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QUÉBEC LONGITUDINAL STUDY
OF CHILD DEVELOPMENT
(QLSCD 1998-2002)

FROM BIRTH TO 29 MONTHS

COLLECTION
Health and
Wellness

The Couple

Volume 2, Number 11

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May 2002

Foreword

The publication of this second volume of the QLSCD 1998-2002 series is the result of close collaboration among university researchers, the public health network and the *Direction Santé Québec*¹ (Health Québec Division) of the *Institut de la statistique du Québec* – ISQ (Québec Institute of Statistics), who have been working on this project since 1996.

Two years after the publication of Volume 1 in this series, an interdisciplinary group of more than 80 researchers contributed to producing this second volume, which presents the very first longitudinal results of our survey. These much-anticipated results describe the environment and development of the children based on the first three data collections conducted when they were 5, 17 and 29 months of age. To fully comprehend the importance of these data on early childhood, I would like to remind the reader of the primary goal of the Québec Longitudinal Study of Child Development 1998-2002 as stated in Volume 1 of this series. The QLSCD will help gain a better understanding of the PRECURSORS of social adjustment by first studying adjustment to school, identifying adjustment PATHS and PROCESSES, and examining the CONSEQUENCES of these later in life.

By analyzing data from the first three years of the survey, the ISQ is pleased to be associated with the development of a such powerful survey and research instrument, and particularly with the accomplishment of a study that will serve both as a preventive tool and an aid in the design of effective early interventions. As Director General, I cannot help but take great pride in the model of partnership which has produced such impressive results, many of which may indeed be harbingers of the future.

Yvon Fortin
Director General

1. Certain French appellation in italics in the text do not have official English translations. The first time one of these appears, the unofficial English translation is shown immediately after it. Following this, for ease in reading, only the official French name appears in the text in italics and it is suggested the reader refer to the Glossary for the English translation.

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**A Word of Caution, Symbols and Abbreviations can be found in Section
"Review of the Methodology and Caution"**

Acknowledgements

Given that the QLSCD 1998-2002 has been in existence for more than six years, the task of thanking each person who has collaborated on the project seems daunting, and frankly, nearly impossible. Each year new colleagues join those who have been with us from the very beginning, and they in turn have faced innumerable logistical and methodological challenges, whether in terms of the contents of the survey or navigating their way through a world of knowledge which is in a state of constant progress.

Indeed, the network of university researchers associated with the QLSCD now stretches across Québec to include the rest of Canada and beyond our nation's borders. Hence the wealth of data from this survey is being disseminated through a variety of channels, whether in post-doctoral work being pursued by young researchers outside of Québec, or the multiplier effect of seasoned veterans constantly establishing new international working relationships in this era of the globalization of knowledge. This multiplication of partnerships is closely linked to the exceptional leadership shown by the scientific director of the QLSCD. In addition to contributing to the advance of knowledge, our "conglomerate" of research teams has resulted in the injection of significant funds devoted to analyzing the wealth of data being generated. Indeed, the pooling of research funds obtained through the excellence of the scholars involved has maximized the investment in the QLSCD 1998-2002 by the *ministère de la Santé et des Services sociaux*, sole sponsor of the project's 10 data collections, surveys and pretests.

New partners in our public health network are constantly joining this ever-expanding group of researchers. Increasing numbers of health professionals are becoming actively involved in the QLSCD, coming from the *ministère de la Famille et de l'Enfance* (Ministry of Family and Child Welfare), the education network, etc.

The increase in the number of external experts and growing complexity of this first provincial longitudinal study has led to more ISQ staff devoting their time, in

whole or in part, to the QLSCD. New statisticians from the *Direction de la méthodologie et des enquêtes spéciales – DMES* are now associated with the survey. Their tasks include addressing all questions related to the sample design, analyzing the results of the annual data collections in terms of response rates, and producing the weights required to infer the results to the population of children targeted by this large-scale survey. They also provided support to QLSCD researchers in conducting statistical analyses published in this report. With regards to the *Direction Santé Québec (DSQ)*, chief architect of the QLSCD, it was necessary to hire two people experienced in longitudinal analyses to consolidate the rather small team who have been overseeing the surveys year after year, with all the intense concentration of energy this implies. By coordinating the work of numerous partners, developing new tools and instruments to understand the real world of the growing child, closely collaborating with the survey firm collecting the data, and participating in the dissemination of knowledge by publishing original analyses, the seven members of the *Direction Santé Québec* QLSCD team have accomplished their mission with remarkable success.

Over the years, another partnership that continues to flourish is the one we have with the coordinators of the National Longitudinal Study of Children and Youth (NLSCY, Canada). The fact that these pioneers allowed the QLSCD to use certain instruments administered by the CAPI (Computer Assisted Personal Interview) has meant that our Québec longitudinal study is complementary and comparable to this large-scale Canadian study, and at a reasonable cost.

Québec hospitals, who continually face many challenges because of increasing demands for efficiency, are also important partners in our study, as are birthing centres. They manage to weather whatever storms they face by continuing each year to provide certain data from the medical records of the mothers and children. These data are sent to us with the strict proviso that the mothers have furnished prior written consent.

The *Bureau d'interviewers professionnels (BIP)*, the survey firm, continues to be an indispensable partner in arranging and conducting this first large-scale survey of a cohort of Québec children. BIP, masterfully managed with a hands-on approach by its president, is responsible for organizing and ensuring the smooth functioning of the annual data collections in both the pretests and surveys. Their data is of invariably high quality, and the data banks they produce biannually retain a high degree of reliability. BIP's team of interviewers² and recruiters, skilfully supervised by a seasoned veteran of field work, has become expert in winning and maintaining the loyalty of the some 2,000 families who annually participate.

Finally, we would like to single out the exceptional participation of Québec families. We truly believe that the success of the QLSCD comes first and foremost from the hours of precious time they grant us every year, during which we feel privileged to share moments in the lives of their little munchkins who, in 2000, were 2½ years of age.

Acknowledging how difficult it is to truly thank everyone who contributed to the day-to-day accomplishment of this Québec first, we would like to cite the words of Serge Bouchard:

Progress is a totally collective process in both time and space. We owe so much to others... We desire a society of good people..., because there is a link between individual and collective excellence.³

A heartfelt thank-you!



Mireille Jetté
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Institut de la statistique du Québec*

2. All the interviewers in this survey were women.

3. BOUCHARD, Serge (2001). "Je ne suis pas seul sur terre", *Le Devoir Edition Internet*, 23 juillet. (Unofficial translation).

Introduction to QLSCD 1998-2002

When this second report is published, the children in the QLSCD study will have begun their fifth year on this planet. Despite the use of extraordinary tools to closely monitor their development, it is obvious that, in early childhood, development is too fast for science to keep up with.

In our first report, we described our observations concerning the data collected five months after birth. Because of the cross-sectional nature of these observations, our study was limited to describing the characteristics of the children and their families. We mainly wanted to describe the situation of babies born in Québec in 1997 and 1998. Bursting with enthusiasm and eager to understand things, the researchers who, at the time, provided the broad strokes of analyses to explain the observed characteristics were fully aware those were just the first in a long series of analyses designed to provide a deeper understanding of children's development.

This second report, however, is based on the collective data gathered when the children were respectively 5, 17 and 29 months old. At last, we can now describe the changes that occur in the lives of children and their families from birth to the third year. This is the first time that such a large sample of Québec newborns has been studied as intensively during early childhood. As far as we know, this is the very first time since science began studying children's developmental that researchers have tried to understand the factors leading to academic success or failure by collecting data as frequently as this from such a large sample of such young children.

Researchers now have available more data than ever before about this stage of life. But this abundance of data has a perverse effect. If cross-sectional studies allow us to draw conclusions on the causes of problems observed, why shouldn't we go ahead and indulge in longitudinal data as well? When one has access to data available to no one else, it is easy to forget the limitations of such data. However, while the researchers involved in drafting this report tried to obtain the maximum benefit from prospective longitudinal data collected at three different stages

during early childhood (at 12-month intervals), they also accepted to respect the limitations of this data.

This prospective longitudinal study allows us to describe the changes over time for each measured variable concerning each individual. The researchers thus recorded the changes during the first three years of the children's lives. Profiles of children, parents and families as well as some developmental trajectories were drawn based on the data collected during these three stages. These original results should facilitate discerning the beginning of the course taken by the children and their families. However, it is important to remember that these results only described the first three points of a curve that ideally should comprise fifteen points of time. Since in most cases, it is not very likely that behaviour is consolidated at 2½ years, we asked the authors to primarily limit themselves to describing the development of observable changes. It is obviously too early in the child's life for us to attempt causal analyses in order to identify determinants, especially since these would only be associations. Finally, whenever we approach a problem, our questions are generally much too simplistic. Longitudinal studies such as the QLSCD indicate that there are many ways to observe a problem and that it is dangerous to draw definitive conclusions after the first analyses, no matter how brilliant these appear to be.

It is important to remember that the main objective of the QLSCD is to understand the paths during early childhood that lead to success or failure once the child enters the school system. In order to successfully reach this objective, we must obviously wait for information collected once the child begins school. The QLSCD children will complete their first school year in the spring of 2005. At the time when this report will be published, they will be old enough to enter Junior Kindergarten, which some of them will do in September 2002. Data collection is also planned for the end of Junior Kindergarten year (spring 2003) and at the end of Senior Kindergarten (spring 2004). If, as desired, these significant data collections are funded, the information generated will allow us to check the level of preparation for school at the entry

into the first cycle of elementary school. Later during this longitudinal study, description of the developmental trajectories of these children is planned throughout their school years. If, following the example of many researchers in Québec, the Québec Government confirms its financial involvement in pursuing QLSCD throughout the children's elementary and secondary school, we can increase our understanding of the factors that lead to academic success and therefore be in the best possible position to improve support to the all-too-many children for whom school is an endless succession of failures.

Through recent discoveries about the development of the human brain, we have come to see the importance of investing early in children's development, just as it is important to invest early in our pension plans. Longitudinal studies on the development of children must obviously be based on the same principle. They must begin as soon as possible, and this is what the *ministère de la Santé et des Services sociaux* did as early as 1997, by investing nearly \$5 million in a study on Québec children aged 5 to 54 months old. And obviously, just like for a pension plan, in order for these investments to bear fruit and provide the best possible returns, they must be maintained and even increased.



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Review of Methodology and Caution

The Québec Longitudinal Study of Child Development (QLSCD 1998-2002), launched in 1998, is being conducted on a cohort of nearly 2,000 children surveyed annually from the age of 5 months to approximately 4 years. This second volume covers longitudinal data from the first three rounds when the children were approximately 5, 17 and 29 months of age respectively.

The longitudinal analyses of data collected in the 1998, 1999 and 2000 rounds allow inferences to be made to the population of children born in Québec in 1997 and 1998 (singleton births) who in 2000 were still living in Québec or who had only left the province temporarily. Therefore, in terms of the methodological approach, choosing not to sample children from those who arrived in Québec after birth limits inferences to this population.

Participation of families in the 1999 and 2000 rounds of QLSCD was excellent. Indeed, 94% of families who participated in the 1998 round continued to participate in the second and third rounds, for a 71%¹ longitudinal response rate for the two main questionnaires, the Interviewer Completed Computerized Questionnaire (ICCQ) and the Interviewer Completed Paper Questionnaire (ICPQ). Response rates for the Self-Administered Questionnaire for the Mother (SAQM) and Self-Administered Questionnaire for the Father (SAQF) remained stable from 1998 to 2000, namely 96% for the former and 90% for the latter, among annual respondents to the ICCQ. However, since respondent families were not necessarily the same from one round to the next, the weighted proportion of families who participated in all the rounds was lower, namely 92% for the SAQM and 83% for the SAQF, among respondents to the ICCQ in all three rounds (n = 1,985). The longitudinal response rates of these instruments, obtained by multiplying the weighted proportion of longitudinal respondents to the SAQM or SAQF by the longitudinal response rate of the ICCQ, were 65% and 59% respectively.

It was decided to minimize potential biases induced by non-response by adjusting the weights based on characteristics differentiating respondents from non-respondents for the five major instruments of QLSCD – the ICCQ, ICPQ, SAQM, SAQF and the IST (Imitation Sorting Task testing cognitive development). Since only respondents to the 1998 round were eligible for longitudinal study, longitudinal weights were based on the cross-sectional weights of the ICCQ calculated in 1998. In addition, for longitudinal analyses involving data from the SAQM, SAQF or IST, an additional adjustment to the weights was required to compensate for overall longitudinal non-response in each of these instruments. Unfortunately, in the third round as in the first, even though the response rates of non-resident fathers improved, it was impossible to weight their data since response rates to the SAQFABS were still too low.

Moreover, given QLSCD's complex sample design, it was important that the variance associated with the estimates was correctly identified. This required using a software program that could take into account the complex sample design, otherwise the variance would tend to be underestimated, thereby resulting in a threshold of statistical significance that would be too low. SUDAAN (Survey Data Analysis; Shah *et al.*, 1997) was therefore used for prevalence estimates, chi-square tests, repeated measures analyses of variance, linear regressions, logistic regressions and Cox regressions. The threshold of significance for these statistical tests was set at 0.05. With regards to other tests not supported by SUDAAN such as the McNemar, the threshold was lowered to 0.01 to prevent identifying results as significant that might not be, given the complex sample design.

All the data presented that have a coefficient of variation (CV) higher than 15% are accompanied by one or two asterisks to clearly indicate their variability.

N.B. For further information on the survey's methodology, please read Number 1 of both Volume 1 and Volume 2. For more detailed information on the sources and justifications of questions used in the first three rounds of QLSCD as well as the components of the scales and indexes, please read Number 12 of both Volume 1 and Volume 2.

