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7

Community Influences on the Mental Health of First Nations Children in Canada: Health Information and Research Division, Statistics Canada

Dafna Kohen and Lisa Oliver

Introduction

Background

There is growing evidence that the neighbourhoods in which children live shape their development. Theories of child development have moved away from focusing on individual child and family factors to recognizing the importance of the neighbourhood, as well as the broader cultural context, as being important determinants of child and youth achievement, and physical and mental health (Booth and Crouter 2001; Bronfenbrenner and Morris 1998; Brooks-Gunn, Duncan, and Aber 1997). Findings from a growing body of studies have shown that children living in neighbourhoods that have higher levels of socio-economic disadvantage fare more poorly than children living in affluent neighbourhoods. These associations remain even after accounting for family level factors such as income, education, and marital status (Leventhal and Brooks-Gunn 2000). That is to say, regardless of family level poverty or affluence, the neighbourhood exerts an independent effect on child and youth outcomes.

Child mental health is an important aspect of health and well-being, particularly in the early childhood period. Poor mental health in children can be manifested in a number of ways including a lack of prosocial skills, displays of aggressive behaviours, inattention, hyperactivity, and/or anxiety. Behavioural problems in the early years have been shown to have long-term effects not only on mental and physical health but also on economic well-being (Romano et al., in press a; Heckman 2006). Evidence exists suggesting that Aboriginal youth are at particular risk for poor mental health outcomes such as suicide (Kirmayer 1994). Evidence also exists suggesting that poor mental health and behaviour problems in the early years can be ameliorated by high quality, developmentally appropriate environments, including supportive and safe communities, as well as targeted resources including high quality, developmentally appropriate programs, such as Head Start. In fact, it is often subgroups of children at the highest risk for poor

outcomes that benefit the most from such programs (Kohen and Findlay, forthcoming; Romano et al., in press b).

It is within this theoretical context that we conducted the present study examining the impact of neighbourhood and family characteristics on the mental health outcomes of Aboriginal preschool-aged children. The focus of the current chapter is to examine the association of neighbourhood socio-economic factors (level of education, proportion renters) as well as community organization factors such as community safety, involvement, and perceptions of community facilities for First Nations preschool-aged children's mental health outcomes.

We provide an overview of findings from the body of existing literature and then move to describe the context of the environments that urban First Nations children experience today based on findings from the 2006 Aboriginal Children's Survey as well as census data. Finally we present the empirical results and discussion of the findings of our study.

Overview of Neighbourhood Research

Much of the research examining the associations of neighbourhood characteristics on the outcomes of children and youth has focused on late childhood and adolescence. This age group has been of particular interest due to the theory that neighbourhood effects should be greater for older children and adolescents. Youth and teens are less likely to be monitored by adults, have more independence to interact within their neighbourhood unsupervised, are likely to participate in community-based activities, and are more subject to peer influences (Ge et al. 2002; Brody et al. 2001). However, several recent studies (Oliver et al. 2007; Kohen et al. 2002, 2008; Lapointe, Ford, and Zumbo 2007) have demonstrated that neighbourhood factors are also important for preschool-aged children. This finding is particularly interesting since it may be expected that preschool-aged children have limited opportunities to interact within their neighbourhood and have not yet had the opportunity to gain much experience in formal schooling which is often community based. Taken together, these studies suggest that the neighbourhood environment is an important context, influencing outcomes in the early childhood period.

The factors that have been included in the examination of neighbourhood effects for young children have included features of "structural disadvantage" or socio-economic disadvantage. These have focused on neighbourhood levels of income, education, family structure, race, and ethnicity (most frequently) as well as immigrant status, residential mobility, and language status (Kohen et al. 2002; Lapointe, Ford, and Zumbo 2007; Oliver et al. 2007; Aber et al. 1997). Several Canadian studies have found that children living in more affluent neighbourhoods have better behavioural as well as cognitive outcomes (Kohen et al. 2002, 2008; Lapointe et al. 2007; Oliver et al. 2007). Oliver et al. found that the neighbourhood characteristics of lone parent families, residential stability, and English mother tongue were important for preschoolers while Lapointe et al. found that higher

levels of neighbourhood Aboriginal status, unemployment, and low income were negatively associated with preschool outcomes while higher levels of university education had a positive association.

