

I can do it, mommy!



Maternal self-efficacy and reactive coercive behaviours from infancy to toddlerhood

by Tamarha Pierce¹

About QLSCD

This fascicle presents results based on data collected on an initial representative sample of 2,120 children followed annually within the first phase of the Québec Longitudinal Study of Child Development (QLSCD 1998-2002). For the first four rounds, children were aged approximately 5 months, 1½ years, 2½ years and 3½ years. In 2002, the timing of data collection has been modified in order to account for the evaluation that is being done when they enter the school system. The children were then visited in the spring and were around 4 years old.

The target population is made of all children (singleton births only) born to mothers residing in Québec in 1997-1998, who in 2002 had not move out of the province permanently. Children whose mothers were living in the administrative regions (as defined by the Health and Social Services Ministry) 10, (Northern Québec), 17 and 18 (Cree and Inuit territories) or in Indian reserves were excluded from the initial sample.

QLSCD can rely on many instruments of data collection to gather information on the most knowledgeable person about the child (PMK), her/his spouse/partner, the target child and the non residential biological parents if it applies. All data presented in this paper have been weighted and unless indicated otherwise, all differences presented in this paper are statistically significant to a threshold of 0.01 ($p < 0.01$) unless indicated otherwise.

Let us recall that the main objective of QLSCD 1998-2002 is to identify the precursors of children's social adaptation and school adjustment when they enter the educational system. QLSCD is the first longitudinal survey to gather information on young children's health, behaviour and many other aspects of their life at the provincial level.

If early childhood is an important period of development and learning for children, the same is true for their parents. In fact, to continue meeting the needs of their children as they rapidly acquire new skills — motor skills as well as verbal, cognitive, emotional, and social skills — parents must continually develop their repertoire of skills.² As their babies become active toddlers, parents have to adopt new strategies for comforting, stimulating, supervising, and disciplining them.

The perception that parents have of their ability to perform the tasks associated with the parental role (i.e., their self-efficacy) can influence the way they behave toward their children (i.e., the quality of their parental interventions).³ For example, the more effective a mother feels, the more she will be inclined to be sensitive to the needs her child expresses and to respond in positive and caring ways.⁴ Conversely, the less effective a mother feels, the more likely she is to react in coercive, hostile, or aggressive ways when her child's behaviour becomes difficult.⁵ Since parental behaviours can be conducive to behaviour problems or aggressivity in children, it seems important to turn our attention to changes in parents' perceptions and behaviours as their children grow up.⁶

Even though, generally speaking, parental perceptions and behaviours have been found to be related,⁷ the evolution and the changing nature of self-efficacy and coercive parental behaviours toward young children remain poorly documented. Although some recent studies have examined how maternal self-efficacy changes over time, they focussed either on the first year of childhood⁸ or only from age one on.⁹ Likewise, studies dealing with coerciveness or mothers who behave coercively toward their children have not examined the changes that take place during early childhood.¹⁰ The data collected in the Québec Longitudinal Study of Child Development (QLSCD 1998-2002) make it possible to study how maternal self-efficacy and reactive coercive behaviours changed over time as children matured from babies to toddlers (see box for a description of the measures used).

Boivin and colleagues have described the changes that parents of the QLSCD children experienced in their self-efficacy and their reactive coercive behaviours.¹¹ They produced an initial portrait of the trajectories for reactive coercive behaviours among these parents, as well as a general profile of the parenting characteristics associated with the different trajectories taken. This fascicle continues the trajectory analysis begun by Boivin and colleagues in order to study the interrelationships between maternal self-efficacy and reactive coercive behaviours among mothers. It will also identify the factors associated with various trajectories by taking into account the sociodemographic characteristics of mothers, children, families, and spouses.

Measures of self-efficacy and reactive coerciveness

Parental self-efficacy and reactive coerciveness were assessed using subscales from the Parental Perceptions and Behaviours Regarding the Infant/Child Scale (PPBS).¹² The PPBS was administered to mothers and fathers when children were 5, 17, and 29 months old. The analyses presented in this fascicle deal only with mothers. Mothers evaluated their perceptions of self-efficacy by indicating to what extent they felt they were good at keeping their babies amused, attracting their attention, keeping them busy while the mothers did other things, and calming them down when they were upset, fussy, or crying. Mothers also reported their tendency to adopt reactive coercive behaviours (i.e., in reaction to the problem behaviours of their children) by indicating how often they spanked their babies, got angry with them, or raised their voices or shouted at them when they were being particularly fussy.