1. The unweighted number of families who responded to QLSCD went from 2,120 in 1998 to 2,045 in 1999, to 1,997 in 2000. The number of families who participated in the three rounds of the survey was 1,985 (namely 94% of the 2,120 families in the first round).

Caution

Unless indicated otherwise, "n" in the tables represents the sum of the individual weights reset to the size of the initial sample. This quantity is used to estimate the prevalences, and is slightly different from the real sample, namely the number of children in a given sub-group. In the body of the text, the number presented to describe the sample size also represents the sum of the individual weights reset to the size of the initial sample. This occurs when an analysis concerns a particular sub-group. The weighted frequency in these cases serves only as a link with the tables. The real sample size, and coefficient of variation remain the quantity to interpret as far as the precision of the estimates is concerned.

Because the data were rounded off, totals do not necessarily correspond to the sum of the parts.

Unless explicitly stated otherwise, all the differences presented in this report are statistically significant to a confidence level of 95%.

To facilitate readability, proportions higher than 5% were rounded off to the nearest whole unit in the text, and to the nearest decimal in the tables and figures.

Symbols

- .. Data not available
- ... Not applicable (N/A)
- Nil or zero
- p < Refers to the threshold of significance

Abbreviations

- CV Coefficient of variation
- Not signif. Not significant

The Couple

Part I

Couple Distress and Factors Associated with Evaluating
the Spousal Relationship



1. Introduction

Bringing children into the world and raising them in a harmonious conjugal context can be a mutually agreeable and enriching experience for parents. However, when a couple's relationship is marked by monotony, lack of gratification or conflict, giving birth and taking care of a child may prove more difficult. Several studies have examined the links between the couple's relationship and child development. Conjugal distress experienced by parents will thus affect the social, emotional and psychological development of the children (DeVito and Hopkins, 2001; Fishman and Meyers, 2000; Stocker *et al.*, 1997). Children of parents who are not satisfied with their relationship will be more likely to exhibit symptoms of depression and internalized and externalized behavioural problems, such as isolation, withdrawal and aggressiveness (Benzies *et al.*, 1998; Fishman and Meyers, 2000). They will also be more likely to go through major relationship problems with their peers. For example, these children will be involved more often in relationships marked with hostility and rivalry (Stocker *et al.*, 1997). Links have been made between the conjugal dynamics of the parents and the development of the child, regardless of the measurements used to report on the couple's relationship (ex.: presence of open conflicts between spouses, conjugal dissatisfaction, conjugal distress, etc.).

Several factors have been identified in these cases to explain the relationships. For example, the parents who are most dissatisfied with the relationship with their spouse seem to adopt more permissive and arbitrary parenting practices (DeVito and Hopkins, 2001), potentially creating ambiguity in the family's disciplinary rules (O'Brien and Bahadur, 1998). They also seem to have more problems agreeing and coordinating their efforts to educate their children (Belsky *et al.*, 1995), show less affection towards their children and are less responsive to their needs (Vandewater and Lansford, 1998). Lastly, children of dissatisfied parents are often more exposed to a negative, stressful family atmosphere as well as a more coercive mode of interaction between different family members (Kitzman, 2000; Margolin *et al.*, 1996). Consequently, in light of these facts, the

importance of having a better understanding of the quality of the couple's relationship becomes clear when developing prevention strategies or strategies for handling psychosocial adjustment problems in children.

The studies presented in this issue fall within this perspective, which involves first documenting the level of couple distress in parents who have lived together since the birth of their child aged approximately 2½ years, and then examining the factors associated with their level of couple satisfaction (or dissatisfaction). The approach used postulates that the couple satisfaction felt is the main factor for evaluating the quality of the conjugal relationship, and that couple satisfaction is part of a continuum, ranging from marked dissatisfaction to complete satisfaction. Moreover, couple distress can be inferred from a certain level of conjugal dissatisfaction. The challenge here is to identify a clinically significant threshold within a large representative sample of parents during the first years following the birth of a child.

There is little data on the prevalence, nature and seriousness of couple distress in parents in Québec. The data from social and health surveys conducted by *Santé Québec*, indicating that approximately 10% of parents of minor children are relatively satisfied with their relationship as a couple (Bernier *et al.*, 1995), and that a lower proportion (6%) experience serious conjugal problems (Létourneau *et al.*, 2000). This means that approximately nine out of ten parents consider their couple relationship to be relatively positive. Although, at first glance, these rates are reassuring, they must be put into perspective in light of the prevalent social trends regarding unions. Thus, can we truly conclude from this data that the spousal relationship of the large majority of parents is idyllic, whereas the proportion of couples (with or without children) who are likely to separate exceeds the 40% mark (*Institut de la statistique du Québec*) and that the most conservative epidemiological statistics on conjugal violence is nearly 25% (Statistics Canada, 2000). Low rates of serious conjugal problems

experienced by parents, reported in cross-sectional studies, could lead researchers to underestimate the seriousness, chronicity and psychological and social costs of the problems experienced by couples at one time or another, and, consequently, result in a lack of interest in preventing and treating conjugal problems.

Surveys containing a low number of questions, since they do not focus specifically on conjugal distress, do not allow for a precise understanding of the discrepancy in conjugal dissatisfaction. Furthermore, using non-standardized measurement tools for which there are no recognized interpretation standards may reduce the validity of estimates and decrease comparability between studies. Lastly, the facts that few surveys take repeat measurements of conjugal distress from large representative samples and that most of them collect information from only one of the spouses limit our ability to draw up a representative profile of the reality experienced by couples (Jacobson and Christensen, 1996).

The Québec Longitudinal Study of Child Development distinguishes itself in several ways. First of all, the relative homogeneity of the population targeted by QLSCD has a certain number of advantages. Indeed, although all couples are not at the same stage in their life cycle (for example, the length of the relationship and the number of children may vary), they all shared the fact that they were parents of a young child aged approximately 29 months. Secondly, unlike the majority of large-scale surveys on couple relationships, QLSCD collects the points of view of both parents on the quality of their relationship as a couple and data on a number of related factors (parents' personalities, demographic profile, level of psychological well-being, satisfaction with work, events occurring in conjugal and family life before the birth of the targeted child).

It is important to emphasize, right from the start, that the parents of the children targeted by QLSCD were asked to fill in a detailed questionnaire on their relationship as a couple for the 2000 round only, when the targeted child was approximately 29 months of age. While the measurement of conjugal stress in mothers and fathers is not based on, for the time being, a single point in time, it will be possible, at the end of the study, to measure its

development¹. In this respect, many researchers have demonstrated the limits of cross-sectional surveys and, more recently, that of prospective surveys, which are limited to two periods of observation (Bradbury *et al.*, 1998). Indeed, in the latter case, it is difficult to draw a precise picture of the complexity and diversity of a couple's life paths. Thus, an increase in conjugal distress can emerge at different times depending on the couple. Using multiple repeated measurements should allow us to obtain a wealth of information on abundance curves for conjugal distress and to better understand the links between the couple's progress and child development.

1. It is important here to mention that, in the previous rounds of QLSCD, a few questions on conjugal support as perceived by the mother (1998 round, five-month-old baby) (Desrosiers *et al.*, 2000) or even on the level of conjugal happiness (1999 round, children of 17 months) were asked to parents in order to be able to identify the links between certain aspects of conjugal life and child development. Although limited regarding metrologics (e.g., based on a single question), the latter measurement lets us indirectly monitor the initial level of conjugal satisfaction of the parents (discussed later in this document).

2. Overview of the Main Factors Associated with Evaluating the Couple Relationship

The examination of different factors associated with couple satisfaction takes into account both the sociodemographic and psychological characteristics of spouses. To better define the choices of these variables, the approach developed by Brown (2000), which groups three major classes of factors, was adopted. These factors are 1) the social demographic characteristics of individuals, 2) characteristics prior to the relationship, and 3) the characteristics of the current relationship. In addition, psychological factors based on the personality of spouses, their well-being and their satisfaction with work are taken into account.

Thus, couple satisfaction could first be associated with the personal characteristics of each spouse. For example, education provides personal resources that enhance strategies to adapt to stress and life as a couple (Karney and Bradbury, 1995). Moreover, the individual's ethnic origin could negatively affect conjugal satisfaction when it differs from the general population's dominant ethnic group (McBride *et al.*, 2001). The relationship between ethnic origin and conjugal satisfaction could stem from an increase in the number of disturbing biographical events experienced by individuals belonging to a minority ethnic group. Poverty and racism also make access to a set of personal and social resources more difficult, and could thus affect the formation, development and maintenance of unions (McBride *et al.*, 2001).

The second group of factors refers to the sociodemographic characteristics that were acquired prior to the relationship, and, more specifically, to the past relationship history of the individual. Thus, a large number of previous relationships could be a major risk factor in weakening the current union (Kurdek, 1998). This link seems to be due to the fact that, in individuals who have experienced several unions, psychosocial resistance to break-up is not as strong. This association could also be explained by the gradual repercussions of a series of unstable unions, which then change the attitudes and level of trust regarding the partner or the institution of marriage. For example, a large number of marriages

or common-law relationships may promote the development of a more flexible system of attitudes regarding the permanent or transitory nature of the union. Furthermore, individuals who have experienced several unions may have developed a growing number of criteria to evaluate their partner and the relationship. These criteria would then serve as comparative barometers to determine the quality of the union, the alternatives and, eventually, its stability.

The third group of variables concerns the current union. It has indeed been well established that the young age of spouses at the beginning of the union, the length of the union, inadequate family income, the number of siblings and the consensual – versus legal – characteristics of the union are associated with a higher level of conjugal dissatisfaction. For example, some studies have shown that the level of conjugal satisfaction for couples in common-law unions is lower than those who are married (Nock, 1995). Moreover, although the results of Québec studies indicate that the level of couple satisfaction does not significantly differ according to family composition (intact or reconstituted), that is, based on whether there are children from a previous union in the household (Bernier *et al.*, 1994; Létourneau *et al.*, 1998), few studies have been conducted on this topic. The age of spouses at the beginning of the union, however, was clearly identified as being closely related with the level of conjugal satisfaction. Thus, the younger the spouses are when they form the union (in particular teenagers), the more apt they have already suffered – and are still suffering – from various personal problems and the more likely they will be dissatisfied with their relationship (Forthofer *et al.*, 1996; Gotlib *et al.*, 1998). Studies on inadequate income and conjugal satisfaction generally confirm the presence of a negative relationship between these factors. Differential distribution of the number of disturbing biographical events and the quality of adaptation strategies deployed to face these stressors are the most plausible hypotheses for explaining this association (Conger *et al.*, 1999). Lastly, the number of siblings increases the complexity of interactions

between spouses. It could increase the frequency of potential disagreements regarding the education of children and decrease the quality and number of exchanges between partners (Belsky, 1990; Grote *et al.*, 1996).

Regarding psychological traits, three risk factors associated with personal and social vulnerabilities were identified as being linked to the evaluation of the couple relationship: symptoms of depression, problems experienced at work and antisocial behaviour. Various cross-sectional and longitudinal studies have shown that symptoms of depression adversely affect conjugal satisfaction (Whisman, 2001). Several conceptual models can represent this relationship. The most relevant ones postulate a bidirectional influence: symptoms of depression are accompanied by a decrease in cohesion, intimacy and the use of support strategies within the couple, while increasing the frequency and intensity of interpersonal stressors specific to the couple's relationship (ex.: the threat of break-up, psychological and physical aggressions, etc.) (Whisman, 2001). Moreover, the behaviour of individuals exhibiting a high number of symptoms of depression is also characterized by an increase in aversive or guilt-producing behaviours, which undoubtedly negatively reflects on conjugal satisfaction (Whisman, 2001). Lastly, other studies point out that certain personality traits (ex.: nervousness, dependency or interpersonal sensitivity) that often accompany symptoms of depression and conjugal dissatisfaction help explain the relationship between these two factors (Geist and Gilbert, 1996). However, the very few studies conducted in representative samples should lead us to be prudent in drawing conclusions.

Other studies have illustrated the complex relationships between work and family life. Thus, stressful events experienced at work (ex.: overload, complex roles, decisional latitude) and, more specifically, relational conflicts at work are associated with stress observed within the family (Conger *et al.*, 1993; Sénécal *et al.*, 2001). As well, the consequences of a low level of conjugal satisfaction with work attitudes and behaviours are well documented (ex.: absenteeism, exhaustion, lower productivity, etc.). In this context, dissatisfaction regarding work is the most visible way of expressing

difficulties in a job. Sexual differences in this case must be noted, since work often takes on a more important meaning to men than to women (Karney and Bradbury, 1995).

Recently, a growing number of clinicians and researchers have highlighted the presence of a significant relationship between serious personality problems and the quality of the relationship of couples (Yeomans *et al.*, 2002). More specifically, the presence of antisocial traits in adults affects the formation and maintenance process of the union. Antisocial behaviour in adults is marked by relationship patterns of insensitivity, egocentricism, distrust and impulsiveness. These personal traits are generally associated with major deficits in the processing of social information and the development of coercive behaviours that adversely affect the formation and maintenance of the conjugal union (Hare, 1999). However, few empirical studies have focused on this topic.

All in all, a variety of different factors have been associated with conjugal satisfaction. However, these factors have been studied mainly in smaller samples using non-standardized questionnaires, focusing on a single spouse instead of both. This study examines all factors that could be associated with conjugal satisfaction using a standardized tool used in a representative population of parents having a young child of approximately 29 months of age.

3. Methodology

3.1 Target Population

The population targeted in the first three rounds of the QLSCD is made up of children born in Québec between 1997 and 1998 (simple births only), when they were approximately 2½ years old, who were living in Québec in 2000.

