Prevalence, co-occurrence and decennial trends of family violence toward children in the general population

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ABSTRACT

OBJECTIVES: In Quebec, three population-based surveys have documented the prevalence of psychological aggression, and minor and severe physical violence toward children. This paper aims to present 1) the results of the 2012 survey with regard to the frequency and annual prevalence of violence, and 2) the trends in all three forms of violence between 1999 and 2012 according to children’s age.

METHODS: The three independent surveys were all conducted through telephone interviews in 1999, 2004 and 2012 by the Institut de la Statistique du Québec and reached a total sample of 9,646 children living with a mother figure. Psychological aggression, and minor and severe physical violence were measured using the Parent Child Conflict Tactics Scales.

RESULTS: The results show that repeated psychological aggression, after having increased between 1999 (48%) and 2004 (53%), slightly decreased in 2012 (49%). Minor physical violence decreased steadily between 1999 and 2012, from 48% to 35%, and severe physical violence remained stable (6%). These three forms of violence varied by the age category of the children. Finally, the results show that the co-occurrence of the use of physical and psychological violence remained high in all three surveys.

CONCLUSION: The results are consistent with trends in North America and are discussed in terms of services to support families.

KEY WORDS: Prevalence; physical violence; psychological aggression; children; trends

More than a decade ago, family violence and child maltreatment were identified as major public health problems in the world.1 Many studies found that they can have short- or long-term neurological, psychological, social and cognitive repercussions on a child’s development. This is especially true for more severe forms of physical and emotional abuse and neglect.2,3 Although no consensus has been reached in the scientific literature,4,5 less severe manifestations of parental violence have also been associated with impairment in child development and functioning.6 In fact, there is a growing body of evidence based on longitudinal studies6,7 that demonstrates the negative impact of corporal punishment of children and its associated risk of escalating into child abuse.8 Moreover, child protection studies have found that the majority of physical abuse cases involve corporal punishment.9

To date, the epidemiology of violence toward children has mainly been investigated on the basis of data from child protective services. In Canada, as part of the national surveillance program of the Public Health Agency, the Canadian Incidence Study (CIS) of Reported Child Abuse and Neglect was used to estimate the incidence of child maltreatment across the country.10-12 The three editions of the CIS (1993, 2003, 2008) provided information on changes in incidence rates over a 10-year period. The results indicated a significant increase in the number of substantiated maltreatment rates from 1998 (9.6 per 1,000 children) to 2003 (21.7 per 1,000), which then appears to have slightly decreased in 2008 (18.6 per 1,000). More specifically, after a significant increase in the second edition of the CIS-2003, child physical abuse rates dropped in the last study (from 5.3 to 3.2 per 1,000 children), as did psychological maltreatment (from 2.9 to 0.97 per 1,000 children).11 However, these comparisons require caution, since the first two editions of the CIS did not specifically track investigations of the risk of future maltreatment, but the last one did.12 Furthermore, in Quebec, incidence studies noted a slight increase in the incidence rate of child physical and psychological abuse between 1998 and 2008.13 One must remain cautious, however, since this result could be a reflection of changes in legislation, public or professional awareness, or case management practices in child protection services.1,12

A public health approach to child maltreatment and family violence warrants studies that can also measure their scope and magnitude in the general population in order to have a global overview of the phenomena and to provide information on nation-wide prevention strategies. In Canada, researchers have...
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deprived the lack of such studies. Some past research has documented the prevalence of child maltreatment and family violence in the general population, but these studies present several limitations. Either their assessment of each unique form of violence is based on a single item or it excluded important forms, such as psychological violence. Furthermore, with the exception of the national study conducted by Affifi et al. using data derived from the Canadian Community Health Survey, past population-based studies obtained very low response rates, and most were administered retrospectively to adults and were therefore more prone to memory bias.

With the goal of making progress in our understanding of violence at a population level, this paper presents the main results of the third province-wide Quebec survey, which was conducted in 2012. More specifically, the paper aims to describe the annual frequency and prevalence of psychological aggression and physical violence toward children living with a mother figure. It also presents recent trends based on a comparison with previous surveys, which were conducted in 1999 and 2004.