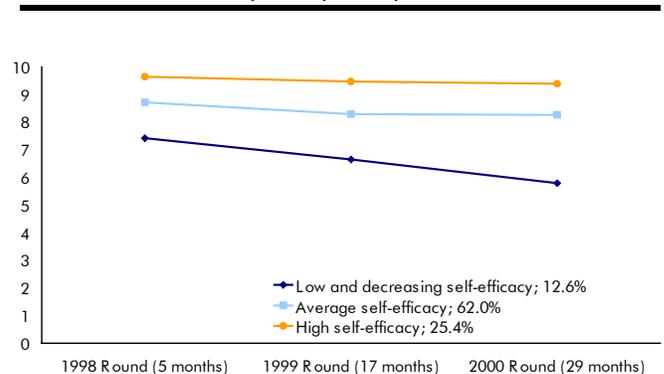
Self-efficacy and reactive coerciveness: The different approaches mothers take

▪ Self-efficacy

As reported by Boivin and colleagues, maternal self-efficacy was, on the whole, very high when children were 5 months old.¹³ It fell slightly between ages 5 and 17 months and then levelled out from 17 to 29 months.

To account for the diversity of mothers' experiences over time, we have employed an approach that allowed classifying them according to specific trajectories.¹⁴ Three trajectories were identified this way (see Figure 1). The largest one, the central trajectory, includes more than half the mothers (62%). It represents those mothers whose self-efficacy, which had been high at age 5 months (near the scale maximum), declined slightly as their children grew older (hereafter referred to as the "trajectory of average self-efficacy"). The second trajectory, characterized by high self-efficacy throughout the period studied, was followed by 25% of the mothers (hereafter referred to as the "trajectory of high self-efficacy"). This trajectory takes in those mothers whose self-efficacy was at the top of the scale from 5 to 29 months, despite a slight dip during this period. Finally, the mothers portrayed by the third trajectory differed from the others by their lower self-efficacy, despite the fact that their average score at 5 months was located three quarters from the top of the scale (hereafter referred to as the "trajectory of low and decreasing self-efficacy"). This trajectory, characterized by a pronounced decline in self-efficacy as the child aged, was followed by 13% of mothers.

Figure 1
Evolution of maternal self-efficacy
Québec, 1998, 1999, and 2000



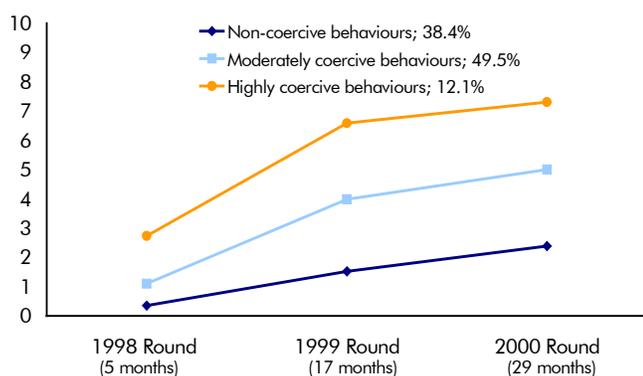
Source : Institut de la statistique du Québec, QLSCD 1998-2002.

▪ **Reactive coercive behaviours**

Reactive coercive behaviours in mothers were rare when their children were still only infants, but increased as their children got older. According to Boivin and colleagues, the most pronounced rise took place between 5 and 17 months and continued from 17 to 29 months.¹⁵ For reactive coerciveness, as indeed for self-efficacy, the main period of change was between 5 and 17 months; this period coincides with the ages when children show significant development in their motor skills (i.e., crawling, climbing, and walking), as well as the emergence of language and growing urges for autonomy among the majority.