For the analysis presented in this paper, the target population is however limited to children still living with both biological parents from birth to the age of 2½. Therefore, children in single-parent families or those having experienced the separation of their parents were not included. The sample used for analyzing the prevalence of conjugal distress is made up of children whose parents had filled in a questionnaire on conjugal satisfaction, namely the Dyadic Adjustment Scale (DAS-8), when they were approximately 2½ years of age (2000 round), ex.: 1,586 mothers and 1,382 fathers. However, to analyze the factors associated with the degree of conjugal satisfaction, only children for which both biological parents filled in the self-administered questionnaire during the three rounds of the study and the DAS-8 were used in this study ($n = 1,353$)².

3.2 The Couple Distress Measurement Used in the QLSCD

In order to evaluate the degree of conjugal satisfaction of each parent, an abbreviated version of the Dyadic Adjustment Scale (Spanier, 1976, translated by Baillargeon *et al.*, 1986) was used. These questions were included in the Self-Administered Questionnaire for the Mother (SAQM) and the Self-Administered Questionnaire for the Father (SAQF) in the third round of the QLSCD. The Dyadic Adjustment Scale is a questionnaire used to obtain an overall conjugal satisfaction score for each member of a couple as well as a more specific score for four subscales: consensus, emotional expression, satisfaction and cohesion. An abbreviated version with eight items was produced (Valois *et al.*,

submitted for publication) by selecting, from the original version, items that better identify the couples whose level of trust ranged from 95 to 105. These couples are more likely to display a clinically significant degree of conjugal stress, since, at the time of evaluation of their conjugal situation, these couples were hovering just below the point of break-up. The modified version of the DAS was created to obtain a standardized measurement of conjugal satisfaction. This version is similar to the longer version on a metrological basis, but, since it is shorter, it has the advantage of being easier to insert into various batteries of questions. The items addressed in the shortened version and the scale used to answer each of the questions are presented in Table 3.1. The maximum score for the scale is 41 and, just like for the original version of the DAS, a high score indicates that the person is satisfied with the relationship. The psychometric qualities for the abbreviated version of the DAS-8 were examined as part of a series of analyses (analyses of non-parametric items, exploratory and confirmatory factorial analyses, faithfulness analyses)³.

2. These represent the unweighted sample sizes..

3. More details on the psychometric analyses conducted can be obtained from the authors.

Table 3.1

Description of the abbreviated Dyadic Adjustment Scale (DAS-8), Québec, 2000

1. Do you and your partner agree or disagree on displays of affection?	Always agree	Almost always agree	Sometimes agree	Sometimes disagree	Almost always disagree	Always disagree	
2. Do you often think about getting a divorce or separation, or ending your current relationship?	Always	Most of the time	More often than not	Occasionally	Rarely	Never	
3. In generally, would you say that everything is fine between you and your partner?	Always	Most of the time	More often than not	Occasionally	Rarely	Never	
4. Do you confide in your partner?	Always	Most of the time	More often than not	Occasionally	Rarely	Never	
5. Do you ever regret getting married (or living together)?	Always	Most of the time	More often than not	Occasionally	Rarely	Never	
6. How many times do you and your partner calmly discuss something?	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often	
7. How many times do you and your partner work together on something?	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often	
8. Circle the number that best corresponds to your level of happiness as a couple.	Extremely happy	Relatively happy	Relatively unhappy	Happy	Very happy	Extremely happy	Perfectly happy

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

3.3 Analytical Methods

Initially, in order to evaluate the prevalence of conjugal distress in parents, the scores obtained in the DAS-8 were dichotomized by transposing the generally accepted break-up point for the DAS onto the DAS-8 (ex.: a score < 28 rather than a score < 105) (Crane *et al.*, 2000; Spanier, 1976). Thus, each parent in the target population was identified as falling above or below the break-up point, that is those who are in conjugal distress. Secondly, regression was done in order to measure the factors associated with the parents' evaluation of their couple relationship as measured using the DAS-8. In this case, it is evaluating not so much the factors associated with being or not being in distress, but rather those related to the level of conjugal satisfaction based on the DAS-8, that is the position of individuals on a continuum, ranging from deep dissatisfaction to total satisfaction.

3.3.1 Sociodemographic and Psychological Characteristics Used to Analyzed the Factors Associated with Conjugal Satisfaction

Based on the work already conducted on this subject, the variables belonging to the following four major groups were used in analyzing the factors associated with conjugal satisfaction. The sociodemographic characteristics of the targeted population are presented in Table 3.2. With the exception of the age of the spouses when the union was formed and the length of the current relationship, which are treated as continuous variables, the other variables are polytomic.

Note that the "immigrant status" variable is divided into three categories as proposed by *Direction Santé Québec* based on the work of Chen *et al.* (1996). Inadequate income is established based on the income inadequacy thresholds from Statistics Canada⁴. For the purposes of the analysis, four categories have been distinguished: 1) no period of inadequate income, 2) inadequate income for one round, 3) inadequate income for two rounds,

4. A household is considered to have insufficient income if the gross annual income from all sources in the year before the survey is under the low income cut-off (before tax), as defined by Statistics Canada, based on its family size and the size of the home (for more information, see No. 2 of this volume).

4) inadequate income for three rounds of the QLSCD, that is, since the birth of the child. A variable reflecting both the consensual or legal character of the union and the family composition, that is whether or not there are children from a previous union of the parents was taken into account. This variable is divided into four categories: 1) "intact" two-parent family—married, 2) reconstituted family—married, 3) "intact" two-parent family—common-law, 4) reconstituted family—common-law.

Table 3.2

Certain sociodemographic characteristics of biological mothers and fathers living together when the target child is approximately 29 months of age¹, Québec, 2000

	Mothers	Fathers
	<u>M</u>	
Aged when current relationship formed	23.9	26.6
	%	
Level of Education		
High school or less	24.1	28.1
Postsecondary studies (not including university)	42.1	41.3
University	33.8	30.6
Immigrant status		
Non-immigrant	85.6	84.5
European immigrant	3.3 *	3.2 *
Non-European immigrant	11.1	12.3
	Mothers/Fathers	
	<u>M</u>	
Length of Current Relationship (in years)	7.9	
	%	
Previous Relationship(s)		
No prior unions for either parent	63.3	
At least one prior union for one of the parents	23.5	
At least one prior union for both parents	13.2	
Number of children living in the household		
1	29.0	
2	48.8	
3	16.3	
4	4.3	
5 or more	1.6 *	
Level of Household Income Sufficiency		
Sufficient income for all three rounds	77.2	
Inadequate income for one round	8.4	
Inadequate income for two rounds	4.5	
Inadequate income for three rounds	9.9	
Type of Family and Type of Parental Union		
Intact Family – married	50.9	
Intact Family – common-law	39.5	
Reconstituted family – married	2.8 *	
Reconstituted family – common-law	6.8	

1. Biological parents always lived together since child's birth.

* Coefficient of variation between 15% and 25%; interpret with caution.

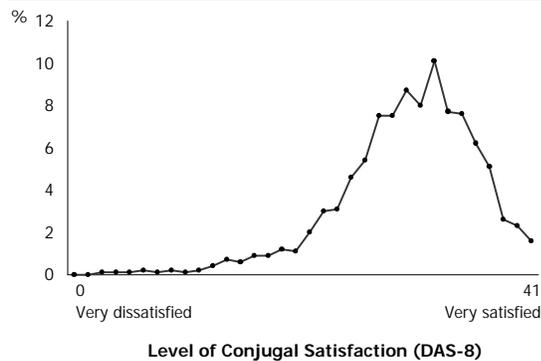
Source: *Institut de la statistique du Québec, QLSCD 1998-2002.*

With regard to the psychological characteristics of the parents, the focus is on the depressive episodes already experienced by parents. It involves knowing whether the parent has already felt sad or depressed for two weeks or more throughout his/her life. The current level of work-related satisfaction is measured based on four categories: 1) unemployed, 2) satisfied with work, 3) neutral evaluation of work, 4) dissatisfied with work. Lastly, we sought to determine whether there is a link between the level of conjugal satisfaction and the presence of antisocial traits in adults. This variable was created based on information gathered in the first round of the survey when the child was approximately five months old. It has three categories: 1) no antisocial traits as an adult, 2) presence of one antisocial trait as an adult, 3) presence of two to four antisocial traits as an adult. The behaviours measured for mothers are: After quitting school or finishing your studies, were you arrested for an offence other than a traffic violation? Have you ever been in trouble at work, with the police or with your family, or have you been in a car accident where drinking or drugs was involved? Have you been fired from work (not including lay-offs)? Have you ever hit your spouse or thrown objects at him? For fathers, the first two questions were asked. However, unlike the last two questions for mothers, the fathers are asked whether, once they left school or finished their studies, whether they had been fired from work *more than once* and whether they had been involved more than once in fights or ever attacked or injured someone (Zoccolillo, 2000).

4. Results

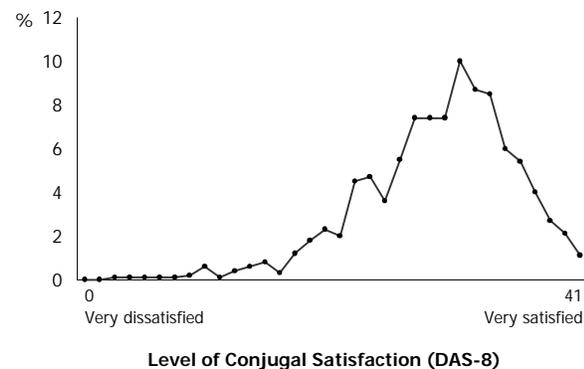
Figures 4.1 and 4.2 present the score distribution for conjugal satisfaction in mothers and fathers. As we can see, they are distributed on a positive asymmetrical curve, meaning that the majority of parents consider themselves to be satisfied with their union. Thus, the average for mothers is 32.1 (s.d. = 5.0), whereas, for fathers, it is 31.6 (s.d. = 5.1).

Figure 4.1
Distribution of mothers¹ based on level of conjugal satisfaction when target child is approximately 29 months old, Québec, 2000



1. Biological mothers who have lived with the father since the birth of the child.
Source: *Institut de la statistique du Québec, QLSCD 1998-2002.*

Figure 4.2
Distribution of fathers¹ based on level of conjugal satisfaction when target child is approximately 29 months old, Québec, 2000



1. Biological Fathers who have lived with the mother since the birth of the child.
Source: *Institut de la statistique du Québec, QLSCD 1998-2002.*

As already mentioned, in order to calculate the prevalence of couple distress in parents, we transposed the break-up point generally accepted for the DAS (i.e., score < 105) onto the DAS-8 (i.e., score < 28). Thus, 15% of mothers obtain a score lower than 28 versus 20% of fathers. The percentage of couples where one or both of the parents report conjugal distress is 27% (data not presented).

In order to identify the main factors associated with the conjugal satisfaction of parents, two series of regression analyses were conducted: one for mothers and one for fathers. These regression analyses allow us to systematically enter all blocks of variables already presented as well as the degree of conjugal happiness when the targeted child is 17 months⁵. Although this variable is limited metrologically (i.e., a single item), its inclusion allows us to indirectly monitor the initial degree of conjugal satisfaction of parents and evaluate more accurately the way in which other factors contribute to the change in conjugal satisfaction. Indeed, insofar as this initial evaluation cannot be considered to be a measurement similar to the conjugal satisfaction index, taking into account this measurement allows us to appreciate how other factors contribute to the change in conjugal satisfaction over the previous year, that is between the time that the child was 17 months and when he turned 29 months. Therefore, it is a more time-defined evaluation, focusing on the relative change in conjugal satisfaction rather than on a static measurement. Lastly, the factors of vulnerability of partners were added. This means that when the analysis looks at the mother's degree of conjugal satisfaction, the father's vulnerability factors are also taken into account; whereas when the conjugal satisfaction of the father is measured, the vulnerability of the mother is taken into account. As for categorical variables, only those for which the overall regression coefficient is significant at a threshold of 0.05 were used in the final model. These models are presented in tables 4.1 and 4.2.

5. This variable was measured using a single item, i.e., item 31 from the original version of the DAS (also used in the DAS-8).

Table 4.1

Factors associated with conjugal satisfaction in mothers when child is approximately 29 months old¹ (Final regression model), Québec, 2000

Variable	Category ²	Coefficient (β)	Standard Error
Intercept		24.30 ⁺⁺⁺	1.09
Level of conjugal happiness reported when child is 17 months old		2.03 ⁺⁺⁺	0.14
Previous relationships of parents (No prior union with either parent)	At least one prior union by one parent	- 0.77 ⁺	0.33
	At least one prior union by both parents	- 0.12	0.47
Age of the mother at the beginning of the relationship		- 0.08 ⁺	0.04
Has the mother ever felt sad or depressed for two weeks or more (No)	Yes	- 1.22 ⁺⁺⁺	0.34
Number of antisocial symptoms as an adult (mother) (No symptoms)	1 symptom	- 1.12 ⁺	0.45
	2 to 4 symptoms	- 4.54 ⁺⁺	1.74

⁺ p < 0.05; ⁺⁺ p < 0.01; ⁺⁺⁺ p < 0.001

1. Biological mothers who have lived with the father since the birth of the child.

2. Reference category in parentheses.

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

Table 4.2

Factors associated with conjugal satisfaction in father when child is approximately 29 months old¹ (Final regression model), Québec, 2000

Variable	Category ²	Coefficient (β)	Standard Error
Intercept		22.66 ⁺⁺⁺	0.84
Level of conjugal happiness reported when child is 17 months old		1.87 ⁺⁺⁺	0.15
Has the father already felt sad or depressed for two weeks or more (No)	Yes	- 1.31 ⁺⁺	0.40
Has the mother already felt sad or depressed for two weeks or more (No)	Yes	- 1.30 ⁺⁺⁺	0.35
Number of antisocial symptoms as an adult (mother) (No symptoms)	1 symptom	- 1.60 ⁺⁺⁺	0.47
	2 to 4 symptoms	- 1.27	1.07

⁺⁺ p < 0.01; ⁺⁺⁺ p < 0.001

1. Biological fathers who have lived with the mother since the birth of the child.

2. Reference category in parentheses.

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

In mothers, the final model explains 27% of the variance in scores of conjugal satisfaction. However, a limited number of variables have unique contributions. From the outset, the evaluation of the level of conjugal happiness when the child is 17 months is positively related to conjugal satisfaction. The more positive the mother rates her level of happiness as part of the couple when the child is 17 months, the more she reports being satisfied in the couple one year later (Table 4.1). However, the mother's immigrant status and level of education are not significantly related to conjugal satisfaction above the initial evaluation when the child is 17 months.

