data by including the youth’s reasons for entering foster care into our analyses.

The fact that increased parental monitoring predicted lower levels of conduct disorder and none of the other foster youth outcomes (pro-social behaviour, emotional disorder, and indirect aggression) is not that surprising, given that a majority of broader
parenting research has linked this construct to externalizing behaviour as opposed to internalizing difficulties and pro-social behaviours (Borawski et al., 2000; Cottrell et al., 2003; Li, Feigelman & Stanton, 2000; Li, Stanton, & Feigelman, 2000; Rai et al., 2003). The items of the conduct disorder scale used in this study focus particularly on physical attacks; one could posit that the variance explained might be even larger should the scale include other typical adolescent health risk behaviours (e.g., alcohol and drug use, unsafe sexual practices, etc.) Interestingly, it has also been remarked that the predictive value for parental monitoring decreases when it is examined within a multivariate model (and not as a result of multicollinearity with other predictors), suggesting that it is not enough on its own to prevent problematic behaviours (Borawski et al., 2000). Finally, the smaller sample size for this study and the subsequent loss of power may explain the lack of significant results, both for the parental monitoring construct as well as for other predictor variables.

Another important consideration remains the cross-sectional nature of this data. It would be naïve to assume that foster youth behaviour does not exert any impact on foster parenting. The unidirectionality of this study’s model does not allow for reciprocal causal mechanisms to be fully explored. For example, the use of positive conflict resolution strategies might reduce the rates of foster youth emotional and/or behavioural difficulties, but it can also be argued that a youth with less emotional and/or behavioural difficulties is less likely to engage in conflictual interactions with his or her foster parent. Stattin & Kerr (2000a, 2000b) described this well when they cautioned that parenting practices are complex, fluid, dynamic constructs for which researchers must balance input from both parts of the parent-child dyad. (The authors were speaking specifically about parental
monitoring, but it is our opinion that this comment can be generalized to most, if not all, parenting constructs.) One might be tempted to think that because our previous longitudinal study did not produce any significant findings, there are no reciprocal causal mechanisms involved, but this was most likely due to a lack of sample variability from year 1 to year 2. Further research is needed before any definitive conclusions can be drawn. Dishion and McMahon (1998) echoed this viewpoint, by cautioning researchers from seeking to link youth outcomes directly to single parenting practices without consideration of important interrelated, reciprocating dimensions. They suggested, for example, that the quality of the parent-child relationship should serve as a foundation. For instance, a foster child who perceives the relationship with their foster parent as positive and trusting, might view a certain level of parental monitoring as a sign of caring and concern. A foster youth struggling to accept his or her foster parents, or viewing the relationship as a tense, conflictual one, might perceive that same level of parental monitoring as controlling and intrusive, and react accordingly (Ceballo et al., 2003).

The fact that our demographic and contextual variables did not moderate the relationship between foster parenting practices and foster youth outcomes is certainly consistent with our previous studies. Once again, there are a few studies suggesting that age and gender can interact with parenting practices (e.g., Rothbaum & Weisz, 1994) but for the most part, these variables, and particularly the contextual variables, have not been studied as potential moderators of the parenting-child outcome relationship.

A continual problem brought up by our studies is that of how to properly operationalize and measure parenting practices. This seems especially evident in the case of the parent-youth shared activities scale, which has yet to yield any significant results.
Another problematic scale is that of parental nurturance, which has not been associated with any significant findings since year-1 of the study (see Perkins-Mangulabnan & Flynn, 2006). (This is particularly perplexing given the stated importance of the latter practice within the broader parenting literature; Skinner, Johnson, & Snyder, 2005). On the one hand, it is entirely possible that foster children, who have typically been removed from their households due to abusive or other extremely adverse circumstances (Goerge, Van Voorhis, Grant, Casey, & Robinson, 1992), do not have the typical “positive” reaction to an affectionate foster parent gesture, or to invitations to spend one-on-one time with their foster parent. Their insecure or ambivalent attachment, their difficulty trusting the foster parent, etc., may be intervening factors that cause them to recoil, to pull away. On the other hand, there is also the strong possibility that the constructs of parent-youth shared activities and parental nurturance are not being properly assessed. 

We have already discussed the problems related to defining the parent-youth shared activities construct and will not repeat them here (see Perkins-Mangulabnan & Flynn, 2006 for a discussion). However, even as central a construct as parental nurturance has varied widely in the way its core features have been mapped, labelled and assessed (Skinner, Johnson & Snyder, 2005). There is also significant debate around the operationalization and measurement of the parental monitoring construct. Stattin & Kerr (2000a; 2000b) identified three subsets of parental monitoring: 1) the type of monitoring that involves voluntarily disclosure on the youth’s part; 2) monitoring that results from parents soliciting information from the youth; and 3) monitoring involving the setting of limits on a youth’s behaviour. In testing, they found solicitative monitoring to be the worst predictor and voluntary-disclosure monitoring to be the most accurate predictor of
outcomes. In their development and validation of a new parental monitoring instrument, Cottrell and colleagues (2007) conceptualized seven different types of monitoring, each leading to varying levels of successful family dynamics and outcomes. Until core parenting practices are consistently mapped and assessed, their unique defining effects on other variables may be difficult to interpret with accuracy, especially in a field as little researched as that of foster parenting and foster youth outcomes.
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Author Note