Aside from features of disadvantage, community social organization has also been considered. Social organization refers to the formal and informal processes present in a neighbourhood and the extent to which a community is effective in articulating and realizing the common values of its residents and in working together to solve community problems. This includes the presence of norms, shared values, trust, and the willingness to intervene for the common good (Sampson et al. 1997, 2002). Seminal work conducted by Chandler and Lalonde has in fact demonstrated that community organization and, specifically, the maintenance of cultural and linguistic practices, is associated with the mental health of Aboriginal youth (Chandler and Lalonde 1998; Hallett, Chandler, and Lalonde 2007).

Features of neighbourhood organization, however, are separate from neighbourhood poverty and affluence and have been shown to only be somewhat correlated. That is neighbourhoods, particularly Canadian neighbourhoods, could be characterized by high levels of social organization and neighbourhood trust and cohesiveness regardless of the level of socio-economic wealth (Kohen et al. 2002). Factors such as neighbourhood cohesion and safety have been shown to impact early childhood outcomes, with neighbourhood cohesion being particularly important for behavioural outcomes of Canadian preschoolers. Moreover, the impact of neighbourhood socio-economic features have been shown to exert their influence on behavioural outcomes of preschoolers via processes of neighbourhood social organization, as well as parental family functioning, parental mental health, and parenting behaviours (Kohen et al. 2008).

Environments of First Nations Children

We now turn from the review of the impacts of neighbourhood features on young children to a description of the environments that characterise First Nations children living off-reserve. Off reserve urban environments of Aboriginal children are in some ways similar and in other ways very different from the urban environments of non-Aboriginal children. Neighbourhood socio-economic factors in as much as they provide for access and availability of services and facilities are separate from other aspects such as neighbourhood organization, affiliation, safety, and belongingness. Neighbourhoods are environments for cultural ties and activities as well as sources for formal and informal support. As Chandler and Lalonde describe, neighbourhood processes such as the maintenance of language and cultural ties are critical features essential for the promotion of the mental health of Aboriginal youth (Chandler and Lalonde 1998; Hallett, Chandler, and Lalonde 2007).

Findings from the 2006 census describe 47,000 First Nations children under the age of six living off reserve in Canada (including all First Nations children living in the territories). Most of these off-reserve children (83%) live in Ontario

and the Western provinces, 78% live in urban areas, 46% in Census Metropolitan Areas (CMAs), 32% in smaller urban centres, and 22% live in rural areas. (Note: Urban areas have a population of at least 1,000 and no fewer than 400 persons per square kilometre. They include both census metropolitan areas and urban non-CMAs.) When asked to report on aspects of daily life and community, the majority of Aboriginal parents reported being “very satisfied” or “satisfied” with their social support network, main job, or activity, and the way they spend their free time. However, they were least satisfied with their finances and housing (O’Donnell 2008).

Approximately half of off-reserve First Nations children under the age of six were living in low-income families, compared to 18% of non-Aboriginal children. Of those First Nations children in low income families, 38% had parents who were dissatisfied with their finances and 22% were dissatisfied with their housing. These rates were twice as high as for those not living in low income families (19% and 9% respectively). Moreover, First Nations families are less likely to live in dwellings owned by a member of the household (45%; compared to 75% of non-Aboriginal population), are more likely than those in the general population to live in crowded homes (15% vs. 3%), and to live in homes in need of major repairs (28% vs. 7%). (Gionet 2008; O’Donnell 2008).

In addition, less than half of the off-reserve First Nations children lived in communities rated by their parents as safe (46%), 37% reported members of the community being actively involved, and about half rated their community as “excellent” or “very good” in terms of schools, nursery, and early childhood education programs (53%), adequate facilities for children (51%), and a place with health facilities (45%).

