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**Growing Up Canadian – A Study
of New Immigrant Children
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**by
Morton Beiser, Feng Hou, Ilene Hyman and Michel Tousignant
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Executive Summary

Familial poverty jeopardizes the mental health of native-born children. However, research among immigrant communities suggests a paradox. Although immigrant families are typically poorer than their host country counterparts, immigrant children are, on the whole, at least as healthy as native-born children, and often out-perform them in school.

This paper examines data from the National Longitudinal Survey of Children and Youth, focusing on familial factors that mediate the effect of poverty on children's mental health outcomes (conduct disorder, hyperactivity, emotional disorder). The results demonstrate that more than 30 percent of new immigrant families were poor in comparison with 13.2 percent of native-born Canadian families. Nevertheless, new immigrant children had lower rates of mental health problems than children in the national population. In both population groups, there was a clear association between poverty and an elevated risk of conduct and emotional disorder. Familial factors such as parental depression, family dysfunction, hostile parenting, and single parent family status increased the risk for all types of disorder. Although familial factors mediated the effects of poverty on native-born Canadian children's mental health, this was not true for new immigrant families. These findings suggest that poverty means different things for new immigrants and native-born Canadians. In new immigrant families, poverty may represent a transient and inevitable part of the resettlement process. For many people in the national population, poverty may represent the end stage of a cycle of disadvantage, despair, family dysfunction and alcohol abuse.

These findings suggest that Canada's immigration policies and practices have resulted in an effective selection of healthy, resilient, success-bound families and children. The fact that almost one-third of immigrant children live in poverty in Canada, however, calls for programs and initiatives aimed at eliminating poverty through creative job training programs and ensuring equity in job access. Appropriate recognition of foreign credentials should become a national priority.

Sommaire

La pauvreté au sein de la famille met en péril la santé mentale des enfants canadiens de naissance. Néanmoins, la recherche menée auprès des collectivités immigrantes soulève un paradoxe. Bien que les familles immigrantes soient typiquement plus pauvres que leurs homologues du pays d'accueil, le bilan de santé des enfants immigrants est, dans l'ensemble, au moins aussi positif que celui des enfants de souche canadienne, et leur rendement à l'école est souvent supérieur.

La présent étude analyse les données tirées de l'Enquête longitudinale nationale sur les enfants et les jeunes, et porte principalement sur les facteurs d'ordre familial qui viennent atténuer l'incidence de la pauvreté sur les résultats observés chez l'enfant en matière de santé mentale (trouble de la conduite, hyperactivité, troubles affectifs). Les conclusions démontrent que plus de 30 % des nouvelles familles immigrantes sont pauvres alors que seulement 13,2 % des familles canadiennes de naissance le sont. Néanmoins, les taux de problèmes de santé mentale chez les nouveaux enfants immigrants sont plus bas que chez les enfants dans la population canadienne en général. Dans les deux groupements de population, il existe une association évidente entre la pauvreté et le risque élevé de troubles de la conduite et de troubles affectifs. Des facteurs reliés à la famille, notamment la dépression chez les parents, le dysfonctionnement de la famille, les pratiques parentales hostiles, et le statut de famille monoparentale viennent augmenter le risque d'éprouver des problèmes. Bien que les facteurs d'ordre familial viennent atténuer l'incidence de la pauvreté sur la santé mentale des enfants canadiens de naissance, tel n'est pas le cas des nouvelles familles immigrantes. Ces conclusions permettent de croire que la pauvreté n'a pas la même signification chez les nouveaux immigrants et chez les Canadiens de naissance. Dans le cas des nouvelles familles immigrantes, la pauvreté peut représenter un élément inéluctable et temporaire du processus de rétablissement. Dans le cas de bon nombre de personnes dans la population canadienne, la pauvreté représente la dernière étape d'un cycle de désavantage, de désespoir, de dysfonctionnement de la famille et de consommation abusive d'alcool.

Les conclusions de la présente étude portent à croire que les politiques et les pratiques canadiennes en matière d'immigration ont permis un choix efficace de familles et d'enfants dont la santé, la résistance, et le succès sont assurés. Néanmoins, le fait que près d'un tiers des enfants immigrants vivent dans la pauvreté au Canada, témoigne de la nécessité d'établir des programmes et des projets dans le but d'enrayer la pauvreté par l'entremise de programmes de formation professionnelle novateurs, et d'assurer un accès équitable aux emplois. Par ailleurs, la priorité devrait être accordée à la reconnaissance appropriée des titres de qualification étrangers.

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1.   Introduction: The Research Question

Familial poverty jeopardizes the mental health of majority culture children (Offord *et al*, 1989, Langner *et al*, 1977; Rutter *et al*, 1976; Canadian Institute of Child Health, 1994). However, research among immigrant communities suggests a paradox. Although immigrant families are typically poorer than their host country counterparts (National Council of Welfare, 1998), immigrant children are, on the whole, at least as healthy as majority culture children, and often out-perform them in school (Beiser *et al*, 1995; Klimidis *et al*, 1994; Chang *et al* 1995; Sam, 1994).

Immigration policy provides a partial explanation. Admission to Canada is neither random nor easy. As a result of Canada's selection processes, most migrant households consist of well-educated, occupationally skilled, healthy people (Immigration Canada, 1994).

Selection is probably only part of the answer. Although a high proportion of immigrant families are poor, particularly during the early years of resettlement, the particular circumstances of immigrant life may invest poverty with a different meaning for immigrant, as compared with receiving country families.

Why the difference?

One possible reason is that poverty in immigrant families does not invoke the surfeit of associated risk factors that it does in majority culture families. For example, studies suggest that risk factors such as family drinking problems and single parent family status, often associated with mental health problems in majority-culture children, may occur less frequently among new immigrant families than among their host country counterparts (Beiser *et al*, 1997).

A second, related reason is that protective factors associated with immigrant family life may counteract some of the negative effects of poverty (Zhou, 1997; Edwards & Beiser, 1994; Hicks *et al*, 1993; Barwick & Beiser (in press). For example, care provided by a member of the extended family, a familial structure frequently found among immigrant groups, offsets the negative impact of maternal employment on young childrens' cognitive and behavioural functioning in poor families although not in non-poor families (Brooks-Gunn *et al*, 1995). The

majority of today's immigrant source countries are in Asia, the Middle East and Africa, areas of the world whose cultures tend to value interdependent, extended family structures. Retention of these structures in Canada may help explain the apparent resiliency of immigrant children (Garcia-Coll & Varquez Garcia, 1995). The emphasis on stoicism and self-control characteristic of some immigrant cultures, may also contribute to the maintenance of mental health under adverse circumstances (Huang, 1989).

Few empirical studies to date have directly examined the effect of poverty on children's mental health in new Canadian families, or the possible role of risk and protective factors in explaining the relationship between the two.

2.   Study Objectives

Using data from The National Longitudinal Survey of Children and Youth (NLSCY), the current study aims to:

1.   Examine the relationship between familial poverty and children's mental health in new immigrant and host country populations.

2.   Identify familial factors that mediate the relationship between poverty and mental health in new immigrant and host country families, including: (a) family functioning; (b) parental depression; (c) single parent status; (d) family drinking problem; (e) parenting behaviours; and (g) use of non-parent child care.

3.   Study Methods

Data for this study derive from cycle one of the NLSCY, a nationwide study of approximately 25,000 children ranging from newborns to 12 years of age. The NLSCY is a longitudinal study with a biennial cycle of data collection. Data for cycle one were collected between the fall of 1994 and the spring of 1995. The household member who was the "person most knowledgeable" (PMK) was the primary respondent. In most cases, this was the child's mother.

3.1   Definition of the Study Population

The immigrant child sample consisted of children who entered Canada as immigrants as well as those born in Canada into a family in which at least one of the parents had been in the country less than ten years. Both substantive and methodological considerations guided the choice of selection criteria.

From a substantive perspective, there is good reason to separate initial resettlement from medium and long-term resettlement. Negative public attitudes, separation from family and community, inability to speak the dominant language, failure to find suitable employment and lack of familiarity with the health care system all contribute to the vulnerability of new immigrant groups (Canadian Council on Multicultural Health, 1989; Canadian Task Force on Mental Health Issues Affecting Immigrants and Refugees, 1988). However, after the first 10 years, immigrant incomes, employment levels, health behaviours and use of health services approximate those of the Canadian-born population (Beiser *et al* 1997; deVoretz, 1995).