Furthermore, in Table 4.1, we can see that mothers in a couple where one of the spouses has already been in a relationship say that they are less satisfied with their conjugal life than those where it is the first experience for both spouses⁶. However, no difference is observed between mothers in a couple where both partners have a conjugal past and mothers where it is the first union for both partners.

For the fourth variable group, the sociodemographic characteristics specific to the current union, the analysis revealed that, among the characteristics considered, only the age of the mother when the union was formed is significantly linked to the conjugal satisfaction indicated by the mothers, taking into account other factors. Thus, the older the mother when the union is formed, the less likely she is going to have a high level of conjugal satisfaction. This means that all other variables related to the current union such as length of the union, the level of family income sufficiency, the number of siblings or the type of family/union are not significantly related to the conjugal satisfaction of the mothers beyond the factors considered.

The inclusion of the vulnerability factors further reveals that mothers who have reported past symptoms of depression and those with antisocial behaviour are less satisfied with their relationship as a couple. However, satisfaction with work does not appear to have any significant bearing on the evaluation of the couple's relationship. The same

holds true for the father's psychological factors, none of them being linked to the conjugal satisfaction of the mother once the other factors have been taken into account.

For fathers, the final model explains 25% of the variance in the scores of conjugal satisfaction, and, as for the mothers, a limited number of variables has a unique influence. Thus, similarly to the mothers, the degree of conjugal happiness measured when the child was 17 months old is associated positively with the level of conjugal satisfaction⁷. As for the father's sociodemographic attributes, the second group of variables, neither the immigrant status nor the level of education is significantly associated with the level of conjugal satisfaction of the fathers beyond the initial evaluation when the child was 17 months old. Unlike the mothers, however, the existence of a previous union for one of the spouses, as well as the age at the beginning of the union is not linked to the evaluation that fathers make regarding their relationship as a couple once other factors have been taken into account. The inclusion of factors of vulnerability reveals that the fathers reporting having had past symptoms of depression are less satisfied with their relationship. Lastly, it seems that the presence of symptoms of depression or certain antisocial behaviours in mothers is inversely proportional to the conjugal satisfaction of the father when the child is approximately 2½ years.

6. It is important to mention here that this variable was used in the final model even if the overall significance threshold slightly exceeds the threshold of significance used ($p = 0.054$).

7. A high rate of partial non-response for the variable "level of conjugal happiness" evaluated for fathers when the child was approximately 17 months old (21%) must be emphasized here. Indeed, non-respondents differ from the respondents in that a lower proportion of fathers worked, which can result in a certain bias in the estimated parameters. Moreover, there appears to be a problem of multicollinearity between satisfaction with one's current job (2000 Round) and the level of income sufficiency, resulting in instability when estimating parameters. For example, when one considers these two variables in the model, some interpretations may go against the expected results: people with inadequate income for all three rounds consider their relationship in a favourable light. When income is removed from the model, the level of job satisfaction, which was significantly related to the level of conjugal satisfaction as reported by the father is no longer related. Therefore, these two variables were excluded from the final model.

5. Conclusion

Although the usual estimates of conjugal dissatisfaction taken from the sociosanitary surveys vary between 10% and 15%, using a standardized measurement tool for conjugal satisfaction in a population of parents with a young child leads to the prevalence of conjugal distress wavering between 15% and 20%. These rates climb to over 25% when the analyses take into account the experience of both parents. This means that over a quarter of the families studied in this analysis were probably affected by major conjugal problems. Therefore, we can think that the prevalence of conjugal distress is higher in couples with young children.

Note that the population targeted by these analyses only includes biological parents with a target child who has been living with them from birth. The exclusion of instable couples, that is those who have separated since the birth of the target child, most likely affects the established levels of conjugal distress. Indeed, spouses usually decide to break out because they experience intense feelings of conjugal distress. A number of researchers have already demonstrated that conjugal distress is the strongest predictor of the dissolution of the union (Karney and Bradbury, 1995).

It must also be kept in mind that the DAS-8 is a questionnaire based on the parents' statements and that there is a very slight, but significant negative relationship between conjugal stress, the tendency to project a favourable image of one's situation and the propensity to deny one's own problems. Thus, in a clinical context, it is not rare to see spouses, who, although they do not initially admit being in distress, experience serious problems as a couple (Jacobson and Christensen, 1996).

The most recent work on modelling a couple's life path also clearly indicates that, over time, the level of conjugal satisfaction decreases according to a monotonic function. This conclusion is based on studies conducted on large samples of couples followed over a period of up to 17 years (Bradbury, 1998; Vanlaningham, *et al.*, 2001). Therefore, it is reasonable to say that the levels of conjugal distress

observed in couples will increase with time and that a certain number of these couples will separate.

As for the factors associated with the evaluation by parents of the couple's relationship, the analysis emphasizes the importance of the factors of vulnerability for each spouse. Indeed, very few sociodemographic variables significantly stand out, with the exception of age when the union was formed and the conjugal past of the parents in the case of the mothers. Two factors of vulnerability used – symptoms of depression and previous antisocial behaviour possibly linked to psychological characteristics – also attest to the relative evolution of the level of conjugal satisfaction of parents (i.e., beyond the level of satisfaction expressed when the child is approximately 17 months old).

More specifically, the results obtained reveal the central character of depressive symptomatology in understanding conjugal satisfaction for both fathers and mothers. These results are in line with those noted by the scientific community as a whole often using small, more heterogenous samples (Whisman, 2001). In this study, this result remains stable even when the model involves a variety of relevant sociodemographic variables.

Furthermore, antisocial behaviour represents a factor of sexual differentiation. The negative association between antisocial behaviour of the mother and the conjugal satisfaction of the mother and father could be explained by the major affective influence of the mother on the relationship. Indeed, the mother is often called on to play a central role in establishing and maintaining a harmonious emotional environment that is both peaceful and secure for the couple and the family. Thus, the presence of antisocial traits in mothers could affect the level of conjugal or family harmony. Lastly, when compared with mothers, it appears that fathers are more likely to take more into account the characteristics of their spouse when evaluating their conjugal satisfaction. Are the fathers more open, more able to integrate different components of themselves and their spouses or is it rather a difficulty on their part to trust their own judgement in evaluating and thus rely on their spouse

as the reference for the relationship? Inversely, the mothers could demonstrate a greater ability for self-observation or be more focused on themselves to determine their level of well-being. We will point out here that, contrary to expectations, work satisfaction does not seem to be significantly linked to the evaluation done by the fathers or the mothers of their couple relationship when the child is approximately 2½ years old, once other factors are considered.

In closing, the analysis of factors associated with conjugal satisfaction shows that the variables used explain approximately 25% of the variance in level of conjugal satisfaction of the parents. These results are generally in line with those obtained by other groups of researchers (Bradbury *et al.*, 2000). In fact, these rates generally waver between 25% and 50%. However, we should specify that various strong predictors such as the parents' attachment style, adaptation strategies and behaviour repertoire were not evaluated in this study. Moreover, as indicated earlier, the initial forced inclusion of conjugal happiness (obtained when the child is 17 months) in the regression equation also lowers the variance figures available for sociodemographic and psychological factors.

In short, the results presented show that a significant proportion of parents experience problems as a couple. The difficulties experienced by the spouses should not be ignored since the relationship between conjugal distress, the break-up of the union and various mental and physical health problems of the spouses and children in these families is well established. Various studies conducted in Québec have already shown that conjugal disagreements and the break-up of the union have a reciprocal causal relationship with different adaptation problems: absenteeism from work, sexual abuse of children, alcoholism, depression, coercive parental behaviour, suicidal behaviour, anxiety, food disorders, etc. (see, for example, Bouchard *et al.*, 1998; Lussier *et al.*, 1997). American data also lead to the same conclusion (Fincham and Beach, 1999).

The systematic administration of the DAS-8 is definitely a relatively inexpensive method for quickly identifying couples in trouble. On a larger scale, the application of this early detection method would provide useful population estimates that designers

and administrators of social programs could use to better guide those working with children and families. Indeed, since we lack reliable data on conjugal problems, the prevention and treatment of these types of problems are only very rarely considered action priorities in CLSC and *Centres Jeunesse*. Data in the next rounds of the QLSCD will allow us to paint a picture of the evolution of conjugal satisfaction and compare these curves with those for preschool children with developmental problems in Québec.

In
2002...
I'll be 5 years old!

1. Introduction

During the year 2000, the children covered by the QLSCD reached the age of 2½ years; while the great majority of them (91%) had been born within their parents' conjugal union, already one out of nine (11%) had witnessed the end of this union. Add to this the proportion of children born to a single parent, and the fraction of children living in a single-parent family before the age of 2½ years reaches 19%. These children lost the experience of sharing day-to-day life with at least one of their parents, usually their father¹, early on; one might expect such early upheavals in the family trajectory to have repercussions on children's living conditions and development. Evidently it is too soon to measure the long-term consequences, if any, of early parental separation, but we can at least identify certain characteristics of the family environment that manifestly put these children more at risk of seeing their family unit transformed before they are out of diapers. The analysis presented here confirms the prediction offered in an earlier study, when these children were only 5 months old:

"...it seems likely that Québec children, the majority of whom are being born to unmarried parents, and who find themselves thrust into family trajectories that are often already complicated, will experience changes in their family environment in growing numbers and at an increasingly early age."
(Marcil-Gratton and Juby, 2000)

In that study, we pinpointed the new components of contemporary family life appearing most likely to produce eventful family life courses for children. These intuitions have been partly confirmed by findings from research based on the National Longitudinal Survey of Children and Youth (NLSCY)² (Juby *et al.*, 2001; Marcil-Gratton, 1998). In the present study, the analysis is extended, with the

emphasis on the element of "earliness" of parental separations from the child's perspective - earliness being defined as parental separation occurring before the age of approximately 2½ years. The analysis focuses particularly on the impact of three variables already identified as highly relevant:

- past conjugal history – whether or not the mother or father had been in an earlier marital or common-law union;
- past parental history – whether or not the mother or father had children before the current union, and whether these children were in the household when the target child was born. Having an earlier conjugal history and, more particularly, a parental history appear to have a significant influence on the likelihood that children experience their parents' separation (Juby *et al.*, 2001);
- the nature of the conjugal links at the target child's birth: direct marriage, in the sense that parents had not lived together before marrying; marriage following a period of cohabitation; common-law union, with parents living together, unmarried, at their child's birth.

This last factor is of fundamental importance as the majority (53%) of children in the QLSCD sample who were born to a couple were born within a common-law union³. By the age of 2½ years, the children of common-law unions were much more likely (16%) to have separated parents than those with parents who married either directly (3.4%) or after a period of cohabitation (7%) (Table 1.1).

1. According to NLSCY data (Cycle 1), 85% of children in Québec aged under 12 years remained with their mother when their parents separated (Marcil-Gratton and Le Bourdais, 1999).

2. The NLSCY is a survey conducted by Statistics Canada and Human Resources Development Canada on 22,831 children aged 0-11 years at the first round (1994-95); the QLSCD borrowed several of the NLSCY survey instruments.

3. In Québec, 56.1% of all births in 1998 are classed as "out of wedlock" births, meaning that they are births in a common-law union or to a single mother (Duchesne, 2001).

Table 1.1

Among children aged approximately 29 months whose parents were living together at their birth, proportion whose parents separated, according to the type of conjugal union, Québec, 1998 and 2000

	Parents separated since birth	
	%	n
Direct marriage (no previous cohabitation)	3.4 **	352
Marriage preceded by cohabitation	6.8 *	509
Common-law union	15.7	955
Total	10.8	1,816
χ^2	p < 0.001	

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

This first finding confirms the need to expand this analysis of the socio-demographic factors linked to early separation. To the demographic variables already identified, others will be added: parents' age at the child's birth, the duration of the union, and the child's birth order. The research will also be extended to include several socio-economic variables, making it possible to determine the characteristics of parents most likely to terminate their union relatively quickly after the target child's birth. This preliminary exploration will attempt to evaluate the impact of parents' education, religion, birthplace, mother tongue, employment status and household income level. Other variables of a more psychological nature collected at the QLSCD, such as family functioning, the conjugal relationship or parenting practices, will not be included for the present. The analysis will be limited to the impact of the various socio-demographic variables with which we are more familiar.

1.1 Literature review: determinants of early separation

Most researchers investigating early separation adopt the couple's perspective. They attempt to pinpoint what it is about their conjugal history, personality or socioeconomic characteristics that puts these couples more at risk of union breakdown, and what determines the timing of the separation. Such studies have been in existence for many years, particularly in the United States, where the phenomenon of divorce has been widespread for several decades. Bumpass and Sweet (1972), using data from the 1970 National Fertility Survey, identified certain socio-demographic determinants of divorce that still have an influence

today: early age at marriage, an age difference between spouses, premarital conceptions, the husband's previous marriage, the experience of their own parents' separation during childhood, and a difference between spouses in education levels or religious affiliation.

Increasingly sophisticated analytical methods have enabled more recent studies to include the timing of separation or divorce: authors like Chan and Heaton (1989) and Haskey (1987), for instance, showed that an early age at marriage and premarital conceptions were associated not only with a higher rate of divorce, but also with a shorter union duration. These associations have also been demonstrated with Canadian data (Desrosiers and Le Bourdais, 1991). Others have confirmed the significant impact of these variables, even after controlling for the effects of a couple's socioeconomic status (Haskey, 1987) or for the wife's paid employment outside the home (Corley and Woods, 1991).