METHODS

Survey description

This paper presents data derived from three large-scale surveys conducted by the Institut de la Statistique du Québec (ISQ) in 1999, 2004 and 2012, which intended to document the prevalence rates and trends of family violence toward children. The sampling for the 1999 and 2004 surveys included all children aged 0 to 18 years old living in a private household in Quebec and cohabiting at least 50% of the time with a woman. The Random Digit Dial procedure was used to select both samplings. This method is often used in epidemiological studies and has been shown to be a cost-effective method for recruiting a generalizable sample.

In 2012, the survey sample was generated from the Régie des Rentes du Québec list, which provided contact with women living with a child between 6 months and 18 years old. Children less than 6 months old were excluded because the sample frame did not cover them well as a result of the registration deadline, but analyses of this change to the sample frame demonstrated that it did not alter comparisons between the three surveys. In each survey, a single child was randomly selected from each household so that the questions regarding violence would be asked with respect to this child only.

Participants

The three surveys were conducted with mother figures and reached a total of 9,646 children over a 13-year period: 2,469 children in 1999, 3,148 children in 2004 and 4,029 children in 2012. The 2004 and 2012 surveys also reached independent samples of fathers or father figures. However, for comparison purposes with the 1999 survey, this paper will focus only on the mothers’ samples.

The sample size for each successive survey had to be slightly increased in order to detect small differences in prevalence rates. In all three surveys, data were weighted to represent households in Quebec. These weights were calculated following many steps in order to adjust for selection probabilities, to reduce non-response bias and to adjust for population distribution while considering socio-demographic factors (children’s age and gender, number of children in the household, region). More details of the weighting procedure in each survey can be found in the research reports.

In 1999, the weighted response rate was 79%. In 2004 and 2012, the rates reached 57% and 54%, which are comparable with those obtained in similar recent US, population-based studies. Potential explanations for this discrepancy include decreases in the public’s participation in surveys and the increasing use of telephone-number screening technologies, such as call display.

Table 1 presents the child and family characteristics in each survey. Comparisons among samples indicate a higher percentage of boys in the last two surveys (51%) compared with 1999 (48%). The age of the children selected varied slightly, the 2004 survey consisting of children slightly older than those surveyed in 1999 and 2012. Family characteristics differed significantly among surveys in several respects. For example, fewer mothers in the 2012 survey were under 25 years old at the child’s birth (12.6%) compared with the previous two surveys. Moreover, in 2012 more mothers reported that they were educated and employed. On the family level, we find slightly more single parents (mother) in 2012 (19.7%) than in 2004 and 1999 (14.4% and 14.6% respectively). The perceived family income (e.g., comfortable/sufficient versus poor/very poor) was also poorer in 1999 than it was in the two more recent surveys. These cohorts’ differences are representative of socio-economic trends observed in Quebec since the end of the 1990s.

The Parent-Child Conflict Tactics Scales

The Parent-Child Conflict Tactics Scales (PCCTS) was used to assess the annual frequency, prevalence rates and trends of psychological aggression, minor physical violence and severe physical violence toward children. This instrument has been validated and used in many community-based studies and with nationally representative US samples. Some modifications were made to adapt the PCCTS to Quebec’s population of parents, such as the exclusion of two items from the original “severe physical violence” subscale and the shift of two items

| Table 1. Sample characteristics of the 1999, 2004 and 2012 surveys |
|--------------------------|--------------------------|--------------------------|
|                          | 1999                     | 2004                     | 2012                     |
|                          | (n=2,469)                | (n=3,148)                | (n=4,029)                |
| 1999                     | 2004                     | 2012                     |
| Children’s gender (male) | 48.4                     | 51.0                     | 51.2*                    |
| Children’s age (≤5 yrs)  | 35.1*                    | 29.3*                    | 32.4                     |
| Mother’s age at child’s birth (≤25 yrs) | 24.2*                      | 15.9*                      | 12.6*                     |
| Mother’s education (high school or less) | 57.0**                              | 31.8**                              | 19.9**                     |
| Mother’s working status (not working) | 32.5**                              | 25.4**                              | 18.0**                     |
| Family type (single mother) | 14.6                     | 14.4**                    | 19.7*                     |
| Perceived family income (poor/very poor) | 12.7**                              | 8.7                      | 7.1**                      |