Analyses of coercive behaviours in reaction to problem behaviours in children have identified, here too, three trajectories (see Figure 2). The trajectory with the largest number of mothers (50%) includes those who, although not very coercive at 5 months, showed pronounced increases throughout the period studied, without however reaching very high levels of coerciveness (near the middle of the scale; hereafter referred to as "trajectories of moderately coercive behaviours"). The second most common trajectory included mothers with very low levels of coerciveness (38%) and who, compared to the preceding group, showed only negligible increases between 5 and 29 months (hereafter referred to as "trajectories of non-coercive behaviours"). The last trajectory is composed of mothers with high levels of reactive coercive behaviours (hereafter referred to as "trajectories of highly coercive behaviours") when their children were 5 months old. The levels of reactive coercive behaviours for these mothers constantly increased until their children reached 29 months of age (near the uppermost quartile of the scale). This trajectory for high reactive coerciveness can be seen to characterize the course taken by about 12% of mothers, a group at risk for adopting parenting behaviours that are potentially harmful for the well-being and development of their children.

Figure 2
**Evolution of maternal reactive coercive behaviours
Québec, 1998, 1999, and 2000**



Source : Institut de la statistique du Québec, QLSCD 1998-2002.

*Self-efficacy and reactive coercive behaviours among mothers:
Do they converge?*

Do mothers with low and decreasing self-efficacy tend to adopt more coercive behaviours, and do those with very high self-efficacy throughout the period studied tend to be less coercive when dealing with difficult child behaviours? In other words, do the trajectories mothers follow for self-efficacy and for reactive coercive behaviours converge? To answer these questions, we have repeated our analysis of reactive coerciveness trajectories, this time taking self-efficacy into consideration.¹⁶

The results presented in Table 1 show that mothers with high self-efficacy were not necessarily non-coercive, even if they were 1.51 times more likely to be so when compared with all mothers. Likewise, mothers with low and decreasing self-efficacy were not necessarily coercive mothers, although they were 1.84 times more likely to be so than mothers taken as a whole.

Table 1
Proportion of mothers in each coerciveness trajectory by their self-efficacy trajectory, Québec, 1998, 1999, and 2000

Reactive coerciveness trajectory	Self-efficacy trajectory			All mothers
	Low and decreasing	Average	High	
%				
Low	21.6	29.1	52.0	34.4
Average	52.7	56.8	39.6	51.6
High	25.7	14.1	8.4	14.0
All mothers	100.0	100.0	100.0	100.0

Source : Institut de la statistique du Québec, QLSCD 1998-2002.

The analyses also reveal that, whereas nearly a third of mothers were classified as having high self-efficacy or as being non-coercive, only 17% of them were reported to have high self-efficacy and to be non-coercive at the same time between 5 and 29 months (data not shown). In the same way, despite the fact that nearly a tenth of mothers had low and decreasing self-efficacy or were considered coercive, only 3.1% of them were reported to have simultaneous major problems with self-efficacy and reactive coerciveness (data not shown). In short, although a very clear association existed between trajectories of maternal reactive coerciveness and self-efficacy, the two were not equivalent.

Factors associated with maternal self-efficacy and reactive coercive behaviours

In the analyses below, we have tried to identify the factors associated with non-normative trajectories (i.e., mothers with high self-efficacy or low and decreasing self-efficacy throughout the period of the study, as well as mothers with coercive or non-coercive behaviours). Selected data collected when the children were 5 months old, 17 months old, and 29 months old are presented in Table 2. Some of these data measure factors that may reflect parental or family contexts that are more difficult for mothers of young children. For example, various factors may contribute to isolating mothers (being at home, being single parents or immigrants), whereas others may reveal relationship difficulties (antagonistic relationships and weak support from friends and relatives) or personal difficulties (depression or job dissatisfaction). Still other data measure factors that may contribute to high levels of maternal stress (e.g., holding a full-time job very soon after giving birth [5 months], inadequate family income, children with difficult temperaments, or perceived work overloads).¹⁷

▪ Sociodemographic factors

An analysis of sociodemographic factors shows that certain variables were associated with changes in self-efficacy and coercive behaviours that the trajectories for the mothers describes. For example, mothers of low-income families who had not completed secondary school tended to report high maternal self-efficacy more often (data not shown). This result could be explained by a tendency among economically disadvantaged mothers to see themselves as being very effective when facing situations generally considered more difficult. The age of mothers was also associated with the trajectories, since older mothers were more prone to follow non-coercive trajectories (data not shown).¹⁸ They would thus be less disposed to react in coercive ways when their children were being difficult.