We gratefully acknowledge the financial support for the Looking After Children in Ontario (OnLAC) project received from the Social Sciences and Humanities Research Council (strategic grant 828-1999-1008, awarded to Robert Flynn, principal investigator; co-investigators, Tim Aubry, Marie Drolet, and Douglas Angus). We are also grateful for the additional financial support received from the Ministry of Children and Youth Services of Ontario (grant made to the Ontario Association of Children’s Aid Societies [OACAS]), Social Development Canada (grant made to the Child Welfare League of Canada [CWLC]), and Services to Children and Adults of Prescott-Russell (SEAPR). We also thank our organizational partners—OACAS, CWLC, and SEAPR—and participating Ontario Children’s Aid Societies, as well as the many young people, child welfare workers, supervisors, foster parents, and group home workers who have been or remain participants in the OnLAC project.
Appendix A

Mail-Out Survey Package: Foster Parent Questionnaire (Section 5 only),

Accompanying Letter and Informed Consent Form
QUESTIONNAIRE FOR FOSTER PARENTS
(INCLUDING KINSHIP CAREGIVERS)

INSTRUCTIONS:

1. Purpose: The purpose of this questionnaire is to obtain your opinion of the Looking After Children approach, including the Assessment and Action Record (AAR). (The AAR is a questionnaire from Looking After Children that is completed jointly each year by the child welfare worker and the foster parent, as well as by the young person in care if he or she is old enough, to assess the young person’s needs and progress.) For each foster child or adolescent in your care, the last section of the questionnaire also asks about your awareness of the young person’s friends and activities. Please note that here we are using the term “foster parent” to include not only foster parents but other substitute caregivers, such as aunts, uncles, or other relatives, who are providing substitute parenting to the young person in care.

2. Who should fill out this questionnaire: It is very important that this questionnaire be filled out by the foster parent to whom the cover letter is addressed.

3. For each item, please mark the response that best reflects your opinion or experience.

(Note: Si vous préferez obtenir la version française de ce questionnaire, veuillez communiquer avec la coordinatrice du projet, Mme. Hayat Ghazal, au (613) 562-5800 (poste 1857) ou à hghazal@seapr.ca.)

SECTION 5: PARENTING THE YOUNG PEOPLE IN YOUR CARE

INSTRUCTIONS: The questions in this section have to do with different ways foster parents act towards the young people in their care. Please answer the questions in relation to the following young person for whom you have been or continue to be a foster parent:

a. Initials of foster child or youth’s first and last names: ___ ___

b. Date of birth of young person in care: __________

c. Gender of the young person in care: ___ Male ___ Female

10. For each of the following items, please mark the response that best reflects your opinion:

a. I know where my foster child/youth is after school.*
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

b. If my foster child/youth is going to be home late, he or she is expected to call and let me know.
   O Never  O Rarely  O Sometimes  O Most of the time  O Always
c. My foster child/youth tells me who he or she is going to be with before going out.*
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

d. My foster child/youth talks to me about the plans he or she has with friends.*
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

e. When my foster child/youth goes out at night, I know where he or she is.*
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

f. When my foster child/youth goes out, I ask where he or she is going.
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

g. I know who the friends of my foster child/youth are.*
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

h. I know the parents of the friends of my foster child/youth.*
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

i. I know what my foster child/youth watches on television.
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

j. I monitor my foster child’s/youth’s computer/internet use.
   O Never  O Rarely  O Sometimes  O Most of the time  O Always

Thank you very much for your participation!
March 30, 2004

RE: Opinions of foster parents or other caregivers about the Looking after Children approach

Dear foster parent

We are researchers at the University of Ottawa who are working in close partnership with the Ontario Association of Children's Aid Societies (OACAS) and your local Children's Aid Society (CAS) on a study of the Looking After Children approach. We would like to know your opinion about how helpful you find the Looking After Children approach, especially the Assessment and Action record (AAR), in your work as a foster parent or other caregiver.

We would appreciate your consenting to participate in our study by completing the enclosed questionnaire. (For those of you whom we also contacted last year, we thank you for your participation and would greatly appreciate your participation this year as well.) Completion of the questionnaire will take about 10 minutes. If you agree to take part, please sign both copies of the enclosed consent form, keeping one copy for your records and sending the other copy back to us in the enclosed, self-addressed, stamped envelope, along with your completed questionnaire.

The information provided by you will be kept locked up in the researchers' laboratory at the University of Ottawa and only the research staff will have access to it. No personal information will ever be disclosed to anyone, and the information will be kept strictly confidential. Your responses will not be disclosed to your local CAS or to OACAS. (The only exception would be if you were to inform the research staff that someone was hurting your foster young person or that he or she intended to hurt him/herself or another person. In that case, the research staff member would have to take any steps necessary to protect your foster young person or the other person.)