Most off-reserve First Nations children are growing up in communities where Aboriginal people represent a small minority. This may have an impact on the ease of maintaining ties to traditional Aboriginal culture, activities, and traditions as compared to communities where there are a high proportion of Aboriginal members. Only 17% of young First Nations children were described as living in a community rated as “excellent” or “very good” in terms of being a place with First Nations, Métis, and Inuit cultural activities.

It is within the context of community quality of life, where Aboriginal children are often in the minority and face dramatically different socio-economic and cultural living conditions than those experienced by non-Aboriginal children, that we undertook the present study. This study examines the associations of neighbourhood socio-economic factors as well as neighbourhood organizational features, such as community involvement, community safety, and community facilities, and their impact on young children’s mental health outcomes.

This purpose of this paper is to investigate:

- a. if neighbourhood socio-economic characteristics are associated with the mental health/behavioural outcomes of First Nations off-reserve Aboriginal children in Canada, and

- b. if features of neighbourhood organization are associated with the mental health/behavioural outcomes of these children.

Methods

Data Source

Data used for this study is from the 2006 Aboriginal Children's Survey (ACS), which was designed to provide information on the development of Aboriginal children and on the social and living conditions in which they are growing. The survey provides information on Aboriginal children (Métis, Inuit, and off-reserve First Nations) under the age of six living in urban, rural, and northern locations across Canada. The ACS is a post-censal survey. Children were selected from households whose responses to the 2006 census questionnaire indicated Aboriginal ancestry, North American, Métis, and/or Inuit registered Indian status/band membership. Interviews were conducted in person in Nunavut, the Northwest Territories (except Yellowknife), and in Inuit regions, and over the telephone elsewhere across Canada. The 2006 ACS assessed 13,921 off-reserve Aboriginal children aged six and under. The child's parent or guardian responded to the survey on behalf of the child. In 89.3% of cases the respondent was the child's birth mother or father. The response rate of the 2006 ACS was 81.1%. Data used in this study are for 3,462 children identified as off-reserve First Nations aged two to five. In this study children with multiple Aboriginal identities, one of which was First Nations were included (e.g., First Nations and Inuit).

Measures

Children's behaviour was assessed using the Strengths and Difficulties Questionnaire (SDQ) (Goodman 1997, 2001), a parent-reported instrument designed to assess children's social and emotional behaviours (e.g., Is he/she considerate of other people's feelings?). It should be noted that these scales are used to represent a continuum of scores and not clinical behaviour problems per se. Children with high scores, however, may be considered at risk for behaviour problems. The SDQ consists of twenty-five items which are grouped into five subscales: (1) Prosocial, (2) Inattention-Hyperactivity, (3) Emotional Symptoms, (4) Conduct Problems, and (5) Peer problems. Responses to each item were: not true, somewhat true, and certainly true. (See Appendix for details and individual items.)

We examine the prosocial, inattention-hyperactivity, emotional symptoms, and conduct problem subscales, four outcomes shown to have construct validity for First Nations respondents of the 2006 Aboriginal Children's Survey emerge (Exploratory Factor Analytic (EFA) results described in Oliver et al. 2009). The prosocial scale consists of ten items assessing behaviours such as sharing, helpfulness, and kindness. Inattention-hyperactivity assesses if children are restless or easily distracted. Emotional symptoms assess behaviours related to anxiety and conduct problems assesses acting out behaviours. (See Appendix for individual

items.) All subscales ranged from 1 (not true) to 3 (certainly true). In all subscales, except conduct problems, higher scores represent positive behaviour.

Child factors included child's age in months and sex.

Family socio-economic factors included, the responding parent's highest level of education (less than high school, high school/some post-secondary, and completed post-secondary education), family structure was assessed using an item assessing the marital status of the respondent (married/common-law versus single/divorced/separated/widowed). Family income was assessed based on household total income which was the sum of the total incomes of all household members based on respondent's answers to the 2006 census. To account for differences in family size household total income was divided by the square root of family size.

