

5. Results

5.1. Description of Respondents

Demographic information about each of the 1000 respondents was collected in order to determine the effects of these variables on risk and protective factors, as well as to assess the representativeness of the sample. City of Toronto 2001 census data on parents with children aged 0-6 years were obtained from Statistics Canada, and were used for the representativeness assessment. Results of the assessment are summarized in Appendix A.

5.1.1. Parent's Age, Gender, Dwelling Type, and Region

Parent's age (at time of survey), parent's age at time of child's birth, parent gender, dwelling type, and region of Toronto are displayed in Table 2.

Table 2: Parent Demographics

<i>Demographic Variable</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
<i>Parent's Age (n=920)</i>			
< 25 years old	33	3.6%	2.4, 4.8
25-29 years old	128	13.9%	11.7, 16.1
30-34 years old	226	24.6%	21.8, 27.3
≥ 35 years old	533	57.9%	54.7, 61.1
<i>Parent's Age at Time of Child's Birth (n=910)</i>			
<20 years old	25	2.7%	1.7, 3.8
20-24 years old	87	9.6%	7.6, 11.5
25-29 years old	203	22.3%	19.6, 25.0
30-34 years old	305	33.5%	30.4, 36.6
35-39 years old	214	23.5%	20.8, 26.3
40 years or older	76	8.4%	6.6, 10.1
<i>Parent Gender (n=1000)</i>			
Male	258	25.8%	23.1, 28.5
Female	742	74.2%	71.5, 76.9
<i>Dwelling Type (n=986)</i>			
House	589	59.7%	56.7, 62.8
Apartment	346	35.1%	32.1, 38.1
Other	51	5.2%	3.8, 6.6
<i>Region of Toronto¹ (n=848)</i>			
East (former cities of Scarborough and East York)	279	32.9%	29.7, 36.1
South (former city of Toronto)	206	24.3%	21.4, 27.2
North (former city of North York)	196	23.1%	20.3, 26.0
West (former cities of Etobicoke and York)	167	19.7%	17.0, 22.4

¹ A total of 59 respondents did not provide postal code information, and postal code information from an additional 93 respondents resulted in failure to code a region.

Parents who responded to the survey ranged in age from 17 to 70, and the average age was 35.76 (SD = 6.62). Table 2 shows that over half of all parents were 35 years of age or older (57.9%) and over three-quarters were aged 25-39 at the time of their child's birth (79.3%). There was a greater proportion of older as compared to younger parents, with almost one-third of parents in the range of 35 years or older when their child was born (31.9%), and only 12.3% less than 25 years old when their child was born.

Approximately three-quarters of the parents who responded to the survey were female (74.2% mothers) and one-quarter were male (25.8% fathers). Well over

half of all parents reported living in a house (59.7%) as compared to an apartment or other dwelling. Residents from all four regions of Toronto were sampled. There was a higher percentage of respondents from the East region, which is consistent with 2001 census data which show that there is a greater number of young children residing in the East region compared to other regions.

5.1.2. Family Profile

Characteristics relating to family profile, including parent's relationship to child, marital status, and family status are displayed in Table 3.

Table 3: Family Profile

Family Profile Variable	Sample		
	Frequency	Percent ¹	95% CI
<i>Parent's Relationship to Child (n=1000)</i>			
Birth parent	980	98.0%	97.1, 98.9
Adoptive parent	11	1.1%	0.5, 1.7
Step parent	<5	--	--
Common-law parent	<5	--	--
Foster parent	<5	--	--
<i>Marital Status (n=990)</i>			
Single, never married	86	8.7%	6.9, 10.4
Married/Common-law	832	84.0%	81.8, 86.3
Other	72	7.3%	5.7, 8.9
<i>Family Status (n=1000)</i>			
Two-parent family	841	84.1%	81.8, 86.4
Lone-parent family	159	15.9%	13.6, 18.2
<i>Lone-Parent Families (n=159)</i>			
Male lone-parent	16	10.1%	5.4, 14.7
Female lone-parent	143	89.9%	85.3, 94.6

¹ Percents based on cells with frequencies of < 5 are suppressed.

The majority of parents who responded to the survey were biological birth parents (98.0%), and the majority reported being married or living common-law (84.0%). In addition, most children were living in a home with two parents (84.1%). Of the lone-parent families in the current sample, most were led by mothers (89.9%), with only 1 in 10 lone-parent families led by a father.

5.1.3. Parent's Education

Parent's education is displayed in Table 4.

Table 4: Parent's Education

<i>Education Category (n=983)</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
Less than secondary certificate	50	5.1%	3.7, 6.5
Secondary certificate (includes those with some post-secondary schooling)	340	34.6%	31.6, 37.6
Post-secondary degree, certificate or diploma	593	60.3%	57.3, 63.4

Over half of all surveyed parents completed some form of post-secondary education (60.3%), and very few reported having less than a secondary certificate (5.1%).

5.1.4. Household Annual Income

Household annual income is displayed in Table 5 in two formats. First, income is displayed in dollar values. Second, household annual income was categorized according to Statistics Canada Year 2000 Low Income Cutoffs (LICO's) for Toronto, which take into account household size. Taking into account household size, household annual income was categorized as low, low/middle, or middle/high.*

* Categories for household family income were as follows: for a 2 or 3 person family, low income was total household income of less than \$20,000, low/middle income was total household income of \$20,000 - \$29,999, and middle/high income was total household income greater than or equal to \$30,000; for a 4 or 5 person family, low income was total household income of less than \$30,000, low/middle income was total household income of \$30,000 - \$39,999, and middle/high income was total household income greater than or equal to \$40,000; for a family of 6 people or more, low income was total household income less than \$40,000, low/middle income was total household income of \$40,000 - \$49,999, and middle/high income was total household income greater than or equal to \$50,000.

Table 5: Household Annual Income

<i>Income Category</i>	<i>Sample</i>		
	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
<i>Annual Income (n=769)¹</i>			
Less than \$20,000	69	9.0%	7.0, 11.0
\$20,000 to < \$40,000	187	24.3%	21.3, 27.3
\$40,000 to < \$60,000	148	19.2%	16.5, 22.0
\$60,000 to < \$80,000	123	16.0%	13.4, 18.6
\$80,000 to < \$90,000	45	5.9%	4.2, 7.5
\$90,000 or more	197	25.6%	22.5, 28.7
<i>Annual Income Category (n=769)¹</i>			
Low	140	18.2%	15.5, 20.9
Low/Middle	95	12.4%	10.0, 14.7
Middle/High	534	69.4%	66.2, 72.7

¹ A total of 101 respondents reported that they “don’t know” their total household annual income before taxes for 2002, and 130 would not provide information about total annual income.

Two-thirds of the survey respondents reported having an annual household income of \$40,000 or more per year (66.7%), while only 9% reported having an income of \$20,000 or less. In addition, just over two-thirds of the surveyed families were categorized as being in the middle/high income range (69.4%).

It must be noted that 23.1% of the current sample did not provide information about their annual income (they reported that they “don’t know” their annual income or they refused to indicate what it was).

Due to the large proportion of respondents who did not report their income (n=231), other demographic characteristics of this group were examined and compared to the demographic characteristics of the group that did report their income (n=769) in order to determine if any differences existed among these groups. From these comparisons, it appears that respondents who did not report their income were less educated, less likely to be employed, more likely to be stay-at-home parents, more likely to be apartment-dwellers, and more likely to be born outside of Canada as compared to respondents who did report their income. Specifically, 55.3% of those who did not report their income completed some form of post-secondary education as compared to 61.7% of those who did report income. In addition, 54.5% of those who did not report their income were employed and 27.9% were stay-at-home parents, as compared to 64.2% and 17.5%, respectively, of those who did report their income. Moreover, of those who did not report their income, 41.5% were apartment-dwellers and 67.7% were not born in Canada, as compared to 33.3% and 52.6%, respectively, of those who did report their income. Overall, 39.9% of those who did not report their income were recent immigrants (\leq 10 years in Canada) as compared to 26.8% of those who did

report their income. Further analysis revealed that when respondents who did not report their income were separated into those who reported that they “don’t know” their income (n = 101) as compared to those who refused to answer (n = 130), the refused group appeared to more closely resemble those who did report their income than those who said they didn’t know their income. Nevertheless, the overall net effect suggests that if information were obtained from those who did not report their income, the income levels of the entire sample may have been lower. Thus, the high non-response rate might help to account for the higher income levels observed in this sample.

5.1.5. Ethnicity

Several items on the survey asked about family ethnicity. Specifically, parents were asked to indicate their first language, and whether or not they were born in Canada. Those parents born outside of Canada were asked to identify the length of time they have lived in Canada as well as their country of origin. These results are displayed in Table 6.

Table 6: Ethnicity

<i>Ethnicity Variable</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI²</i>
<i>First Language (n=1000)</i>			
English	516	51.6%	48.8, 52.3
Other	484	48.4%	45.3, 51.5
<i>Canadian or Foreign-Born (n=991)</i>			
Born in Canada	436	44.0%	40.9, 47.1
Not born in Canada	555	56.0%	52.9, 59.1
<i>Immigration Characteristics (n=991)</i>			
Recent immigrant (Immigrated <= 10 years ago)	295	29.8%	26.9, 32.6
Not recent immigrant (Immigrated 11+ years ago or Born in Canada)	696	70.2%	67.4, 73.1
<i>Length of Time in Canada for Foreign-Born (n=555)</i>			
Immigrated <= 10 years ago	295	53.2%	49.0, 57.3
Immigrated 11+ years ago	260	46.8%	42.7, 51.0
<i>Country of Origin¹ (n=981)</i>			
Canada	436	44.4%	41.3, 47.6
Asia	262	26.7%	23.9, 29.5
Americas minus Canada	141	14.4%	12.2, 16.6
Europe & Central Asia	83	8.5%	6.7, 10.2
Sub-Saharan Africa	28	2.9%	1.8, 3.9
Middle East & North Africa	25	2.5%	1.6, 3.5
Other	6	0.6%	--

¹ Country groupings are based on World Bank Country groupings (see Appendix D).

² CI's based on percents <1 are suppressed.

Parents were asked to indicate the language that they first learned in the home and can still understand. For this item, just over half of parents reported English as a first language (51.6%). Apart from English, over 70 other languages were reported as first languages. The most frequent of these included Tamil (4.0%), Tagalog (Filipino) (3.3%), Urdu (2.9%), Cantonese (2.8%), Mandarin (2.6%), and Portuguese (2.6%).

Over half of all parents were not born in Canada (56.0%). Of the parents who were not born in Canada, just over half have lived in Canada for 10 years or less (53.2%), while the remaining foreign-born parents have lived in Canada for 11 years or more (46.8%). For all respondents, 29.8% reported recent immigration of 10 years ago or less, and 70.2% were not recent immigrants, having been born in Canada or immigrated 11 years ago or more. Thus, although over half of all respondents were not born in Canada, a much higher proportion of the total sample has lived in Canada for 11 years or more (70.2%).

5.2. Description of Children and Child Health Status

5.2.1. Child's Age, Gender, and Country of Birth

Table 7 shows child's demographic information.

Table 7: Child's Age, Gender, and Country of Birth

<i>Demographic Variable</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
<i>Age of Child (n=1000)</i>			
0 to < 1 year old	157	15.7%	13.4, 18.0
1 to < 2 years old	120	12.0%	10.0, 14.0
2 to < 3 years old	128	12.8%	10.7, 14.9
3 to < 4 years old	141	14.1%	11.9, 16.3
4 to < 5 years old	138	13.8%	11.7, 15.9
5 to < 6 years old	147	14.7%	12.5, 16.9
6 to < 7 years old	169	16.9%	14.6, 19.2
<i>Child Gender (n=1000)</i>			
Male	475	47.5%	44.4, 50.6
Female	525	52.5%	49.4, 55.6
<i>Canadian or Foreign-Born (n=1000)</i>			
Born in Canada	900	90.0%	88.1, 91.9
Not born in Canada	100	10.0%	8.1, 11.9

Child's age and gender were roughly equally distributed across the relevant categories. Although only 44.0% of parents were born in Canada (see Table 6), 90% of children were born in Canada.

5.2.2. Child Health Status

As part of the general information collected about Toronto children’s health, parents were asked to indicate their child’s general level of health, as well as whether or not their child had any long-term conditions such as asthma, allergies, or bronchitis. This information is displayed in Table 8.