Methodological issues, particularly sample size considerations and the availability of measures also helped determine the sampling strategy. The mental health measures were based on a series of questions in the NLSCY Behaviour section that were meant to apply to children between the ages of 4 and 11. Sample size constraints obviated subdividing this age grouping for finer grained analysis. Using the current study's definition, 498 of the children between the ages of 4 and 11 who took part in the NLSCY were new immigrants. The remaining NLSCY sample children between the ages of 4 and 11 constituted the national comparison sample for this study.

Ethnic classifications for the NLSCY children were based on PMK interview data. In the national sample, the largest proportion of children were Canadian (51.9%), followed by those of British

(35.3%), French (27.4%) and Other European (25.1%) ancestry. Smaller proportions of children were reported to be of Chinese or South Asian (3.2%), Black or African (1.4%) and Other (18.1%) ethnic origins (Ross *et al*, 1996). Since data on the ethnic origins of children in the new immigrant sample were not available through the NLSCY Public Access File, the composition of this sample can only be imputed on the basis of immigration trends. According to data from the 1996 census, 57.0 percent of all persons entering Canada were from Asia and 7.3 percent from Africa. Between 1981 and 1990, the corresponding figures were 46.9 percent Chinese or other Asian and 5.9 percent Black or African (Statistics Canada, 1996-1997).

3.2   Definition of Poverty

Although socioeconomic status is often calculated as a product of education and occupation, this may not be appropriate to the immigrant situation. On the whole, immigrants have more formal education than their Canadian-born counterparts; however, they often face unemployment and underemployment during their early years in Canada (Canadian Task Force on the Mental Health of Immigrants and Refugees, 1988). Following a consultation with Prof. Pierre Lefebvre of UQAM, and Dr. Mark Rosenberg of Queens University, we decided to base the study's definition of poverty on Statistic Canada's low income cut off (LICO). Statistics Canada defines the LICO on the basis of total household income in relationship to household size. For the current study, we defined as "Poor" those families whose adjusted income was 75 percent or more below the LICO (in their NLSCY report, Offord and Lipman (1996) classify this group as the "Very Poor."

3.3   Definition of Mental Health Variables

Three disorders were included as outcome measures:

- Conduct disorder, characterized by aggression, either physical or indirect, or a violation of social norms;

- Hyperactivity, characterized by inattention, impulsiveness and motor activity; and

- Emotional disorder, characterized by feelings of anxiety and/or depression.

There is no universally accepted method for classifying children as psychiatrically disordered or free from disorder using community survey techniques. For the descriptive analyses presented in this report, we have used the NLSCY categorical method for rating disorder developed by Offord and Lipman (1996). Items measuring discrete behaviours, to each of which the PMK responded "sometimes," or "often," or, depending on the item's specific wording, "somewhat true," or "very true" form the basis for the ratings. Sometimes and somewhat true responses receive a score of one, often or very true a score of two. Individual items belonging to each of the three domains are then summed to produce a scale score for Conduct Disorder, Hyperactivity and Emotional Disorder respectively. Children scoring in the top 10 percent of scores for a particular scale are considered to have the disorder measured by that scale. Use of this definition makes it possible to compare the current study's results with findings reported by other investigators using the same data set. In addition to this pragmatic reason for choosing this approach, Offord and Lipman (1996) point out that the prevalence estimates it produces resemble those achieved by other investigators using alternative approaches.

Although categorical data are very useful for presenting rates and for making population comparisons, the use of scale scores provides an opportunity for more robust hypothesis testing through the use of multivariate analysis. For analyses examining the effects of immigration status, poverty, risk and protective factors on mental health, the current study relied, for the most part, on continuous scale scores for Conduct Disorder, Hyperactivity, and Emotional Disorder.

3.4   Factors Modifying the Effects of Poverty on Children's Mental Health

The NLSCY data set provided an opportunity to investigate the possible role of the following factors in modifying the effects of poverty on children's mental health: a) family functioning b) parental depression c) single parent family status d) family drinking problem e) parenting behaviours and, f) child care by parents. It was hypothesized that poor family functioning, single parent family status, a family drinking problem and hostile parenting behaviour would increase the risk of children's mental health problems, and perhaps account for the relationship between poverty and mental health. Conversely, positive parenting behaviour and parental care would lower the risk of mental health problems in children.

3.4.1   Family Functioning

Family functioning is defined as the process of family interactions and activities that contribute to the maintenance of the family unit and the well-being of its members (Linder-Pelz *et al*, 1984). Significant associations between measures of family functioning and child psychiatric disorder have been found in majority culture studies in Canada (Ontario Child Health Study, 1983), as well as in a Chinese context (Shek-Daniel, 1997). Preliminary NLSCY analyses have suggested that low income families were more likely to be dysfunctional (14.6%) than middle (7.5%) and high income families (5.0%).

Concepts about what constitutes "good" family functioning may not be universally valid. Indiscriminately applied measures that are based on an assumption of universality may produce misleading results (Saito *et al*, 1996). For example, Morris (1990) reported that cultural characteristics of Japanese-American families can produce an inaccurate impression of poor functioning. Paternal authoritarianism, active discouragement of verbal communication, avoidance of discussion of personal problems, rigid styles for setting appropriate standards of family behaviour, and setting a strong commitment to the family as a major priority for children are antithetical to good functioning according to dominant society values, but perfectly acceptable for many Asian families.

Saito *et al* (1996) examined the scalar equivalence of the Family Environment Scale for American and Japanese families. Several dimensions of the scale, including Cohesion (the degree of commitment, help, and support family members provide for one another), Independence (the extent to which family members are assertive, self-sufficient, and make their own decisions), and Control (the extent to which set rules and procedures are used to run family life) were found to be cross culturally equivalent. However, the US families scored consistently higher on Achievement (the extent to which activities are cast into an achievement-oriented or competitive framework). The authors interpreted these differences as a product of cultural difference, stemming from the Japanese emphasis on maintaining and promoting group, rather than individual achievement.

Family Functioning was measured using the Family Assessment Device, a 12 item questionnaire developed by the Chedoke-McMaster Hospital group to assess communication, problem solving, affective responsiveness (i.e. readiness of family members to show feelings), affective involvement (i.e. readiness of family members to help and support each other) and family roles. Parents were asked the extent to which they agreed with items such as: "we express feelings to each other", "we don't get along together", "we feel accepted for what we are". The higher the score achieved, the higher the level of family dysfunction.

3.4.2   Parental Depression

The impact of parental psychopathology on the mental health of children is well recognized (Garmezy, 1985; Rutter, 1987). Poor parental mental health has been implicated as a risk factor for psychiatric disturbances in immigrant and refugee children (McCloskey & Locke, 1995; Mghir *et al* 1995; Rousseau *et al* 1989). Maternal mental illness, particularly post-traumatic stress disorder (PTSD), predicted poor mental health among Central American children who recently immigrated to the U.S. (Locke *et al*, 1996). According to the National Population Health Survey data (NPHS), the rates of depression and distress among new immigrants were no different from those among the Canadian population as a whole (Beiser *et al*, 1997)

Parental depression was measured with a reduced version of the CES-D, a measure originally developed at the US National Institute of Mental Health (Radloff, 1977).

3.4.3   Single Parent Family Status

Single parent status is frequently accompanied by low income, low education and heightened risk of physical and mental health problems. According to previous NLSCY analyses, 16.3 percent of Canadian children were living with a single mother and these children were at increased risk of emotional and behavioural problems compared to children from two parent families, whether a family was poor or not (Lipman *et al*, 1996). In immigrant families, research suggests that children from intact (especially two-natural parent) families or from families with tightly knit social networks have a significant psychological advantage. This reinforces the notion that both family structure and embedded family ties affect the mental health of immigrant children (Zhou, 1997).

NLSCY respondents were asked, "Does the PMK have a spouse living in the household?".
Responses were coded (2 = No; 1 = Yes; 0 = Else).

3.4.4. Family Drinking Problem

Research suggests that children of alcoholic parents or parents who are problem drinkers have a
higher risk of developing a psychiatric disorder than children of non-alcoholic parents (Matthew *et
al*, 1994). According to Canadian data from the National Population Health Survey, (NPHS),
new immigrants are less likely to be heavy alcohol users than members of the general population
(Beiser *et al*, 1997).

Responses to the following item were used to assess the impact of alcohol use on children's
mental health: "Alcohol is a cause of tension or disagreement in our family." (1 = "Strongly
agree", 2 = "Agree", 3 = "Disagree", 4 = "Strongly disagree").

3.4.5   Parenting Behaviours

Parenting and the quality of interaction between parents and children have a major influence on
children's mental health. Parenting problems have been recognized as critical to the development
of childhood disorders, including conduct disorder (Landy & Kwan Tam, 1996).