Your participation is strictly voluntary and you are free to refuse to participate or withdraw from the study at any moment. If you are uncomfortable with any particular question, you may refuse to answer it. If you refuse to participate in the study, the services that you or your foster young person receive from your local CAS will not be affected in any way.

Thank you for reading this material. We really appreciate your help. If you have any questions, you may call the project coordinator, Ms. Hayat Ghazal at (613) 562-5800 (X1857). If you have any questions about the ethical aspects of the research or you wish to make a complaint about how it is being conducted, you may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland St, Room 160; Telephone: (613) 562-5387; Fax. (613) 562-5318; e-mail: ethics@uottawa.ca

Yours sincerely,

Robert J. Flynn, PhD, CPsych
Principal Investigator

Sarah Pantin, BA
(PhD candidate)
CONSENT FORM FOR FOSTER PARENTS (OR OTHER CAREGIVERS)

I, (name of foster parent or other caregiver) ________________, wish to participate in this study of the Looking After Children approach that is being carried out in collaboration with the Ontario Association of Children's Aid Societies (OACAS) and my local CAS. This research is directed by Dr. Robert Flynn of the Centre for Research on Community Services at the University of Ottawa. The project is funded by the Social Sciences and Humanities Research Council of Canada and the Ministry of Children and Youth Services of Ontario. The purpose is to find out how helpful the Looking After Children approach, including the Assessment and Action Record (AAR), is in my work as a foster parent.

If I agree to participate, I will complete the enclosed questionnaire. I will need approximately 10 minutes to respond to the questionnaire. It includes questions about Looking After Children approach and the Assessment and Action Record. Only the research team will have access to my responses, which will never be revealed to the local CAS or to OACAS. My responses will be pooled with those of other foster parents in Ontario.

The information I provide will be locked up in the researchers’ laboratory at the University of Ottawa. I have been assured that the information I share will remain strictly confidential and that my name will not be recorded with my responses or identified in any way. (The only exception would be if I was to inform the research staff that someone was hurting the foster child/youth in my care, or that he or she intended to hurt him/herself or another person, in which case the research worker would have to take any steps necessary to protect the foster child/youth or the other person.)

My participation is strictly voluntary. I am free to refuse to participate or withdraw from the study at any moment, without penalty. If I choose not to participate, my CAS will not be told nor will my decision affect the services I or my foster child receive in any way. If I am uncomfortable with any question, I may refuse to answer it.

There are two copies of the consent form, one that I will keep and one that I will return to the researchers. If I have any questions about this study, I may call the project coordinator, Ms. Hayat Ghazal (613-562-5800, X1857). If I have questions about the ethical aspects of the research or I wish to make a complaint about how it is being conducted, I may contact the Protocol Officer for Ethics in Research, University of Ottawa, 550 Cumberland St, Room 160. Tel. (613) 562-5387; Fax. (613) 562-5318; e-mail ethics@uottawa.ca

PARTICIPANT’S SIGNATURE: ____________________________ DATE: __________________

Robert J. Flynn ____________________________ Sarah Pantin ____________________________
PhD, CPsych, Principal Investigator BA, PhD candidate

WE ARE AWARE THAT YOUR TIME IS PRECIOUS. THANK YOU FOR READING THIS MATERIAL AND FOR YOUR PARTICIPATION.
GENERAL DISCUSSION

The major objective of this thesis was to contribute to the significantly limited amount of research examining the relationships between foster parenting practices and foster youth outcomes. Three studies were designed to investigate four foster parenting practices (parental nurturance, parent-youth conflict, parent-youth shared activities and parental monitoring) as predictors of four foster youth outcomes (pro-social behaviour, emotional disorder, conduct disorder, and indirect aggression) in various samples of youths aged 10-17 years and living in foster homes in Ontario. The same trends observed in broader effective parenting theory were used to derive the study hypotheses. As such, it was hypothesized that more frequent engagement by foster parents in nurturance, monitoring, and shared activities with the foster youth would be associated with increased foster youth pro-social behaviour and decreased emotional disorder, conduct disorder, and indirect aggression. It was also expected that more frequent engagement by foster parents in conflictual parenting practices would be associated with less frequent foster youth pro-social behaviour and more frequent emotional disorder, conduct disorder, and indirect aggression.

Salient Findings and Implications

Results for the three studies were inconsistent in their support of the hypotheses, and effect sizes observed were generally small. Nevertheless, when significant relationships were found, they were always in the direction expected. The most consistent predictor was that of parent-youth conflict, which was a significant predictor in each of the three studies (although not for each of the four foster outcomes, nor for the longitudinal analyses). Parental monitoring was also somewhat of an effective predictor
(predicting two of the four foster outcomes) for the analyses where it was included. This suggests that the foster parent practice – foster youth outcome relationship is, at least in some way, similar to that postulated within broader parenting theory.