The rise of common-law unions, first as an entry into conjugal life, and then as a context within which to start a family, impelled researchers to broaden their field of study to include this type of union. These studies showed that common-law unions are considerably less stable than marriages (Balakrishnan *et al.*, 1993; Le Bourdais and Marcil-Gratton, 1996), and that the type of entry into conjugal life plays an important role in a couple's probability of separation: couples who marry after cohabiting are consistently more likely to separate than are those who marry directly (De Maris and Rao, 1992; Hall and Zhao, 1995). In addition, past conjugal history also has an influence on the future of the union, with remarriages

being more fragile than first marriages, for example (Martin and Bumpass, 1989).

An impressive body of research from psychology is the source of much of the literature on the topic of early separations. Rather than evaluating the factors determining whether children live their parents' separation in early childhood, however, these studies tend to focus on the impact a child's arrival has on his parents' relationship. Most studies seem to suggest that pregnancy and birth have a negative effect on a couple's relationship (Belsky, 1985; Kurdek, 1991; Wilkinson, 1995), although this does not necessarily lead to separation. Demographic research generally indicates the opposite effect, with the arrival of a child in a union tending to reduce separation risks, once the impact of premarital conception is controlled for. Instead, the child's birth acts as a protective factor, for both married and common-law couples (Lillard and Waite, 1993; Wu, 1995), and for those in a second marriage (Wineberg, 1992) or a stepfamily (Desrosiers *et al.*, 1995). In contrast, the presence of children from a previous union tends to increase union instability, although this effect varies with the age of the children and the structure of the stepfamily (Desrosiers *et al.*, 1995; Wineberg, 1992).

Several studies have examined the impact of various socioeconomic and cultural characteristics, such as education, labour force participation, religion or language on the risk of separation, but findings from these studies are mixed (Bumpass *et al.*, 1991; Le Bourdais *et al.*, 2000). The absence of consensus in the literature may be due to a change in the impact of these variables over time. This evolution affected men and women differently, and, all the while, parallel changes were altering the profile of cultural communities. For example, over the last twenty years, highly educated women moved from being more likely to separate to being less likely to do so than less-educated women (Hoem, 1997); this same evolution is not as apparent among men (Neill and Le Bourdais, 1999). As Oppenheimer (1994) notes, with insecurity in the labour market hitting men harder than women, this may mean that having women in paid employment and having access to a good income contribute to, rather than threaten, family stability.

The majority of these studies adopt a different perspective from the one selected here: they include all couples, while the QLSCD, by definition, includes only couples who are also parents. However, one or two recent studies have analysed separations from the moment of the first child's birth; their findings showed that the factors linked to family instability are very similar to those linked to the instability of couples in general (Bumpass and Lu, 2000; Le Bourdais *et al.*, 2000). On this basis, it is reasonable to expect that these factors will also make it possible to distinguish families who break-up rapidly from those who do not: this is the central objective of the following analyses.

In addition, there is an abundant literature on the impact parental separation has on children (to cite but a few: Amato, 1993 and 2000; Cherlin *et al.*, 1991; Cloutier, 1997; Hetherington *et al.*, 1985; Wallerstein and Kelly, 1980). Exploring the effects of early separation in the life of young children, however, is far less common. When the child's age at separation is included, the criteria used are arbitrary and often defined in very broad terms: looking at the characteristics of children who experience separation before the age of 16 or 20 years, for example. Findings are inconsistent: some illustrate the harmful nature of separations experienced when children are young (Allison and Furstenberg, 1989; Emery 1988; Wallerstein and Kelly, 1980); others show that, on the contrary, adolescence is the most hazardous period in terms of the negative impact of separation on the development of young adults (Chase-Lansdale *et al.*, 1995; Fergusson *et al.*, 1994). A recent study (Woodward *et al.*, 2000) adopted an approach closer to the one employed here; a cohort of 1,265 children born in 1977 was followed from birth to the age of 16 years, in order to measure the effect of the timing of parental separation on the level of attachment between parents and children when they reached the age of 16 years. Findings revealed that a low level of parental attachment was associated not only with the experience of parental separation, but also with the timing of the separation in children's lives. The younger children were when their parents separated, the more likely they were to have low parental attachment during adolescence. This study of a specific aspect of child development is just one example of the type of research that can be realized with QLSCD data.

As a source of data for investigating parental separation in early childhood, the QLSCD has a threefold advantage:

- The detailed nature of conjugal and parental history data from both parents makes it possible to measure the exact age at which children are exposed to change in the family environment following conjugal transitions made by the mother and father;
- The QLSCD collected relevant family trajectory data from parents both *before* and *after* the child's birth, which make it possible to extend the search for the determinants to events that precede those occurring in the child's life.
- Finally, the QLSCD collects data prospectively both on a variety of child development measures and on changes in the family environment following parental separation, including the arrival of a new partner in the mother's or father's life, whether this partner has children from an earlier union, and whether a child is born within the new union.

2. The Sample

This analysis is based on a sample of 1,819⁴ biological children whose parents were together at their birth and for whom family history information collected at the first (1998) and third (2000) QLSCD rounds is complete.

The following cases have been excluded:

- children whose parents had never lived together (n = 70);
- children whose parents had lived together only *before* their birth (n = 41);
- children whose parents were living apart at the birth, but who lived together *after* the birth (n = 64)⁵;
- children for whom it is not known whether their parents were together at birth (n = 3).

Of the 1,819 remaining children, 196 had parents who had separated before the QLSCD third round (2000). These children form the group classified in this analysis as having experienced early parental separation. The parents of 29 children in this group were already separated at the first round when they were around 5 months old. These cases of very early separation are problematic because certain pieces of information relating to the father, and used to identify sociodemographic determinants of separation (such as the religion, country of origin and mother tongue), were not collected when parents were already living separately at the first round. To avoid omitting these cases of extremely early separation from the analysis of determinants, the process will be broken down into two steps. In the first, the analysis will include all separations, but will be restricted to maternal characteristics only. In the second, the impact of father characteristics will also be evaluated, by repeating the analysis on a sample restricted to separations occurring between rounds 1 and 3 but with paternal characteristics included. Once weighted, the results presented here

can be extrapolated to the entire population of children in Québec covered by the QLSCD, whose biological parents were living together when they were born.

4. This number is equal to the sum of the weights of an initial sub-sample (unweighted) of 1,848 children.

5. Of these children, 48 were still living with both parents at the 2000 round; the parents of 2 children had separated again by the 1998 round, and those of 14 children had separated between the first and third rounds.

3. The “Demographic” Model: Parents’ Family Pathways

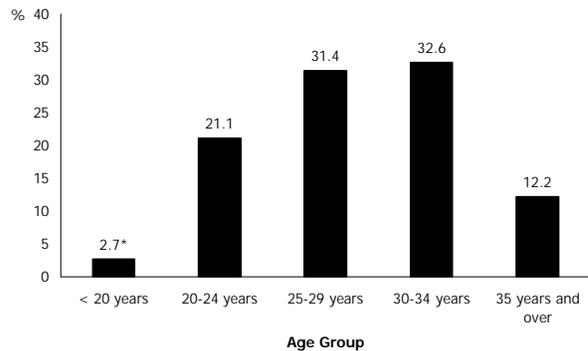
As already mentioned, being born within a common-law union appears to suggest that young children are more likely to experience their parents’ separation. Is this association reinforced or weakened when other demographic variables, summarizing aspects of parents’ family trajectories, are introduced into the equation? In this analysis, before exploring the impact of parents’ conjugal history (unions before the one in which the target child was born) and parental history (existence of children born within these previous unions), the effect of the following factors will be examined:

- mother’s age at the child’s birth⁶;
- the duration of the parents’ union at the child’s birth;
- the child’s birth order.

3.1 The choice of a common-law union among young, and not-so-young, parents

The mothers of the children covered by the QLSCD have the age profile typical of present-day mothers. With the average age at childbirth in Québec, as in most other industrialized nations, approaching thirty⁷, it is no longer possible, in relative terms, to restrict the label “very young mothers” to adolescent mothers. Figure 3.1a shows that only around 3% of children whose parents were together at their birth⁸ were born to teenage mothers, while approximately 21% had mothers in the 20 to 24 years age group. The mothers of the majority of children were aged 25 to 29 years (31%) or 30-34 years (33%), and there were relatively more “older” mothers (aged 35 years or more -12%) than “very young” mothers (under 20 years).

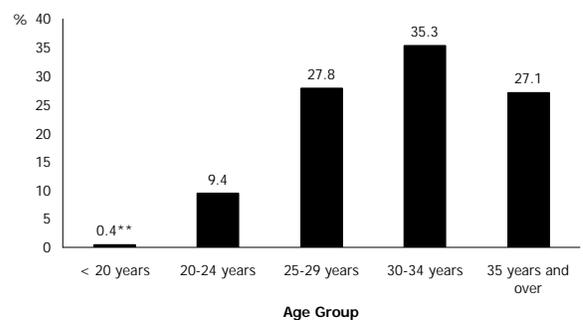
Figure 3.1a
Distribution of children whose parents were together at their birth, according to the mother’s age group, Québec, 1998



* Coefficient of variation between 15% and 25%; interpret with caution.

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

Figure 3.1b
Distribution of children whose parents were together at their birth, according to the father’s age group, Québec, 1998



** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

This distribution supports the decision to group mothers in their early twenties with adolescent mothers when investigating the case of women becoming mothers relatively young. They have similar conjugal behaviour, as Figure 3.2a shows. In Québec, in 1998, giving birth to a child outside legal marriage is certainly not restricted to very young mothers, as roughly half the mothers aged 25 to 29 years, and around 40% of older mothers giving birth within a couple, are in this situation. However, the fraction

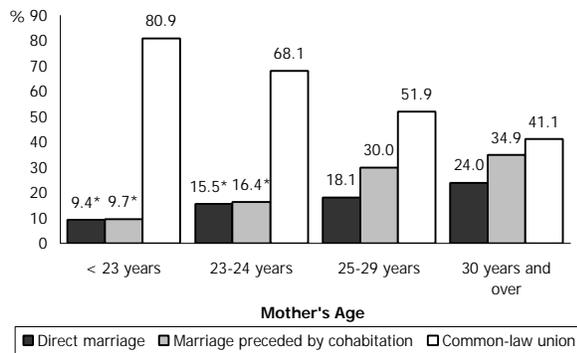
6. Studies of separation and divorce, among couples with or without children, generally make reference to the age at the start of the union. When focussing on the stability of couples with children, the mother’s age at the birth is more relevant.

7. In Québec, the average age at childbearing in 1998 was 28.4 years (Duchesne, 2001).

8. 3.9% of all children, according to the QLSCD.

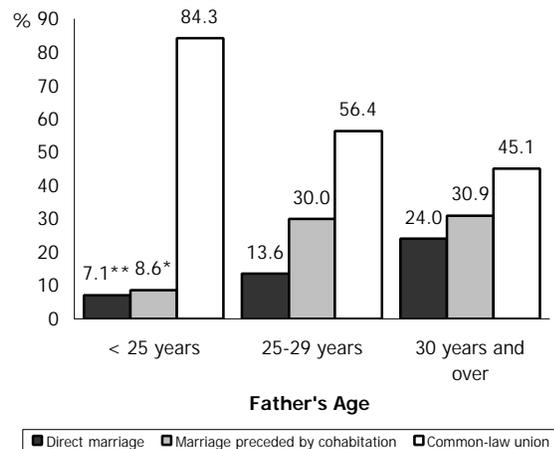
climbs to 68% when the mother is aged 23 or 24 years, and to 81% when aged between 16 and 22 years.

Figure 3.2a
Distribution of children whose parents were together at their birth, according to the mother's age group and union type at birth, Québec, 1998



p < 0.001
 * Coefficient of variation between 15% et 25%; interpret with caution.
 Source: Institut de la statistique du Québec, QLSCD 1998-2002.

Figure 3.2b
Distribution of children whose parents were together at their birth, according to the father's age group and union type at birth, Québec, 1998



p < 0.001
 * Coefficient of variation between 15% and 25%; interpret with caution.
 ** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.
 Source: Institut de la statistique du Québec, QLSCD 1998-2002.

The profile of fathers is very close to that of mothers. Adolescent fathers are now sufficiently rare (0.4% of fathers living with the child's mother at birth) that it is perfectly reasonable to regard all fathers under the age of 25 at their child's birth as "very young fathers"; even so, they represent under 10% of fathers living with the mother at the child's birth. Figure 3.1b shows that, as with mothers, the highest proportion of fathers were in the 30 to 34 years age group (35%); however, the proportion of fathers aged 35 years and over is more than double (27%) that of mothers (12%). Although the average age difference between spouses is a well-known phenomenon, the scale of the difference within each couple is one of the variables to be introduced into this analysis of the demographic determinants of early separations.

Moreover, the same association between age and the choice of a common-law union found for mothers can be observed among fathers in Figure 3.2b: at each age, the fraction of fathers in a common-law union is high - over 45%; among young fathers, however, this choice is pervasive: 84% of children with a father less than 25 years old were born within a common-law union. These parallels between parents' age and the type of union might be expected to translate into a similarity between the sexes in the propensity to experience an early separation. This validates the decision to examine these links concentrating only on mothers' characteristics for the time being.