* p ≤ 0.05; ** p ≤ 0.001.
from the original “minor physical violence” to the “severe physical violence” subscale because of their apparent severity (“slapping the child in face, head or ears” and “hitting the child on the bottom with a belt, a stick or other hard object”). The final version of PCCTS therefore included 17 items: 1) psychological aggression (5 items); 2) minor physical violence (or corporal punishment) (4 items); and 3) severe physical violence (8 items) (see Table 2 for the items’ wording). For each item, the respondent indicated the annual frequency of the conduct (never, once or twice, 3 to 5 times, 6 or more times). Finally, the question did not specifically ask about the mother’s own conduct but, rather, about that of any adult in the household, in order to enhance the reliability of the measure of violence as experienced by children in the family (e.g., “How many times has any adult of the household, 18 years or older shouted, yelled or screamed at the child?”.

In each survey, two annual prevalence rates were calculated. First, the overall prevalence rate indicates whether the women reported at least one of the behaviours described in the three PCCTS subscales over the one-year period covered by the survey. The second prevalence rate accounted for recurrences of psychological aggression. It was calculated because results from previous surveys demonstrated that the vast majority of children were victims of at least one occurrence of such behaviour. Therefore, the consideration of its recurrence (three times or more in a one-year period) was considered to indicate more accurately a context of violence in the children’s lives.

A two-sample t-test was performed to assess the difference between proportions in 1999 (1999 compared with 2004), in 2004 (2004 compared with 2012) and in 2012 (2012 compared with 1999). This test was used since under certain conditions, a statistical test for categorical variables generally follows a normal distribution. The Taylor linearization method was used to estimate the variances in 1999, 2004 and 2012.

The Research Ethics Board of the Quebec Statistics Institute and the Research Ethics Board of the researchers’ universities approved the surveys. A number of steps were taken to guarantee respondents’ confidentiality, such as obtaining informed consent from each respondent before the interview. Information about relevant local services was also provided to those who reported severe violent discipline and to those who expressed distress during the interview.

### RESULTS

#### Annual frequency of family violence toward children

The results show that shouting or yelling at the child was by far the most common form of psychological aggression experienced by children (76.4%) in 2012, followed by swearing or cursing at the child (34.6%). As shown in Table 2, minor physical violence was mainly expressed by the administration of slaps on the hand, arm or leg (26.2%) and spanks on the bottom (14.5%). These behaviours were repeatedly used (three times or more) with 7% and 3.5% of the children respectively. The occurrence of manifestations of severe physical violence was less than 2%, except for slaps to the child’s face, head or ears (2.8%).

#### Annual prevalence and co-occurrence of family violence toward children

As shown in Table 3, a large majority of mothers (80.2%) reported at least one episode of psychological aggression toward their child in 2012, but less than half (49%) reported its repeated use in the previous year. Minor and severe physical violence were reported with respectively 34.7% and 5.6% of the children during the same period. Co-occurrence of these practices (psychological aggression and minor physical violence), used as an indicator of a more coercive discipline, was experienced by 28.8% of the

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**Table 2.** Annual frequency of family violence toward children, 2012