Nevertheless, the results of any study are only as strong as the model that is tested. The model for this study essentially posited a unidirectional influence of foster parenting on foster youth behaviour. Although certain potential mediators and moderators were considered, there were many others not factored in. And more importantly, reciprocal influences of the child’s behaviour upon the parent’s were not truly considered. In their important articles discussing parental monitoring, Stattin and Kerr (2000a; 2000b) challenged the way that parenting practices are conceptualized, and the extent to which they are believed to be directly-linked to adolescent behaviours. (Although the authors were speaking of parental monitoring specifically, there argument is valid and can be extended to other parenting practices.) Stattin and Kerr suggested that parenting and outcomes be viewed as dynamic parent-child processes, as reciprocal entities between which a multitude of pathways exist, mediating the way each party’s behaviour affects the other. They cautioned that behaviours could not be considered as isolated, independent influences, but rather that they should be evaluated within the larger context of the parent-child relationship (see also Dishion & McMahon, 1998; Fletcher, Steinberg, & Williams-Wheeler, 2004). For instance, a warm parental gesture may feel phoney on the child’s part if it comes from a typically cold, disengaged parent. Soliciting information from a child may be done easily and positively if communication between parent and child is favourable, or intrusively and even angrily if parent-child communication is strained. A youth’s level of exposure to trauma or abuse may affect the
degree to which he or she can attach to a foster parent securely, and therefore the way he or she interprets and reacts to different parental behaviours. Meanwhile a foster youth’s continued rejection of parental nurturance, because of attachment issues, may alter the parent’s resulting behaviour irrevocably. Although the weaker results of this study can certainly be attributed to some of its limitations, such as sample variability and measures used, it also remains entirely probable that another, untested model could provide an optimal fit to the data.

Perhaps the biggest caveat of this study is its fundamental assumption that foster parenting impacts foster youth outcomes in the same way as ‘regular’ parenting impacts ‘regular’ youth outcomes. Shaw and Hipgrave (1983; cited in Lipscombe, Farmer & Moyers, 2003) caution that “it does not follow that the optimum outcomes for looked after children will be achieved by foster carers approaching the parenting task in a way that parallels that of birth parents.” Foster youth present with a unique constellation of experiences and difficulties which requires a different skill set from the foster parent, including: an acknowledgement and understanding of the child’s (often traumatic) history (Lipscombe et al., 2003), an ability to manage difficult internalizing and externalizing behaviours with responsiveness and sensitivity (Lipscombe et al., 2003), the capacity of staying calm when the foster child fails to respond predictably (Sinclair, Gibbs, & Wilson, 2000; cited in Lipscombe et al., 2003), and the capacity for balancing emotional intimacy with distance, so that the foster youth can form a secure attachment at their own speed (Gilligan, 2000). Given this, parenting practices such as monitoring and shared activities may not be the most pertinent practices to assess within a foster family context. For example, nurturant foster parent behaviour, or an attempt to share activities with a
foster child, may just provoke aggressive behaviours. Capable foster parents may have learned through experience that they should instead react with more detachment and neutral curiosity. This is not well accounted for in our set of studies.

As much as foster parenting seems to be a different animal, the same can be said of the foster parent per say. In their recent attempts to develop and validate a new measure of parenting among foster families, Harden, D’Amour Meisch, and Pandohie-Johnson (2008), identified seven unique characteristics of the foster parent that bear direct impact upon their parenting practices. These included the foster parent’s level of commitment to the youth in their care, their reactions to stressors linked to parenting a difficult youth, their maintaining appropriate developmental expectations of the youth, their motivation for fostering, their willingness to facilitate contact with the youth’s biological parents, their ability to parent with self-reliance (e.g., independence and flexibility), and their ability to engage in perspective-taking to better understand the foster youth’s responses. It seems increasingly evident that the parenting skills and attitudes/characteristics of foster parents differ significantly from that of the ‘average’ parent and should therefore be assessed accordingly.

Study Limitations

The results of this dissertation must be interpreted within the context of its limitations. First, data was obtained through self-report assessment only (although in interview format). Obtaining data through other methods, such as by using observational studies, may have increased the richness of the information collected and increased sample variability (especially given the potential impact of contextual variables and the reciprocal causality of parent-youth interactions).
The demand characteristics of the three studies created important limitations. In particular, the decision to allow participating child welfare agencies to choose which cases would be included in the research project, although critical to encourage agency participation in the preliminary stages, may have created biased samples. It is entirely possible that the more behaviourally unstable, problematic foster cases were not selected. Similarly, analysis of the elevated attrition rate for participants between years 1 and 2 found that the youths who left in year 2 had been in their placements for less time, and engaged in less shared activities with their foster parents—which suggests that their placements were perhaps less stable and/or more problematic. That they were the ones to leave the study could have further reduce sample variability.

Assessment procedures were another complication. The choice of having foster youths answer outcome measures, and foster parents respond to parenting practice measures could have encouraged social desirability in responses and under-reporting of problematic behaviours. Additionally, the completion of the AAR-C2 within the context of a conversational interview with the foster parent and the foster youth brings into question how forthcoming the different participants were. Foster youths may have been especially reluctant to open up about certain topics (e.g., conduct disorder behaviours) in front of their foster parents. Individual interviews with each party, though more time consuming and less practical, may have yielded richer results.