Table 8: Child Health Status

<i>Child Health</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
<i>Health Status (n=999)</i>			
Excellent/Very Good	869	87.0%	84.9, 89.1
Good	110	11.0%	9.1, 13.0
Fair/Poor	20	2.0%	1.1, 2.9
<i>Long-Term Conditions¹ (n=994)</i>			
Asthma	68	6.8%	5.3, 8.4
Allergies	59	5.9%	4.5, 7.4
Bronchitis	14	1.4%	0.7, 2.1
Other	37	3.7%	2.5, 4.9
None	851	85.6%	83.4, 87.8

¹ Parents were asked to select all that apply.

According to parents’ ratings, 98.0% of children were in good, very good, or excellent health. The majority of children were reported to not have any long-term medical conditions (85.6%). Based on parents’ responses, 6.8% of children have asthma, 5.9% have allergies, 1.4% have bronchitis, and 3.7% have other types of long-term conditions.

5.3. Childhood Injury Due to Falls

5.3.1. Fall Occurrences and Number of Falls

Falls are the leading cause of injury hospitalizations from birth to adulthood, locally, provincially, and nationally (3, 4). According to the economic burden of unintentional injury in Ontario, childhood falls continue to be a significant problem in Ontario with approximately 220 million dollars spent each year. In fact, children aged 0-9 years account for 14% of direct cost associated with falls across all age groups in Ontario (5).

According to the Canadian Hospitals Injury Reporting and Prevention Program (CHIRRP), falls are a major cause of childhood injuries (6). Although CHIRPP collects data on falls, Toronto data reflects only those children seen at the Hospital for Sick Children and does not capture falls which required medical attention at other locations (e.g., other emergency rooms, physician's offices). The Toronto Perinatal and Child Health Survey allowed for examination of the nature of all falls that required attention by a medical professional.

In order to gather information about extent and nature of childhood injuries due to falls, parents were asked several questions regarding falls that occurred within the past 12 months. Of the 997 respondents who provided information about childhood falls, a total of 6.1% (95% CI = 4.6, 7.6) of parents reported that their child sustained injuries that were serious enough to require medical attention due to at least one fall.

Of the parents who indicated that their child had experienced a fall serious enough to require medical attention in the past 12 months, 93.4% (95% CI = 87.2, 99.7) reported that their child fell only once, while a very small proportion reported that their child fell two or more times.

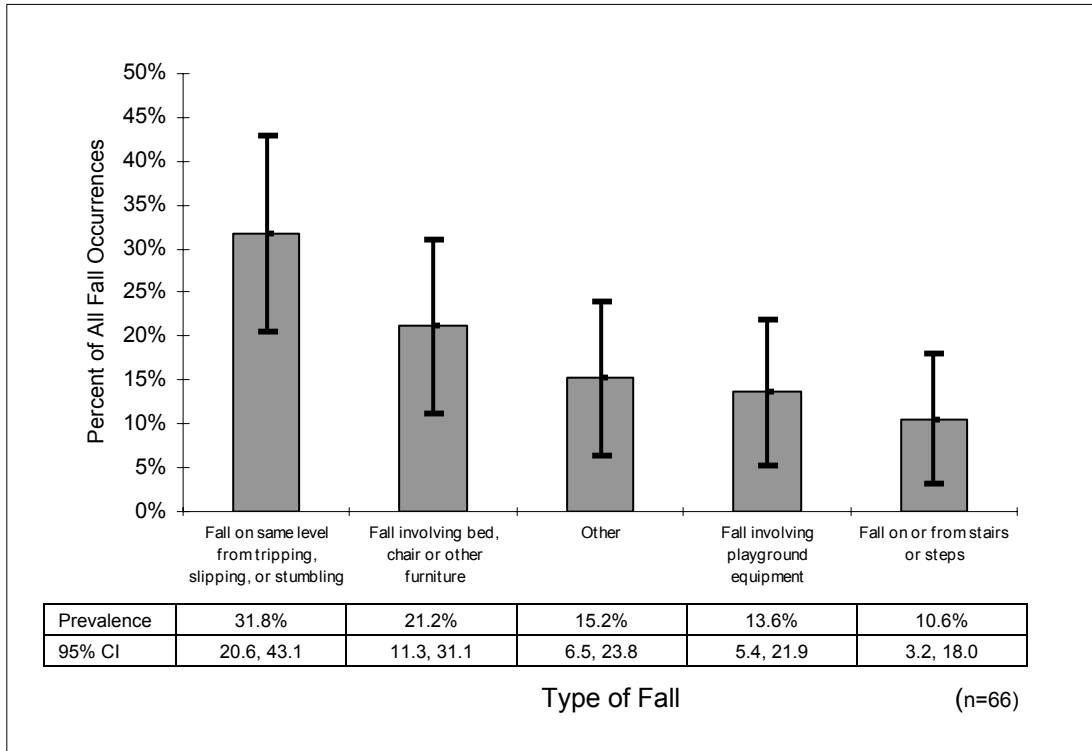
Fall occurrences were also examined according to child's age and household annual income category. Results indicated that fall occurrences were independent of these variables. Thus, occurrence of falls did not appear to vary among children of different ages or families at different levels of income.

5.3.2. Type of Falls

With regard to falls that were serious enough to require medical attention, parents were also asked about the manner in which the child fell. Percentages and 95% CI's for the most frequent types of falls are shown in Figure 1. Estimates are expressed as percentages of all fall occurrences (i.e., percent of total number of falls, n = 66).

* For child's age category $\chi^2_{(2, 997)} = 4.30$, $p = .116$, and for household annual income $\chi^2_{(2, 768)} = 5.17$, $p = .076$.

Figure 1: Type of Falls Serious Enough to Require Medical Attention



The greatest proportion of falls serious enough to require medical attention occurred as a result of “fall on same level from tripping, slipping, or stumbling” (31.8%), followed by “fall involving bed, chair, or other furniture” (21.2%).

5.4. Breastfeeding

The 2001 (Draft) Mandatory Health Programs and Services Guidelines for the Child and Youth Health Program has three Long Term Objectives (2015) related to breastfeeding: (i) the breastfeeding initiation rate will be increased to 92%, (ii) the rate of exclusive breastfeeding, until six months, in healthy term infants will be increased, and (iii) the rate of breastfeeding until 12 months will be increased (7). The most recent baseline breastfeeding initiation rate for Toronto is 86% in 1996 (8). There are no Toronto data related to exclusive breastfeeding at six months or (any) breastfeeding at 12 months.

5.4.1. Breastfeeding Initiation

In order to establish a breastfeeding initiation rate, birth parents were asked to indicate whether they (or their partner) breastfed or tried to breastfeed their child, even if only for a short time. Of the parents who responded to this item, about three-quarters (74.0%) were mothers and one-quarter (26.0%) were fathers.

The overall breastfeeding initiation rate was 94.3% (CI = 92.9%, 95.8%).*

Differences in breastfeeding initiation rates were examined by mother's age at time of child's birth, child's birthweight and gestational age, mother's country of birth (Canada or foreign-born), foreign-born mothers' length of time in Canada, mother's education, and household annual income.† Significant effects were found for mother's age at time of child's birth, mother's country of birth, mother's length of time in Canada for foreign-born, family status, and mother's education. The relevant breastfeeding initiation rates for the categories for each significant variable are summarized in Table 9.

* Items pertaining to breastfeeding were asked only of birth parents. A total of 27 respondents did not provide information about breastfeeding initiation, including those who were not birth parents. Thus, for analysis of breastfeeding initiation, total n = 973.

† Note that, with the exception of mother's age at time of child's birth, all variables apply to the parent who answered the survey questions, whether that was the mother or the father.

Table 9: Breastfeeding Initiation Rates by Parent Demographics

<i>Parent Demographics</i>	<i>Breastfeeding Initiation Rate</i>	<i>Row Count</i>	χ^2	<i>p-value</i>
<i>Mother's Age at Time of Child's Birth</i>				
< 25 years old	88.3%	103	$\chi^2_{(2, 660)} = 9.23$	p < .01
25-29 years old	93.6%	171		
≥ 30 years old	96.1%	386		
<i>Mother's country of birth</i>				
Born in Canada	92.0%	327	$\chi^2_{(1, 716)} = 4.74$	p = 0.03
Not born in Canada	95.9%	389		
<i>Mother's Length of Time in Canada at Time of Child's Birth for Foreign-Born</i>				
10 years or less (Recent immigrants)	97.8%	268	$\chi^2_{(1, 389)} = 7.67$	p = 0.006
11 years or more (Not recent immigrants)	91.7%	121		
<i>Family Status</i>				
Two parent	95.1%	819	$\chi^2_{(1, 973)} = 5.73$	p = .017
Lone parent	90.3%	154		
<i>Mother's Education</i>				
Less than high school completion	83.7%	43	$\chi^2_{(3, 709)} = 19.07$	p < .001
High school completed	89.3%	131		
Some post-secondary (not completed)	93.8%	128		
Post-secondary completed	96.8%	407		
<i>Overall Breastfeeding Initiation Rate¹</i>	94.3%			

¹ Overall breastfeeding initiation rate does not necessarily correspond exactly to marginal totals for each test of significance due to differences in the total number of valid responses for each test.

Table 9 shows that mothers who were older at the time of their child's birth were more likely to initiate breastfeeding than mothers who were younger. Mothers who were not born in Canada were more likely to have reported that breastfeeding was initiated as compared to mothers who were born in Canada. In fact, breastfeeding initiation decreases with the length of time the mother has been in Canada. Mothers who were recent immigrants to Canada at the time of the child's birth were more likely to have reported that they breastfed their child than mothers who

were not recent immigrants.* Children who lived in two parent families were more likely to be breastfed than children who lived in lone parent families. Also, the higher the mother’s level of education, the more likely the mother was to report that breastfeeding was initiated.

No significant effects were found for child’s birthweight, gestational age, or household annual income.†

5.4.2. Decision to Breastfeed

Parents also were asked whether their decision to breastfeed was made before, during, or after pregnancy. These responses are shown in Table 10.‡

Table 10: Timing of Decision to Breastfeed

<i>Timing of Decision (n=948)</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
Before pregnancy	692	73.0%	70.2, 75.8
During first 3 months of pregnancy	100	10.5%	8.6, 12.5
During the last 6 months of pregnancy	64	6.8%	5.2, 8.3
After the baby’s birth	92	9.7%	7.8, 11.6

Almost three-quarters of all parents said they made a decision about breastfeeding even before they became pregnant. About 1 in 10 made the decision early in pregnancy, while a slightly smaller proportion made the decision later during pregnancy. About 1 in 10 parents reported that they did not make a decision about whether or not to breastfeed until after their baby was born.

Timing of decision to breastfeed was also analyzed by several parent demographic variables, and significant effects were found for mother’s age at time of child’s birth, parent’s country of birth (Canada or foreign-born), and parent’s education. There was also a marginally significant effect for household annual income. The relevant frequencies are shown in Table 11.

* This analysis assumes that for mothers who reported that their child was not born in Canada, the length of time in Canada at time of birth was zero. For foreign-born mothers who reported that their child was born in Canada, length of time in Canada at time of child’s birth was assumed to be length of time in Canada minus the child’s age.

† For child’s birthweight, Fisher’s Exact (1, 906) = 1.03, p = .368; for gestational age, Fisher’s Exact (1, 933) = 1.71, p = .204; and for household annual income category $\chi^2(2, 749) = 1.52, p = .468$.

‡ Of the parents who responded to this item, about three-quarters (74.2%) were mothers and one-quarter were fathers (25.8%). The distribution of responses was similar for mothers and fathers.

Table 11: Timing of Decision to Breastfeed by Parent Demographics

Parent Demographics	Timing of Decision to Breastfeed				Row Count	χ^2	p-value
	Before pregnancy	During 1 st 3 months of pregnancy	During last 6 months of pregnancy	After the baby's birth			
Mother's Age at birth							
< 25 years old	61.4%	13.9%	10.9%	13.9%	101	$\chi^2_{(6, 646)} = 16.77$	p < .01
25-29 years old	69.6%	12.5%	6.0%	11.9%	168		
≥ 30 years	79.0%	8.0%	6.1%	6.9%	377		
Canadian/Foreign-Born							
Born in Canada	77.2%	12.0%	6.3%	4.6%	416	$\chi^2_{(3, 941)} = 23.43$	p < .001
Not born in Canada	69.7%	9.5%	7.0%	13.7%	525		
Parent's Education							
Less than high school	63.0%	8.7%	8.7%	19.6%	46	$\chi^2_{(9, 933)} = 28.21$	p < .001
High school completed	62.7%	13.0%	8.1%	16.1%	161		
Some post-secondary	70.3%	15.2%	5.1%	9.5%	158		
Post-secondary completed	77.6%	8.6%	6.7%	7.0%	568		
Household Annual Income							
Low	63.6%	11.4%	9.8%	15.2%	132	$\chi^2_{(6, 731)} = 12.13$	p = .059
Low/Middle	68.9%	14.4%	6.7%	10.0%	90		
Middle/High	76.0%	9.4%	6.9%	7.7%	509		
Overall¹	73.0%	10.5%	6.8%	9.7%	948		

¹ Overall percentages for timing of decision do not necessarily correspond exactly to marginal totals for each test of significance due to differences in the total number of valid responses for each test.