<table>
<thead>
<tr>
<th>Psychological violence</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 times</td>
<td>3-5 times</td>
</tr>
<tr>
<td>Shouted, yelled or screamed at the child</td>
<td>33.4</td>
</tr>
<tr>
<td>Swore or cursed at the child</td>
<td>22.2</td>
</tr>
<tr>
<td>Said to the child that he/she would be sent away or be kicked out of the house</td>
<td>5.0</td>
</tr>
<tr>
<td>Threatened to spank or hit the child without doing it</td>
<td>10.1</td>
</tr>
<tr>
<td>Called the child “stupid” or “dumb” or some other name</td>
<td>15.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Minor physical violence</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 times</td>
<td>3-5 times</td>
</tr>
<tr>
<td>Shook the child (child under age 2)</td>
<td>8.9</td>
</tr>
<tr>
<td>Spanked on the bottom with bare hands</td>
<td>11.0</td>
</tr>
<tr>
<td>Slapped the child on the hand, arm or leg</td>
<td>19.2</td>
</tr>
<tr>
<td>Pinched the child</td>
<td>1.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Severe physical violence</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 times</td>
<td>3-5 times</td>
</tr>
<tr>
<td>Shook the child (child age 2 and older)</td>
<td>1.4</td>
</tr>
<tr>
<td>Hit the child on the bottom with a belt, a stick or other hard object</td>
<td>1.1</td>
</tr>
<tr>
<td>Punched or kicked the child</td>
<td>0.5</td>
</tr>
<tr>
<td>Grabbed around the neck and choked</td>
<td>0.2</td>
</tr>
<tr>
<td>Beat up the child, that is, hit him/her over and over</td>
<td>–</td>
</tr>
<tr>
<td>Hit the child on some other part of the body besides the bottom with a belt, a stick or other hard object</td>
<td>–</td>
</tr>
<tr>
<td>Threw or knocked down the child</td>
<td>0.4</td>
</tr>
<tr>
<td>Slapped the child in the face, or on the head or ears</td>
<td>2.8</td>
</tr>
</tbody>
</table>

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- Too small or unreportable.
- At least one form over a one-year period.
children. Four percent (4.2%) experienced all three forms of violence in 2012 (psychological aggression, minor and severe physical violence).

**Trends in family violence toward children**

Comparison of the prevalence rate of minor physical violence in the 2012 survey with rates obtained earlier shows that the significant downward trend observed between 1999 (47.7%) and 2004 (42.9%) continued in 2012 (34.7%). The results also show that the proportion of children who experienced repeated psychological aggression (three or more times in a year) was 49.1% in 2012, a non-significant deviation from the 1999 survey (48.1%) and a slightly significant decrease from 2004 (52.4%). The three surveys did not show significant differences in the occurrence of psychological aggression and severe physical violence since prevalence rates were fairly similar across the three surveys (Table 3). With regard to the co-occurrence of psychological aggression and minor physical violence, the results indicate a significant continuous decrease from 1999 to 2012. This is not true, however, for the co-occurrence of all three forms of violence (psychological aggression, minor physical and severe physical violence); there was a slight decrease from 1999 to 2012 but no difference between the last two surveys.

**Trends in family violence according to children’s age**

The results presented in Figure 1 show that annual prevalence rate of violence varied over time, depending on the age of the children. More specifically, psychological aggression significantly increased from 2004 to 2012 for children between 11 and 14 years old. Since 2004, these children had also more often been victims of repeated psychological aggression (54% and 55% in 2004 and 2012 respectively) as compared with 1999 (45.3%). For children aged 7 to 10 years, whose parents reported less repeated psychological aggression in 1999 (54.5%) and 2012 (54.8%) than in 2004 (61%).

Minor physical violence has been consistently decreasing since 1999 for almost all children, regardless of age. Rates remained
stable between 2004 (29.9%) and 2012 (25.9%) only for those aged 11 to 14 years old. Finally, although prevalence rates of severe physical violence seem to have decreased for 3- to 6-year-old children between 1999 (8.1%) and the last two surveys (3.9% in 2004 and 4.8% in 2012), analysis did not indicate a statistical difference. A larger sample would have helped detect a significant difference across time.

**DISCUSSION**

The results of the third Quebec survey on family violence indicates that 80.2% of mothers reported at least one form of psychological aggression toward children, and half of them (49.1%) reported its repeated use during a one-year period. Although we observed a significant increase between 1999 (48.1%) and 2004 (52.4%) in the repeated use of psychological aggression, the rate decreased slightly in the 2012 survey (49.1%). This is consistent with the results of Finkelhor et al., who observed a significant decrease in insults directed against children in their US population surveys conducted in 2003 and 2008. In the most recent Quebec survey, insults directed toward children (calling the child stupid or dumb or other similar names) and threatening to spank a child affected 22.3% and 15.5% of them respectively.