The potential influence of unaccounted-for moderators constitutes an additional study limitation. For instance, Ceballo and colleagues (2003) found the effects of parental monitoring on foster youth outcomes varied, depending on that youth’s level of exposure to trauma. This is important information when interpreted in light of the various
amendments to the Child and Family Services Act over the past 24 years (CFSA, 2007). For instance, in 2000, the CFSA was amended to enhance the protection of children and youth at risk of abuse. New forms of abuse, including neglect and emotional harm, also became grounds for protection. Prior to this, children in care were more likely to have experienced physical and/or sexual abuse, whereas from the year 2000 on, the risk of such occurrences became sufficient to warrant foster care intervention. This may have created qualitatively different subsets of foster youths within our study samples, for whom the effects of parenting practices would vary significantly. Factors such as the age of youth when first entering foster care, the total number of years spent in care, and the youth’s reason for entering care may be more important moderators to consider in future analyses than the length of time spent in the current foster placement.

Study measures consisted of another important limitation for the thesis. We had expected these measures, taken from the NLSCY, to be psychometrically sound in our own research. Yet, the NLSCY-version of the monitoring scale produced unacceptably low internal consistency values, and the values for the remaining measures seemed to drop as the study progressed (see Table 1). (Yet, we recognize that the lack of sample variability, as well as the small number of items making up each scale, will have affected these values as well.) In addition, one wonders whether The Parent-Youth Shared Activities scale represented a pertinent outcome to assess, given Cook & Willms’ (2002) findings that it tends to decrease in frequency as children age, and the fact that our study samples follow aging pre-adolescents/adolescents.

The operationalization of the constructs within the measures also appears problematic. Skinner, Johnson and Snyder (2005) pointed out that even the most
ubiquitous dimensions of parenting, prominent in most parenting theories have been labelled and assessed in a variety of ways. Thus, there is a danger of aggregating dimensions of different practices into a single construct and measure that do not accurately represent the actual construct. One could also argue that the opposite risk exists. For instance, the Shared Activities scale may actually represent a facet of parental nurturance, and therefore lose any significance when conceptualized as a construct/measure of its own. Finally, there has been some research to suggest that youths' perceptions of parenting practices are more accurate than their parents, as well as more consistently predictive of youth outcomes (Borawski et al., 2003; Cottrell et al., 2003; Peiser & Heaven, 1996). In our attempts to avoid the method affect by soliciting information from two different sources (parenting data from the foster parents and outcome data from the foster youths), we may have unwittingly reduced our chances of finding significant results.

Table 1. Internal consistency values for study measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Cronbach's Alpha</th>
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<tr>
<td></td>
<td>Year 1 Sample (N=367)</td>
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<tr>
<td>Parental nurturance scale</td>
<td>.80</td>
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<tr>
<td>Parent-youth conflict scale</td>
<td>.75</td>
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<tr>
<td>Parent-youth shared activities scale</td>
<td>.64</td>
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<tr>
<td>Parental monitoring scale</td>
<td>--</td>
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<tr>
<td>Pro-social behaviour scale</td>
<td>.84</td>
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<tr>
<td>Emotional disorder and anxiety scale</td>
<td>.81</td>
</tr>
<tr>
<td>Conduct disorder and physical aggression scale</td>
<td>.80</td>
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<tr>
<td>Indirect aggression scale</td>
<td>.78</td>
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<td></td>
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</table>
Study Strengths

Perhaps the greatest contribution of the thesis was that it represented an important first step in elucidating the relationship between foster parenting practices and foster youth outcomes. It showed the functioning of the foster parent – foster youth dyad to bear some similarities to broader parenting research, while also underscoring the fact that there remain additional influential factors to be identified in future research. Although hypotheses were based on general parenting literature, the thesis also made a point of looking at how the foster parent – foster youth relationship could be different from the typical parent-child relationship, by considering various demographic and contextual factors. The samples for each study were large (with the exception of the somewhat smaller longitudinal sample), providing for appropriate power and increased generalizability of findings.

Future Directions for Research

The most important aspect to consider in terms of future directions for research is, first and foremost, that there be more research. So little documentation exists investigating the relationship between foster parenting practices and foster child outcomes, that any attempt to uncover more information is essential.

In keeping with the previously listed limitations, a priority for future research should also be that of improving parenting practice operationalization and measurement within the AAR-C2. The Parent-Youth Shared Activity Scale has had no success to date and should perhaps be revised or even replaced with another scale. Ideally, dual respondents for all measures should be considered (i.e., obtaining data from both parent and youth so as to compare and contrast), as well as one-on-one interviews with parents
and youths, although these suggestions may not be clinically feasible. Furthermore, there is some literature to suggest that maternal parenting practices are different from paternal ones (e.g., Shek, 2000, Clausen, 1996). As respondents for the AAR-C2 are virtually always female, our results provide an incomplete picture of the parenting context provided for the foster child. Future research would benefit from collecting and comparing responses from foster fathers.