Many studies have demonstrated ethno-cultural differences in parental values and behaviours. For
example, Hispanic parents differ from Caucasian and African-American parents in terms of their
attitudes and perceptions towards their children's development, in their behaviour as caregivers
and in their developmental goals (Garcia-Coll & Vasquez Garcia, 1995). Reported ethno-cultural
differences in values and behaviours may clash with those of the majority population. For
example, Cong (1990) reported that disciplinary practices judged acceptable in the country of
origin were often considered abusive in the host country. According to Bibeau *et al* (1992),
immigrant parents in Quebec have been unjustifiably referred to Youth Protection Services as a
result of misunderstandings about normative differences in child care.

Personal and family values, attitudes and beliefs change as newcomers acculturate. Some studies
have shown that the retention of traditional family structures and sex-role organization may assist
the development of some immigrant children (Hicks *et al*, 1993), but other studies have found
that this also contributes to the genesis of stress. For example, the traditional Southeast Asian

pattern of restricting adolescent female freedom more than male (Kurian, 1986), at the same time demanding that females accept more household responsibility, may result in clashes between familial and peer values that affect the well-being of Southeast Asian adolescent girls (Mogg, 1991). A current study of adolescent refugees in Quebec suggests that many refugee parents favour male children over females (Tousignant, 1997). Family cohesion tends to deteriorate with longer duration of U.S. residence (Gil & Vega, 1996). In addition to acculturative stress, lack of parental closeness was among the factors associated with depression in young immigrants to Norway (Sam & Berry, 1995). Intergenerational conflicts in immigrant families are also believed to lead to dwindling parental authority and insufficient family communication, negative effects on children's self esteem and psychological well-being (Gil & Vega, 1996; Rumbaut, 1996).

Poverty probably affects child development in both mainstream and immigrant families. Children's achievement orientation, parents' responses to crying, parent-child modes of interaction (verbal, tactile) have been reported to differ between poor and non-poor families belonging to the same ethnic group (Garcia-Coll & Varquez Garcia 1995).

In the NLSCY, Parenting Behaviours were examined using an adaptation of the Parenting Practices Scale developed by Strayhorn and Weidman (1988), and questions developed by Dr. M. Boyle at Chedoke-McMaster Hospital. Using factor analytic techniques, items reflecting positive interaction and hostile/ineffective parenting were identified and used in scales. Positive Parenting was measured by asking parents questions such as: "how often do you praise your child?" "how often do you talk or play with your child?" etc. and summing the scores of all questions. Hostile parenting questions included items such as: "how often do you get annoyed with your child?", "of the times you have to talk to your child about his/her behaviour, how often is it disapproval?".

3.4.6   Child Care by Parents

The entry of women into the paid labour force has been one of the most radical changes affecting Canadian society over the past 30 years. In 1994-95, 32.4 percent of children 0-11 were in some form of non-parental care while their parents worked or studied. Approximately 21.4 percent of children were cared for by a family relative, for example, a grandmother. Most children were cared for outside the home in the home of a non-relative (34.2%), or in a regulated child-care centre (15.7%). About 14.2 percent were cared for by a nanny or other non-relative in the child's

home. Although there is little information about the effects of different types of child care type on mental health, it is well-recognized that a long-term relationship with a caregiver is an important factor in encouraging positive child development (Ross *et al*, 1996).

In the NLSCY survey, respondents were asked "Do you currently use child care such as daycare or babysitting while you (and your spouse/partner) are at work or studying?". Responses were coded as (0 = "No", 1 = "Yes").

3.5   Plan of Analyses

Poverty and mental health outcomes in the study population were first examined using descriptive statistics. The distribution of modifier variables in the new immigrant and national population were next examined using t-tests for continuous variables (family functioning, parenting behaviours, parent depression, family drinking problem) and Chi Square test for categorical variables (single parent family status, child care by parents).

Multiple linear regression analyses were used to examine the main effects of poverty and new immigrant status on mental health, and to determine whether these effects were modified by other variables. Regression models were prepared for each outcome. Model 1 included poverty and new immigrant status; in Models 2 to 8, age and gender (female), parent depression, family dysfunction, positive parenting, hostile parenting, child care by parents, and single parent family were added separately. Model 9 included all control and mediating variables. Differences in R-square were used to examine the contribution of each added variable(s) in explaining the variance of the mental health outcome over and above the effect of poverty and new immigrant status. Differences in the regression coefficients of the Poor and New Immigrant variables between each of these models and Model 1 were used to identify which of the modifiers had the greatest impact on outcome. Adjusted and unadjusted mean outcome scores were used to illustrate how the mediating variables influence the effects of poverty and immigration status on mental health.

Prior to using the measure of mental health, family functioning, parental depression and parenting behaviours in multivariate analyses, we used the Alpha coefficient to establish their reliabilities in the new immigrant and national samples respectively.

3.6   Weighted vs. Unweighted Data

In a probability sample, each respondent represents several other respondents. For example, in a 2 percent simple random sample each person in the sample represents 50 persons in the population. The NLSCY was not a simple random sample. Weights, or values, were assigned to reflect differences in the number of population units each case represented. For example, urban sample respondents were assigned weights necessary to adjust for the NLSCY's over-sampling of children in rural areas. Use of unweighted data would give rise to inappropriate comparisons between new immigrant children, the majority of whom reside in Canada's major urban centres (Toronto, Vancouver, Montreal, each of which was under-represented as a result of the NLSCY sampling strategy) and rural Canadian born children, who were over-represented in the sample. We considered restricting all analyses to urban children only, whether immigrant or Canadian-born. However, because variables identifying urban centres and urban/rural subdivisions were suppressed in the NLSCY Public Access File, this strategy was not possible. Therefore, descriptive analyses utilize weighted data.

A rescaling procedure was necessary for the multivariate analyses. Although many statistical packages allow weights to be used, the definition of the weight in these procedures often departs from the assumptions underling sample surveys. As a result, the variances calculated may be meaningless. In order to make the variances more meaningful, the General Social Survey (1992) User's Guide recommends rescaling data so that the average unit weight is one (1). To accomplish this, each weight is divided by the overall average weight; the resulting figure, the ''working' weight, is then used for statistical analyses.

4. Results

4.1 Description of the Study Population

In 1994, there were 3,129,038 children in Canada between the ages of 4-11 years. Of this total, 7.7 percent, or 240,184 were new immigrants or children of new immigrants. Figure 1 describes the prevalence of poverty among children in the new immigrant and national population groups. The rate of poverty among new immigrant families with at least one child between the ages of four and eleven was more than double that of Canadian families with a child or children in the same age group.

Figure 1
Distribution of Poverty in New Immigrant
and National Populations
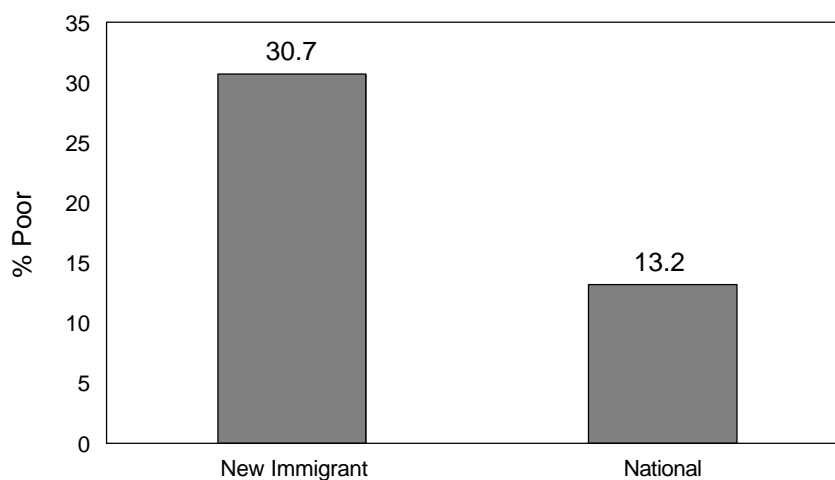
4.2 Mental Health of New Immigrant Children

The reliability of each mental health scale was established for each population group. Coefficient Alphas for each of the scales in each of the groups were in the acceptable range, as follows:

- Hyperactivity: national = 0.84; new immigrant = 0.79

- Emotional disorder: national = 0.74; new immigrant = 0.68.

- Conduct disorder: national = 0.78; new immigrant = 0.66.

Figure 2 summarizes the rates of hyperactivity, emotional disorder and conduct disorder among the new immigrant and national sample children.