It should be noted that child birth rank, type of family, changes in family situation, and employment after giving birth did not seem to explain membership in various trajectories of self-efficacy or non-normative reactive coercive behaviours.

Table 2

Selected measures used to identify mothers by trajectory

Sociodemographic variables

- Age of mother at time of 1998 round
- Birth rank of child
- Immigrant status of mother
- Low-income status of family (where family income was sometimes or always inadequate between 5 and 29 months, based on low-income threshold set by Statistics Canada)
- Low educational attainment of mother (no secondary-school degree)
- Family type from 5 to 29 months (stable two-parent, unstable two-parent, stable single-parent)
- Type of job held by mother before or at birth of child (unskilled worker, office worker, technician, manager/executive, professional, or unemployed)
- Absence of paid employment for mother in the 29 months following birth
- Full-time employment of mother or her full-time enrolment as student without interruption from 5 to 17 months

Variables related to the well-being of mothers

- Symptoms of depression in mother at 5 and 17 months
- Perception of excessive daily workload at 17 months (whether running all day long, not having enough time, or feeling burned out)
- Satisfaction/dissatisfaction with work at 17 months (for mothers holding paid employment)
- Perception by mother that child has difficult temperament at 5 and 17 months
- Degree of family dysfunction at 5 and 17 months (communication, emotional support)

Relationship variables (for the subgroup of mothers with spouses)

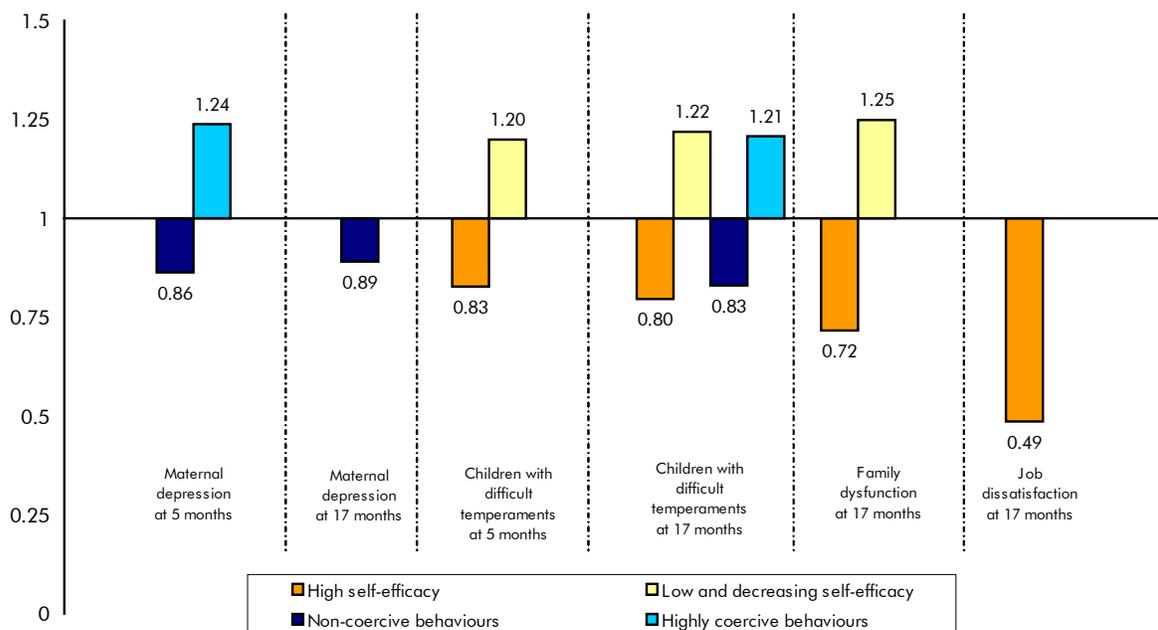
- Perceived support by spouse at 5 months (emotional support)
- Perceived happiness as a couple at 17 months
- Father's involvement in domestic chores and child care at 17 months

Source : Institut de la statistique du Québec, QLSCD 1998-2002.