The 2006 Ministry of Children and Youth Services’ requirement that all Children’s Aid Societies in Ontario implement the LAC AAR-C2 with their entire caseloads starting in December 2007, will help to reduce the selection bias of future research samples (and improve sample generalizability). It will provide normative data on the population of children and youth in care in Ontario, and allow for better assessment of sample representativeness. In addition, database growth will make the use of more sophisticated statistical analyses possible. For example, hierarchical linear modeling will permit cross-source comparisons, such as nesting foster youths within specific agencies and/or foster homes, etc.

Conclusions

Though the study predictors performed inconsistently, there were nonetheless small effect sizes and significant relationships identified among foster parenting practices and foster youth outcomes. Though the limitations of this thesis and the lack of foster parenting research make generalizations of findings impossible, we can still assert that foster parenting practices played a role (albeit small) in predicting the foster youth outcomes examined. The amount of variance explained certainly suggested that other key factors exist that were not considered in the analyses. Future research will be important to
better delineate those salient aspects of the foster parent practice – foster youth outcome interaction.

The value of this thesis should not be diminished by its sparse findings. It remains a valuable contribution to the field in that it is one of the first of its kind to study the relationship between foster parenting practices and foster youth outcomes. Even a lack of results is informative because it further informs future paths that researchers should take.
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(GENERAL INTRODUCTION AND GENERAL DISCUSSION)


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Appendix A

Looking After Children in Ontario: Letter of Agreement Between Local Children's Aid Societies in Ontario and the Management Committee of the Research Project
looking after children in ontario: letter of agreement


**Project sponsoring Partners:**

- Centre for Research on Community Services, University of Ottawa
- Ontario Association of Children's Aid Societies
- Prescott-Russell Children's Aid Societies
- Child Welfare League of Canada

**Project Funders:**

- Social Sciences and Humanities Research Council of Canada
- Ministry of Community and Social Services of Ontario

Letter of Agreement Between Local Children's Aid Societies in Ontario and the Management Committee of the Research Project, *Improving Child Protection Practice Through the Introduction of Looking After Children into the 54 Local Children' Aid Societies in Ontario: An Implementation and Outcome Evaluation*

This letter of agreement describes the terms of a research partnership between the Children's Aid Society (CAS) and the management committee of the above-mentioned project. The project is a university community partnership, co-sponsored by the four organizations listed above: The Centre for Research on Community Services, Faculty of Social Sciences, University of Ottawa; The Ontario Association of Children's Aid Societies; The Prescott-Russell Children's Aid Society; and The Child Welfare League of Canada. The research is funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Ministry of Community and Social Services (MCSS) of Ontario. The project is one of only 26 (out of 133 initial applicants) that were approved for funding by SSHRC, under its new strategic grants program, *Society, Culture, and the Health of Canadians*. MCSS is also providing financial support for the project, as part of its overall Child Welfare Reform Agenda. The three-year project began on April 1, 2000, with the collection of data planned to begin in January, 2001.

The research has two primary objectives and one secondary objective:

1. **Primary Objective no. 1:** to examine how successfully the Assessment and Action Record (which is the main instrument from *Looking After Children: Good Parenting, Good Outcomes*, a new approach to taking care of children living in substitute, out-of-home care) can be introduced into CASs across Ontario.

**Project Objectives**

▽ *Ontario Association of Children's Aid Societies*
Looking After Children was developed in the UK and is now used throughout England and Wales. It has also been pilot tested, on an experimental basis, in several Canadian provinces, including Ontario, and in other countries. MCSS has determined that the Assessment and Action Record from Looking After Children is to be implemented in Ontario CASs, as a component of its overall child welfare reform agenda.

2. **Primary Objective no. 2:** to determine whether, following the introduction of Looking After Children and the Assessment and Action Record, children and youths in long-term substitute care make satisfactory developmental progress in terms of their health, education, sense of identity, appearance, family and social relationships, emotional and behavioural development, and skills in taking care of themselves.

3. **Secondary Objective:** to conduct a small-scale study of the cost of foster care in Ontario and to relate this cost to the children's needs and to their yearly progress while in foster care.

**Responsibilities of Local CASs and of the Project Management Committee**

In agreeing to participate as a partner in this research project, the local CAS agrees to the following:

1. To collaborate with the research team in its efforts to address the two primary research goals mentioned above. While participation for the duration of the research will be anticipated, the local CAS retains the right to withdraw from the research at any time.

2. To designate a lead person in the agency who will be responsible for coordinating the implementation of Looking After Children at the agency level. This will include the training of the direct-service and supervisory staff designated by the CAS to use the Assessment and Action Record to conduct annual assessments of the children or youths participating in the study.

3. To determine which members of its direct-service and supervisory staff will be involved in implementing the use of the Assessment and Action Record, in fulfillment of the agency's decision to participate in the project.

4. To use the Assessment and Action Record with a minimum of 25 children or youths (or with 10% of the children and youths in the long-term care of the society, whichever number is higher) during the first year of the research (2001). Any increase in the number of participants in years 2 or 3 will be negotiated with the agency.

**Project Objectives**

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looking after children in ontario: letter of agreement

5. To conduct annual re-assessments, at 12-month intervals during 2002 and/or 2003, with the Assessment and Action Record of those children or youths initially assessed with the instrument in year 1 (2001) or year 2 (2002).