Neighbourhood structural features were based on Dissemination Areas (DAs) determined from the child's postal code as reported in the survey. Dissemination areas are small geographic areas with a population between 400 and 700 people and were used as proxies for "neighbourhoods" (Kohen et al. 2002, 2008). Socio-economic characteristics were assessed from the 2006 census and included the proportion of private dwellings that were rented (as compared to owned), the percentage of residents aged 25 to 64 without a high school level of education, neighbourhood income (average household income divided by the square root of the average household size in the DA), and urban residence (as compared to rural) based on an area having at least 1000 people and no fewer than 400 people per square kilometre (Statistics Canada 2006).

Neighbourhood social organization was based on community involvement, a single item asked, "How do you feel about your community ... as a place with actively involved members of the community?" Neighbourhood safety was based on a single item asking parents, "How do you feel about your community ... as a safe community?" Responses to the items were based on a five-point Likert scale ranging from excellent (1) to poor (5), but dichotomous variables were constructed for the purposes of this study (excellent, very good, good versus fair, poor). A measure assessing neighbourhood facilities was created from the following three items: "How do you feel about your community? (1) As a place with good schools, nursery schools, and early childhood education programs? (2) As a place with adequate facilities for children, for example, community centres, rinks, gyms, parks? and (3) As a place with health facilities?" Three Likert scale items were dichotomized with scores of 9 or less coded as excellent/good and scores greater than 9 coded as fair/poor. A variable was constructed by summing the three items.

Statistical Analyses

Descriptive analyses were undertaken to describe the sample of children in the present study. To address the two research questions of interest, regression analyses were used. A multistage analysis was conducted in which family and neighbourhood variables were sequentially added. The impact of neighbourhood

Table 7.1: Descriptive Characteristics, First Nations

	Percent
Individual Characteristics	N=3462
Male (%)	50.7
Age (months)	39.5
Family Characteristics	
Respondent Education	
Less than High School (%)	31.1
High School/Some Post-Secondary (%)	58.1
Completed Post-Secondary (%)	10.8
Income (adjusted) (\$10,000)	2.4
Married/Common Law (%)	59.3
Neighbourhood Organization	
Involved Community (Excellent–Good), %	77.1
Community Safety (Excellent–Good), %	75.5
Community Facilities (Excellent–Good), %	76.8
Neighbourhood Socio-Economic	
Rent, %	36.3
No High School Certificate	21.8
Household Income (adjusted, \$10,000)	3.7
Urban (vs. Rural), %	78.6

organization (involvement, safety), structural features, and family characteristics were examined separately and in combination while always controlling for child age and gender. The final models containing all child, family, and neighbourhood variables are presented in Appendix 2. Additional models are available from the authors on request. Bootstrap weights were applied to all analyses to account for the survey design. A p-value of <0.05 was used to indicate statistical significance.

Results

Descriptive results are presented in Table 7.1. Approximately 50% of the sample was male and the average child age was 39.5 months. Among parental respondents just over 30% had less than high school education while just over 10% had completed post secondary education. Adjusted household income was \$24,000 per year. Approximately 59% of the parental respondents were married or living in common-law unions.

Table 7.1 shows that overall respondents rated neighbourhoods as organized. The majority responded that neighbourhoods' members were involved, neighbourhoods were rated as safe, and facilities were good (excellent/very good/good as compared to fair/poor).

The next section of Table 7.1 shows the socio-economic conditions of the neighbourhoods in which First Nations children surveyed by the ACS live. On average, 36% of individuals in the neighbourhood rent their dwelling and 21% of neighbourhood residents do not have high school levels of education. The average adjusted household income of the neighbourhoods is approximately \$37,000. Among the off-reserve First Nations children surveyed, the vast majority (78.6%) live in an urban area.

Regression Results

Results from the final models of the regression analyses including all child, family, community organization, and neighbourhood socio-economic factors are presented in Appendix 2.