▪ Maternal well-being and children with difficult temperaments

Some variables related to maternal well-being, as well as to the perception that children (between 5 and 17 months) had difficult temperaments, were associated, to varying degrees, with self-efficacy and reactive coercive behaviour by mothers. For example, the more mothers reported depressive symptoms when their children were 5 months old, the more likely it was that they would follow the reactive coercive behaviour trajectory. Conversely, the less mothers reported depressive symptoms when children were 5 or 17 months old, the more they were inclined to behave non-coercively (see Figure 3). Similarly, the perception that children had difficult temperaments at 17 months was associated with high degrees of reactive coercive behaviours, whereas considering them as easy was associated with non-coercive behaviours.

Figure 3
Factors associated with trajectories of maternal self-efficacy and reactive coerciveness
Québec, 1998, 1999, and 2000



Source : Institut de la statistique du Québec, QLSCD 1998-2002.

Although depression in mothers may exert an effect on reactive coercive behaviours, it was not significantly associated with trajectories reflecting changes in self-efficacy. The perception of difficult temperaments in children, by contrast, was clearly associated with self-efficacy trajectories. The more mothers perceived their children as difficult at 5 and 17 months, the greater the chances they would follow a low and decreasing self-efficacy trajectory. Conversely, perceiving children as having easy temperaments when they were 5 and 17 months old was associated with high self-efficacy. Job satisfaction, another indicator of maternal well-being, was also associated with self-efficacy; mothers who were dissatisfied with their jobs when their children were 17 months old were less inclined to report high self-efficacy.

Coercive mothers were thus among the ones who experienced the most depressive symptoms at 5 months or who, later, perceived their children as difficult.¹⁹

▪ Family functioning

Reporting harmonious and supportive relationships with their family members, when children were 5 months old, was associated with high self-efficacy among mothers having at least a secondary-school diploma (data not shown). Mothers not having such a diploma were more likely to follow this trajectory regardless of the quality of their family relationships. At 17 months, good family functioning was significantly associated with high self-efficacy, with or without a diploma.

Conversely, family relationships that were antagonistic and unsupportive when children were 17 months old were associated with a trajectory of low and decreasing self-efficacy. The quality of family relationships that mothers had, however, did not seem to be significantly associated with reactive coerciveness trajectories (see Figure 3).

▪ Spouses

Additional analyses were performed to account for the specific role that emotional support, conjugal happiness, and involvement of the father in parenting and domestic duties played.²⁰ To do this, we selected only those mothers who were in relationships when their children were 5 and 17 months old. The results indicate that greater involvement by spouses at 17 months was significantly associated with a trajectory of high levels of reactive coercive behaviours. Involvement by the father also tended to be greater among mothers on the trajectory for low and decreasing self-efficacy (data not shown).²¹ It could well be that greater participation by spouses in childcare occurred in reaction to difficulties that mothers experienced with their parenting role, especially given situations that could be rather difficult (children perceived as having difficult temperaments and mothers presenting symptoms of depression).

When children were 17 months old, mothers having non-coercive behaviours tended to report higher levels of conjugal happiness.²² Higher levels of conjugal happiness at 17 months were also found to be significantly associated with the high-self-efficacy trajectory. Mothers who were in relationships and were on the high-self-efficacy trajectory were also found, at 17 months, to have spouses who tended to be less involved in childcare and domestic chores if they also had not been very emotionally supportive when children were 5 months old (data not shown). In other words, feeling happy with one's spouse was associated with high maternal self-efficacy, but spouses of these women could at the same time be rather uninvolved when it came to caring for children.

Concluding Remarks

The QLSCD is the first longitudinal study to describe the simultaneous evolution of parental self-efficacy and reactive coerciveness during the first 29 months in children's lives. The analyses done on its data show that for the vast majority of mothers, the self-efficacy they felt was quite stable throughout the period under study, whereas a low proportion of them had low and decreasing self-efficacy.