6. To consent to the use for publication and educational purposes of aggregate (i.e., anonymous) data related to individual participants in the research, in conformity with the guarantees of anonymity and confidentiality inherent in the approval of the project by the Research Ethics Board of the University of Ottawa.

7. To make available for training those members of the CAS staff, including supervisors, who will be using the Assessment and Action Record, as well as the agency management team who will provide overall direction for the implementation of Looking After Children within the agency.

8. To support the costs of training the lead person mentioned in item no. 2 above and any additional costs of training staff to utilize the tools.

For its part, the project management committee and the research team agree to provide the following to the local CAS:

1. Training and bilingual support for the lead person designated by the local agency.

2. A curriculum with which the lead person can, in turn, train local CAS direct-service, supervisory, and managerial staff.

3. A curriculum for training foster parents in the use of Looking After Children.

4. Materials to be used in orienting youth to the use of Looking After Children.

5. Annual confidential feedback on the success of the agency in implementing Looking After Children and on the developmental progress of its children and youth. Such feedback will be based on a comparison of the data of the local CAS with the aggregated and anonymous data from all of the local CASs participating in the project in a given year.

6. Periodic project reports on the progress made to date in implementing Looking After Children in Ontario and on the developmental outcomes observed.

Project Objectives

ontario association of children's aid societies
looking after children in ontario: letter of agreement

On behalf of the research team and our respective organizations, we, the project management committee, wish to thank the local CAS for agreeing to participate in the study. We look forward to working with you to make what we hope will be a significant contribution to the field of child welfare in Ontario and elsewhere.

Signed by:

Executive Director of the _________________________________ Children's Aid Society

Robert J. Flynn, PhD, Project Principal Investigator
Professor, School of Psychology & Centre for Research on Community Services
University of Ottawa

Sandy Moshenko, BA, BSW, Project Collaborator
Director of Accreditation
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Executive Director
Prescott-Russell Children's Aid Society

Peter Dudding, MSW, Project Collaborator
Executive Director
Child Welfare League of Canada

Project Objectives

→ ontario association of children's aid societies
Appendix B

Parenting Practice Scales

*Parental nurturance scale* (derived from the *NLSCY My Parents and Me Scale* [Statistics Canada, 1999]). The foster parent most knowledgeable (FPMK) is the respondent for this scale. Item response categories are the following: (1) “never”, (2) “rarely”, (3) “sometimes”, (4) “often”, (5) “always”.

Scale Items:

F19  How often do you smile at ... ?
F22  How often do you praise him/her?
F26  How often do you listen to his/her ideas and opinions?
F30  How often do you make sure that ... knows that he/she is appreciated?
F32  How often do you speak of good things that he/she does?
F36  How often do you seem proud of the things he/she does?

Item value ranges are recoded from 1-5 to 0-4. Scores on this subscale range between 0 and 24 points. A higher score indicates a higher level of parental nurturance toward the foster child.
Appendix B (Continued)

Parenting Practice Scales

*Parent-child conflict scale* (derived from the *NLSCY Conflict tactics scale* [Statistics Canada, 1999]). The foster parent most knowledgeable (FPMK) is the respondent for this scale. Item response categories are the following (1) “not at all”, (2) “a little”, (3) “sometimes”, (4) “pretty often”, (5) “almost all or all of the time”.

Scale Items:

F39  We make up easily when we have a fight.
F40  We disagree and fight
F41  We bug each other or get on each other’s nerves.
F42  We yell at each other.
F43  When we argue, we stay angry for a very long time.
F44  When we disagree, I refuse to talk to him/her.
F45  When we disagree, he/she stomps out of the room, or house, or yard.
F46  When we disagree about something, we solve the problems together.

Items F39 and F46 are reversed in the calculation of the score. Item value ranges are recoded from 1-5 to 0-4. Scores on this subscale range between 0 and 32 points. A higher score indicates a more frequent usage of negative conflict-management tactics between foster parent and foster child.
Parenting Practice Scales

*Parent-child shared activities scale* (derived from the *NLSCY Parent-child cohesion scale*, [Statistics Canada, 1999]). The foster parent most knowledgeable (FPMK) is the respondent for this scale. Item response categories are the following: (1) “every day”, (2) “5-6 days per week”, (3) “3-4 days per week”, (4) “1-2 days per week”, (5) “1-2 times per month”, (6) “rarely or never”.

Scale Items:

F49 How many days in a week do you eat together?

F50 How many days a week do you watch television together?

F51 How many days a week do you play sports together?

F52 How many days a week do you play cards or games together?

F54 How many days a week do you do a family project or family chores together?

F55 How many days a week do you have a family outing/entertainment together?

Item value ranges are recoded from 1-6 to 0-5. Scores on this subscale range between 0 and 30 points. A higher score indicates a higher level of foster parent-youth cohesion.
Parenting Practice Scales

*Parental monitoring scale* (derived from Silverberg & Small, 1993; as cited in Small & Kerns, 1993). The foster parent most knowledgeable (FPMK) is the respondent for this scale. Item response categories are the following: (1) "never", (2) "rarely", (3) "sometimes", (4) "most of the time", (5) "always".

