

LIVING STANDARDS AND MATERIAL CONDITIONS OF YOUNG NEW ZEALAND FAMILIES

Myron D. Friesen¹
Lianne J. Woodward
University of Canterbury, Christchurch

David M. Fergusson
L. John Horwood
University of Otago School of Medicine, Christchurch

Anna Chesney
University of Canterbury, Christchurch

Abstract

The purpose of this paper is to provide a descriptive profile of the personal characteristics and socio-economic circumstances of a cohort of young parents (N = 155) who had full-time care of at least one dependent child at 25 years of age. In addition, we investigated the extent to which these families were faced with material hardship and adverse living conditions, and examined the life-course pathways and concurrent risk factors that place young families at elevated risk of material hardship. Employing longitudinal data from the Christchurch Health and Development Study, the results showed that around one in five of these young families were experiencing moderate to severe material hardship. Higher levels of material hardship were predicted by a range of antecedent and concurrent life-course experiences, including family socio-economic status in childhood, mental health problems in adolescence, family structure, and employment- and income-related factors in young adulthood. These findings are discussed in light of current social and economic policy for income maintenance, employment facilitation and welfare reduction.

1 Acknowledgements

This research was funded by grants from the University of Canterbury, the Health Research Council of New Zealand, the National Child Health Research Foundation, the Canterbury Medical Research Foundation, and the New Zealand Lottery Grants Board. The authors would also like to acknowledge one of the reviewers, Bryan Perry, for his insightful and constructive comments.

Correspondence

Myron Friesen, Canterbury Child Development Research Group, Department of Psychology, University of Canterbury, Private Bag 4800, Christchurch, New Zealand. Phone: 03-364-2987, ext. 8914. Fax: 03-364-2838.

INTRODUCTION

In New Zealand there is clear concern at the extent to which children are being raised in conditions of socio-economic disadvantage and poverty (Ballantyne et al. 2003, Maloney 2004, Jensen et al. 2006). Reinforcing these concerns is evidence demonstrating links between family socio-economic disadvantage and a wide range of adverse health, educational and behavioural outcomes for children. These adverse outcomes include an increased body mass index, poorer cardio-respiratory fitness and systolic blood pressure, higher rates of periodontal disease, educational underachievement, and elevated rates of mental health problems, spanning both internalising and externalising behaviour problems (Miech et al. 1999, Duncan and Brooks-Gunn 2000, Poulton et al. 2002, Gershoff et al. 2007).

Drawing on data from Statistics New Zealand, researchers have employed a range of analytic techniques to document New Zealand's relatively high and stable poverty rate.² For example, Ballantyne and colleagues (2003) employed pooled data from 1997 to 2000 from the Income Supplement of the Household Labour Force Survey and estimated that New Zealand's child poverty rate exceeded 20% (23.2% for 1997/98 and 22.8% for 1998/99). This estimate was based on a threshold of child poverty of 60% or lower than the 1998 adjusted median household income. Relative to other countries using a similar threshold, this level of child poverty placed New Zealand slightly lower than Great Britain but higher than Spain, Hungary and Germany.

Because the New Zealand economy was rather stagnant during the late 1990s it could be argued that these seemingly high rates of child poverty may have arisen as a consequence of the poorer financial conditions of the overall population during this period. However, beginning in 2000 and 2001 the tide turned and the economy began to grow. According to data from Statistics New Zealand (2002), between 1999 and 2001 the unemployment rate decreased from 7.5% to 5.7%, the rate of participation in the labour force remained steady at 65%, and the average growth in weekly income for families with dependent children (7.16% from June 1999 to June 2001) was almost 2% higher than the rate of inflation (5.3% from June 1999 to June 2001).