3.2 Young mothers and common-law union: a double risk factor

Having a child in a common-law union for a mother in her teens or early twenties appears to increase significantly conjugal instability and the probability of early separation. Table 3.1, which presents the proportion of children whose parents were separated at the 2000 round according to the mother's age and type of union, reveals two trends:

1. Irrespective of the union type, couples in which the mother was aged under 25 years when she gave birth are more likely to terminate their union early on. Approximately 8% of 29-month-old children born to mothers aged 25 years or more had separated parents; the proportion for children born

to young mothers (under 25 years) was almost two and a half times as high (21%);

- Irrespective of the mother's age at birth, early separations are more frequent in common-law unions than marriages, although parents who lived together before marriage are also more likely to separate than those who did not.

However, among young mothers (under 25 years), the impact of union type is more dramatic, not only because the more fragile common-law unions predominate in this age group, but also because separation levels are higher for all union types: at 2½ years, around 8% of children born to young married mothers had experienced their parents' separation; the fraction climbed to 13% among parents who had lived together before marriage, while it reached almost a quarter among children born to young mothers in a common-law union with the father. Among young mothers in common-law unions, therefore, one can talk of a widespread phenomenon of early single-parenthood resulting from parental separation.

3.3 Having a child early on: accelerating union breakdown

Overall, parents who entered their union shortly before the birth of a child were more likely to separate within 2½ years of their child's birth. This is the case for 27% of unions starting within 18 months of the child's birth, around 12% to 15% of unions beginning between 18 months and 3 years before, and around 7% of unions of longer duration (three years or more) (Table 3.3).

This association cannot be confirmed without first controlling for the impact of union type and the child's birth order. Parents who had lived together before marriage, for example, may well have a longer union duration than parents who married directly or who did not marry at all. A link is also possible between a duration of under nine months at the child's birth and premarital conceptions, which may have motivated certain couples to marry without first living together, or quite simply to enter a common-law union; this type of union is conceivably particularly fragile. The question of union duration cannot be explored independently of the nature of the parents' union.

Table 3.1

Among children aged approximately 29 months whose parents were living together at their birth, proportion whose parents separated, according to the mother's age group at birth and type of conjugal union, Québec, 1998 and 2000

	Direct marriage		Marriage preceded by cohabitation		Common-law union		All union types	
	%	n	%	n	%	n	%	n
16-24 years	8.3 **	53	13.0 **	55	24.3	326	20.9	434
25-29 years	2.5 **	103	5.8 **	171	11.6 *	296	8.2	570
30-44 years	2.6 **	196	6.1 **	283	10.8 *	334	7.2	812
χ^2	Not signif.		Not signif.		p < 0.001		p < 0.001	

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient de variation greater than 25%; imprecise estimate for descriptive purposes only.

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

Table 3.2

Distribution of first births and all births among children with both parents at birth, according to the type of conjugal union, Québec, 1998 and 2000

	All births		First births
	%		
Direct marriage (no previous cohabitation)	19.3		17.1
Marriage preceded by cohabitation	28.1		22.9
Common-law union	52.6		60.0
Total %	100.0		100.0
n	1,819		798

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

Table 3.3

Among children aged approximately 29 months whose parents were living together at their birth, proportion whose parents separated, according to their birth order and the union duration, Québec, 1998 and 2000

	First birth		All births	
	%	n	%	n
0-8 months	24.4*	65	26.9*	81
9-17 months	26.2*	118	27.1	150
18-23 months	12.4**	89	15.2**	118
24-35 months	8.0**	144	12.4*	219
36-47 months	6.8**	101	6.9**	199
48 months or more	5.9*	279	7.2	1,044
All durations	11.6	796	10.8	1,811
c²	p < 0.001		p < 0.001	

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

Finally, the child's birth order is important here, given that union duration will vary according to whether it is the couple's first child or not. Note that the distribution by type of union varies very little according to whether or not it is a first birth (Table 3.2). This simplifies the interpretation of the relationship between early separation and the type and duration of the union.

This being said, generally speaking, the shorter the union duration at the child's birth, the higher the percentage of early separations. Table 3.3 confirms the greater instability of unions of very short duration (less than nine months); nevertheless, these "shotgun" unions are not the sole cause, as unions of a slightly longer duration (from 9 to 17 months) are just as likely to terminate during early childhood – the case for just over a quarter of them.

Table 3.4 confirms this relationship for both marriage⁹ and common-law unions, and for first births and all births. For instance, towards the age of 2½ years, almost 10% of first children born within a marriage celebrated less than two years¹⁰ before their birth had already experienced their parents' separation; this

was the case for around 2% of children whose parents had been married for 4 years or more. A similar difference exists, but at a much higher level, among children born to cohabiting parents: the proportion reached 25% for those born in common-law unions of less than two years duration compared with around 10% when parents had been together for 4 years or more.

9. In this case, marriages preceded by cohabitation have been grouped with direct marriages.

10. To have a sufficient number of cases, we were obliged to include as "short duration" births occurring less than 24 months after the start of the union, which made it impossible to analyse a phenomenon like premarital conceptions. Later on in the analysis, this type of question will be dealt with using logistic regression analysis.

Table 3.4

Among children aged approximately 29 months whose parents were living together at birth, proportion whose parents separated, according to their birth order and the type and duration of the parents' union at their birth, Québec, 1998 and 2000

	First births		All births	
	%	n	%	n
Marriage ¹				
less than 24 months	10.2 **	63	11.3 **	78
24-47 months	2.2 **	106	6.3 **	163
48 months and more	2.3 **	150	4.4 *	618
c ²	p < 0.05		Not signif.	
Common-law				
less than 24 months	24.6	208	26.4	272
24-47 months	11.5 **	139	12.0 *	255
48 months and more	10.0 **	129	11.1	426
c ²	p < 0.01		p < 0.001	

1. Whether or not parents had lived together before marrying.

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

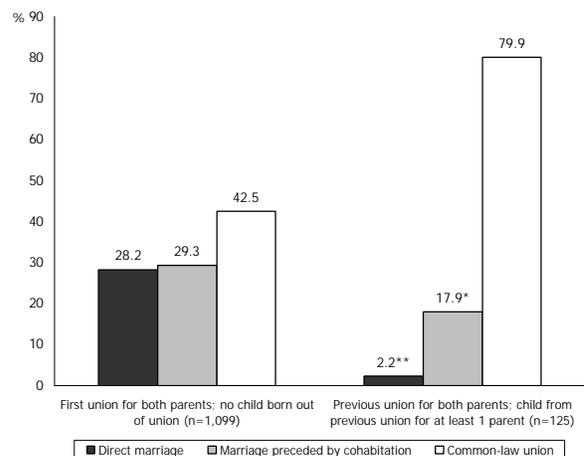
The "common-law" effect appears, therefore, to persist beyond any consideration of union duration since, at equal duration, and even at equal birth order, the gap between children with married parents and those born in a common-law union is still visible.

3.4 Parents' conjugal past

Preliminary analyses, conducted when the children were only 5 months old, uncovered certain characteristics of parents' conjugal history that, in the light of other research on the topic, forewarned of an eventful family life course to come (Marcil-Gratton and Juby, 2000). These characteristics, in particular the fact of having parents who are not in their first union, and who have had children within an earlier union, appear to play a role in early parental separations, as we will see.

On the one hand, having a conjugal and parental history is not unconnected to the type of union parents choose when forming a new family unit after a first separation (Figure 3.3). Thus, 57% of children with parents who have no previous conjugal or reproductive history are born within marriage, whether preceded (29%) or not (28%) by a period of cohabitation. At the other extreme, 80% of children with parents who had both been in a union, and of whom at least one had a child from an earlier union, were born in a common-law union.

Figure 3.3
Distribution of children whose parents were together at their birth, according to the union type at birth and the parents' previous family trajectory, Québec, 1998



p < 0.001

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

In Table 3.5, on the other hand, it is clear that the proportion of unions terminated very soon after the birth of a child common to the new couple is higher when both parents had already experienced conjugal life with other partners: at 2½ years, among children whose parents were both in their first union, 9% had experienced their parents' separation; this proportion climbs to 19% when both parents had been married to or living with a previous partner ($p < 0.001$). Moreover, this association is strongly reinforced when the presence of children from these earlier unions is included: when both parents have already been in a union with other partners, the fraction of early separations rises from around 11% in the absence of children born within earlier union to 27% when at least one parent had children from an earlier union ($p < 0.01$).

Little is known about the effect of children born within previous unions. This is partly because researchers often have access to incomplete information. For instance, most studies on "stepfamilies" exclude from the very definition of a stepfamily those in which

children from a previous union are not living in the surveyed household. In the absence of the relevant data, the concept of residence takes precedence and these families are considered to be "intact", even though it is known that many parents have frequent contact and are closely involved, emotionally and financially, with children with whom they do not live (Marcil-Gratton and Le Bourdais, 1999). As most children live with their mother at separation, this practice means, in particular, that the proportion of families creating a new family unit in which fathers have children from an earlier union is underestimated. The distribution in Table 3.6 indicates that, in almost 20% of cases, all the children from previous unions live outside the target child's household and that this situation most often involves the father's children (16%). This justifies the fact that these families are treated here as stepfamilies, even if the QLSCD data does not make it possible to know the nature of the contact between the target child and his half-siblings living elsewhere.

Table 3.5

Among children aged approximately 29 months whose parents were living together at their birth, proportion whose parents separated, according to their parents' previous family history, Québec, 1998 and 2000

	Parents separated	
	%	n
No previous union		
No child	8.3	1,100
At least one child ¹	... ²	20
Total	8.6	1,120
Previous union – mother only		
No child	8.3 **	151
At least one child	10.8 **	50
Total	8.9 *	201
Previous union – father only		
No child	14.1 *	165
At least one child	13.6 **	64
Total	14.2 *	229
Previous union – mother and father		
No child	11.3 *	141
At least one child	27.1	124
Total	18.7	265

1. Refers to children born outside a union.

2. The sample size prevents the calculation of the proportion of children whose parents separated.

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

Table 3.6

Distribution of families with children from parents' previous unions, according to their origin (mother's or father's children) and whether they were present in the household at the target child's birth, Québec, 1998

	%
Children from previous unions living in the household ¹	
mother's children only	40.4
father's child only	29.8
children of both parents	6.6 *
mother's children in the household, father's children elsewhere	3.4 **
Children from previous unions living elsewhere	
father's children only	16.4 *
children of the mother or both parents	3.4 **
Total	100.0
n	260

1. At least one child from an earlier union living at least part of the time in the target child's household at birth.

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

Generally speaking, the QLSCD data confirm the greater fragility of stepfamilies: 21% of children born within them were no longer living with both parents at around 29 months, compared with only 9%

($p < 0.001$) of children born without half-siblings in their family environment (Table 3.7). Among stepfamilies, the most fragile appear to be those in which all children from the previous unions were living elsewhere: on the questionable basis of 51 cases, it was found that 31% of babies born in this family type experienced early parental separation. However, the difference between these children and those who live with their half-siblings is not significant.

Does the choice of a common-law union remain associated with this extra fragility? A final table (Table 3.8) presents the proportion of children living an early separation, according to their parents' type of conjugal union at birth and whether or not they had half-siblings. The data are quite clear. In the absence of children from a previous union, children born in common-law unions remain more likely to experience their parent's separation (14% v. 3.3% and 6%; $p < 0.001$). However, the existence of children from earlier unions appear to amplify this risk: the proportion reaches 14% for children born in a common-law union without half-siblings, and rises to 25% when the common-law effect is supplemented by the existence of half-siblings.

Table 3.7

Among children aged approximately 29 months whose parents were living together at their birth, proportion born to parents in a common-law union, and proportion whose parents separated, according to the family environment at birth, Québec, 1998 and 2000

	Born in a common-law union		Parents separated	
	%	n	%	n
No child from a previous union	49.2	1,559	9.2	1,558
At least one child from a previous union	73.0	260	20.5	259
All living elsewhere	57.6	51	31.1 *	51
Living in the household				
children of the mother or of both parents	75.0	131	18.2 *	130
father's children only	79.8	78	17.4 *	78

* Coefficient of variation between 15% and 25%; interpret with caution.

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

Table 3.8

Among children aged approximately 29 months whose parents were living together at their birth, proportion whose parents separated, according to the union type and the existence of children from previous union, Québec, 1998 and 2000

	Parents separated	
	%	n
Direct marriage		
No CPU	3.3 **	333
One CPU or more	... ¹	18
Marriage preceded by cohabitation		
No CPU	6.2 *	457
One CPU or more	10.6 **	52
Common-law union		
No CPU	13.5	767
One CPU or more	24.6	189

1. The sample size prevents the calculation of the proportion of children whose parents separated.

* Coefficient of variation between 15% and 25% ; interpret with caution.

** Coefficient of variation greater to 25%; imprecise estimate for descriptive purposes only.

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

3.5 Regression analysis: the net effect of demographic determinants

The data presented above highlight the close association between various demographic characteristics of parents and the probability of parental separation during the first 2½ years of a child's life. Parents' age at birth, the type and duration of the union, and the fact that one or other parent had previous experience of conjugal life, are all factors that appear intimately linked with a raised risk of early separation. However, these factors are not independent of one another. As we saw, the type of union is as closely related to the mother's age at the target child's birth as it is to the conjugal and parental pathways preceding the birth. Is it possible to disentangle the net effect that each variable or characteristic has on the risk that young children experience their parents' separation? In other words, is it possible to isolate, for example, the impact of common-law unions once the mother's age at the birth and their previous parental history are taken into consideration?

Logistic regression is the appropriate tool for this kind of question. This method makes it possible to take

account of several explanatory variables at the same time and to measure the net effect of each one on the probability that children experience their parents' separation; the ratios presented in Table 3.9 are measures of these net effects.

Concretely, the dependent variable to be explained by the demographic variables in the analysis is the probability that children born within their parents' union experience the end of this union before the age of 2½ years – between birth and the third survey round (2000). The sample, therefore, includes all children whose parents were living together at their birth for whom the relevant information is available, irrespective of their parents' conjugal situation at the third round.