Scale Items:

1. I know where my foster child/youth is after school.
2. My foster child/youth tells me who he or she is going to be with before going out.
3. My foster child/youth talks to me about the plans he or she has with friends.
4. When my foster child/youth goes out at night, I know where he or she is.
5. I know who the friends of my foster child/youth are.
6. I know the parents of the friends of my foster child/youth.

Item value ranges are recoded from 1-5 to 0-4. Scores on this subscale range between 0 and 24 points. A higher score indicates a higher level of foster parent-monitoring.
Appendix B (Continued)

Child Outcome Scales

All child outcome scales are derived from the *NLSCY Feelings and Behaviour Scale* (Statistics Canada, 2001).

*Emotional disorder and anxiety scale.* The foster child or youth is the respondent for this scale. Item response categories are the following: (1) “never or not true”, (2) “sometimes or somewhat true”, (3) “often or very true”.

Scale Items:

B6 I am unhappy, sad or depressed.

B11 I am not as happy as other people my age.

B16 I am too fearful or anxious.

B21 I worry a lot.

B27 I cry a lot.

B32 I feel miserable, unhappy, tearful, or distressed.

B35 I am nervous, highstrung or tense.

B40 I have trouble enjoying myself.

Item value ranges are recoded from 1-3 to 0-2. Scores on this subscale range between 0 and 16 points. A higher score indicates a higher level of emotionally-disordered behaviour and/or anxious behaviour in the foster child or youth.
Appendix B (Continued)

Child Outcome Scales

Conduct disorder and physical aggression scale. The foster child or youth is the respondent for this scale. Item response categories are the following: (1) "never or not true", (2) "sometimes or somewhat true", (3) "often or very true".

Scale Items:
B7  I get into many fights.
B23 When another young person accidentally hurts me, I assume that he/she meant to do it, and I react with anger and fighting.
B25 I physically attack people.
B29 I threaten people.
B33 I am cruel, I bully or I am mean to others.
B36 I kick, bite, hit other people my age.

Item value ranges are recoded from 1-3 to 0-2. Scores on this subscale range between 0 and 12 points. A higher score indicates a higher level of conduct-disordered behaviour and/or physical aggression in the foster child or youth.
Appendix B (Continued)

Child Outcome Scales

Pro-social behaviour scale. The foster child or youth is the respondent for this scale. Item response categories are the following: (1) “never or not true”, (2) “sometimes or somewhat true”, (3) “often or very true”.

Scale Items:

B1  I show sympathy to (I feel sorry for) someone who has made a mistake.
B4  I try to help someone who has been hurt.
B8  I offer to help clear up a mess that someone else has made.
B13 If there is an argument, I try to stop it.
B20 I offer to help young people (friend, brother or sister) who are having difficulty with a task.
B26 I comfort another young person (friend, brother or sister) who is crying or upset.
B30 I help to pick up things which another young person has dropped.
B37 When I’m playing with others, I invite bystanders to join in a game.
B41 I help other people my age (friends, brother or sister) who are feeling sick.
B43 I encourage other people my age who cannot do things as well as I can.

Item value ranges are recoded from 1-3 to 0-2. Scores on this subscale range between 0 and 20 points. A higher score indicates a higher level of pro-social behaviour in the foster child or youth.
CONTRIBUTIONS OF COLLABORATORS

This thesis comprises three separate articles with the following authorship:

Study 1: Perkins-Mangulabnan, J., & Flynn, R. J. (published in 2006). Study conceptualization, data scoring, statistical analyses, and writing of the manuscript were carried out collaboratively. The authors gratefully acknowledge the Research Coordinator for the Looking After Children in Ontario project (OnLAC), Ms. Hayat Ghazal, and the Canadian Looking After Children Research Coordinator, Ms. Louise Legault (CLAC), for their assistance with questions pertaining to the datasets. Ms. Shaye Moffat was also helpful in managing the data collection and scanning.

Study 2: Perkins, J. N., & Flynn, R. J. (2008, to be submitted for publication). Study conceptualization, data scoring, and statistical analyses were carried out collaboratively. The first author was responsible for writing the manuscript, while the second author contributed editorial comments and feedback on written drafts. The authors gratefully acknowledge the OnLAC and CLAC Research Coordinators, Ms. Hayat Ghazal and Ms. Louise Legault, for their assistance with questions pertaining to the datasets. Ms. Shaye Moffat was also helpful in managing the data collection and scanning.

Study 3: Perkins, J. N., & Flynn, R. J. (2008, to be submitted for publication). Study conceptualization, data scoring, and a portion of the statistical analyses were carried out collaboratively. The first author was responsible the remaining statistical analyses, for writing the manuscript, and for assisting with the mail-out survey. The second author also contributed editorial comments and feedback on written drafts. The authors gratefully acknowledge the significant contribution of Ms. Sarah Pantin in
coordinating the mail-out survey. As with the previous two studies, thanks are also extended to Ms. Ghazal (OnLAC), Ms. Legault (CLAC), and Ms. Moffat for their respective contributions.