The recent decrease in psychological aggression is good news, but the results show that the frequency of shouts and curses directed toward children are still among the most prevalent behaviours, affecting respectively 76.4% and 34.6% of them. Compared with the previous survey, few changes are noted in this respect. Regarding the physical violence inflicted on children, the results show that over a third (34.7%) were subjected to some form of minor physical violence during a one-year period, such as being slapped on the hand, arm or leg (26.2%) or spanked on the bottom with a bare hand (14.5%). In general, these rates are similar to the ones reported in the most recent US24 and Canadian studies.27

In addition, there has been a continuous decrease over the last 13 years in annual prevalence rates of minor physical violence, decreasing from 47.7% in 1999 to 42.9% in 2004 and 34.7% in 2012. This result represents a significant decrease in the number of child victims. Measured at three time periods, the finding is likely the reflection of a real change in parental conduct involving corporal punishment in Quebec.28 Such a change is also observed on a national level in both Canada and the US.29,30

A number of hypotheses might explain the results. First, the findings might reveal a change in parental norms regarding the use of these still socially acceptable discipline strategies, since we also noticed a significant and constant decline in maternal and paternal attitudes in favour of these practices in Quebec.29,28 Changes in public attitudes have also been observed in countries where corporal punishment has been legally prohibited.31 Second, Quebec social policies (e.g., reduced-contribution program for child care) and universal prevention programs implemented to support parents (e.g., Services Intégrés en Périnatalité et Petite Enfance- SIPPE) may have also played a role in this decline. Recent research reports indicate that services, such as home visiting, directed at vulnerable families can improve child development.32,33 The decrease in the annual report of minor forms of violence, as well as in their co-occurrence, could also be associated with the socio-economic changes seen in Quebec’s population of families between 1999 and 2014. In fact, comparison of family characteristics in the three surveys shows major differences with respect to the mothers’ level of education, age at the time of the child’s birth, perceived income and employment status. All these characteristics are known to be risk factors for corporal punishment.5,27

The findings related to the significant decline in the use of minor violence are perplexing when it comes to severe physical violence. In fact, for over a decade the prevalence of severe physical violence has remained stable, and every year approximately 1 in 20 children suffer from these behaviours, such as being hit with a hard object or slapped on the face, head or ears. In Canada, the recent amendments to Section 43 of the Criminal Code, although they reaffirm the legality of the use of reasonable force in disciplining children, now ban behaviours such as hitting on the head or with a hard object.34 Moreover, these examples of severe corporal punishment are among those most often substantiated as child physical abuse to child protective services in Quebec and Canada.9,13 In general, this result is consistent with other surveys findings that severe physical violence has remained stable or slightly increased over the years.26

Regarding the age of the children, those from 11 to 14 years old were significantly more often victims of psychological aggression in 2012, either in its unique or repeated occurrence, as compared with 1999 and 2004. In contrast, we see that these children were less often victims of minor physical violence in 2004 and 2012 as compared with 1999. A similar pattern is found for children from 3 to 6 years old; they were more often the targets of repeated psychological aggression and slightly less often victims of severe physical violence from 2004 as compared with 1999. This result suggests that these two age groups are particularly challenging to parents, who appear to compensate for the non-use of physical violence by using verbal coercion as an alternative childrearing strategy. Such a result is consistent with Finkelhor’s studies,26,35 which found two developmental periods that seem to put children at particular risk of experiencing violence in their lives. These periods occur at the beginning of elementary school and high school (in other words, at 5 to 6 years old and at 11 to 12 years old for children in Quebec) and are transitional stages that involve new physical and social environments and new developmental challenges for children. As well, parents may be experiencing greater pressure, practising supervisory or disciplinary behaviours to foster academic success or limiting the autonomy of children experiencing a growing need for independence.26