Prosocial Behaviours

Community organization, specifically, community involvement and higher ratings of community facilities, were associated with higher child Prosocial scores. These associations remained significant even when family and neighbourhood socio-economic variables were controlled. Of the neighbourhood socio-economic factors considered, more numerous residents in the neighbourhood with low levels of education (less than high school) was associated with lower child Prosocial scores (results not shown), however, with the inclusion of family level socio-economic factors in the model, particularly, the respondent's level of education, neighbourhood levels of education were no longer significant. That is, children whose parent had not completed high school had lower Prosocial scores, and this had more of an impact on child Prosocial scores than did the level of education in the neighbourhood.

Inattention-Hyperactivity

Community social organization, specifically, community involvement was associated with lower inattention-hyperactivity scores, however, this effect was not significant once neighbourhood and family socio-economic features were considered. The percentage of the people in the neighbourhood without high school levels of education was associated with higher inattention-hyperactivity scores; however, these factors were no longer significant in the final full model. At the family level, respondents who had not completed high school had children with significantly higher inattention-hyperactivity scores as compared to children of parents who had completed high school. Parent level education was likely the mediating factor for community involvement and neighbourhood level education.

Emotional Symptoms

Higher ratings of neighbourhood safety and higher ratings of neighbourhood facilities were associated with lower ratings of emotional symptoms. However, in the final model where family and neighbourhood socio-economic characteris-

tics were included, community safety was no longer significantly related to child emotional symptoms but neighbourhood facilities were. Furthermore, neighbourhoods with higher proportions of renters were associated with higher child emotional symptom scores.

At the family level, children whose parents had less than high school levels of education had significantly more emotional symptoms as compared to children whose parents had completed post-secondary education. It was likely that family education mediated the effect of neighbourhood safety on children's emotional symptom scores. However, the association of community facilities with child emotional symptoms remained after other neighbourhood and family factors were considered.

Conduct Problems

Community safety was significantly associated with fewer conduct problems, however, this association was no longer significant with the addition of family characteristics. While all neighbourhood socio-economic characteristics (higher percentage of renters, more residents with less than high school education, lower average income) were associated with conduct problems, once family characteristics were controlled, only the proportion of people who rent was significantly associated with more conduct problems.

Several family level variables were important for conduct problems. Children whose parents had not completed high school had significantly more conduct problems compared to children whose parents had completed post secondary education. Higher levels of family income were associated with significantly fewer conduct problems and it was likely family income and education mediated the association of neighbourhood safety on children's conduct problem scores.

Discussion

This study is the first, to our knowledge, to examine the relationship of neighbourhood structural and organizational features on First Nations preschool children's mental health outcomes using data from the Aboriginal Children's Survey. We found that for First Nations children living off reserve, who for the most part live in urban settings, neighbourhood characteristics are important for children's mental health outcomes. As others have claimed, features of neighbour social organization are particularly important for Canadian preschoolers (Kohen et al. 2002, 2008; Oliver et al. 2007; Lapointe et al. 2007) as well as for Aboriginal children and youth.

Our findings suggest that neighbourhood safety, community involvement, and the perception of community facilities are associated with First Nations children's mental health outcomes. While associations were found between features of community organization and each of the mental health outcomes, these effects are largely mediated by family level factors with family level educational attain-

ment being particularly important, with children from families with less than high school levels of education having the poorest outcomes. However, for prosocial behaviours, neighbourhood-level community involvement is important over and above neighbourhood and family socio-economic factors. For both prosocial and emotional symptoms, more positive ratings of community facilities are important even after considering family and neighbourhood level socio-economic features. This suggests that improvements in neighbourhood organizational features could have important benefits for Aboriginal children's mental health.

Of the neighbourhood structural features considered, higher levels of education as well as the proportion of residents who rent rather than own their dwellings were important. Living in a neighbourhood with a high proportion of residents who had less than high school levels of education was associated with poorer prosocial scores, as well as higher inattention-hyperactivity and conduct problem scores, yet, these associations were not significant when the other factors were considered. The association between the increased number of renters and poorer mental health as assessed by emotional symptoms and conduct problems suggests that community ownership is important. These associations were significant even over and above the other neighbourhood factors considered as well as the family factors. The idea of community investment and ownership is not new but to our knowledge has not been empirically demonstrated using a nationally representative sample of off-reserve First Nations Aboriginal children.