The rates for hyperactivity and emotional disorder in the national sample of children ages 4-11 yrs. (10.8%, 9.4% respectively) closely approximate those reported by Offord & Lipman (1996). The rates of these disorders among new immigrant children are noticeably lower (3.8% and 5.3% respectively). Our national rate of conduct order (13.2%) was slightly higher than the 10 percent reported by Offord & Lipman (1996); the new immigrant rate for this disorder was substantially lower (6.7%).

Figure 2
Prevalence of Mental Health Outcomes in
New Immigrant and National Populations
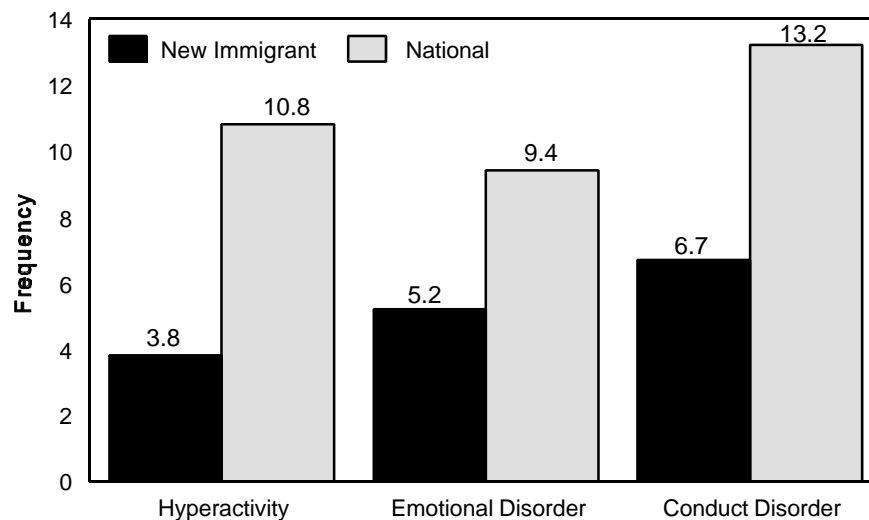
4.3   Poverty and Mental Health

Figure 3 describes the prevalence of hyperactivity by poverty status in new immigrant and national groups. In the national group, the rates of hyperactivity were higher among the Poor than among the Non-Poor (15.8%, 10.1% respectively). However, because of sample size constraints, very few cases in the new immigrant group met the 10 percent threshold criterion. Therefore, the estimated prevalence of hyperactivity may not be reliable for this group.

Figure 3
Prevalence of Hyperactivity by Poverty
Status and Population Group
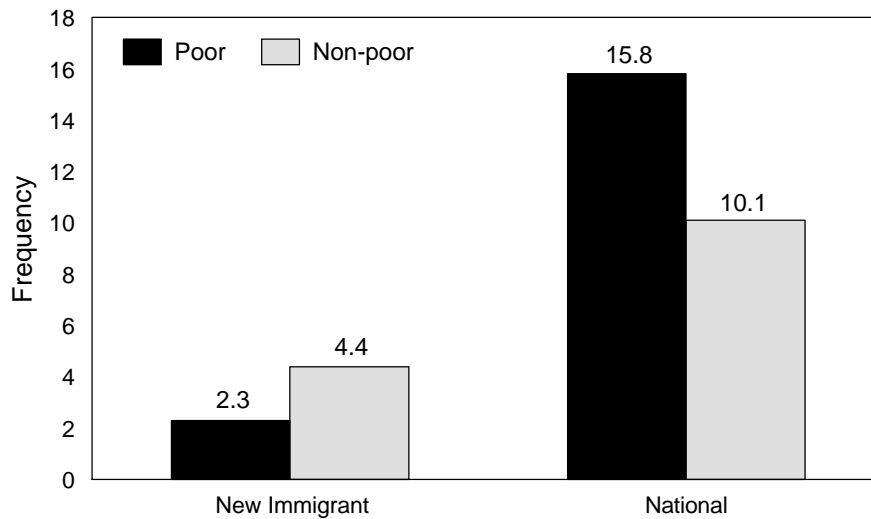
The prevalence of emotional disorder for each population group by poverty status is illustrated in Figure 4. In both groups, this disorder was far more prevalent among the Poor than among the Non-Poor.

Prevalence rates for conduct disorder by poverty status in new immigrants and the national population are presented in Figure 5. Once again, among both the national and new immigrant groups, the prevalence of disorder was higher among the Poor as compared to the Non-Poor.

Figure 4
Prevalence of Emotional Disorder by Poverty
Status and Population Group

Figure 5
Prevalence of Conduct Disorder by Poverty
Status and Population Group

4.4   Poverty, Risk and Protective Factors by Population Group

Table 1 describes the distribution of risk and protective factors according to population group and poverty status. T-tests were used to analyse the significance of differences in sc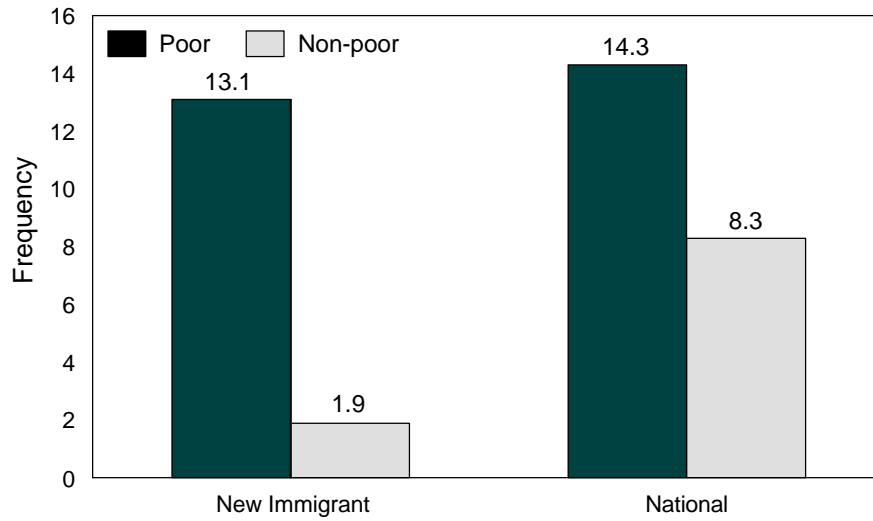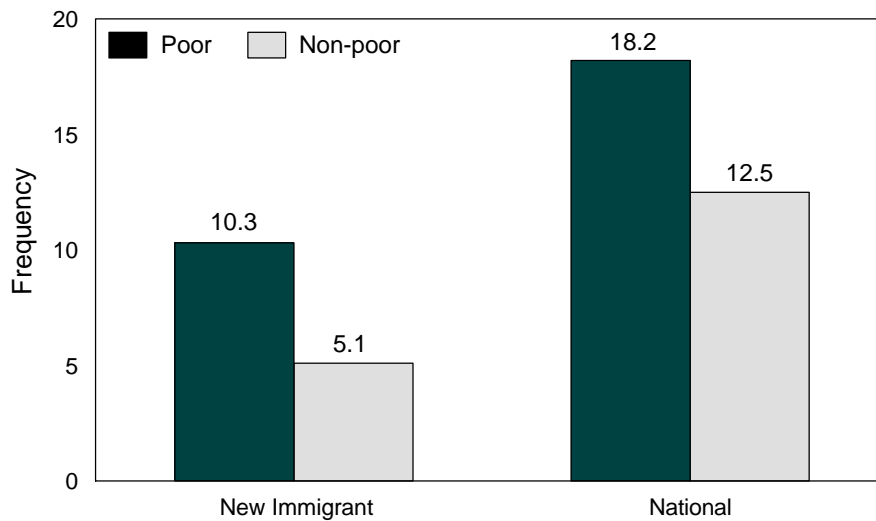ale scores (family drinking problem, parent depression, family functioning, family drinking problem, parenting behaviours) and Chi Square tests for differences in the distribution of categorical variables (single parent status, child care by parents). Prior to performing these analyses, the reliability of scales in the new immigrant and national populations were examined and found to be acceptable (range 0.7 - 0.9).

Compared to new immigrants, families in the national population were significantly more likely to have a drinking problem, family dysfunction, hostile parenting behaviour and to use non-parent child care. Group differences in parental depression scores, levels of positive parenting and in the proportion of single parent families were statistically non-significant.

With the exception of positive parenting, there were significant differences between Poor and Non-Poor population groups on each of the variables. Parents in Poor families were significantly more likely than non-poor parents to be depressed, to exhibit hostile parenting, to use non-parent care and to be single parents. Poor families were more likely to have a drinking problem and to have poor levels of family functioning than their Non-Poor counterparts.