Mothers who were older at the time of their child's birth were more likely to make a decision about breastfeeding before pregnancy than younger mothers. Parents who were born in Canada were more likely to report making a decision about breastfeeding before pregnancy and less likely to report making a decision about breastfeeding after the baby's birth as compared to foreign-born parents.

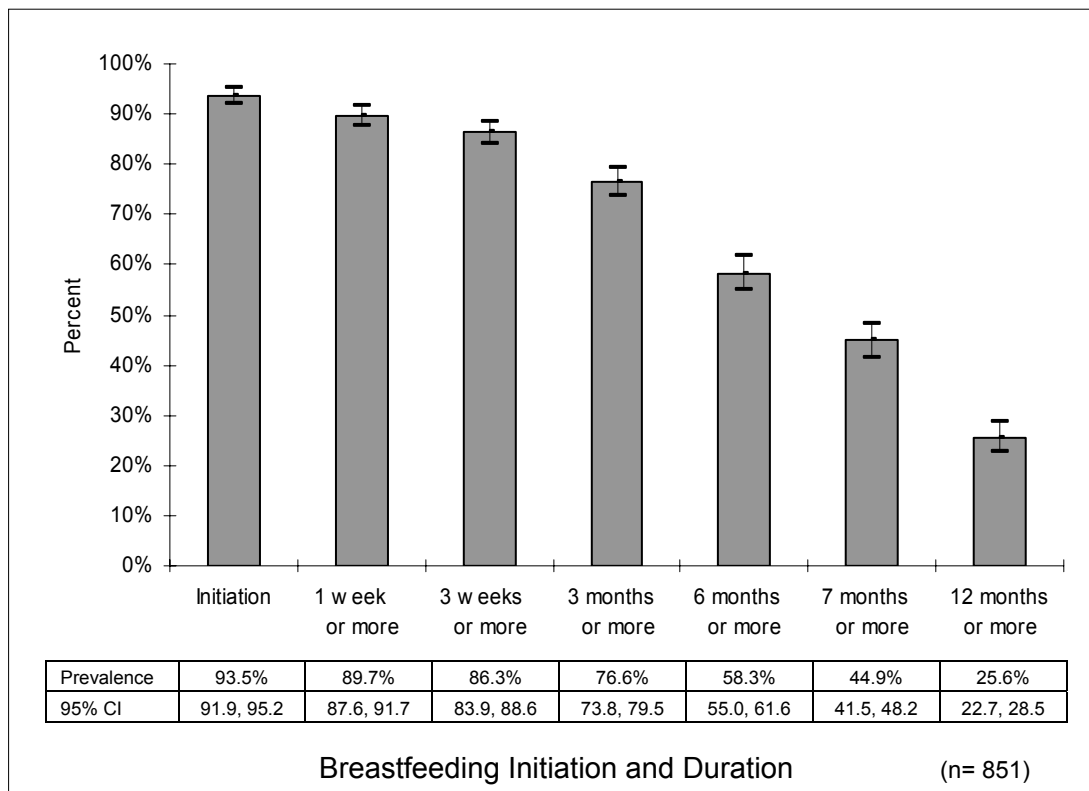
In addition, parents with higher education levels and those with higher income were more likely to report making a decision about breastfeeding before pregnancy and less likely to report making a decision after the baby's birth as compared to parents with lower levels of education and those at lower income levels, respectively.

For timing of decision to breastfeed, no significant effects were found for family status or length of time in Canada for foreign-born.*

5.4.3. Breastfeeding Duration

Parents who reported that their child had been breastfed were asked to indicate the length of time their child was breastfed. Breastfeeding duration rates were calculated for the total number of babies, which include all those who were never breastfed and those who were formerly breastfed. Those who were still being breastfed at the time of the survey were excluded from the analysis (n=115) because the final breastfeeding duration for these children is not known.† Breastfeeding duration rates are shown in Figure 2 with 95% CI's, alongside the overall initiation rate for this group (93.5%).‡

Figure 2: Prevalence of Breastfeeding Initiation and Duration



* For family status, $\chi^2(3, 948) = 2.13$, $p = .545$, and for length of time in Canada at time of child's birth for foreign-born, $\chi^2(3, 525) = 3.59$, $p = .309$.

† It should be noted that although this particular analysis does not include responses from parents of children who were still being breastfed at the time of the survey, further examination involving survival analysis could be conducted to include these censored cases.

‡ For the breastfeeding duration item, parents were not asked to provide a specific time in days, months, or years for breastfeeding duration, but rather responses were coded as falling into one of the following categories: "less than 1 week," "1-2 weeks," "3-4 weeks," "5-8 weeks," "9 to less than 12 weeks," "3-5 months," "6 months," "7-11 months," or "12 months or more." Responses subsequently were collapsed into the categories seen in Figure 2 and are labelled "1 week or more" and so on because parents may have indicated any time within these categories.

As shown in Figure 2, the breastfeeding initiation rate was 93.5%, and almost 90% of parents reported breastfeeding their baby for at least one week. However, only about three-quarters of parents reported breastfeeding for 3 months or more, 58.3% reported breastfeeding for 6 months or more, less than half reported breastfeeding for 7 months or more, and only about one-quarter reported breastfeeding for 12 months or more. Thus, a substantial proportion of parents who initiated breastfeeding stopped by the 6-month mark, and the majority had stopped by 1 year.

5.4.4. Exclusive Breastfeeding Duration

Exclusive breastfeeding is defined as “no food or drink, including water, other than breastmilk, except for medical drops or syrups which may be indicated” (9).

Exclusive breastfeeding duration rates were calculated for healthy term infants. The World Health Organisation (WHO) and the United Nations Children's Emergency Fund (UNICEF) accepted medical reasons for supplementation include: very low birthweight babies (<1500 grams) or those born preterm (\leq 32 weeks gestational age); severely ill babies; babies in need of surgery; and infants with severe dysmaturity or with potentially severe hypoglycaemia who require therapy for hypoglycaemia and who do not improve through increased breastfeeding or by being given breastmilk. Other medical reasons include: infants with inborn errors of metabolism, infants with acute water loss (for example, during phototherapy for jaundice, and whenever increased breastfeeding cannot provide adequate hydration), and infants whose mothers are taking medication which is contraindicated when breastfeeding (10).

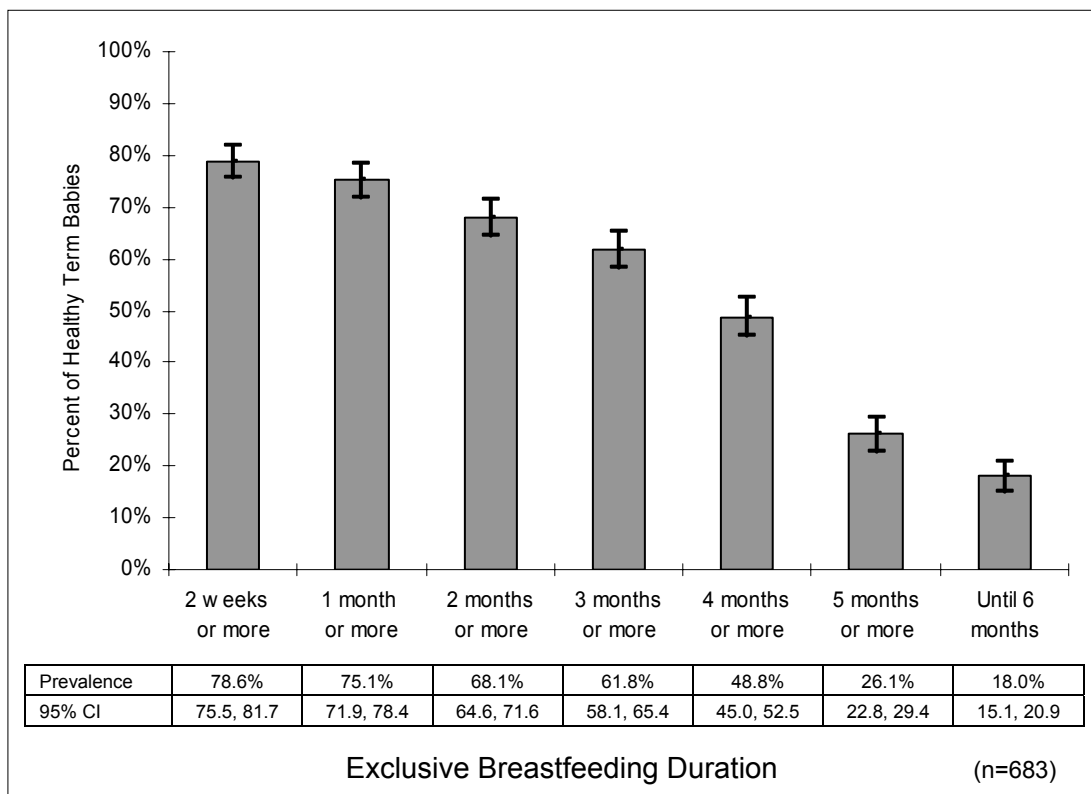
Following the WHO and UNICEF guidelines, babies who were less than 1500 grams and/or 32 weeks gestation or less were excluded from the calculation of exclusive breastfeeding rates. The majority of children (92.1%) in the sample weighed over 1500 grams when they were born. Of the remaining children, 0.4% were excluded from the analysis due to a birthweight of less than 1500 grams, and 7.5% were excluded because birthweight information was not provided. For gestational age, 89.5% of children were born at full-term and 4.2% were born pre-term but not very pre-term (less than 37 but more than 32 weeks gestation). Of the remaining children, 1.1% were excluded from the analysis due to a gestational age of \leq 32 weeks and 5.2% were excluded because this information was not provided.

In addition to providing birthweight and gestational age information, parents were also asked to indicate if their child had any health problems within the first 6 months of life, and if so, what those problems were. For cases in which the parent indicated that the child did have a health problem ($n = 157$), the description of the problem was assessed by two independent child health specialists from TPH and each case was given a rating of “no health problem,” “health problem that was a contraindication to exclusive breastfeeding,” or “insufficient information to

determine infant health in terms of being a contraindication to exclusive breastfeeding.” In total, 87.5% of cases were rated as having no health problem, 2.9% were rated as having a health problem serious enough to interfere with exclusive breastfeeding, and 6.9% were rated as having insufficient information to determine whether or not there was a medical reason to interfere with exclusive breastfeeding.* Any case with missing information regarding birth weight and/or gestational age was excluded from the analysis, as were cases in which the child was still being exclusively breastfed because exclusive breastfeeding duration for these children was not yet known. Based on the birthweight, gestational age, and health ratings criteria, there were 780 healthy term babies. Of these, 70 respondents did not provide information about the age at which the baby first received any food or drink other than breastmilk (they could not remember), and 27 children were still being exclusively breastfed. Thus, 683 records were included in this analysis. Of these records, 81.7% were reported by mothers and 18.3% were reported by fathers.

Exclusive breastfeeding duration rates based on all healthy term babies are shown in Figure 3.

Figure 3: Prevalence of Exclusive Breastfeeding Duration



* Ratings were not made for 27 cases (2.7%) because these children were born under 1500 grams or were born at a gestational age of ≤ 32 weeks which would result in exclusion from the analysis anyway.

As shown in Figure 3, just over three-quarters of all healthy term babies were exclusively breastfed for 2 weeks or more, 68.1% were exclusively breastfed for 2 months or more, less than half were exclusively breastfed for 4 months or more, about one-quarter were exclusively breastfed for 5 months or more, and less than 1 in 5 were exclusively breastfed until 6 months. Of the parents (n = 123) who reported exclusively breastfeeding for 6 months or more, 72.4% reported doing so for 6 months, 7.3% reported exclusively breastfeeding for 7 months, 13.0% reported exclusively breastfeeding for 8 months, 2.4% reported exclusively breastfeeding for 9 months, and 4.1% reported exclusively breastfeeding for 1 year.