Associations between parental levels of education and children's behavioural outcomes are not surprising and much evidence has shown that higher levels of parental education are associated with developmentally appropriate parenting behaviours and more stimulating activities for children such as exposure to language and literacy activities (Klebanov et al. 1994, 1997). In a review of the literature, Klebanov et al. (1998) found family income effects were stronger than education and family income effects, which in turn were stronger than education effects for a group of Canadian preschoolers (Kohen, Oliver, and Pierre 2009). The fact that family level education remained significant in the final models whereas household income was not may suggest that completing secondary school has particular benefits for the mental health of First Nations children.

It is beyond the scope of the present study to speculate as to whether or not educational attainment is a gateway to access additional support (mentors, resources, books), a different peer group, or increased skills related to parenting behaviours, but our results suggest that targeting educational attainment would not only have an impact on the parent but would likely help in the promotion of child mental health.

The findings of this study cannot be understood without a discussion of some of the limitations. Although constrained by the items included in the 2006 ACS, we attempted to include many neighbourhood characteristics including organizational as well as structural, socio-economic features. Our selection was based on factors examined previously in the existing published literature. It is thus possible

that the neighbourhood characteristics selected for inclusion in the present study were not the most salient for First Nations children. It should also be noted that the behavioural outcome measures represent a continuum of scores and not clinical behaviour problems. Furthermore, the behavioural outcome measures, although based on a standardized and validated scale, were all based on parent report, as were neighbourhood organizational features. Although information on neighbourhood structural features was based on census-linked information, biases may be apparent when the same respondent reports on neighbourhood conditions as well as child outcomes. For example a respondent with poor mental health may view their neighbourhood more negatively and may also perceive their child as having numerous behavioural difficulties. Unfortunately, without the inclusion of additional measures not solely based on parental report, this bias is impossible to assess.

Several studies examining the impact of neighbourhood and communities on children's outcomes have used multilevel modelling techniques to assess the variation in children's outcomes attributed to the individual/family, and neighbourhood levels (Kohen, Oliver, and Pierre 2009; Oliver et al. 2008). Unfortunately, the data in the ACS was not structured in a manner to enable such analyses (there was not adequate clustering of children within neighbourhoods to conduct multilevel modelling). As such, we were not able to assess how much variation in the outcomes was attributable to the child, family, and neighbourhood. A sampling strategy to warrant such analyses may be a consideration for future work.

Future research should consider additional measures of neighbourhood features such as exposure to Aboriginal language and the availability of community-based cultural activities. Future studies may also collect information on resource availability and accessibility, rather than parental satisfaction with community resources. For example, the availability of specific resources such as libraries and child development programs and activities may promote child outcomes as well as social factors such as linkages and support networks among parents and caregivers. Surveys could benefit from the inclusion of other child outcomes including measures of verbal and cognitive abilities, as well as non-parent reported child outcome measures. Associations of parental educational attainment, parenting practices, and child interactions could also be an avenue for qualitative studies. Despite the limitations outlined above, this study makes an important contribution to our understanding of the importance of neighbourhood characteristics for young First Nations children's mental health.

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Appendix 1: Details and Items for the SDQ subscales

For the SDQ each subscale consists of five items and responses are based on a three point Likert-scale (“not true,” “somewhat true,” or “certainly true”), which are summed to create a continuous score. These five subscales have been internationally validated and have been found to have good psychometric properties (Goodman 2001; Rotherberger and Woerner 2004; Woerner et al. 2004; Muris et al. 2003; Palimeri and Smith 2007). In addition, validation work conducted by Oliver, Findlay, McIntosh, and Kohen (2009) has demonstrated the validity of 3 of the 5 subscales for Aboriginal children included in the 2006 ACS and 4 of the 5 subscales for First Nations and Métis children. The peer problems subscale was not valid for any of the Aboriginal groups. Similar results have been reported by Zubrick and colleagues for Aboriginal children in Australia (Zubrick et al. 2006).