An examination of the distribution of mediating variables by poverty status within the new immigrant and national populations (Table 2) suggests that the greatest differences are between the Poor and Non-Poor national families (columns 2 and 4). Children in Poor national sample families were far more likely than their Non-Poor counterparts to be exposed to mental health risk factors. Positive parenting is the only variable in which no significant difference is observed. Although differences between Poor and Non-Poor new immigrant families (columns 1 and 3) follow the same trend as those found in the general population, there are fewer statistically significant differences and the contrasts between Poor and Non-Poor are not as marked. There are important differences between the Poor new immigrant and Poor national groups (columns 1 and 2). The rates for parental depression, family drinking, hostile parenting and single parent families were significantly lower in Poor new immigrant families compared to Poor national

families. With the exception of hostile parenting, there were no significant differences between the Non-Poor new immigrant and national populations (columns 3 and 4).

Table 1 - Distribution of Mediating Factors in Population Groups and by Poverty Status

	New Immigrant (N=1143)	National (N=13848)	Statistical Test	Poor (N=2179)	Non-Poor (N=12812)	Statistical Test
Scales (means)						
Parent Depression	4.96	4.74	t=1.26 p=.205	7.80	4.24	t=20.8 p=.000
Family Drinking Problem	0.40	0.45	t=2.76 p=.006	0.61	0.42	t=10.5 p=.000
Family Functionning	8.49	7.90	t=3.56 p=.000	9.73	7.65	t=16.4 p=.000
Positive Parenting Behaviour	12.59	12.79	t=1.86 p=.063	12.75	12.78	t=.389 p=.697
Hostile Parenting Behaviour	8.06	8.92	t=6.77 p=.000	9.22	8.80	t=4.45 p=.000
Categorical Variables (%)						
Use of Non-Parent Care	75.4%	70.1%	χ^2=14.6 p=.000	85.5%	67.9%	χ^2=280.9 p=.000
Single Parent Family Status	16.3%	16.3%	χ^2=.001 p=.975	55.1%	9.7%	χ^2=2874 p=.000

4.5   Summary of Descriptive Analyses

According to the NLSCY data, new immigrant children in Canada have fewer mental health problems than native-born Canadians. Poverty creates a situation of mental health risk for both groups. For both groups, poverty is associated with mental health risk factors including parental depression, family drinking problems, family dysfunction, hostile parenting behaviour, use of non-parent child care and single parent family status. However, the pattern of comparisons between Poor and Non-Poor new immigrants as well as between Poor immigrants and Poor nationals suggests that poor new immigrant children are less disadvantaged than their counterparts in the poor national sample.

Table 2 - Distribution of Mediating Factors within Population Groups by Poverty Status

	Poor New Immigrant (N=352) [1]	Poor National (N=1827) [2]	Non-poor New immi. (N=791) [3]	Non-poor National (N=12021) [4]	Test of Difference [1] - [2]	Test of Difference [3] - [4]	Test of Difference [1] - [3]	Test of Difference [2] - [4]
Scales (means)								
Parent Depression	6.23	8.16	4.55	4.25	t = 6.0 ρ=.000	t = 1.4 ρ=.135	t = 4.8 ρ=.000	t =28.4 ρ=.000
Family Drinking Problem	0.47	0.63	0.39	0.43	t = 4.3 ρ=.000	t = 2.1 ρ=.034	t = 2.1 ρ=.035	t =10.5 ρ=.000
Family Dysfunctioning	10.21	9.76	7.92	7.67	t = 1.5 ρ=.127	t = 1.3 ρ=.208	t = 6.9 ρ=.000	t =15.2 ρ=.000
Positive Parenting	12.39	12.79	12.56	12.78	t = 1.8 ρ=.079	t = 1.9 ρ=.059	t = .72 ρ=.474	t = .13 ρ=.900
Hostile Parenting	8.04	9.43	8.04	8.84	t = 6.9 ρ=.000	t = 5.1 ρ=.000	t = .02 ρ=.985	t = 6.1 ρ=.000
Categorical Variables (%)								
Child Care by Parents	84.5%	85.7%	71.3%	67.7%	χ=.308 ρ=.579	χ=4.56 ρ=.033	χ=23 ρ=.000	χ=249 ρ=.000
Single Parent Family Status	33.0%	59.4%	8.9%	9.8%	χ=85 ρ=.000	χ=.566 ρ=.452	χ=105 ρ=.000	χ=2931 ρ=.000

Note: As multiple comparisons inflate the probability of Type I errors, the Bonferroni procedure suggests that p < 0.01 be used as the level of significance in this table.

4.6   Multivariate Analyses

Multivariate analyses were used to examine whether the association between poverty and family characteristics might explain the relationship between poverty and children's mental health. These analyses included age, gender and hypothetical mediating variables. "Family drinking problem" was dropped from these multivariate analyses because it was very highly correlated with family dysfunction. Age and gender were included because earlier analyses had demonstrated significant differences in mental health outcomes in girls and boys. Other studies have reported higher rates of conduct and emotional disorder among children 8 to 11 compared to children aged 4 to 7 (Offord & Lipman, 1996).

Nine multiple linear regression models were prepared for each of the mental health variables: Hyperactivity, Emotional Disorder and Conduct Disorder. Model 1 included poverty and immigrant status. Because the interaction term between poverty and new immigrant status became significant after controlling for the mediating variables, this interaction term is included in Model 1 for Emotional Disorder and Conduct Disorder. In Models 2 to Model 8, age and gender (female), parent depression, family dysfunction, positive parenting, hostile parenting, child care by parents, and single parent family were separately added to Model 1. Model 9 includes all relevant variables.

The differences in R-square between each of these models and model 1 indicate the contribution of the added variable(s) in explaining the variance of the mental health outcome over and above the effect of poverty and new immigrant status. In addition, the differences between each of these models and Model 1 in the coefficients of Poor, New Immigrants, and their interaction term indicate the modifying effect of the added variable(s).

4.6.1   Hyperactivity

Models for hyperactivity regressed on the predictor variables appear in Table 3. According to Model 1, poverty significantly increased, and new immigrant status significantly reduced hyperactivity scores. The R^2 for Model 1 (.013 or 1.3%) suggests that poverty and new immigrant status explain a very small proportion of the variance in hyperactivity. The R^2s in Model 6, which includes hostile parenting (.202), and in Model 3, which includes parental

depression (.052), suggest that hostile parenting and parental depression make a substantial contribution to explaining the variance in hyperactivity.

Following changes in the effect of poverty on hyperactivity from model to model suggests that parental depression (resulting in a reduction of 51.6% in Model 3), single parent family status (-47.3% in Model 8), family dysfunction (-23.7% in Model 4), and hostile parenting (-22.6% in Model 6) account for a large proportion of the mean difference in hyperactivity between the Poor and Non-Poor. Hostile parenting reduces a large proportion of the mean difference between the new immigrant and national populations (-34.2% in Model 6), suggesting that the relatively low prevalence of hostile parenting behaviours in new immigrant families helps account for new immigrant children's mental health advantage. As shown in Model 9, the joint effects of all the selected mediating variables reduces the difference in mean scores of hyperactivity between the Poor and Non-Poor by 74.2 percent and reduces the difference between new immigrants and the national population by 29.7 percent.

Model 9 also indicates that younger children, girls, and children in families using non-parent child care are less likely to be hyperactive than older children, boys and children in families where care is primarily provided by parents. Parental depression, family dysfunction, hostile parenting behaviour, and single parent family status are significantly associated with the occurrence of hyperactive behaviour.

Table 3 - Regression Models For Hyperactivity

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Constant	4.55***	6.02***	3.98***	3.72***	5.85***	0.95***	4.94***	4.46***	2.19***
Poor	0.93***	0.91***	0.45***	0.71***	0.93***	0.72***	1.03***	0.49***	0.24**
New Immigrant	-1.11***	-1.20***	-1.05***	-1.14***	-1.13***	-0.73***	-1.10***	-1.02***	-0.78***
Age		-0.11***							-0.09***
Female		-1.28***							-1.06***
Parent Depression			0.13***						0.07***
Family Dysfunction				0.11***					0.03***
Positive Parenting					-0.10***				0.001
Hostile Parenting						0.41***			0.36***
Childcare by Parents							-0.58***		-0.25***
Single Parent Family								0.94***	0.55***
R^2	0.013	0.049	0.052	0.037	0.020	0.202	0.018	0.020	0.244
% Change in the effect of [1]									
poor		-2.1	-51.6	-23.7	0	-22.6	10.8	-47.3	-74.2
new immigrant		8.1	- 5.4	2.7	1.8	-34.2	-0.9	-8.1	-29.7

Note: [1] defined as ((coefficient in model i/coefficient in model 1)-1)*100.