The independent variables integrated into the model include: the type of parents' union at the birth; the mother's age at the child's birth; the duration on the union at the birth; the child's birth order; the conjugal history of the father, mother or both parents; and, finally, whether children from a previous union of the father or mother (i.e. the target child's half-siblings) live in the surveyed household. The variables in the logistic regression analysis are polytomic, meaning that they compare different categories with one another. For example, in the light of the preceding analyses, three union types are identified. One of the categories (direct marriage) serves as the reference group in the equation, and the ratios attached to the two other categories (marriage preceded by cohabitation, and common-law union) compare the effect of each one with the reference category. The "coefficients" presented in Table 3.9 are the odds ratios (e^{β}). A ratio of less than 1 indicates that the category in question has a lower probability of separation than that of the reference category, while a value superior to 1 denotes a higher probability. When the event is relatively rare and the probability that the event occurs is low (10% or less), these ratios can be interpreted as relative risks; one might say, for example, that children belonging to one group are twice as likely to live their parents' separation than those in another group. This premise does not always hold here, since the risk of separation can reach up to 30% for certain sub-groups of children. In this case, odds ratios either overestimate the relative risk (when the odds ratio is above 1), or underestimate it¹¹. However, given its

11. See Hosmer and Lemeshow (1989)

ease of understanding, the odd ratios presented in Table 3.9 will be interpreted according to the concept of a relative risk. It is important, therefore, to keep the possible biases in mind.

Table 3.9 shows that, even after controlling for all other variables, the type of union in which children are born remains closely linked to the probability of early separation: children born to parents who lived together before marriage are around twice as likely (odds ratio of 2.19) to experience their parents' separation, and children from common-law unions around three times as likely. Clearly, parents who marry without first trying out their relationship informally behave differently from those who experimented with conjugal life before "tying the knot", and this is the case even when such variables as the mother's age at birth, or the existence of children from an earlier union, are controlled for.

Among the other characteristics shown to be linked to the risk of parental separation, it is no surprise to find that mother's age at the birth has a strong impact. Compared with children whose mothers were in their thirties (or older) at the birth, children born to teenage mothers are, all things being equal, more than eight times as likely to experience their parents' separation, and those whose mother was aged for 20 to 24 years, two to three times as likely. In contrast, children born to a mother aged 25 to 29 years appear to be no more at risk than those born to older women, which suggests, as we saw, that the phenomenon of rapid separation among "very young mothers" is not restricted to adolescent mothers, but extends to mothers in their early twenties.

Table 3.9

Effect of demographic characteristics on the probability that children experience their parents' separation between birth and the age of around 29 months, Québec, 1998 and 2000

Characteristics	Variable categories ¹	Odds ratios ²
Type of union at birth (Direct marriage)	Marriage preceded by cohabitation	2.19 †
	Common-law union	3.31 ††
Mother's age at birth (30 years and over)	16-19 years	8.47 †††
	20-22 years	2.93 †††
	23-24 years	2.06 ††
	25-29 years	1.28
Union duration at birth (48 months or more)	Less than 9 months	2.42 †
	9-23 months	2.04 †
	24-47 months	0.96
Child's birth order (First birth)	Birth order 2	1.59 †
	Birth order 3 +	1.92 †
Parents previous unions (No union)	Mother only	0.91
	Father only	1.28
	Both parents	1.77 †
Children born in a previous union (No child)	Child(ren) present in the household	1.15
	Child(ren) living elsewhere	3.77 †††

1. The reference category is given in parentheses.

2. Ratios significant at the level of: †: 0.10; ††: 0.05; †††: 0.01; ††††: 0.001.

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

The duration of the union in which children are born, and their birth order, also have an influence on early separation. Being born less than two years after the start of a union, irrespective of whether the conception occurred before or after the parents set up home together, multiplies by just over two the probability of separation. Once the two-year threshold is passed, however, union duration has no further significant impact on separation risks. In addition, the probability of separation rises with the birth order, such that second children are one and a half times more likely than first-born children to live this experience, and those of birth order 3 or more almost twice as likely.

Parents' conjugal and family history also has an impact on the risk of early family breakdown, and this effect persists even when the type of union - the tendency to select common-law unions over marriage for subsequent unions - is taken into consideration. This finding needs some qualification, however. If only one of the parents had a previous experience of conjugal life, this does not appear to be linked to a higher risk of separation when the fertility of earlier unions is controlled for. Only when both parents have lived at least one earlier union do children see a significant rise in the likelihood that parents separate.

In addition, once the effect of other variables is controlled for, children born in a stepfamily with half-siblings living in the same household are not significantly more likely to experience parental separation than those born in an intact family. Those whose half-siblings live elsewhere, however, are significantly more at risk (odds ratio of 3.8). At first, this is a surprising result. One might expect the presence of more than one sibling group under the same roof to be a source of problems and stress likely to lead to separation. In addition, with other studies (Desrosiers *et al.*, 1995; Ferri, 1995) showing that stepmother families (father's children from a previous union) are generally more stable than the much more common stepfather families, one might expect the existence of children from a previous union living elsewhere, most often father's children, to be associated with a lower risk of separation. This is perhaps due to the fact that research on this topic defines stepfamilies in terms of children's residential status: families in which a parent has children from a previous union living in another household are not

included among "stepfamilies", but are rather classified with the "intact" families. Our analysis throws new light on how the existence of children born in previous unions can influence the risk that parents separate, even when these children do not reside in the household. This is made possible by the detailed data collected by the QLSCD on the conjugal and parental life course of both parents.

4. The Socio-Economic Environment: Parents' Characteristics

Demographic variables, drawn from the couple's conjugal and parental histories, appeared in the above model to have a marked impact on the probability of early separation. The next step involves testing how robust these links are, by introducing various socio-economic indicators that may also be associated with the propensity of couples to terminate their union soon after the arrival of a child. Do giving birth to a child without being married, becoming a parent at a young age, having children from earlier unions not living in the household, or being born into a recent union, still have a strong influence on separation probabilities once parents' socio-economic characteristics, such as education, employment or household income, and socio-cultural characteristics such as religion, place of birth, or mother tongue, are integrated into the analysis? The analyses presented in the next section will attempt to provide some answers to these questions.

The QLSCD collected information on the socio-economic characteristics of the child's two parents, if they were living together at the first survey round (1998) when the baby was only about 5 months old. As mentioned earlier, the parents of 29 children born to a couple had already separated by then. We have no choice but to omit these cases of very early separation from the following analysis, as several socio-economic characteristics were not collected about fathers who were not living in the household.

4.1 Mother's and father's characteristics

Tables 4.1 and 4.2 present the distribution of children according to the characteristics of their mother and father; also given for each characteristic is the proportion of children a) who were born within a common-law union and b) whose parents separated within the first 2½ years of their life. Characteristics related to the couple will also be integrated into the regression analysis, to take account, for example, of whether the mother and father share or do not share the same mother tongue. However, first we will explore, in relation to the characteristics of the mother and father separately, the popularity of common-law unions and the likelihood of early separation.

Thus, while over 80% of mothers and fathers of children born to a couple still declare themselves Catholics, only a small proportion (23% of mothers and 18% of fathers) can be termed "practising" according to the relatively liberal definition of attending mass at least three or four times a year. In Québec, the barrier between religious groups is still fairly impenetrable: 80% of parents in a couple at their child's birth both declared themselves to be Catholics (data not presented). In addition, practising Catholics are less likely to choose a common-law union than are non-practising Catholics (38% of children with practising mothers compared with 67% of those with non-practising mothers), and the data suggest a greater fragility of union among Catholic couples who had more or less abandoned religious attendance, although this difference is not significant at the 0.05 level.

Table 4.1

Among children aged approximately 29 months whose parents were living together at their birth, proportion born within a common-law union, and proportion whose parents separated, according to various characteristics of the mother, Québec, 1998 and 2000

	Distribution	Parents in common-law union %	Parents separated
Religion			
Practising Catholic	23.0	38.1	8.5 *
Non-practising Catholic ¹	60.7	66.5	11.7
Protestant	3.0	21.8 **	8.3 **
Other	10.3	13.7 *	10.4 **
No religion	2.9	46.9 *	14.1 **
Total %	100.0		
n	1,819		
χ^2		p < 0.001	Not signif.
Level of education			
No high school diploma	17.0	71.7	18.4
High school diploma	26.1	57.3	13.0
Post-secondary school	30.1	51.1	9.0
University degree	26.8	37.6	5.8 *
Total %	100.0		
n	1,819		
χ^2		p < 0.001	p < 0.001
Employment status in the year preceding the 1998 round			
Working full time	54.2	51.6	8.1
Working part time	17.5	55.0	10.3 *
Not working	28.3	52.4	15.6
Total %	100.0		
n	1,802		
χ^2		Not signif.	p < 0.001
Place of birth			
Canada	85.6	58.3	11.4
Outside Canada	14.4	18.5 *	7.4 **
Total %	100.0		
n	1,819		
χ^2		p < 0.001	Not signif.
Mother tongue			
French	77.7	62.6	12.0
English	8.5	29.1	7.8 **
Other	13.8	10.9 *	5.9 **
Total %	100.0		
n	1,819		
χ^2		p < 0.001	p < 0.05

1. Attended a religious service once or twice, or not at all, in the course of the year preceding the QLSCD first round.

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

Table 4.2

Among children aged approximately 29 months whose parents were living together at their birth, proportion born within a common-law union, and proportion whose parents separated, according to various characteristics of the father, Québec, 1998 and 2000

	Distribution	Parents in common-law union %	Parents separated
Religion			
Practising Catholic	18.0	35.8	6.7 *
Non-practising Catholic ¹	64.1	65.4	10.9
Protestant	2.9 *	15.7 **	4.4 **
Other	11.0	10.6 **	6.2 **
No religion	4.0	50.9	9.2 **
Total %	100.0		
n	1,787		
χ^2		p < 0.001	Not signif.
Level of education			
No high school diploma	20.3	69.4	15.7
High school diploma	26.0	57.8	9.7
Post-secondary school	28.6	50.2	7.6 *
University degree	25.1	34.7	5.7 *
Total %	100.0		
n	1,772		
χ^2		p < 0.001	p < 0.001
Employment status in the year preceding the 1998 round			
Working full time	90.7	51.9	8.9
Working part time	3.4	53.5	17.1 **
Not working	5.9	53.2	11.8 **
Total %	100.0		
n	1,778		
χ^2		Not signif.	Not signif.
Place of birth			
Canada	84.9	58.6	9.9
Outside Canada	15.1	15.0 *	6.3 **
Total %	100.0		
n	1,787		
χ^2		p < 0.001	Not signif.
Mother tongue			
French	76.9	61.9	10.6
English	8.5	31.9	6.5 **
Other	14.6	12.0 *	4.8 **
Total %	100.0		
n	1,787		
χ^2		p < 0.001	p < 0.05

1. Attended a religious service once or twice, or not at all, in the course of the year preceding the QLSCD first round.

* Coefficient of variation between 15% and 25%; interpret with caution.

** Coefficient of variation greater than 25%; imprecise estimate for descriptive purposes only.

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

The declaration "Catholic" reflects a cultural identity, as the distributions by mother tongue show, with 78% of mothers and 77% of fathers living as a couple at their baby's birth claiming French as their mother tongue. The QLSCD data also confirms that the choice of a common-law union as the context for starting a

family is a largely Francophone phenomenon in Québec: among French-speaking parents having a child within a union, 63% of mothers and 62% of fathers were in a common-law union, compared with 29% and 32% of English-speaking mothers and fathers respectively. In contrast, cohabitation is more

or less absent from the customs of Allophone parents, with only about one-tenth of mothers and fathers declaring themselves in a common-law union at their child's birth. Similarly, the fraction of children aged 29 months whose parents were separated seems to vary according to the mother tongue of the mother (around 6% of Allophones, 8% of Anglophones and 12% of Francophones) or father (around 5%, 7% and 11% respectively).

Moreover, the parents of the QLSCD children are members of the "equal access to education" generations where girls had the same opportunities as boys. As a result, these mothers are as highly educated as their partners: more than half the parents in a couple at their child's birth have at least a post-secondary diploma, and 27% of mothers and 25% of fathers, a university degree. In all probability, this evolution is not unconnected to that occurring in family life; as educated as the fathers, modern mothers can more easily face the economic challenge of a separation even very soon after the birth of a child. By introducing in a more precise way the difference between partners in terms of education, the regression analysis will make it possible to test this kind of hypothesis.

Associated with this development, is a second one – mother's labour force participation, which also reduces their own, and their children's, financial dependence in the event of a separation. In Table 4.1, there appears to be no link between mothers' employment and the type of union with the child's father: whatever their work status during the preceding year, just over half the mothers gave birth to the target child within a common-law union. On the other hand, children of working mothers appear less likely to experience early separation (8% of children of mothers in full time work, compared with 16% of children of mothers who were not employed). It is difficult to confirm this association, however, given that the employment data relate to the 12 month period preceding the first round of the survey: this includes the last seven months of pregnancy and the first five months after birth, which may be highly unrepresentative of a mother's normal employment patterns. We nevertheless incorporated into the multivariate analysis the fact that mothers living in a couple declared working full time (54%), part time (18%) or not at all (28%) during the period.

The parents' place of birth was also included, though we were not able to specify the cultural origin of parents born outside Canada due to the small number of cases for a large number of possible countries of origin. In the analysis, children were grouped into three categories: those with both parents born in Canada, those with both parents born outside Canada, and those from a couple in which one parent was born in Canada, and one elsewhere. Among mothers and fathers, common-law unions are clearly associated with being born in Canada, the immigrant population not yet having absorbed this new trend: among two-parent families, 58% of Canadian-born mothers and 59% of fathers had their child outside marriage, compared with only 19% of mothers and 15% of fathers born outside the country. This fact may also be linked to the lower incidence of early separation among immigrant parents.