Finally, this study indicates that the most severe situations, as measured by the co-occurrence of psychological aggression and minor and severe physical violence, remained relatively stable, although a slight decrease was observed between 1999 (5.6%) and 2012 (4.2%). These annual rates are more than 10 times higher than the rate of substantiated cases of child physical abuse in protective services in Quebec13 and in Canada.11 The co-occurrence of all three forms of violence strategies, which was found in all three surveys, supports the hypothesis of potential escalation in the severity of parenting practices used in situations of parent-child conflict. Accordingly, the use of psychological
aggression, rather than being stress-reducing, increases the use of more severe forms of violence against children. The escalation hypothesis is substantiated by research showing a strong association between parental use of minor forms of violence and the use of more severe forms.\(^3,23\) This result is not surprising, given the recent statistics showing a slight increase in reports of child physical abuse to Child Protective Services.\(^3\) Along with previous results regarding the stability observed over the years in severe violence, this reflects a collective failure to reach out and help these Quebec families, whose educational strategies are characterized by violence. Past analyses using survey data from 1999 and 2004 also show that these families’ profiles are distinctive with respect to more difficult living conditions.\(^36\)

Therefore, they require special attention from politicians, managers and stakeholders, especially since no change has been observed in these situations compared with less severe ones.

**Limitations**

There are some limitations to the present study. First, it is important to note that in all three surveys, the violence toward children that was reported could have been committed by any adult living in the household, even though the respondents were mother figures, there was no distinction made between them being the actual child aggressor or simply a witness to a violent event. Second, reports of past practices, even when as recent as last year, may have been subject to memory biases. Last, the mothers’ responses to this kind of survey are inevitably subject to the bias of social desirability, in spite of the precautions that we took during the study to diminish its impact (e.g., confidential call, questions asked about all adults in the household, questions asked about parental practices rather than about violence).

**CONCLUSION**

In sum, the results of this study are encouraging in light of the decrease in minor forms of violence in the past decade. However, they stress the importance of supporting parents of children age 3–6 years and 11–14 years, at ages which periods of school transition occur, whether in kindergarten, or the first year of elementary or high school. These periods might be particularly difficult for parents and deserve special attention. If psychological aggression is used instead of physical violence, as suggested by the results of this study and those of a previous one,\(^19\) it is important to teach parents alternative positive discipline strategies. Moreover, the fact that severe violence had remained stable in Quebec for the 13 years is disturbing, especially as the risk with respect to families’ socio-demographic profile has declined over the years. This prompts concerns about the ability of social services to reach the most vulnerable and the effectiveness of family policies to help parents in their role.

Parenting programs should be offered from a public health perspective so that parents can be reached according to their level of risk. Positive Parenting Program (Triple-P) is a good example of such a multi-level, evidence-based strategy that can reduce child maltreatment and improve positive parental discipline.\(^37,38\) Such a strategy is being implemented in Quebec in two local community service centres by the Chair in Child Maltreatment Prevention, and its implementation and effects are currently being assessed by a team of researchers.

**REFERENCES**


prévalence et tendances de la violence à l’égard des enfants

OBJECTIFS : Au Québec, trois enquêtes populationnelles ont permis de documenter la prévalence de la violence familiale. Cet article vise à présenter : 1) les résultats de la dernière enquête en regard de la fréquence et des taux de prévalence annuelle de la violence; et 2) l’évolution de la violence physique et psychologique envers les enfants entre 1999 et 2012 selon l’âge des enfants.


RÉSULTATS : Les résultats montrent que l’agression psychologique répétée, après avoir connu une hausse entre 1999 (48 %) et 2004 (53 %), diminue légèrement en 2012 (49 %). La violence physique mineure a baissé de manière constante entre 1999 et 2012, passant de 48 % à 35 % alors que la violence physique sévère est demeurée stable (6 %). Ces trois formes de violence varient selon les catégories d’âge des enfants. Enfin, les résultats montrent que la cooccurrence de la violence physique et psychologique demeure élevée dans les trois enquêtes.

CONCLUSION : Les résultats rejoignent les tendances observées en Amérique du nord et sont discutés en termes de services d’aide aux familles.

MOTS CLÉS : prévalence; évolution; violence physique; agression psychologique; enfants