      * significant at $\alpha < 0.05$; ** $\alpha < 0.01$; and *** $\alpha < 0.001$.

4.6.2   Emotional Disorder

Models for the regression of emotional disorder on the predictor variables appear in Table 4. As in the case of hyperactivity, Model 1 indicated that poverty significantly increased and new immigrant status significantly reduced the risk of emotional disorder. The interaction term between poverty and new immigrant status was not significant; however, it has been included in this model because this interaction term became significant after controlling for modifier variables. The R^2 for Model 1 (.013) suggests that poverty and new immigrant status explain only a very small proportion of the variance in emotional disorder. The R^2s in Model 6, which included hostile parenting (.139), and in Model 3, with parent depression (.093), indicates that hostile parenting and parent depression make substantial contributions to explaining the variance in emotional disorder.

The interaction term between poverty and new immigrant status became significant in Model 3 (parent depression), Model 6 (hostile parenting), and Model 8 (single parent family), suggesting that these three variables significantly modify the impact of poverty and new immigrant status on emotional disorder.

To illustrate the modifying effects of the control variables, mean scores for emotional disorder were calculated for children in 4 family groups: Poor immigrant, Poor national, Non-Poor immigrant, and Non-Poor national. The changes in mean score differences between contrasting groups between Model 1 and each of the subsequent models were calculated and appear in the bottom portion of Table 4. According to these data, parental depression, single parent family status, and to a lesser extent, family dysfunction and hostile parenting account for a large proportion of the difference in mean Poor and Non-Poor national population emotional disorder scores (79.5%, 61.9%, 24.6% and 20.8%, respectively). Parental depression, hostile parenting, and single parent family status reduced a large proportion of the difference in emotional disorder between Poor immigrants and Poor nationals (72.0%, 72.0%, and 54.7%, respectively) .

Table 4 - Regression Models For Emotional Disorders

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Constant	2.54***	1.42***	1.96***	1.89***	4.34***	0.42***	2.68***	2.46***	-0.72***
Poor	0.68***	0.73***	0.14***	0.51***	0.68***	0.54***	0.72***	0.26***	-0.03
New Immigrant	-0.77***	-0.71***	-0.82***	-077***	-0.79***	-0.58***	-0.76***	-0.77***	-0.57***
Poor x New Immigrant	0.30	0.22	0.69***	0.25	0.28	0.45***	0.30	0.56***	0.72***
Age		0.15***							0.15***
Female		0.05							0.17***
Parent Depression			0.14***						0.10***
Family Dysfunction				0.08***					0.01***
Positive Parenting					-0.14***				-0.01
Hostile Parenting						0.24***			0.21***
Childcare by Parents							-0.20***		-0.23***
Single Parent Family								0.85***	0.43***
R^2	0.013	0.029	0.093	0.041	0.016	0.139	0.014	0.024	0.208
Mean scores of emotional disorders[1]									
poor immigrant	2.76	2.76	2.64	2.56	2.72	2.96	2.79	2.65	2.79
poor national	3.22	3.25	2.77	3.08	3.23	3.25	3.25	2.86	2.64
non-poor immigrant	1.77	1.81	1.81	1.79	1.76	1.77	1.77	1.83	2.03
non-poor national	2.54	2.52	2.63	2.56	2.55	2.53	2.53	2.60	2.60
% changes in difference between [2]									
poor vs. non-poor immigrant		-3.6	-15.7	-22.0	-2.5	0.5	3.9	-16.8	-23.1
poor vs. non-poor national		7.0	-79.5	-24.6	-0.3	-20.8	5.4	-61.9	-95.0
poor, immigrant vs. national		5.6	-72.0	12.1	9.9	-72.0	-0.4	-54.7	-132.1
non-poor, immigrant vs national		-7.4	6.9	0.9	3.0	-24.4	-0.8	0.4	-25.2

Note: [1] - calculated based on the corresponding regression model, assuming that all the control variables equal their means.

[2] - defined as:

((mean difference between the two contrasting groups in model i/mean difference between contrasting two contrasting groups in model 1)-1)*100

* significant at $\alpha < 0.05$; ** $\alpha < 0.01$; and *** $\alpha < 0.001$.

Model 9 illustrates that the joint effects of the mediating variables reduce the difference in emotional disorder between Poor and Non-Poor nationals population by 95 percent. These mediating variables reversed the differences between the Poor national and Poor immigrant families. These effects can also be observed in Figure 6, which presents new immigrant and national group mean scores for Model 1 (unadjusted) and Model 9 (adjusted). Unadjusted mean score differences between Poor and Non-Poor, and between New Immigrant and National groups are pronounced. However, with the mediating variables controlled, differences between Poor and Non-Poor national families disappear (as indicated by the virtually flat line in Figure 6), and the slight difference between Poor national and Poor new immigrant families is statistically non-significant. However, the mental health disadvantage for Poor versus Non-Poor immigrants, and for Non-Poor nationals compared to Non-Poor immigrants remains statistically significant.

Figure 6
Emotional Disorders in Population
Groups: Effect of Mediating Variables
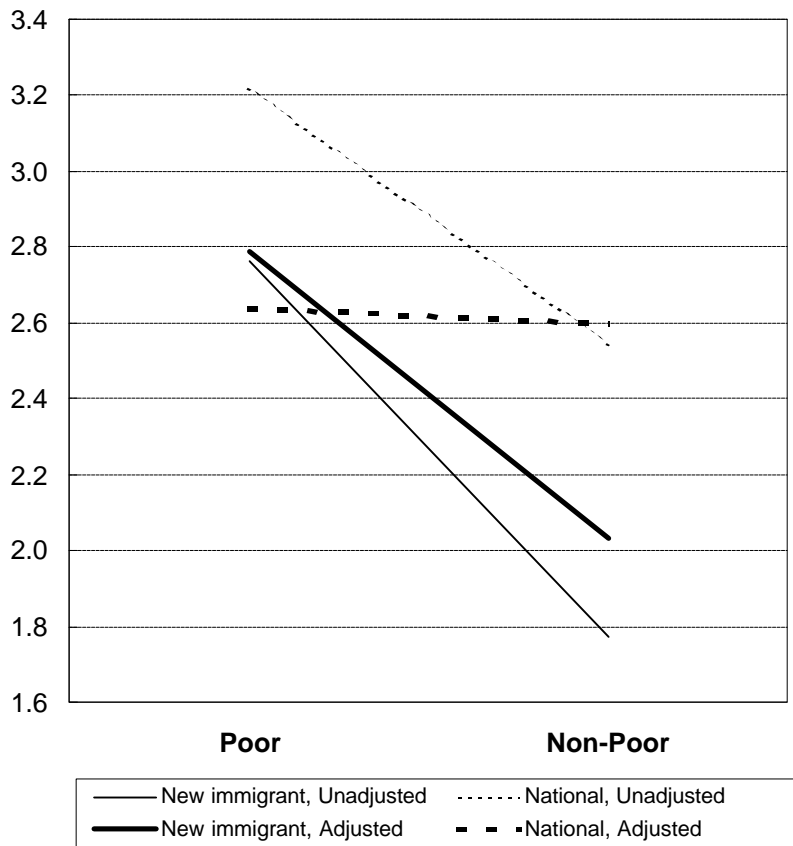
This pattern of findings suggests that the effect of poverty on emotional disorder of children in national families is mainly indirect, that is, that it operates through associated parental and family characteristics. The overall difference in children's emotional disorder between Poor and Non-Poor national families might be primarily attributed to the disadvantages experienced by Poor national families, including elevated rates of parental depression, single parent family status, family dysfunction, and hostile parenting. In new immigrant families, the effect of poverty appears to be more direct. Family characteristics apparently explain very little about the higher risk of emotional disorder among children in Poor new families relative to children in Non-Poor families.

In addition, it appears that new immigrant status is salient for Non-Poor families, but not for Poor families. Children in Non-Poor new immigrant families were less likely to have emotional disorders than those in the Non-Poor national population, and this difference remained statistically significant even after controlling for the mediating variables. This suggests that the risk of exposure to mental health risk factors in Non-Poor national and new immigrant families is very similar. The effect of mediating variables in reducing the differences in children's emotional disorder between Poor immigrant families and Poor national families indicates that poverty in national families is much more likely to be associated with parental depression, hostile parenting, and single parent family status.

Model 9 also revealed that age (older), gender (female), parent depression, family dysfunction, hostile parenting, use non-parent care, and single parent family status were associated with a higher risk of emotional disorder. With other mediating variables taken into account, the effect of positive parenting was not significant.