Analyses dealing with coerciveness in reaction to problem behaviours in children revealed a significant rise in this type of behaviour among the majority of mothers. The noteworthy increase seen when children went from 5 to 17 months of age coincided with the emergence of mobility, language, and a need for autonomy among children. Consistent with other work, our analyses suggest that reactive coerciveness among mothers was modestly related to their perceptions of self-efficacy.²³

Dealing with children who have difficult temperaments clearly appears to be an integral part of the maternal experience, affecting both self-efficacy and reactive coercive behaviours. The more mothers perceived their children as difficult, the less they experienced self-efficacy and the more they reported acting in coercive ways in reaction to these problem behaviours.

Family functioning was also related to a variety of experiences mothers had. For example, mothers who felt very effective appeared more likely to live in functional family environments, whereas those with low and decreasing self-efficacy tended to live in family settings prone to conflicts.

Family functioning had a less significant impact on coercive behaviours than did symptoms of depression in mothers. In fact, the more depressive symptoms mothers presented when their children were only infants, the more they were at risk of adopting coercive behaviours when dealing with their

problem behaviours. Still, the fact that family dysfunction was associated with a higher frequency of depressive symptoms in mothers suggests that antagonistic relationships were indirectly related to higher levels of reactive coerciveness for them.

These findings indicate how important intervening in maternal depression and family dysfunction can be to the welfare of children during early childhood. Strategies that prevent depression in mothers and promote harmony in family settings should act to enhance the experience of motherhood and curb the use of coercive behaviours in reaction to problem behaviours in children.

On the whole, most of the variables examined explained fairly well the factors associated with robust self-efficacy and non-coercive behaviour among mothers. But the variables measuring maternal isolation and stress offered only very modest explanations of the determinants and dynamics of low and decreasing self-efficacy and reactive coercive behaviours.

Other factors, not included in these analyses, could perhaps explain the low and decreasing self-efficacy that some mothers experienced, such as the extent to which mothers understand child development, their expectations of motherhood, and their relationships with their own parents during childhood or since the birth of their own children. These dimensions should also be taken into account when analyzing the factors associated with reactive coercive behaviours. To these should be added prior incidents of hostility or violence in mothers, their ability to manage their emotions, and the frequency with which they react coercively when dealing with conflicts or annoyances with family members, especially spouses. Finally, maternal self-esteem, anxiety, and pessimism should also be considered.

Boivin and colleagues studied the convergence of reactive coercive behaviours in relationships and showed that it was relatively low.²⁴ It will be interesting to verify whether the self-efficacy trajectories for fathers resemble those of mothers and to what extent these trajectories converge in relationships. Preliminary analyses suggest complex associations among self-efficacy and reactive coerciveness in mothers and the same variables in fathers. For example, it seems that fathers who are perceived as being very supportive and whose spouses feel very effective as mothers perceive themselves as not being very effective with their children when they are less involved than mothers in caring for them. It will be interesting to examine to what extent strong self-efficacy among mothers fosters family dynamics that limit the opportunities fathers have to become involved with their children and, as a result, their abilities to develop high self-efficacy.

Other preliminary analyses of reactive coerciveness suggest, moreover, that the spouses of very coercive mothers tend to take up similar behaviours in reaction to problem behaviours in their children. By contrast, when they are not themselves very coercive, fathers with very coercive spouses seem more involved in caring for their children and in performing domestic chores. It will be interesting to study what sort of compensating effects fathers who are non-coercive have on mothers who respond very coercively to problem behaviours in their children.