Looking at the same results from a different perspective provides even more information about rate of exclusive breastfeeding. Figure 4 shows the percentage of respondents in each of these breastfeeding categories (as opposed to the cumulative percents depicted in Figure 3). Note that “healthy baby not breastfed” and babies exclusively breastfed for “less than 2 weeks” are represented as categories in this analysis because these babies were included as part of the calculations for exclusive breastfeeding rates.

Figure 4: Exclusive Breastfeeding Duration by Category

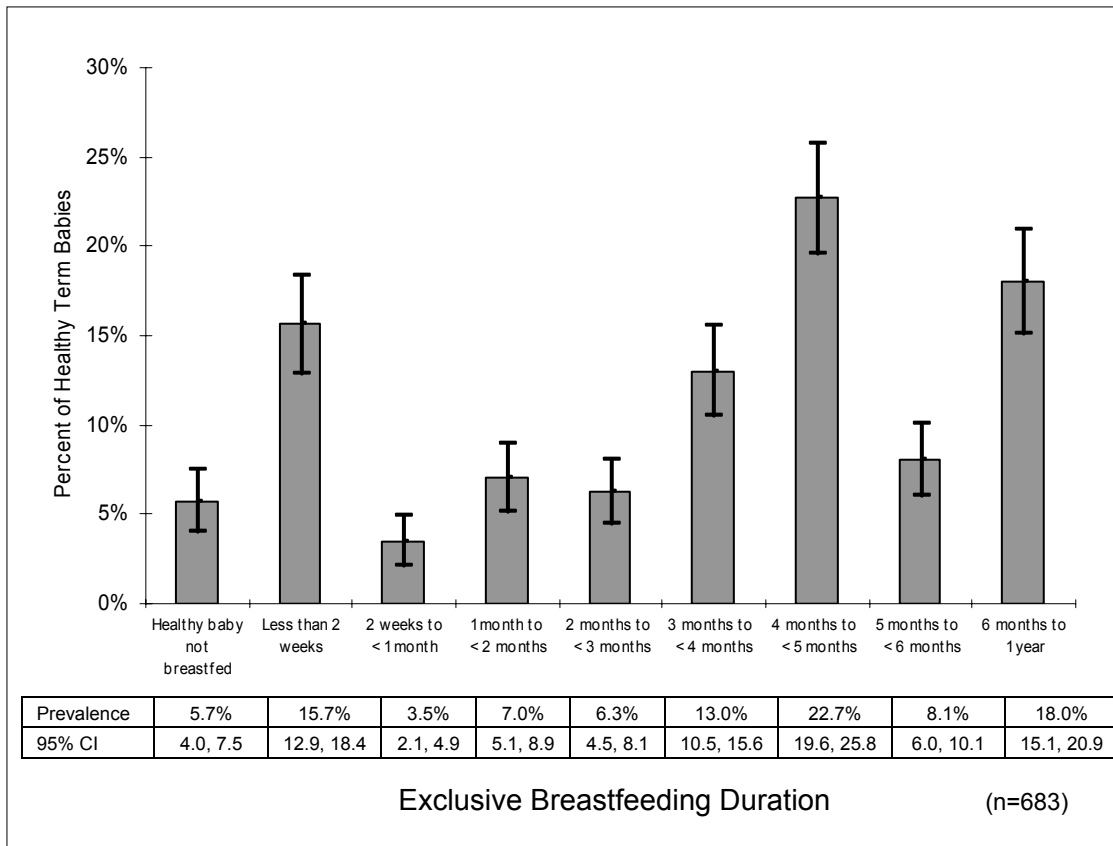


Figure 4 shows that 5.7% of healthy babies were not breastfed at all, 15.7% were exclusively breastfed for less than 2 weeks, 7.0% were exclusively breastfed for 1 month to under 2 months, 13.0% were exclusively breastfed for 3 months to under 4 months, 22.7% were exclusively breastfed for 4 months to under 5 months, 8.1% were exclusively breastfed for 5 months to under 6 months, and 18.0% were exclusively breastfed for 6 months to 18 months. Thus, the greatest proportion of children was exclusively breastfed for between 4 and 5 months followed by 6 months to 18 months. However, this accounts for less than half of all healthy babies. Furthermore, a substantial proportion of babies was exclusively breastfed for less than 2 weeks, and about 1 in 20 healthy babies were never breastfed at all.

Of the parents who exclusively breastfed for less than 2 weeks (n=107), over half (58.9%) reported that their child first received other food besides breastmilk from birth (day 1), and 39.2% reported that their child first received other food sometime between 2 to 7 days of age.

Given the recommendation that children be exclusively breastfed for 6 months after birth, the 6-month rate of exclusive breastfeeding was examined across several parent demographic variables in an effort to try to identify factors that may have an impact on this breastfeeding duration. However, the rate of 6-month exclusive breastfeeding did not vary significantly by mother's age at time of birth, child's birthweight or gestational age, parent's country of birth, parent's length of time in Canada for foreign-born, family status, parent's education, mother's employment status (full-time vs. part-time vs. stay at home vs. other), or household annual income.* Thus, according to the results of this survey, none of these factors can be identified as being specifically related to 6-month exclusive breastfeeding rate.

* For mother's age at time of child's birth, $\chi^2_{(2, 519)} = 1.51$, $p = .469$; for child's birthweight, $\chi^2_{(1, 683)} = 2.33$, $p = .127$; for child's gestational age, Fisher's Exact $_{(1, 683)} = 0.34$, $p = .572$; for parent's country of birth, $\chi^2_{(1, 680)} = 0.41$, $p = .523$; for parent's length of time in Canada at time of child's birth $\chi^2_{(1, 380)} = 1.19$, $p = .276$; for family status, $\chi^2_{(1, 683)} = 1.16$, $p = .282$; for parent's education, $\chi^2_{(3, 675)} = 2.07$, $p = .559$; for mother's employment, $\chi^2_{(3, 549)} = 2.37$, $p = .498$; and for household annual income category $\chi^2_{(2, 535)} = 0.07$, $p = .967$.

5.5. Physical Activity

5.5.1. Family Participation in Physical Activity

Physical activity is an important part of health promotion and disease prevention. TPH Physical Activity programs encourage parents and children to become physically active together. Research suggests that parents' role modelling, support, encouragement, and praise act as positive influences in promoting physical activity (11). In order to obtain information about family participation in physical activity, parents were asked to indicate the number of times in a typical week that at least one parent participates with his/her child in some form of physical activity. Examples of physical activity that were provided include walking, swimming, skating, or playing in the park. Frequencies and percentages for family physical activity participation are displayed in Table 13.*

Table 13: Family Participation in Physical Activity

<i>Typical Week (n=980)</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
0-1 times per week	124	12.7%	10.6, 14.7
2-3 times per week	291	29.7%	26.8, 32.6
4 or more times per week	565	57.7%	54.6, 60.7

Over half of all parents reported that at least one parent participates with the child in physical activity 4 or more times per week. Almost one-third of parents reported participating in physical activity 2-3 times per week, and just over 1 in 10 reported participating only once or not at all in a typical week. However, given that the target age group for children includes those who are newborns to those who are 6 years old, participation in physical activity may vary across these age groups based on the differing physical abilities of the children. Thus, weekly participation in physical activity was examined according to age category of the child. These results are displayed in Table 14.

* It should be noted that, because the survey item asked about participation in physical activities during a typical week and the survey was administered during very cold weather, it is possible that the prevalence of physical activities may be underestimated.

Table 14: Family Participation in Physical Activity by Child’s Age Category

Age of Child	Average Number of Times/Week			Row Count	χ^2	p-value
	0-1	2-3	4 or more			
< 1 year old	18.7%	21.3%	60.0%	150	$\chi^2_{(4, 980)} = 25.47$	p < .001
1-4 years old	10.2%	27.2%	62.5%	518		
5-6 years old	13.8%	37.8%	48.4%	312		
<i>Overall</i>	<i>12.7%</i>	<i>29.7%</i>	<i>57.7%</i>	<i>980</i>		

Weekly participation in physical activity was significantly related to age of the child, and the pattern of results suggests that there was a slight tendency for parents with children less than a year old to more often report participating in physical activity 0-1 times per week as compared to parents of older children. However, the majority of parents with children in this young age group reported participating 4 or more times per week. Parents with 5-6 year old children more often reported participating 2-3 times per week as compared to parents with younger children, and less often reported participating 4 or more times per week as compared to parents with younger children. However, it should be noted that the physical activity item specifically asked about participation that includes the child and at least one parent, and, therefore, it is possible that total physical activity participation of older children may have been underestimated. For example, older children may participate in some physical activities that do not directly involve a parent because children at this age require less assistance and supervision. Also, older children may have less time available for these types of activities because of the time they spend in school, which may include participation in gym classes.

5.5.2. Sedentary Activity

To further assess lifestyle behaviours, parents were asked to indicate the number of hours in a typical week that their child spends watching TV or videos, using the computer, or playing video games or hand held computer games. Responses subsequently were recalculated to represent the average number of hours per day that the child spends on these types of sedentary activities. These results are displayed in Table 15.

Table 15: Participation in Sedentary Activity

<i>Hours per Day (n=963)</i>	<i>Frequency</i>	<i>%</i>	<i>95% CI</i>
0 to 2 hours	737	76.5%	73.9, 79.2
>2 to 4 hours	188	19.5%	17.0, 22.0
>4 hours	38	3.9%	2.7, 5.2

Parents most often reported that their child engaged in sedentary activity for between 0 to 2 hours in a typical day, whereas a small proportion reported that their child engaged in 4 or more hours of these kinds of activities per day. Given that sedentary activity may vary among children of different ages based on their different physical and cognitive abilities, average number of hours spent per day on sedentary activity was examined according to age category of the child. These results are displayed in Table 16.

Table 16: Participation in Sedentary Activity by Child’s Age Category

<i>Age of Child</i>	<i>Average Number of Hours/Day</i>			<i>Row Count</i>	χ^2	<i>p-value</i>
	<i>0 to 2</i>	<i>>2 to 4</i>	<i>>4</i>			
<1 year old	96.6%	2.0%	1.4%	148	$\chi^2_{(4, 963)} = 40.53$	p < .001
1-4 years old	72.3%	22.8%	4.9%	509		
5-6 years old	73.9%	22.5%	3.6%	306		
<i>Overall</i>	<i>76.5%</i>	<i>19.5%</i>	<i>3.9%</i>	<i>963</i>		

Daily participation in sedentary activity was significantly related to age of the child, and, as may be expected, children aged less than 1 year old were reported to spend less time on sedentary activities such as watching television or playing video games than older children. Specifically, over 96% of children aged less than 1 year were reported to spend 2 hours or less per day on these kinds of sedentary activities, whereas just under three-quarters of older children were reported to spend 2 hours or less per day on these activities. Almost one-quarter of those over the age of one year were reported to spend more than 2 and up to 4 hours per day on sedentary activity (22.8% of 1-4 year olds and 22.5% of 5-6 years olds). Additional analysis that excluded children aged less than 1 year revealed that the reported sedentary activity of 1-4 year olds did not differ significantly from that of 5-6 year olds.*

* For participation in sedentary activity by child’s age category with <1 year olds excluded, $\chi^2_{(2, 815)} = 0.82$, p = .664.

5.6. Smoking Restrictions in the Home

TPH is committed to gathering information to monitor and track the prevalence of smoking in the home. This information may be used to help modify the existing Breathing Space Campaign, and to provide input for further research. The Toronto Perinatal and Child Health Survey gathered information on the percent of Toronto households with children aged 0-6 that (i) allow smoking anywhere in the home, (ii) allow smoking in some places or at some times, and (iii) do not allow smoking anywhere inside the home. These results are displayed in Table 17.

Table 17: Smoking Rules in the Home

<i>Rule (n=999)</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
Smoking not allowed in the home	927	92.8%	91.2, 94.4
Smoking allowed some times, some places	59	5.9%	4.4, 7.4
Smoking allowed anywhere in home	13	1.3%	0.6, 2.0

Of all surveyed parents, 92.8% reported that smoking is not allowed anywhere inside the home at any time, while a total of 7.2% do allow smoking at least some of the time. Smoking rules (smoking not allowed vs. smoking allowed) also were examined according to parent's age, child's age, dwelling type, and household annual income category. A marginally significant effect was found only for parent's age category.* The relevant descriptive statistics are presented in Table 18.