Below are the individual items contained in each scale:

- Considerate of other people’s feelings
- Shares readily with other children, for example toys, treats, pencils
- Helpful if someone is hurt, upset or feeling ill
- Kind to younger children
- Often offers to help others including parents, teachers, other children
- Generally well-behaved, usually does what adults request
- Has at least one good friend
- Generally liked by other children
- Can stop and think things out before acting
- Good attention span, sees work through to the end

Inattention-Hyperactivity

- Restless, overactive, cannot stay still for long
- Constantly fidgeting or squirming
- Easily distracted, concentration wanders

Emotional Symptoms

- Often complains of headaches, stomach-aches or sickness
- Many worries or often seems worried
- Often unhappy, depressed or tearful
- Nervous or clingy in new situations, easily loses confidence
- Many fears, easily scared

Conduct Disorder

- Often loses temper
- Often fights with other children or bullies them
- Often argumentative with adults
- Can be spiteful to others

*note: subscales based on EFA analyses in Oliver et al., 2009 and are slightly different from Goodman's original scales.

Table 7.2: Model Results, First Nations

	Prosocial			Hyperactivity			Emotional Symptoms			Conduct problems		
	EST	SE	P	EST	SE	P	EST	SE	P	EST	SE	P
Intercept	2.51	0.05	0.00 *	1.51	0.09	0.00 *	1.28	0.05	0.00 *	1.69	0.07	0.00 *
Individual												
Male	-0.07	0.01	0.00 *	0.13	0.02	0.00 *	-0.02	0.01	0.24	0.03	0.02	0.06
Age (months)	0.05	0.00	0.00 *	-0.01	0.01	0.19	0.01	0.01	0.04 *	-0.04	0.01	0.00 *
Family												
Respondent Education												
Less than high school (%)	-0.05	0.02	0.01 *	0.23	0.04	0.00 *	0.05	0.02	0.02 *	0.15	0.03	0.00 *
High school/some post-sec (%)	-0.03	0.02	0.08	0.16	0.04	0.00 *	0.03	0.02	0.09	0.06	0.03	0.02 *
Completed post-sec(%)	0.00	0.00		0.00	0.00		0.00	0.00		0.00	0.00	
Married/common law (%)	-0.02	0.01	0.22	0.03	0.03	0.34	-0.01	0.01	0.45	0.02	0.02	0.38
Income (adjusted) (\$10,000)	0.01	0.00	0.27	-0.01	0.01	0.16	0.00	0.00	0.75	-0.01	0.00	0.00 *
Neighbourhood perception												
Community facilities (excellent-good), %	0.05	0.02	0.00 *	-0.05	0.04	0.15	-0.04	0.02	0.03 *	-0.03	0.03	0.21
Community safety (excellent-good), %	0.00	0.02	0.83	0.01	0.03	0.82	-0.02	0.02	0.30	-0.02	0.03	0.48
Involved community (excellent-good), %	0.04	0.02	0.02 *	-0.06	0.04	0.09	0.00	0.02	0.92	-0.03	0.03	0.37
Neighbourhood socio-economic char.												
Rent, %	-0.02	0.03	0.44	0.04	0.06	0.48	0.06	0.03	0.03 *	0.09	0.04	0.04 *
No high school certificate, %	-0.09	0.06	0.13	0.09	0.11	0.45	-0.01	0.06	0.82	0.07	0.09	0.43
Household income (adjusted, \$10,000)	0.00	0.01	0.47	0.00	0.01	0.82	0.00	0.01	0.52	-0.01	0.01	0.19
Urban	-0.02	0.02	0.14	0.04	0.03	0.22	0.00	0.02	0.92	0.02	0.02	0.42

EST = Estimate, SE = Standard Error, P = p-value, * = p-value < 0.05