Notes

1. Tamarha Pierce is a professor in the School of Psychology at Laval University. The research findings presented in this fascicle were made possible by a grant from the Fond québécois de la recherche sur la société et la culture (FQRSC).
2. See K. R. BARNARD and J. E. SOLCHANY (2002). "Mothering", in M. H. BORNSTEIN (ed.), *Handbook of Parenting* (2nd edition, Volume 3), Mahwah, (N.J.), Lawrence Earlbaum Associates, p. 3-25.
3. See A. BANDURA (1989). "Social cognitive theory", *Annals of Child Development*, No. 6, p. 1-60.
4. See B. CONRAD, D. GROSS, L. FOGG and P. RUCHALA (1992). "Maternal confidence, knowledge and quality of mother-toddler interactions: A preliminary study", *Infant Mental Health Journal*, Vol. 13, No. 4, p. 353-362.
5. See E. M. BONDY and E. J. MASH (1999). "Parenting efficacy, perceived control over caregiving failure, and mothers' reactions to preschool children's misbehavior", *Child Study Journal*, Vol. 29, No. 2, p. 157-273.
6. See C. H. HART, D. A. NELSON, C. C. ROBINSON, S. F. OLSEN and M. K. MCNEILLY CHOQUE (1998). "Overt and relational aggression in Russian nursery-school-age children: Parenting style and marital linkages", *Developmental Psychology*, Vol. 34, No. 4, p. 687-797; J. F. MARCHAND, E. HOCK and K. WIDAMAN (2002). "Mutual relations between mothers' depressive symptoms and hostile-controlling behavior and young children's externalizing and internalizing behavior problems", *Parenting: Science and Practice*, Vol. 2, No. 4, p. 335-353; J. MORRELL and L. MURRAY (2003). "Parenting and the development of conduct disorder and hyperactive symptoms in childhood: A prospective longitudinal study from 2 months to 8 years", *Journal of Child Psychology and Psychiatry and Allied Disciplines*, Vol. 44, No. 4, p. 489-508.
7. See D. M. TETI and D. M. GELFAND (1991). "Behavioral competence among mothers of infants in the first year: The mediational role of maternal self-efficacy", *Child Development*, Vol. 62, No. 5, p. 918-929.
8. See D. B. HUDSON, S. M. ELEK and M. O. FLECK (2001). "First-time mothers' and fathers' transition to parenthood: Infant care self-efficacy, parenting satisfaction and infant sex", *Issues in Comprehensive Pediatric Nursing*, Vol. 24, No. 1, p. 31-43; D. G. KNAUTH (2000). "Predictor of parental sense of competence for the couple during the transition to parenthood", *Research in Nursing and Health*, Vol. 23, No. 6, p. 496-509.
9. See D. GROSS, B. CONRAD, L. FOGG and W. WOTHKE (1994). "A longitudinal model of maternal self-efficacy, depression, and difficult temperament during toddlerhood", *Research in Nursing and Health*, Vol. 17, No. 3, p. 207-215.
10. See R. D. CONGER and K. J. CONGER (2002). "Resilience in Midwestern families: Selected findings from the first decade of a prospective, longitudinal study", *Journal of Marriage and Family*, Vol. 64, No. 2, p. 361-373.
11. See M. BOIVIN, I. MORIN-OUELLET, N. LEBLANC, G. DIONNE, É. FRENETTE, D. PÉRUSSE and R. E. TREMBLAY (2002). "Evolution of Parental Perceptions and Behaviours" in *Québec Longitudinal Study of Child Development (QLSCD 1998-2002) – From Birth to 29 Months*, Québec, Institut de la statistique du Québec, Vol. 2, No. 9.
12. For a detailed description of these measures, see M. BOIVIN et al., *ibid.*; J. THIBAUT, M. JETTÉ and H. DESROSIERS (2001). "Concepts, Definitions and Operational Aspects, Part I – Design of Phase I of ÉLDEQ, Instruments and Procedures" in *Longitudinal Study of Child Development in Québec (QLSCD 1998-2002)*, Québec, Institut de la statistique du Québec, Vol. 1, No. 12.
13. See M. BOIVIN et al., *op.cit.*
14. See D. NAGIN (1999). "Analysing developmental trajectories: A semi-parametric, group-based approach", *Psychological Methods*, Vol. 4, No. 2, p. 39-177; B. L. JONES, D. S. NAGIN and K. ROEDER (2001). "A SAS Procedure Based on Mixtures Models for Estimated Developmental Trajectories", *Sociological Methods and Research*, Vol. 29. We would particularly like to thank B. L. Jones for his invaluable advice concerning the use of this statistical procedure.
15. See M. BOIVIN et al., *op.cit.*
16. This analysis is based on a combined-trajectories procedure for doing simultaneous analysis of correlated measures as proposed by D. NAGIN and R. E. TREMBLAY (2001). "Analysing developmental trajectories of distinct but related behaviors: A group-based method", *Psychological Methods*, Vol. 6, No. 1, p. 18-34. The resulting trajectories were essentially the same as those presented in figures 1 and 2, with low variation in the estimation of the percentage of mothers belonging to each trajectory.
17. Analyses were performed with a logistical regression model. This model allows measuring the net effect of various variables on the likelihood of belonging to any of the four trajectories under study. Since the design effect of the survey could not be taken into account, only variables with significance levels less than or equal to 0.01 have been presented.
18. The age of the mother at the time of the first round of the QLSCD (1998) (i.e., when the children were 5 months old).
19. It should be noted that having these perceptions of children at 17 months of age was also associated with coercive behaviours, unless high levels of depression at 5 months had already predisposed mothers to follow this trajectory.
20. Support from spouses was defined as the emotional support that mothers perceived they were getting from their spouses (as measured when children were 5 months old).
21. In this case, we may speak of a tendency since the level of significance associated with this variable was between 0.05 and 0.01.
22. The level of significance for the variable "conjugal happiness" was also between 0.05 and 0.01.
23. See E. M. BONDY and E. J. MASH, *op.cit.*; D. M. TETI and D. M. GELFAND, *op.cit.*
24. See M. BOIVIN et al., *op.cit.*