Table 18: Smoking Rules by Parent's Age Category

<i>Parent's Age</i>	<i>Smoking Rule</i>		<i>Row Count</i>	χ^2	<i>p-value</i>
	<i>Smoking not allowed</i>	<i>Smoking allowed¹</i>			
< 25 years old	81.3%	18.8%	32	$\chi^2_{(2, 919)} = 5.85$	p = .054
25 to 29 years old	93.0%	7.0%	128		
30+ years old	92.8%	7.2%	759		
Overall²	92.4%	7.6%	919		

¹ This category combines the responses "Smoking allowed some times, some places" and "Smoking allowed anywhere in the home."

² Overall percentages do not correspond exactly those in Table 17 due to differences in the total number of valid responses.

* For child's age category, $\chi^2_{(2, 999)} = 0.24$, p = .889; for dwelling type $\chi^2_{(2, 985)} = 1.00$, p = .607; and for household annual income category $\chi^2_{(2, 768)} = 2.37$, p = .306.

These results suggest that parents who are less than 25 years of age may be somewhat less likely than those in the older age groups to favour rules which prohibit smoking in the home. This observation must be treated with appropriate caution, however, given the small total number of parents in the younger age group. Nevertheless, given the importance of reducing children's exposure to any form of second-hand smoke, further education of younger parents about the dangers associated with smoking in the home is an area worthy of further investigation.

5.7. Parenting Practices

The two most critical aspects of parenting are parental warmth, as opposed to hostility or harshness, and consistency (12). Hostility and power assertion in the parent-child relationship have been associated with the onset of externalizing behavioural disorders (13). Harsh parenting has also been found to be associated with increases in externalizing behaviours and aggression (14) as well as internalizing disorders such as depression (15).

Data from the Cycle 1 of the NLSCY (1994/95) suggest that there is a relationship between parenting practices and children's developmental outcomes (16). For 2-3 year old children, (hostile) ineffective parenting practices were associated with a higher likelihood of emotional problems and aggressive behaviour, whereas consistent parenting reduced the likelihood of aggressive behaviour and hyperactivity by over 50%. Positive parenting was not particularly effective in reducing the likelihood of having problems. Data on 4-11 year old children suggested that positive parenting practices reduced the likelihood of having relationship problems, an emotional disorder, conduct disorder or repeating a grade in school whereas (hostile) ineffective parenting practices increased the occurrence of these problem behaviours as well as hyperactivity (16).

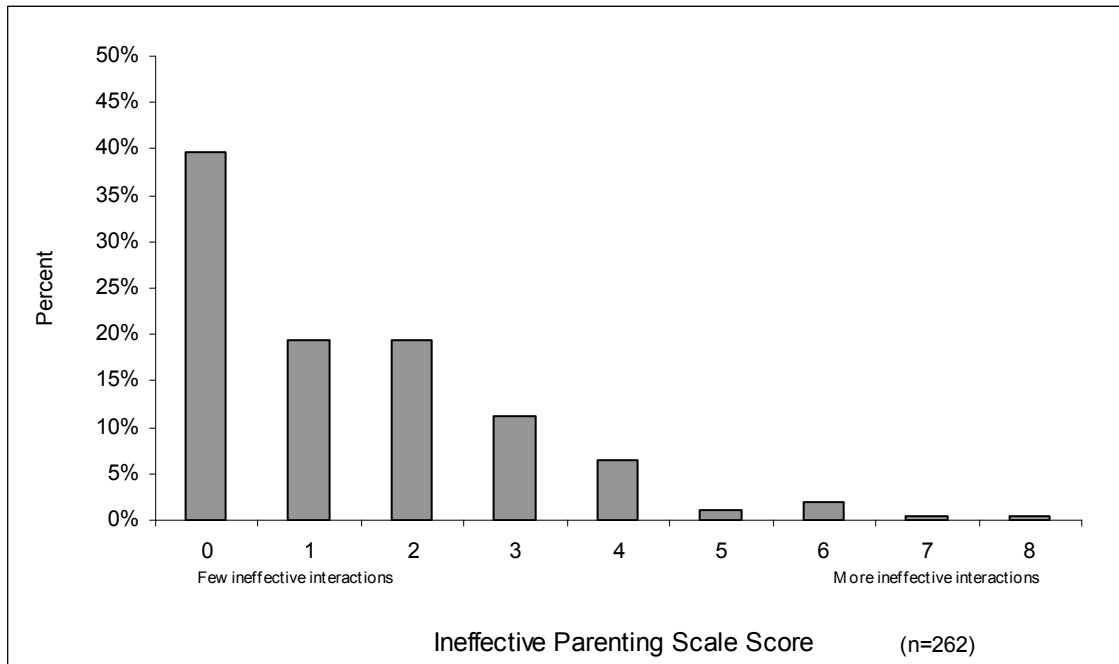
The NLSCY Ineffective Parenting Scale and the NLSCY Rational Parenting Scale were included in the Toronto Perinatal and Child Health Survey. Scores for the Ineffective Parenting Scale are calculated differently for cases in which the child is 0-23 months old as compared to cases in which the child is 2 years or older. Therefore, analyses for this scale are presented separately for these two age groups. The Rational Parenting Scale applies only to children aged 2 years or older. For all of these scales, parents were included in the scoring only if they provided responses that could be coded according to the scoring procedure for each of the relevant items on the scale.

5.7.1. Ineffective Parenting Scale, 0-23 Months

The Ineffective Parenting Scale (previously known as the Hostile/Ineffective Parenting Scale) is designed to provide scores that reflect the extent to which parents engage in ineffective interactions with their children. Scores for cases in which the child is 0-23 months old ($n = 262$)* are based on the parent's response to two items (see Appendix B – questions 33 and 34). Responses for each item were coded from 0 to 4, resulting in a minimum possible scale score of 0 and a maximum possible scale score of 8. Higher scores indicate a higher level of ineffective interactions. The frequency distribution of Ineffective Parenting Scale scores for children aged 0-23 months is shown in Figure 5.

* A total of 15 parents did not provide a response to one or more items on this scale. For this analysis, total $n = 262$, which represents 94.6% of all surveyed parents with children aged 0-23 months.

Figure 5: Ineffective Parenting Scale Scores, 0-23 Months



As illustrated in Figure 5, scores ranged from 0-8, with the distribution skewed toward the positive side; in other words, most parents reported engaging in few ineffective interactions with their children. The most common score was 0, which indicates a very low or absent level of reported ineffective interactions between parent and child. Specifically, 39.7% of parents reported that they never engage in ineffective interactions with their children. Moreover, another 50.1% of parents scored at the low scale values of 1, 2, or 3, and the overall mean score was 1.40 (SD = 1.56). Ineffective Parenting scores did not vary across family status, household annual income category, dwelling (rent vs. own), parent’s education, or parent gender.*

5.7.2. Ineffective Parenting Scale, 2-6 Years

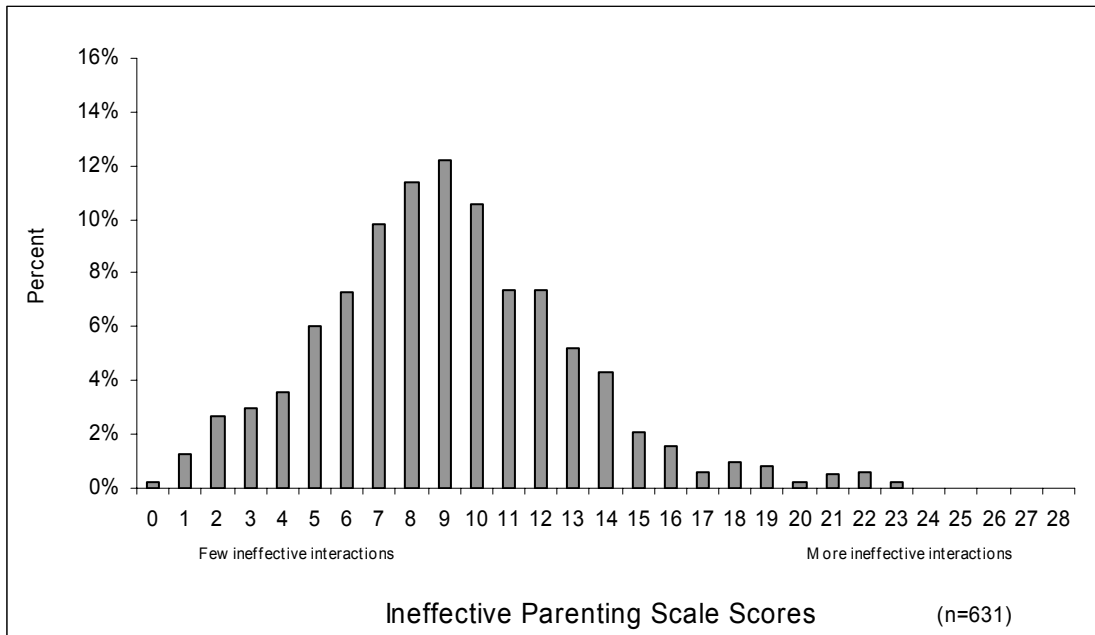
Ineffective Parenting Scale scores for cases in which the child is 2 years or older are based on parents’ responses to seven items (see Appendix B – questions 33, and 35-40). Responses to each item were coded from 0 to 4, resulting in a minimum possible score of 0 and a maximum possible score of 28, with higher scores indicating a higher level of ineffective interactions (note that question 35 was reverse coded). Scores were calculated only for parents who provided responses that could be coded according to the scoring procedure for each of the relevant items on the scale. A total of 92 parents did not provide a response to one

* For family status, $t_{(260)} = 1.04$, $p = .299$.; for household annual income, $F_{(2, 211)} = 0.96$, $p = .385$.; for dwelling (rent vs. own), $t_{(257)} = 1.82$, $p = .070$; for parent’s education $F_{(3, 254)} = 0.20$, $p = .898$.; and for parent gender $t_{(260)} = 0.61$, $p = .540$.

or more items on this scale. For this analysis, total n = 631, which represents 87.3% of the total sample.*

The frequency distribution of Ineffective Parenting Scale scores for children aged 2-6 years is shown in Figure 6.

Figure 6: Ineffective Parenting Scale Scores, 2-6 Years

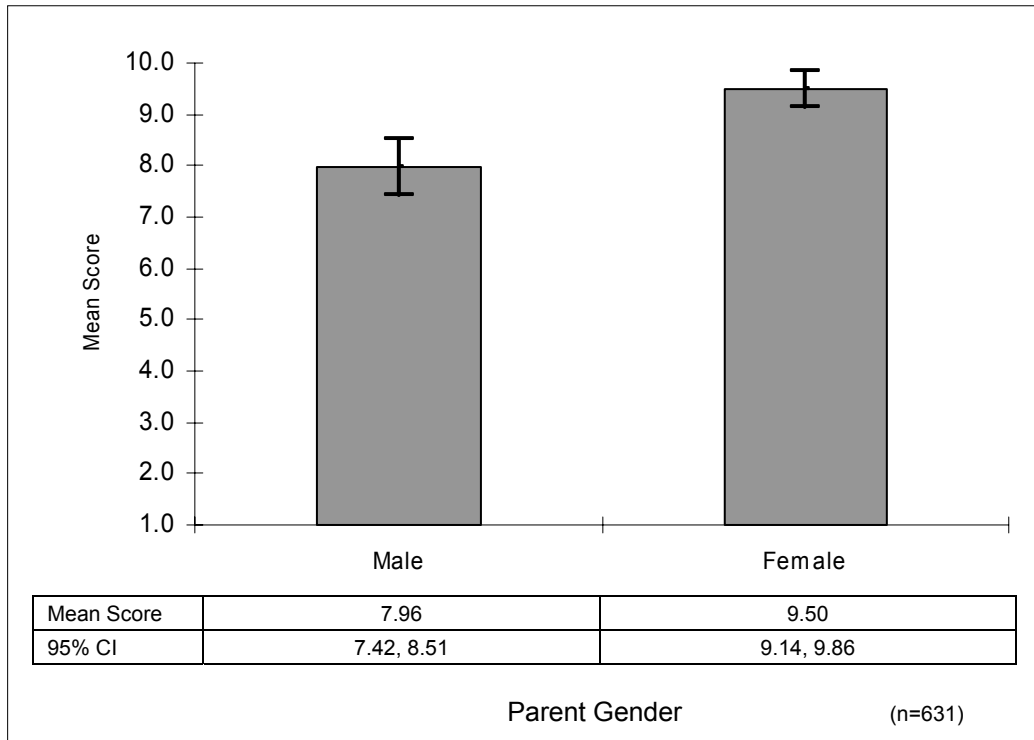


As illustrated in Figure 6, Ineffective Parenting scores ranged from 0 to 23, with the distribution skewed toward the positive side (i.e., most parents practised few ineffective interactions). The modal score was 9, and over three-quarters of parents scored between the values of 5 and 13 on the scale (77.3%, n = 489). The mean score was 9.09 (SD = 3.89).