4.6.3   Conduct Disorder

Regression models for conduct disorder appear in Table 5. Again, Model 1 indicates that poverty significantly increases and new immigrant status significantly reduces the risk of conduct disorder. The interaction term between poverty and new immigrant status was not significant. The R^2 in Model 1 (.011) suggests that poverty and new immigrant status explained a very small proportion of variance in children's emotional disorder. The R^2's in Model 6, which includes hostile parenting (.190), and in Model 3, with parent depression (.036), indicates that hostile parenting and, to a lesser extent, parental depression add substantially to explaining the variance of Conduct Disorder.

Considered separately, none of the mediating variables had a strong enough effect to produce a significant interaction term between poverty and new immigrant status. However, as indicated by the changes in the mean score differences (bottom portion of Table 5), single parent family status, parent depression, as well as hostile parenting and family dysfunction reduce the difference in children's conduct disorder between Poor and Non-Poor national families (54.9%, 47.7%, 27.2%, and 21.2% in Models 8, 3, 6, and 4 respectively). Hostile parenting, single parent family, and parent depression also attenuate the difference in children's conduct disorder between Poor immigrant families and Poor national families (54.1%, 28.7% and 25.1% in Models 6, 8, and 3 respectively). With the inclusion of all the mediating variables in Model 9, the interaction term between poverty and new immigrant status becomes statistically insignificant. Comparing Model 1 to Model 9, these joint mediating effects reduce the difference in Conduct Disorder between Poor and Non-Poor national population by 95.3 percent, and reduce the difference between the Poor national population and Poor immigrants by 77.9 percent.

Table 5 - Regression Models For Conduct Disorder

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**	**Model 7**	**Model 8**	**Model 9**
Constant	1.35***	2.02***	1.12***	0.96***	1.86***	-0.47***	1.41***	1.31***	-0.25*
Poor	0.46***	0.45***	0.24***	0.36***	0.46***	0.33***	0.47***	0.21***	0.02
New Immigrant	-0.50***	-0.54***	-0.52***	-050***	-0.51***	-0.34***	-0.50***	-0.50***	-0.39***
Poor x New Immigrant	0.04	0.007	0.12	-0.07	-0.004	0.10***	-0.04	0.12***	0.28*
Age		0.06***							-0.05***
Female		0.49***							-0.37***
Parent Depression			0.06***						0.02***
Family Dysfunction				0.08***					0.01***
Positive Parenting					-0.04***				0.01*
Hostile Parenting						0.21***			0.19***
Childcare by Parents							-0.08***		-0.10**
Single Parent Family								0.50***	0.36***
R^2	0.011	0.032	0.036	0.031	0.015	0.190	0.011	0.018	0.214
Mean scores of emotional disorders[1]									
poor immigrant	1.28	1.23	1.25	1.16	1.29	1.45	1.28	1.21	1.31
poor national	1.81	1.78	1.65	1.73	1.81	1.69	1.82	1.59	1.42
non-poor immigrant	0.86	0.79	0.89	0.87	0.84	1.02	0.85	0.89	1.01
non-poor national	1.35	1.33	1.41	1.37	1.35	1.36	1.35	1.39	1.40
% changes in difference between [2]									
poor vs non-poor immigrant		4.7	-14.9	-31.2	7.8	0.7	1.7	-23.4	-29.7
poor vs non-poor national		-2.0	-47.7	-21.2	0.2	-27.2	2.4	-54.9	-95.3
poor, immigrant vs national		2.4	-25.1	6.4	-3.7	-54.1	1.1	-28.7	-77.9
non-poor, immigrant vs national		8.4	4.4	0.8	2.4	-32.3	0.4	0	-20.9

Note: [1] - calculated based on the corresponding regression model, assuming that all the control variables equal their means.

        [2] - defined as:

        ((mean difference between the two contrasting groups in model i/mean difference between contrasting two contrasting groups in model 1)-1)*100

        * significant at $\alpha < 0.05$; ** $\alpha < 0.01$; and *** $\alpha < 0.001$.

Figure 7 presents the mean scores for Model 1 and Model 9 for each of the four family groups. Additional tests indicate that, after controlling for the mediating variables, differences in children's Conduct Disorder between Poor and Non-Poor national families and between Poor immigrant and Poor national families are no longer significant. However, differences between Poor immigrants and Non-Poor immigrants and differences between Non-Poor immigrants and Non-Poor national families persist.

Figure 7
Conduct Disorders in Population Groups:
Effect of Mediating Variables
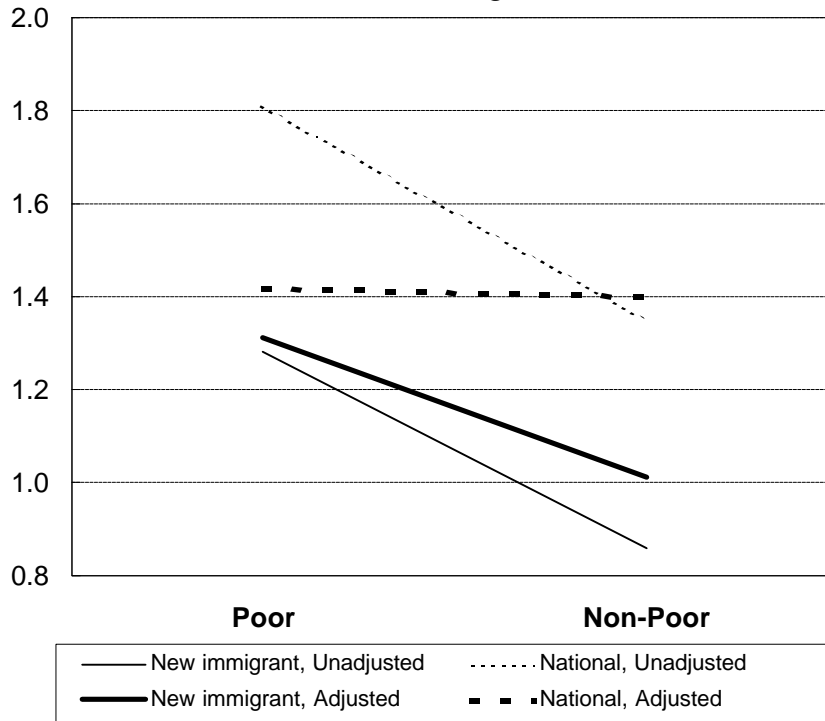
Similar to the patterns associated with Emotional Disorder, the overall difference in children's Conduct Disorder between Poor and Non-Poor national families may be explained by the disadvantages experienced by Poor national families such as increased likelihood of parental depression, single parent family status, family dysfunction, and hostile parenting. Among national families, the direct effect of poverty on children's conduct disorder is not observed. Poverty is more closely associated with higher levels of disadvantage in the family environment which increases the risk of this outcome. By contrast, in new immigrant families, the effect of poverty is

more direct. Family characteristics do little to explain differences in children's conduct disorder among Poor and Non-Poor new immigrant families.

Once family characteristics are taken into account, children in Non-Poor new immigrant families are less likely to have Conduct Disorders than their counterparts in national families. The differences in children's Conduct Disorder between Poor immigrant families and Poor national families disappears after controlling for mediating variables, suggesting that Poor national families are at a disadvantage in terms of parent depression, hostile parenting, and single parent family status over Poor immigrant families.

Model 9 in Table 5 also suggests that age (younger), gender (male), parent depression, family dysfunction, hostile parenting, and single parent family status are risk factors for conduct disorder. Positive parenting is significantly associated with a reduced level of conduct disorder without control for other mediating variables. However, with other mediating variables taken into account, the relationship between positive parenting and conduct disorder becomes marginally significant.

Further analyses indicated that the relationship between positive parenting and conduct disorder changed from negative to positive, once hostile parenting was controlled. At the bivariate level, hostile parenting was negatively related to positive parenting ($r=-.23$, $p<.01$), but hostile parenting was more strongly associated with children's conduct disorder ($r=.43$, $p<.01$) than positive parenting ($r=-.07$, $p<.01$). After the overlap effect of hostile parenting and positive parenting was taken into account, the weakly significant yet positive relationship between positive parenting and children's conduct disorder probably indicates the effect of over-protection or excessive indulgence. This may also explain why child care provided by parents is associated with a higher risk of Conduct Disorder.

In summary, several consistent patterns emerged from the multivariate analyses.