The Québec Longitudinal Study of Child Development (QLSCD 1998-2002) – From Birth to 4 Years Old is supervised by:

Bertrand Perron, Coordinator
Richard E. Tremblay, Scientific Director

This fascicle as well as the content of reports on the Québec Longitudinal Study of Child Development (QLSCD 1998-2002) are available on Internet (www.stat.gouv.qc.ca). To access the published analyses one may click on "Publications" and reach the heading "Society - Health".

To reach the coordinator or the authors of the study the phone numbers are: (514) 873-4749 or at 1 877 677-2087 (toll free).

Citation suggested: PIERCE, Tamarha (2004). "I can do it, mommy! Maternal self-efficacy and reactive coercive behaviours from infancy to toddlerhood", in *Québec Longitudinal Study of Child Development (QLSCD 1998-2002) – From Birth to 4 Years Old*, Québec, Institut de la statistique du Québec, Vol. 3, Fascicle 3.

With the collaboration of: Ghyslaine Neill and Hadi Eid, Direction Santé Québec, ISQ

This fascicle, translated in English by Robert Sullivan, is also available in French under the title « Je suis capable tout seul! Sentiment d'efficacité et conduites coercitives réactives chez les mères de nourrissons devenus bambins », dans : *Étude longitudinale du développement des enfants du Québec (ÉLDEQ 1998-2002) – De la naissance à 4 ans*, Québec, Institut de la statistique du Québec, vol. 3, fascicule 3.

The partners and/or the sponsors of QLSCD 1998-2002 are :

Ministère de la Santé et des Services sociaux du Québec (MSSS) / Québec Ministry of Health and Social Services
Institut national de santé publique du Québec (INSPQ) / Québec National Institute of Public Health
Ministère de l'Emploi, de la Solidarité sociale et de la Famille (MESSF) / Ministry of Employment, Social Solidarity and the Family
Canadian Institutes of Health Research (CIHR)
Social Sciences and Humanities Research Council of Canada (SSHRC)
Fonds québécois de la recherche sur la société et la culture (FQRSC) / Québec Fund for Research on Society and Culture
Fonds québécois de la recherche sur la nature et les technologies (FQRNT) / Québec Fund for Research on Nature and Technology
Fonds de la recherche en santé du Québec (FRSQ) / Québec Health Research Fund
Molson Foundation
Ministère du Développement économique et régional et de la Recherche (MDERR), Valorisation recherche Québec (VRQ) /
Ministry of Economic and Regional Development and Research
Human Resources of Canada (HRDC)
Canadian Institute for Advanced Research (CIAR)
Health Canada
National Science Foundation (NSF of USA)
Université de Montréal
Université Laval
McGill University

© Gouvernement du Québec