In order to further explore the nature of parenting practices, Ineffective Parenting scores were examined across several demographic variables. A significant effect was found for parent gender ($t_{(629)} = 4.44, p < .001$). Mean scores for gender with 95% CI's are displayed in Figure 7.

* When a comparison was made between those who completed each item for this scale (n = 631) and those who did not (n = 92), non-responders appeared to be more likely to have lower income and lower education, to live in an apartment, to be born outside of Canada, and to be a recent immigrant (in Canada 10 years or less) as compared to those who did respond to every item on the scale. Given the relatively large non-response rate for this scale and the possible differences between responders and non-responders, analysis involving this scale should be interpreted with caution.

Figure 7: Ineffective Parenting Scale Scores by Parent Gender



Ineffective Parenting Scale scores for females (Mean Score = 9.50) were significantly higher than those for males (Mean Score = 7.96). However, parenting scores were independent of family status, household annual income, dwelling (rent vs. own), and parent's education.

5.7.3. Rational Parenting Scale, 2-6 Years

The Rational Parenting Scale is designed to measure the extent to which the parent has punitive or aversive interactions with the child. This scale is computed only for parents with children aged 2 years and older ($n = 685$)[†] and is comprised of seven questions (see Appendix B – questions 41 to 47). However, only four items contribute to the Rational Parenting Scale score (questions 43 to 46), and are coded with values of 1 to 5, resulting in a minimum possible score of 4 and a maximum possible score of 20 (questions 44 and 46 are reverse-coded). Higher scores indicate a higher level of punitive or aversive interaction between parent and child. The frequency distribution of Rational Parenting Scale scores is shown in Figure 8.

* For family status, $t_{(629)} = 0.64$, $p = .526$; for household annual income, $F_{(2, 487)} = 0.79$, $p = .453$; for dwelling (rent vs. own), $t_{(617)} = 1.64$, $p = .102$; and for parent's education $F_{(3, 618)} = 0.76$, $p = .515$.

[†] A total of 38 parents did not provide a response to one or more items on this scale. For this analysis, total $n = 685$, which represents 94.7% of all surveyed parents with children aged 2-6 years.

Figure 8: Rational Parenting Scale Scores

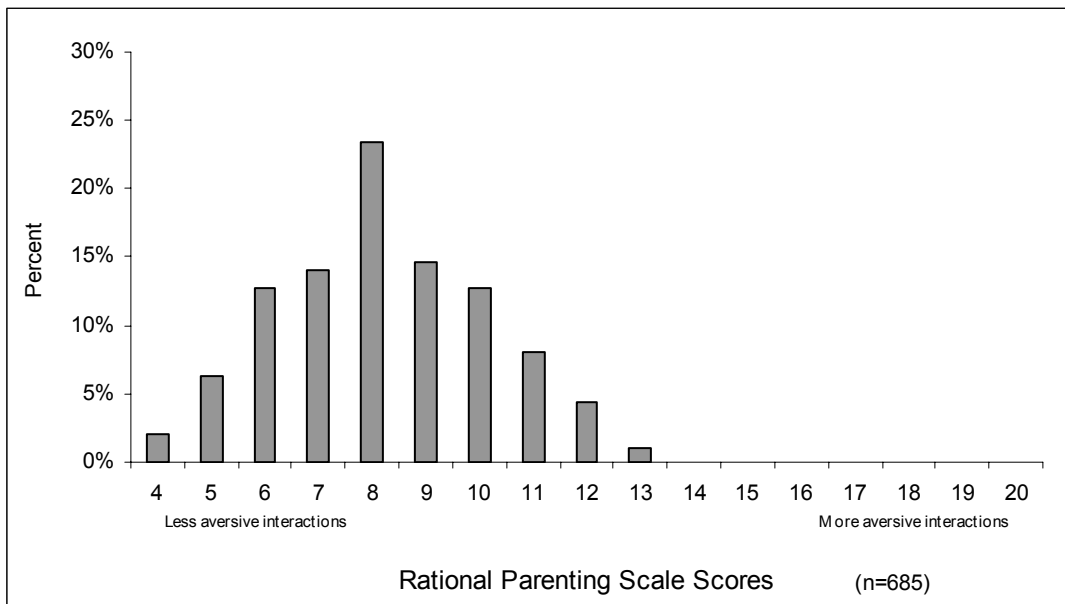


Figure 8 shows that Rational Parenting Scale scores ranged from 4 (the minimum possible score) to 14. Similar to the distribution of the Ineffective Parenting scores, the distribution of the Rational Parenting Scores was skewed toward the positive side (i.e. most parents practised less aversive interactions with their children). The most common score was 8, with almost one-quarter (23.4%) of parents scoring at this level. Over three-quarters (77.6%) of all parents scored between the values of 6 and 10, and the mean Rational Parenting Scale score was 8.24 (SD = 2.01). Rational Parenting Scale scores did not vary significantly across family status, household annual income, dwelling (rent vs. own), parent’s education, or parent gender.*

5.7.4. Ineffective and Rational Parenting Scales, 2-6 Years

For parents of children aged 2-6 years, Rational Parenting Scale scores were positively associated with Ineffective Parenting Scale scores to a moderate degree ($r = .35$, $p < .001$). Thus, parents who reported a greater number of ineffective interactions with their children also tended to report having more aversive interactions with their children.

* For family status, $t_{(683)} = 1.54$, $p = .123$; for household annual income, $F_{(2, 522)} = 1.44$, $p = .238$.; for dwelling (rent vs. own), $t_{(671)} = 0.15$, $p = .885$; for parent’s education $F_{(3, 672)} = 0.76$, $p = .516$.; and for parent gender, $t_{(683)} = 1.00$, $p = .316$.

5.8. Food Security

To inform efforts to ensure that Toronto families have adequate access to appropriate sources of food, the Toronto Perinatal and Child Health Survey included 8 items from the 18-item USDA Food Security Module that are specifically designed to assess the extent of child hunger in the home (17). These 8 items form the children’s food security scale, which is a graduated, continuous measure of the severity of food insecurity among children in a household (see Appendix B – questions 48-55). The items on the children’s food security scale vary across a wide range of severity of food insecurity, and flow from less to more severe indicators of food insecurity. The items that comprise the children’s food security scale are strongly ordered such that a household that affirms a particular item also will typically have affirmed items that are less severe. Conversely, a household that denies a particular item also typically deny all items that are more severe. The percentage of the total respondents who affirmed each of the child food security items is shown in Table 19.

Table 19: Food Security Items

<i>Item</i>	<i>Item Affirmed (n=1000)¹</i>		
	<i>Frequency</i>	<i>Percent²</i>	<i>95% CI³</i>
Relied on only a few kinds of low-cost food to feed child	156	15.6%	13.4, 17.8
Couldn’t feed child a balanced meal	68	6.8%	5.2, 8.4
Child was not eating enough	31	3.1%	2.0, 4.2
Cut the size of child’s meals	15	1.5%	0.7, 2.3
Child skipped meals in the past year	6	0.6%	--
Child skipped meals 3 or more months	<5	--	--
Child hungry but couldn’t afford more food	5	0.5%	--
Child did not eat for a whole day	<5	--	--

¹ Percent of items affirmed are calculated for the total number of households with children, without regard to any “don’t know” or “refused” responses for any particular item.

² Percents based on cells with frequencies of <5 are suppressed.

³ CI’s based on percents <1 are suppressed.

Table 19 shows that 15.6% of all respondents reported relying on low-cost food to feed their child(ren), and 6.8% could not afford to feed their child(ren) a balanced

meal. In addition, 3.1% of sampled parents reported that their child had not eaten enough within the past year.

The food security scale allows calculation of food security scores with each item on the scale being scored as “affirmed” or “not affirmed.” With a value of 1 assigned to each affirmed item, food security scores can range from 0 to 8. The threshold for identifying children’s hunger in the home is set at a raw score of 5 items affirmed. Food security scores are shown in Table 20.*

Table 20: Food Security Scores

<i>Score (n=973)¹</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI²</i>
0 items affirmed (no child hunger)	811	83.4%	81.0, 85.7
1 item affirmed	106	10.9%	8.9, 12.9
2 items affirmed	33	3.4%	2.3, 4.5
3 items affirmed	9	0.9%	--
4 items affirmed	9	0.9%	--
5-8 items affirmed (child hunger identified)	5	0.5%	--

¹ A total of 27 respondents did not provide responses to one or more Food Security items.

² CI's based on percents <1 are suppressed.

Using the criterion of 5 items affirmed, child hunger was not identified for 99.5% of surveyed families. However, a total of 16.1% of parents did provide responses to affirm 1 to 4 of the food security items. Of those who affirmed 1 to 4 items, 67.5% affirmed one item, 21.0% affirmed two items, 5.7% affirmed three items, and 5.7% affirmed four items.

* Food Security scores were calculated only for parents who provided responses that could be coded according to the scoring procedure for each of the relevant items on the scale. A total of 27 parents did not provide a response to one or more items on this scale. For this analysis, total n = 973.

5.9. Parental Depression

5.9.1. Depression Scale

Children's development is influenced by their parents' mental health status in various ways. For example, maternal depression can increase children's vulnerability to anxiety and behavioural disorders (18). The impact of parental depression on children's development is related to factors such as the nature and severity of the illness, and the presence of other caregiver(s) in the home who buffer the effects of the illness (19). Analysis of Cycle 1 (1994/95) data from the NLSCY revealed that parental depression was associated with one or more problem outcomes for children aged 2-3, 4-8 and 9-11 (18). Using NLSCY data from Cycle 1 (1994/95) and adjusting for all family background variables, children of depressed mothers were about 1.5 times as likely to be vulnerable as those of mothers who were not depressed, providing strong evidence that maternal depression has an effect on children's early cognitive development that is independent of socioeconomic status. Controlling for family background factors, children of depressed mothers were more than twice as likely to exhibit behaviour problems as perceived by the mother (20).

Twelve items on the Toronto Perinatal and Child Health Survey were included to assess the extent of parental depression (see Appendix B – questions 56 to 67). These 12 items form the abbreviated version of the Centre for Epidemiological Studies-Depression Scale (CES-D Scale) (21). For each item, parents indicated how often they experienced the specified depressive tendencies (or non-depressive tendencies in the case of reverse-coded items) within the past week. Responses were coded from 0 to 3, resulting in a minimum possible total score of 0 and a maximum possible total score of 36. Lower scores indicate fewer depressive tendencies, whereas higher scores indicate more extensive depressive tendencies, with scores of 13 or more indicating moderate to severe depression (22). It should be noted that Depression Scale scores were calculated only for parents who provided responses that could be coded according to the scoring procedure for each of the relevant items on the scale. A total of 119 parents did not provide a response to one or more items on this scale. For this analysis, total n = 881, which represents 88.1% of the total sample.*

The frequency distribution of depression scores is shown in Figure 9.

* When a comparison was made between those who completed each item for this scale (n = 881) and those who did not (n = 119), non-responders appeared to be more likely to have lower income and lower education, to live in an apartment, and to be a recent immigrant (in Canada 10 years or less) as compared to those who did respond to every item on the scale. Non-responders were also slightly more likely to be male. Given the relatively large non-response rate for this scale and the possible differences between responders and non-responders, analysis involving this scale should be interpreted with caution.