First, parent depression, single parent family status, and to a lesser degree, hostile parenting, and family dysfunction, explain a large proportion of the differences in children's mental health in Poor and "Non-Poor families. In the cases of Emotional Disorder and Conduct Disorder, the modifying effects of these variables were manifested primarily between Poor and Non-Poor

national families. Similarly, hostile parenting, followed by parent depression and single parent family status, explained a large proportion of the differences in children's mental health between new immigrant and national families. In the cases of Emotional Disorder and Conduct Disorder, the modifying effects of these variables were limited to Poor new immigrant and Poor national families.

Second, parent depression, family dysfunction, hostile parenting, and single parent family status had deleterious impacts on children's mental health, while the effects of positive parenting and child care type were weak and varied with mental health outcomes. Among the mediating variables, hostile parenting and parental depression were the most strongly and consistently associated with variations in mental health outcomes.

5.   Discussion

Descriptive findings from this study confirmed the existence of a paradox. Children who live in poor families experience a higher risk of mental health problems compared to children in non-poor families, and new immigrant children are poorer than their national counterparts. However, new immigrant children also enjoy a mental health advantage compared to their national counterparts.

Seeking to interpret these findings, this study examined the role of risk and protective factors in modifying the relationship between poverty and mental health. Our analyses showed that risk factors such as parental depression, family dysfunction, hostile parenting, and single parent family status not only adversely affect children and increase the risk for all types of disorder, but also significantly mediate the effects of poverty and new immigrant status.

The study results underline the importance of context. It would appear that, for native born children it is not familial poverty alone, in the sense of material deprivation, that jeopardizes mental health, but rather a plethora of associated socioenvironmental disadvantages.

On the other hand, Poor new immigrant children continued to be at risk of emotional and conduct disorder relative to Non-Poor new immigrant children even after controlling for the mediating variables, a finding that suggests that material poverty may have a strong direct effect on children's Emotional and Conduct Disorder among the new immigrant families.

The results further suggest that poverty assumes a different meaning when it occurs among immigrant, as compared to non-immigrant populations. Although many immigrant families struggle during the first decade or so of their adjustment to Canada, long term studies demonstrate that after ten to twelve years, the average income of immigrants at least equals and in some cases exceeds that of the national population (deVoretz 1995). For many new immigrants, poverty is part of the process of resettlement, one hardship that most will eventually overcome. Poverty for many non-immigrants may not be part of a process, but its end result of a cycle of social disadvantage, family break-down, individual despair, and, in many cases associated substance abuse. For many disadvantaged native-born Canadians, poverty is a chronic trap offering little chance of escape.

Poverty in the national population may be thought of as downward mobility often associated with markers of social pathology such as mental illness, school dropout, teen pregnancy and single parent family status. In our study, rates of parental depression and tension due to drinking were significantly lower in Poor new immigrant families compared to Poor national families, and the proportion of single parent families was significantly lower. However, problems of structural economy may also affect national and immigrant groups in different ways. For example, families in the general population who are struck by unemployment or underpaid employment are often those who lack personal resources as a result of poor health, or low levels of education or who reside in underprivileged regions. Unemployment and underpaid employment in new immigrant families may be associated with a mis-match between professional skills and the job market, which may be relatively temporary. Future analyses will be necessary to examine the effect of structural variables such as underpaid employment and underemployment on children's mental health in these groups.

Other factors associated with migration circumstances may reduce the risk of mental health problems in new immigrant families compared to the national group. For example, if immigrant families perceive poverty to be a transient state that will eventually be overcome, this optimism may contribute to mental health resiliency. The negative effects of poverty on an immigrant family's health and mental health may also be mitigated by factors such as parental values placed on education and literacy, comparative improvements in living conditions compared to country of origin, family motivation to succeed, extended family structures that favour flexible child care arrangements, parental avoidance of health risk behaviours such as smoking and heavy drinking, strong social networks with like ethnic community. Although they are potentially important, many of these variables could not be examined using the NLSCY data set.

These analyses also underline the importance of conceptualizing and measuring multiple dimensions of mental health. Differences were observed in associations between risk and protective factors and all mental health outcomes. For example, the risk of developing an Emotional Disorder increased with age whereas the risk for Hyperactivity and Conduct Disorder decreased with increasing age. Girls were less likely to develop Hyperactivity and Conduct Disorder than boys, but conversely were more likely to develop Emotional Disorder. Furthermore, the prevalence and distribution of Hyperactivity, Emotional Disorder and Conduct

Disorder were differentially affected by immigrant status and poverty. Poverty was associated with a greater risk of Emotional Disorder and Conduct Disorder among new immigrant children compared to their national counterparts but this pattern of elevated risk due to poverty was less dramatic for Hyperactivity.

A number of study limitations must be acknowledged. First, the sampling frame by necessity included all new immigrant children, regardless of country of origin. Although all immigrants face common challenges in resettling to a new country, there is a great deal of heterogeneity among new immigrant populations, and differences in culture, language, socio-economic and immigration status, may exert differential effects on both poverty and mental health. It seems unlikely that the sample would have included many refugee children, a sub-population of immigrant children who probably have unique mental health risks. Second, measures of child mental health, family functioning and parenting practices used in this study were developed in and standardized on majority culture families. It is an assumption that conceptualization, operationalization and measurement is the same in the new immigrant and majority populations. Although the reliabilities of the measures were assessed in both groups, their cross cultural equivalence remains a major methodological concern. Third, it should be noted that resettlement in a new country is a dynamic process. A re-examination of personal and family values, attitudes and beliefs in the context of differences posed by the host country culture may influence immigrants' parenting behaviours and family functioning. However these acculturative changes cannot be assessed using NLSCY cross-sectional data. Finally, it is too simplistic to assume uni-directional associations between parental or familial factors and children's mental health. It is highly plausible that the many of the associations found in the study operate in a direction opposite to the one posited: for example, children's mental health may influence the mental health of parents, parenting styles and family functioning. Failure to consider these feedback mechanisms may have biased our estimates. However, these feedback effects cannot be adequately examined with only one wave of the NLSCY data.

In conclusion, in comparison to their national counterparts, new immigrant children experience a mental health advantage. From a policy perspective, this may suggest that Canada's policies and practices have resulted in an effective selection of healthy, resilient, success-bound families and children. The good news about immigrant children should not lull us into misguided

complacency. Regardless of how well people are selected, their ultimate success as well as the success of their children depends on their post-migration reception. Poverty is a risk factor for all children. The fact that almost one third of immigrant children live in poverty in Canada is not only reprehensible, but a disadvantage whose potential to damage to children's mental health and to compromise their potential contribution to their adopted country may yet come back to haunt us. The elimination of immigrant poverty through creative job training programs, ensuring equity in job access, and appropriate recognition of foreign credentials should become a national priority. Higher employment rates for newly arrived immigrants will not only help alleviate familial poverty, but will also improve the mental health of adults, and through this chain, the well-being of their children.

The existence of the NLSCY symbolizes the importance that Canada attaches to the next generation. If it is a cliche to say that children are our future, it is nonetheless true. Given the probability that 15 to 20 per cent of Canada's children are immigrants or refugees, a study that purports to be national in scope (NLSCY) but of which immigrant children constitute, at best, 2 per cent, seems indefensible. If this is truly a "country of immigrants," there is a need to study the particular risk and protective factors associated with that status. The current study illustrates that findings that may be relevant for the general population cannot be extrapolated to immigrant groups. Furthermore, subdivisions by immigration class (for example, immigrant versus refugee) and by ethnocultural background would probably reveal diversities within the immigrant population that would provide important guidelines for intervention programs to optimize mental health and prevent disorder. There is an obvious need for a study supplementary to the NLSCY with a specific focus on immigrant and refugee children.

Longitudinal study is important. One among many important questions that can only be answered by longitudinal research is how to maintain the apparent mental health resiliency of immigrant children. Data from the Refugee Youth Project at the Clarke Institute of Psychiatry and the Department of Psychiatry, University of Toronto, suggest that post-migration stresses such as communication problems, intergenerational conflicts, ambivalence about ethnic identity and perceived discrimination threaten the mental health of youth. However, English proficiency, availability of social support from family and non-family and strong ethnic and Canadian identities, are associated with good mental health and school performance. These findings suggest that

school and community based programs should be readily available to help alleviate family tensions in newcomer families by identifying competing intrafamilial and host country values and encouraging the acquisition of English and heritage language skills.

In his novel, *A Bend in the River*, V.S. Naipaul writes: "We make ourselves according to the idea we have of our possibilities" (p. 152). Children are part of that vision. If we in Canada are prepared to make an appropriate investment of care and resources, immigrants and their children can help us expand our ideas about this nation and its possibilities.

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