4.2 A household characteristics: income

Finally, parents' behaviour with regard to cohabitation and early separation was examined in relation to household income. In Table 4.3, children born in two-parent families were classified according to the total household income in the course of the 12 months preceding the QLSCD first round: the largest group (43%) of children were born into households with an annual family income of \$50,000 or more; 30% were born into middle income households (between \$30,000 and \$49,999); and more than a quarter into a low (14%) or very low (14%) income household - families, in other words, with a total income of \$20,000 to \$29,999 and of less than \$20,000 respectively.

Common-law unions are more common in low-income groups: over 60% of children in households with an annual income of less than \$30,000 were born to cohabiting parents. Note, however, that the fraction remains high in all income groups as, even among the children born in two-parent families with an income of \$50,000 or more, 43% were born in a common-law union. From the point of view of early separation, a much higher proportion (26%) of children in very low-income households had already experienced their parents' separation at 2½ years old.

4.3 Regression analysis: the impact of demographic and socio-economic characteristics

Which of the socio-economic characteristics examined earlier has a real influence on the probability that a child of 2½ years old has separated parents? To what extent does the introduction of these variables into the analysis modify the relationship already observed with parents' conjugal and parental history. For example, does the association between women's work status and union dissolution indicate a real effect linked to particular behaviours of working mothers, or is it rather a reflection of the more favourable economic situation of double-income households? Similarly, does the impact of young maternal age at the target child's birth signify a lack of maturity and

experience, or is it rather linked to the fact that these women are poorly educated and have low incomes? If the first type of relation is the real one, i.e. if work status and mother's age at birth have an effect in themselves, the coefficients associated with these characteristics will remain significant even with all the socio-economic characteristics entered into the model; if, on the contrary, the second process is responsible, the coefficients should no longer be significant. The results of the regression analysis presented in Table 4.4 will make it possible to verify these questions. As mentioned earlier, the analysis applies to children born within a marriage or common-law union and whose parents were still together at the first round of the survey.

Table 4.3

Among children aged approximately 29 months whose parents were living together at their birth, proportion born within a common-law union, and proportion whose parents separated, according to the gross household income group during the year preceding the QLSCD first round, Québec, 1998 and 2000

Total household income	Distribution	Parents in common-law union	
		%	
Less than \$20,000	13.8	62.0	25.9
\$20,000 - \$29,999	13.6	63.3	13.7 *
\$30,000 - \$49,999	30.0	57.5	9.4
\$50,000 or more	42.6	43.2	6.0
Total	100.0		
%	1,795		
n		p < 0.001	p < 0.001
c²			

* Coefficient of variation between 15% and 25%; interpret with caution.
Source: *Institut de la statistique du Québec, QLSCD 1998-2002.*

Table 4.4

Effect of demographic and socio-economic characteristics on the probability that children experience their parents' separation between birth and the age of around 29 months, Québec, 1998 and 2000

Variable	Variable category ¹	Model 1 Odds ratios ²	Model 2 Odds ratios ²
Type of union at birth (Direct marriage)	Marriage preceded by cohabitation	2.96 [†]	2.95 [†]
	Common-law union	3.57 ^{††}	3.48 ^{††}
Mother's age at birth		0.94 ^{††}	0.92 ^{††}
Age difference between parents (Less than two years)	Mother at least 2 years older		2.01 [†]
	Father 2 to 4 years older		1.11
	Father at least 5 years older		0.87
Union duration at the birth (48 months or more)	Less than 9 months	2.71 [†]	2.42 [†]
	9-23 months	2.05 [†]	1.85 [†]
	24-47 months	0.88	0.78
Child's birth order (First birth)	Birth order 2	1.46	1.44
	Birth order 3 +	1.52	1.57
Parents in previous unions (No union)	Mother only	0.91	0.87
	Father only	1.21	1.39
	Both parents	1.69 [†]	1.86 [†]
Children born in a previous union (No child)	Child(ren) present in the household	1.08	0.98
	Child(ren) living elsewhere	4.37 ^{†††}	5.16 ^{†††}
Mother's religion at round 1 (Practising Catholic)	Non-practising Catholic	1.04	1.06
	Protestant	1.12	1.30
	Other religion	2.31	2.60 [†]
	No religion	0.90	0.96
Parent's place of birth (Both born in Canada)	Both born outside Canada	0.78	0.97
	1 in Canada - 1 outside	2.19 [†]	2.53 [†]
Parents mother tongue (French)	English	0.31 [†]	0.23 [†]
	1 English – 1 French	0.64	0.61
	At least one other language	0.53	0.48
Mother's education at round 1 (University degree)	No high school diploma	0.82	1.20
	High school diploma	1.03	1.29
	Post-secondary diploma	0.79	0.85
Difference in education at round 1 (Father one level higher)	Mother one level higher		1.90 [†]
	No difference		2.00 [†]
Household income at round 1 (>\$50,000 and over)	Less than \$20,000	2.48 [†]	2.21 [†]
	\$20,000 - \$29,999	1.64 [†]	1.29
	\$30,000 - \$49,999	1.25	1.10
Mother's work status at round 1 (Working full time)	Working part time	0.92	0.91
	Not working	1.15	1.19
Father's work status at round 1 (Working full time)	Working part time		1.63
	Not working		0.61

1. The reference category is given in parentheses.

2. Relationship significant at the level: †: 0.10; †: 0.05; ††: 0.01; †††: 0.001.

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

As well as the variables entered into the “demographic” model, this analysis includes: the age difference between spouses¹²; mother’s religion¹³; mother’s education level and the difference in education between the parents; household income, and the employment status of both father and mother. The first model include all of the variables, except the difference between spouses in age and education, and father’s employment status, which are introduced into the second model. The variables were entered in two steps in order to bring out the role that differences between parents may play in union stability, over and above the effect of the other variables.

Most of the effects revealed by the “demographic” model remain when parents’ socio-economic and cultural characteristics are introduced into the analysis. The type of union at birth remains closely linked to the probability of early separation: children born to parents who had lived together before marrying, or to cohabiting parents, were around 3 to 3.6 times more likely to have lived this experience before the age of 2½ years than children born to parents who had married directly (model 1). Mother’s age at birth remains negatively associated with the risk of early separation, each year of age reducing the probability of separation by around 6% (1 - 0.94). Similarly, being born less than two years after the start of the union, having parents who both had previous conjugal unions, or having half-siblings living elsewhere, continue to be linked to a higher risk of separation. Finally, the ratios attached to birth orders 2, and 3 or more, remain higher than first births, though they are no longer statistically significant, due perhaps to the small numbers.

Once the effect of “demographic” variables are controlled for, children with one parent born in Canada, and one born outside Canada, are twice as likely to experience early parental separation as those with two Canadian parents. Compared with the latter, children whose parents immigrated to Canada appear to be less at risk of separation, although the difference is not significant. In addition, the ratios

associated with parents’ mother tongue, although non significant, are all below 1, suggesting a higher probability of separation for children born to French-speaking parents. Only the difference between English-speaking and French-speaking parents is significant at the 0.10 level, with the former only one-third as likely as the latter to experience their parents’ separation (ratio of 0.31). This result converges with other research showing the opposition between conjugal behaviour in Québec, with its Francophone majority, and those of English Canadians residing in other provinces (Le Bourdais *et al.*, 2000; Pollard and Wu, 1998).

Children of non-practising Catholic mothers do not appear to be more at risk of separation than children with practising Catholic mothers. Compared with the latter, it is rather children from mothers in the “other” religion category who are more likely to live the event (ratio of 2.31), although this difference is not statistically significant. The absence of statistical significance is probably due to the small numbers involved and to the fact that this category includes children from diverse cultural backgrounds whose impact is only imperfectly integrated into the analysis. Nevertheless, our findings converge with those of Wu (2000), who found no statistical link between religious affiliation and the risk of common-law union breakdown.

Neither the mother’s level of education, nor her work status during the year preceding the first survey round seems at first view to have a significant influence on early separation. Household income, on the other hand, appears to be negatively linked to the risk of parental separation¹⁴, with the odds ratio attached to each income category dropping as income rises; however, only children living in a very low income household differ significantly from children in wealthier households (\$50,000+), with a risk of experiencing their parents’ separation approximately two and a half times as high.

12. Unlike the model in Table 3.9, mother’s age is introduced into the equation as a continuous variable.

13. Father’s religion was excluded, as it was too closely correlated with the mother’s religion.

14. The results are similar when an indicator of income adequacy, that takes account of the number of individuals living in the household, is used.

Introducing father's employment status and the difference between spouses in age and education into the second model hardly alters the odds ratios of variables included in the first model, except to make significant (or not significant) at the 0.05 or 0.10 certain associations noted in the preceding model. It does, however, show how the relative position members of a couple have to one another affects union stability. Thus, when the age difference between parents is introduced, the mother's age at separation remains negatively associated with the risk of separation, but this effect varies according to the degree of heterogamy within the couple. For any given mother's age at birth, children whose mother is older than their father are approximately twice as likely to experience family disruption than when their parents are roughly the same age (two years difference or less).

Irrespective of mother's level of education, if the mother is equally or better educated than the father, children are much more at risk of their parents' early separation. These findings underline the importance of taking not only the absolute level of parents' resources into account, but also the relative position held by each, to explain variability in separation risks that certainly depend to some extent on the relationships of power and negotiation existing within couples.

5. Conclusion

The children covered by the QLSCD reached the age of just 2½ years in the year 2000. Already, however, there are signs that presage an unsettled family life course during childhood and adolescence. Often, long before they were born, their parents adopted behaviours that remain strongly associated with highly mobile family trajectories: the choice of common-law union, espoused by the majority of couples becoming parents in Québec at the end of the century, continues to be one of the most significant determinants of early separation. To this is added the impact of several other demographic variables; the most robust of these, in statistical terms, are being born to a very young mother, or to parents, most often the father, with children from an earlier union not residing in the same dwelling as the target child.

Introducing various socio-economic characteristics of parents into the regression analysis made it possible to confirm the influence of certain acknowledged determinants, but also to uncover some new ones. Among the predictable outcomes, the fact that French-speaking parents, from a Catholic background, born in Canada and living in Québec, are most likely to spurn traditional marriage is undoubtedly responsible for the low statistical significance of these variables in the analysis of early separation, given the predominance of common-law unions as a risk factor. In addition, children born into households with a very limited income remain significantly more at risk of early separation whether or not parents were married. An accumulation of undesirable effects, at least in terms of access to a reasonable standard of living, for these children when their parents separate is to be expected.

Among the less predictable determinants, the importance of changes in the environment in which new generations of mothers were raised is brought to light by including in the analysis not only their level of education, but also the difference between their qualifications and those of the father. The regression analysis showed that young mothers are more prone to early separation, irrespective of the type of union with the father. However, when the mother is older but equally or better educated than the father,

children are also more likely to experience their parents' separation at an early age. The situation of children born to these "new" and financially more independent mothers needs to be followed closely; their age, education and income allow them to envisage separation all the more easily given that they are as well, if not better, equipped than fathers to deal with it financially.

More generally, what do these findings reveal? Some reviewers reproach the "alarmist" nature of our analyses (Kempeneers and Dandurand, 2001). It needs to be understood, however, that our objective is not to stigmatise children and families when parents separate. It is evident that family transitions do not affect all children or all families in the same way. Certain individuals and families adapt better than others to, and may even benefit from, the termination of the parents' life together. It must be said, however, that most recent reviews of the consequences of separation, for both adults and children, appear to tip the balance towards the negative side, even while acknowledging the diversity of the impacts from one individual to another and the variable role of mediating and protective factors (Amato, 2000).

Our objective is to evaluate with precision the magnitude of the phenomenon of conjugal instability, on the one hand, and of its early occurrence in children's lives, on the other. This will permit analysts of child development to better appreciate the underlying mechanisms of the family transitions children experience, and provide them with more efficient tools to link these events and their sequencing to development measures collected at the same time and prospectively.

Finally, the nature of the identified "predictors" needs to be understood. Cohabitation is not in itself the "scourge" responsible for all evils associated with union breakdown, no more than the return to traditional marriage would be the universal cure. Research now needs to focus on the aspirations and attitudes underlying the behaviour of couples who choose not to marry when they decide to start a family. Why are cohabiting couples more likely to

terminate their union? Why, in their case, does the arrival of a child seem to undermine the couple's stability? Under what circumstances does this instability have negative or positive consequences for children? Are the effects different if the union terminated is a common-law union rather than a marriage? The fact that families in Québec are among the least "institutionalised" in the world in terms of conjugal behaviour makes any insight that research can bring to these questions all the more urgent.

At 2½ years, the child's family life course is already more "eventful" than might have been expected. It seems likely that family transitions occurring so early in childhood may have singular consequences that a study like the QLSCD will make it possible for researchers to uncover. This in itself merits our continued interest.

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Glossary

<i>Direction de la méthodologie et des enquêtes spéciales, ISQ</i>	Methodology and Special Surveys Division, ISQ
<i>Direction des normes et de l'information, ISQ</i>	Standards and Information Division, ISQ
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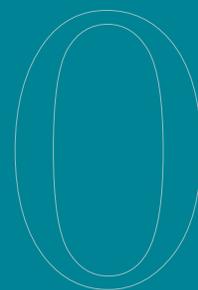
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Conjugal satisfaction is an important issue, given its close connection with child development. This, therefore, is the focus of the first section of the present document. For children living continuously in a biological intact family from birth to 2½ years, the authors examine the prevalence of couple distress among parents, on the one hand, and the factors associated with conjugal satisfaction, on the other.

In the second part, attention is directed towards the factors associated with parental separation occurring early on in children's lives. The authors explore whether the presence in the parent's conjugal history of characteristics generally associated with union instability, such as whether parents are in a common-law union, is also linked to a raised risk of early separation. The impact of certain socio-economic characteristics, such as household income or the level of parents' education, is also examined.



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