Figure 9: Parental Depression Scores

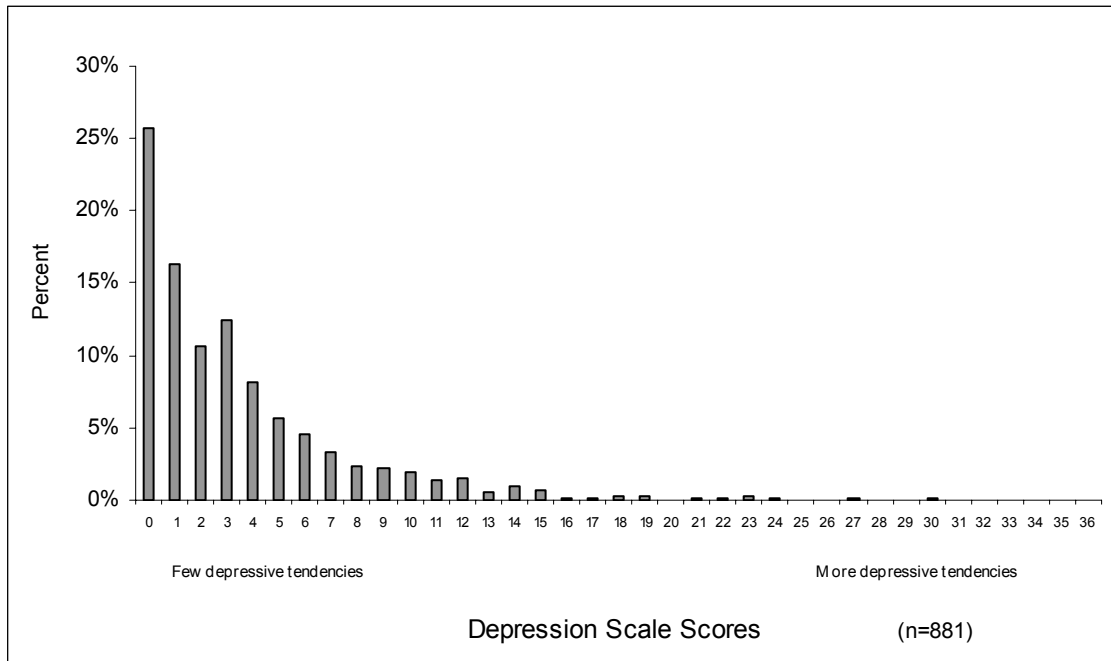
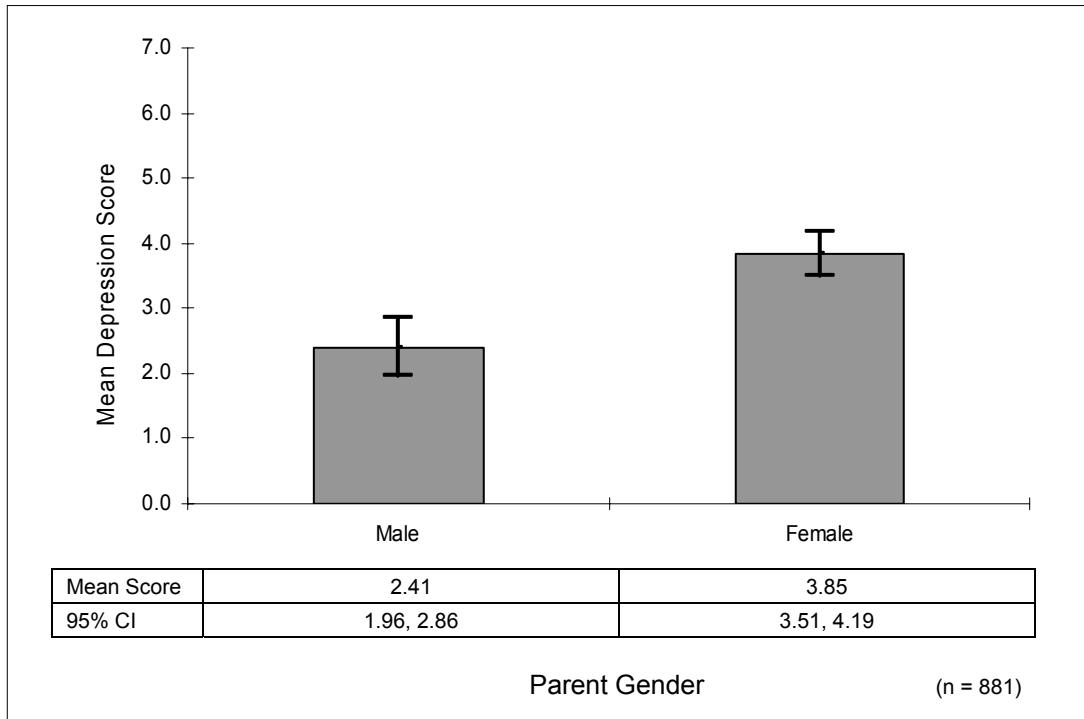


Figure 9 shows that depression scores ranged from 0 to 30. The predominant leftward bias of the distribution strongly indicates that the majority of children were living with parents with few depressive tendencies. The most common score was 0 (25.7%, n = 226), which indicates very few or no depressive tendencies during the past week. Scores for over three-quarters of all respondents ranged between 0 and 5. The mean depression score was 3.49 (SD = 4.27). A total of 3.9% of respondents (n = 36) had depression scores of 13 or more.

Depression scores also were examined across several variables and significant effects were found for parent gender, family status, and household annual income.* Mean scores for gender with 95% CI's are shown in Figure 10.

* Depression scores also were analyzed by the variable of immigrant status which included “recent immigrants,” defined as those respondents who were not born in Canada and have lived in Canada for 10 years or less, and “not recent immigrants,” defined as those respondents who were born in Canada or who were not born in Canada but have lived in Canada for 11 years or more. Depression scores were not found to vary significantly by immigrant status, $t_{(873)} = 0.92$, $p = .358$.

Figure 10: Mean Depression Scores by Parent Gender

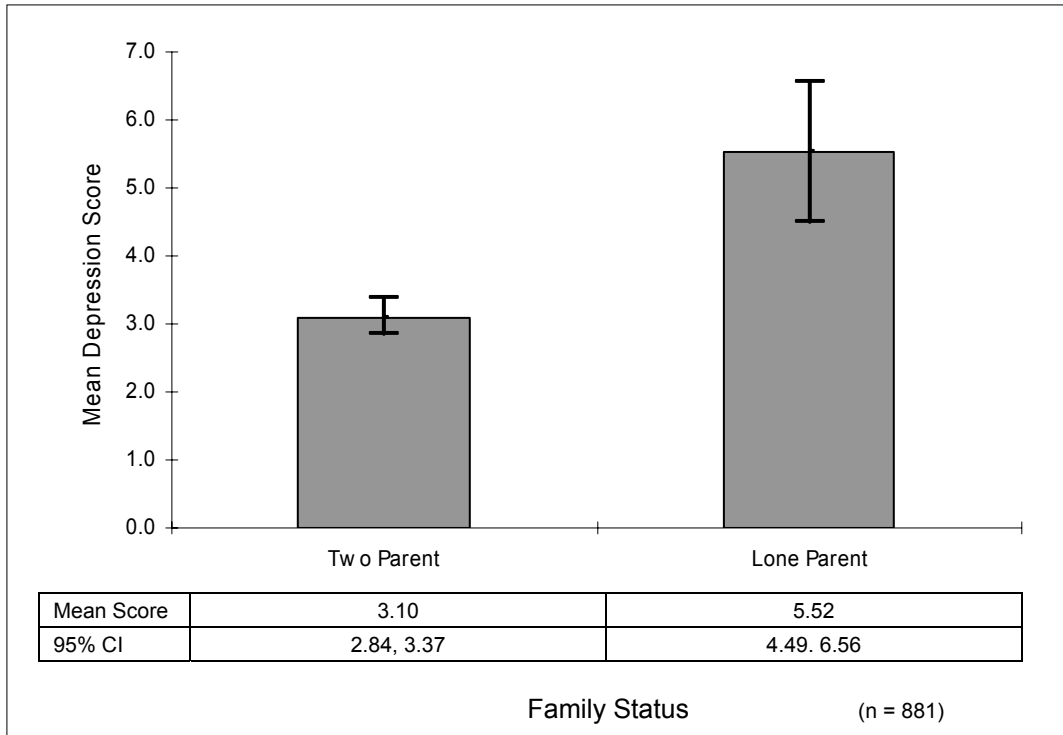


Male and female survey respondents differed significantly in their depression scores ($t_{(879)} = 4.40, p < .001$), with males reporting fewer depressive tendencies than females. However, the average depression score for both males and females was less than 4 on a scale that can range between 0 and 36.

The descriptive statistics for depression scores by family status are shown in Figure 11.*

* Note that, despite the significant effect for parent gender, the additional analyses for depression scores are presented with data from males and females combined. Analyses that were conducted separately by parent gender revealed a similar pattern of findings for males and females.

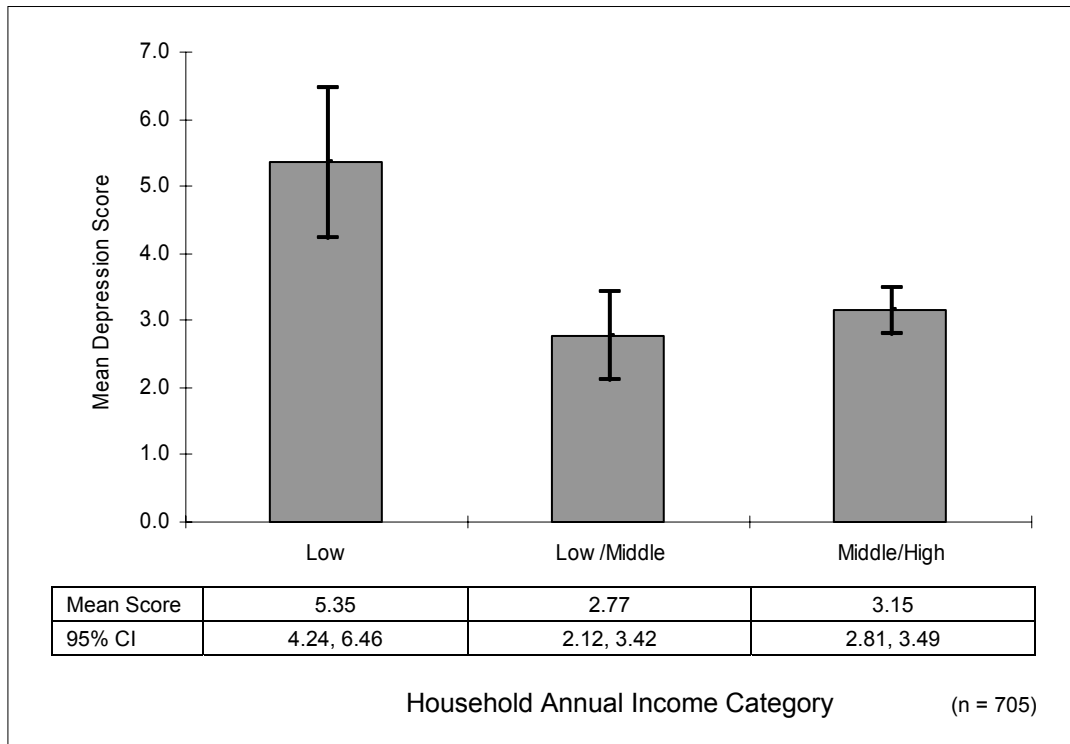
Figure 11: Mean Depression Scores by Family Status



A significant effect for family status was found ($t_{(879)} = 6.29, p < .001$), such that parents who did not have another parenting partner living in the home with them reported more depressive tendencies than those who did have another parenting partner living with them. Recall, however, that the overwhelming majority of lone-parent families were female-led lone-parent families (89.9%), and females already have been shown to have higher depression scores than males. Thus, further analyses that control for gender of respondents may be required to assess the extent to which the greater depressive tendencies of lone parents are associated with lone parenting, independent of gender.

The descriptive statistics for depression scores by household annual income are shown in Figure 12.

Figure 12: Mean Depression Scores by Household Annual Income



A significant effect for income categories was found ($F_{(2, 702)} = 14.33, p < .001$), indicating that depression scores differed among the three income levels. Follow-up pairwise comparisons revealed that respondents in the low income group had higher depression scores as compared to both those in the low/middle income group and the middle/high income group ($p < .01$ in each case). It is of note that 40.2% of all lone-parent families, who are mostly females, are in the low income group, as compared to only 14.3% of two-parent families. Further analyses are required to assess the interaction of family structure and income with depressive tendencies.

5.9.2. Depression and Parenting Practices

The relationship between depression scores and parenting practices for the current sample also was assessed.

For parents of children aged 0-23 months, the correlation between Depression scores and Ineffective Parenting scores was not significant ($r = .08, p = .223$). However, for parents of children aged 2-6 years, there was a significant correlation between Depression scores and Ineffective Parenting scores ($r = .22, p < .001$). Depression scores were also related to Rational Parenting scores to a lesser but still significant degree ($r = .134, p < .001$). Thus, parents of 2-6 year old children who reported more depressive tendencies also tended to have more ineffective

interactions with their children as well as somewhat more aversive or punitive parenting practices.

5.10. Dental Health

5.10.1. Early Childhood Tooth Decay

Early childhood tooth decay (ECTD), which is a preventable form of tooth decay among young children, is responsible for significant pain and suffering among children as well as the need for hospitalization and highly-specialized care (23). Poor oral health also affects socialization and the capacity to eat healthy foods. Given the importance of oral health to the overall health of young children and the lack of representative local data on this topic, several questions on the Toronto Perinatal and Child Health Survey were designed to address the issue of child dental health.

Parents were asked if they have ever been told by a physician or dentist that their child has the condition known as early childhood tooth decay (ECTD), and 5.6% (CI = 4.1, 7.0) of respondents said that this was the case. Frequency of ECTD diagnosis was found to vary significantly by child's age and country of birth, as shown in Table 21.

Table 21: ECTD Diagnosis by Age and Country of Birth

Variable	Received Diagnosis of ECTD	Row Count	χ^2	p-value
<i>Child's age</i> ¹				
0-2	1.3%	372	$\chi^2_{(2, 954)} = 23.20$	p < .001
3-4	6.6%	272		
5-6	9.7%	310		
<i>Child Born in Canada</i>				
Yes	4.6%	857	$\chi^2_{(1, 954)} = 16.22$	p < .001
No	14.4%	97		
<i>Overall</i> ²	5.6%			

¹ For this and all dental health analyses, the age category of "0-2" includes all children aged 0 to <3 years, the age category of "3-4" includes all children aged 3 to <5 years, and the age category "5-6" includes all children aged 5 to <7 years.

² Overall percentages for all children do not necessarily correspond exactly to marginal totals for tests of significance due to differences in the number of valid responses.

Parents of older children were more likely to report a diagnosis of ECTD than parents of younger children. The odd's ratio (OR) = 5.20 (95% CI = 1.91, 14.19) for the 3-4 year old age group using the youngest group as a reference, and the OR = 7.86 (95% CI = 3.01, 20.53) for the 5-6 year old age group using the youngest group as a reference. Thus, the odds of being diagnosed with ECTD

were 5.20 times higher for 3-4 year olds than for 0-2 year olds, and the odds for 5-6 year olds were 7.86 times higher than those for 0-2 year olds.

In addition, parents of children who were not born in Canada were more likely to report a diagnosis of ECTD than parents of children who were born in Canada. The OR = 3.54 (95% CI = 1.85, 6.78) using born in Canada as a reference, which indicates that the odds of being diagnosed with ECTD were 3.54 times higher for children born outside of Canada than for children born in Canada. No significant effects were found for family status, household annual income category, or parent's education.*

5.10.2. Most Recent Dental Visit

Parents of children older than 9 months of age also were asked about when the child last saw a dentist or dental hygienist (not including visits at school). These responses are shown in Table 22.

Table 22: Most Recent Dental Visit

<i>Most Recent Visit (n=872)</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
Within the last year	464	53.2%	49.9, 56.5
Between 1 to 2 years ago	31	3.6%	2.3, 4.8
More than 2 years ago	10	1.1%	0.4, 1.9
Never	367	42.1%	38.8, 45.4

Over half of the children (53.2%) were reported to have seen a dentist or dental hygienist within the last year, while 42.1% have never had a dental visit.

Dental visits were also examined according to several demographic variables, and significant effects were found for child's age, household annual income, and family status.† In addition, a marginally significant effect was found for child's country of birth (Canada or other). Category percentages for each of these variables are shown in Table 23.

* For family status, $\chi^2_{(1, 954)} = 0.33$, $p = .563$; for household annual income category, $\chi^2_{(2, 741)} = 4.36$, $p = .113$, and for parent's education, $\chi^2_{(3, 938)} = 2.05$, $p = .562$.

† No significant effect was found for parent's education $\chi^2_{(6, 857)} = 6.81$, $p = .339$.

Table 23: Dental Visits by Age, Income, and Family Status

Variable	When child last saw dentist.			Row Count	χ^2	p-value
	Within the last year	More than 1 year ago ¹	Never			
Child's age						
0-2	16.1%	0.7%	83.2%	286	$\chi^2_{(4, 872)} = 310.58$	p < .001
3-4	64.2%	5.5%	30.3%	274		
5-6	77.6%	7.7%	14.7%	312		
Income						
Low	47.2%	7.2%	45.6%	125	$\chi^2_{(4, 665)} = 17.49$	p < .002
Low/Middle	42.1%	6.6%	51.3%	76		
Middle/High	59.3%	2.2%	38.6%	464		
Family Status						
Two Parent	52.0%	4.1%	43.9%	731	$\chi^2_{(2, 872)} = 8.30$	p < .017
Lone Parent	59.6%	7.8%	32.6%	141		
Child Born in Canada						
Yes	53.0%	4.1%	42.9%	774	$\chi^2_{(2, 872)} = 5.86$	p = .053
No	55.1%	9.2%	35.7%	98		
Overall²	53.2%	4.7%	42.1%			

¹ This category combines the responses "Between 1 and 2 years ago" and "More than 2 years ago."

² Overall percentages for all children do not necessarily correspond exactly to marginal totals for tests of significance due to differences in the number of valid responses.

Examination of Table 23 reveals that older children, children from the middle/high income category, and children from lone-parent families were more likely to have seen a dentist within the past year. Specifically, over three-quarters of all children aged 5-6 years were reported to have had a dental visit within the past year, whereas just under two-thirds of 3-4 year olds and 16.1% of those under the age of 3 have had a recent dental visit.

Children from the middle/high income category were more likely to have seen a dentist within the past year as compared to children in the lower income categories. Children from the low/middle income category were least likely to have seen a dentist in the past year and most likely to have never seen a dentist, as compared to the other income categories. In addition, children from lone-parent families were more likely to have seen a dentist recently as compared to children from two-parent families, and children who were born in Canada were somewhat

more likely to have never seen a dentist as compared to those who were not born in Canada.

For cases in which the child had not seen a dentist within the last year, parents were asked to indicate all reasons why the child did not go more recently. These results are shown in Table 24.

Table 24: Reasons for Not Seeing a Dentist More Recently

<i>Reason (n=408)</i>	<i>Frequency</i>	<i>Percent of Total Responses (n=445)¹</i>	<i>95% CI</i>
He/she is too young to go	192	43.1%	38.5, 47.7
No need to go, he/she has no problems	145	32.6%	28.2, 36.9
Other	36	8.1%	5.6, 10.6
Our family dentist won't see children that young	15	3.4%	1.7, 5.0
We don't have dental insurance	15	3.4%	1.7, 5.0
We can't afford to take him/her	11	2.5%	1.0, 3.9
Don't know	11	2.5%	1.0, 3.9
He/she is afraid to go	8	1.8%	0.6, 3.0
We don't have or don't know a dentist	8	1.8%	0.6, 3.0
We would have to lose too much time from work	<5	--	--
Our dentist is too busy – booked way ahead	<5	--	--

¹ More than one response allowed. Percents based on cells with frequencies of <5 are suppressed.

Of all the reasons that were given for why children did not see a dentist more recently, the majority fell into the categories of “he/she is too young to go” and “no need to go, he/she has no problems.”

5.10.3. Frequency of Teeth Cleaning

Parents also were asked questions about how often their child's teeth or gums are cleaned and how they are cleaned. These responses are shown in Table 25.

Table 25: Teeth Cleaning

<i>Teeth Cleaning Variable</i>	<i>Frequency</i>	<i>Percent</i>	<i>95% CI</i>
<i>How often are teeth/gums cleaned (n=989)</i>			
1 or more times per day	827	83.6%	81.3, 85.9
2-6 times per week	59	6.0%	4.5, 7.4
Once or less per week	12	1.2%	0.5, 1.9
Never	91	9.2%	7.4, 11.0
<i>Is toothpaste with fluoride used (n=909)¹</i>			
Yes	536	59.0%	55.8, 62.2
No	246	27.1%	24.2, 30.0
Don't know	108	11.9%	9.8, 14.0
Not Applicable (no teeth yet)	19	2.1%	1.2, 3.0
<i>How much toothpaste put on brush (n=528)²</i>			
A light smear	156	29.5%	25.7, 33.4
The size of 1 small pea	272	51.5%	47.3, 55.8
The size of 2 small peas	69	13.1%	10.2, 15.9
The size of 3 or more small peas	31	5.9%	3.9, 7.9

¹ Item applied to all respondents except those who said child's teeth were "never" cleaned.

² Item applied only to those who said that toothpaste with fluoride is used, and excludes those who said they don't know how much toothpaste is used.

The majority of parents reported that their child's teeth or gums are cleaned one or more times per day (83.6%). Of the children whose teeth are cleaned, over half use toothpaste with fluoride (59.0%). Furthermore, of those who use toothpaste with fluoride, about half use the amount of toothpaste equal to the size of one small pea (51.5%).

Frequency of teeth cleaning was examined according to child's age, family status, household annual income, parent's education, and child's country of birth. Of these, significant effects occurred only for child's age and family status.* The relevant frequencies are shown in Table 26.

* For household annual income category, $\chi^2_{(4, 762)} = 1.65$, $p = .799$; for parent's education, $\chi^2_{(6, 974)} = 2.60$, $p = .857$; and for child's country of birth, $\chi^2_{(2, 989)} = 3.41$, $p = .182$.

Table 26: Frequency of Teeth Cleaning by Age and Family Status

Variable	How often child's teeth/gums are cleaned.			Row Count	χ^2	p-value
	1 or more times per day	2-6 times per week	Once or less per week or never ¹			
<i>Child's age</i>						
0-2	64.8%	9.9%	25.3%	395	$\chi^2_{(4, 989)} = 186.56$	p < .001
3-4	94.6%	4.7%	0.7%	278		
5-6	97.5%	2.2%	0.3%	316		
<i>Family Status</i>						
Two-parent	82.2%	6.4%	11.4%	831	$\chi^2_{(2, 989)} = 7.92$	p < .02
Lone-parent	91.1%	3.8%	5.1%	158		
<i>Overall²</i>	83.6	6.0	10.4			

¹ This category combines the responses "Once or less per week" and "Never."

² Overall percentages for all children do not necessarily correspond exactly to marginal totals for tests of significance due to differences in the number of valid responses.

Parents of younger children reported less frequent teeth/gum cleaning than parents of older children. Just under two-thirds of children aged 0-2 years have their teeth or gums cleaned one or more times per day, and one-quarter have their teeth or gums cleaned once per week or less or never. In contrast, approximately 95% or more of children aged 3 and older have their teeth cleaned one or more times per day. In addition, children in lone-parent families are reported to have their teeth cleaned more often than children in two-parent families.

Toothpaste use was also examined according to child's age category, and a significant effect was found. The relevant frequencies are shown in Table 27.

Table 27: Toothpaste use by Child's Age

Age Category	Is toothpaste with fluoride used ¹ (n=909)				Row Count	χ^2	p-value
	Yes	No	Don't Know	Not Applicable			
<i>Child's age</i>							
0-2 years	28.3%	54.9%	10.8%	6.0%	315	$\chi^2_{(3, 909)} = 251.65$	p < .001
3 years and older	75.3%	12.3%	12.5%	0%	594		
<i>Total</i>	59.0%	27.1%	11.9%	2.1%	909		

¹ Item applied to all respondents except those who said child's teeth were "never" cleaned.

This analysis reveals that a greater proportion of children in the older age category were reported to be using toothpaste with fluoride than those in the younger age category. Nevertheless, over one-quarter of parents with children under the age of three years reported the use of toothpaste with fluoride for their children's teeth. In addition, over 1 in 10 parents reported that they did not know what kind of toothpaste is used to clean their child's teeth.

The amount of toothpaste with fluoride that was used also was examined by child's age category and again a significant effect was found. The relevant frequencies are shown in Table 28.

Table 28: Amount of Toothpaste by Child's Age

Age Category	How much toothpaste is put on brush ¹ (n=528)			Row Count	χ^2	p-value
	A light smear	The size of 1 small pea	The size of 2 or more small peas ²			
<i>Child's age</i>						
0-2	41.7%	51.2%	7.1%	84	$\chi^2_{(4, 528)} = 27.28$	p < .001
3-4	36.1%	48.2%	15.7%	191		
5-6	20.6%	54.2%	25.3%	253		
<i>Total</i>	<i>29.5%</i>	<i>51.5%</i>	<i>18.9%</i>	<i>528</i>		

¹ Item applied only to those who said that toothpaste with fluoride is used.

² This category combines the responses "The size of 2 small peas" and "The size of 3 or more small peas."

Overall, parents with younger children reported using the smallest amount of toothpaste, while parents with older children reported using larger amounts of toothpaste. However, of all children who use toothpaste with fluoride, 28.3% are under the age of 3 years (see Table 27), and a total of 18.9% of children are using toothpaste more than the size of one small pea (see Table 28).