In light of these broad economic gains, rates of child poverty might also have been expected to drop. However, a recent report by Perry (2007) further documented that the estimated rates of child poverty remained relatively stable during this period; and although there was a small reduction in 2004 as the economy continued its

2 There are several different ways that poverty may be conceptualised, measured and compared to other indices of economic standing. See Perry (2004, 2007) for a discussion of these measures (particularly the constant-value versus the relative-to-contemporary-median measures), their assumptions, and the different inferences that can be drawn from them when describing the relative material and economic hardship of a segment of the population.

remarkable growth, it has always remained near or above 20%, depending on the type of poverty assessment employed (see Perry 2007:47–58). These national findings and trends tend to confirm public health and social concerns that, at any one time, around one in every four to five New Zealand children will be living in adverse socio-economic circumstances that are likely to affect their health, development and educational opportunities.

Early Parenthood and Life-Course Outcomes

One group of children who may be particularly vulnerable to risks associated with exposure to socio-economic disadvantage and poverty are children born to teenage and younger parents. Numerous studies over several decades have demonstrated that early parenthood is a significant risk factor for a variety of adverse outcomes for both parents and their offspring (for recent reviews, see Miller et al 2003, Pogarsky et al 2006). Findings show that young parents tend to obtain fewer educational qualifications, are more likely to be parenting alone or in unstable partnerships, and experience greater unemployment and welfare dependence than their peers who delay parenthood (Woodward et al. 2001, Miller et al. 2003, Boden et al. 2008). The children of young parents have also been reported to be at elevated risk of congenital medical problems and poor health, limited educational attainment, antisocial behaviour, and early parenthood themselves (Moffitt 2002, Miller et al. 2003, Pogarsky et al. 2006, Woodward et al. 2007).

Of additional concern are recent findings from cross-sectional and longitudinal studies suggesting that an early transition to parenthood is now a more atypical and disadvantaging life event than in previous decades (Maughan and Lindelow 1997, Brooks-Gunn et al. 2000, Moffitt 2002). In particular, since the advent of social welfare reforms in the 1970s there have been dramatic changes in the social context of early parenthood, with premarital childbearing, single parenthood and welfare dependence being increasingly common among younger mothers in particular (Furstenberg 1991, Butler 1992, Coley and Chase-Lansdale 1998, Cheesbrough et al. 1999). As a result, young parents today are frequently raising their children without the financial and emotional support of a partner and in a socio-economic climate of increasing inequality, qualification inflation, and increasing labour market demands (Hotz et al. 1997, Brooks-Gunn et al. 2000, Cheung, 2007).

Traditionally the marker for early parenting has been the teen years, but in the early 1990s authors began to argue that macro-level changes in many Western nations along with widespread demographic changes in the timing of parenthood now mean that a transition to parenthood in the early 20s may also carry some risks (Butler 1992, Maughan and Lindelow 1997). Data from Statistics New Zealand (2006) indicate that

the median age of first child birth for all women in New Zealand is now over 28 years, and over 30 years for women who are married. Table 1 illustrates these national trends by comparing average birth rates across five age ranges between 1970 and 2005. Across the first three age groups (15–19, 20–24 and 25–29) birth rates have steadily decreased, and in 2005 were 58, 65, and 43% lower, respectively, than the average from 1970 to 1974. However, this pattern is reversed for the later two age groups (30–34 and 35–39), with birth rates steadily increasing since the late 1970s and early 1980s.

Table 1 New Zealand's Changing Birth Rate, 1970–2005

Mean Birth Rate* (Years)	Mother's Age at Birth (Years)				
	15–19	20–24	25–29	30–34	35–39
1970–1974	65.1	195.6	186.2	90.8	38.1
1975–1979	47.2	144.4	151.4	69.2	22.6
1980–1984	34.7	116.1	145.4	71.7	21.1
1985–1989	31.6	104.8	146.5	91.0	27.3
1990–1994	32.6	89.6	134.5	106.5	39.7
1995–1999	31.5	79.2	116.8	107.8	46.9
2000–2004	26.9	72.8	110.3	113.8	56.3
2005	27.4	68.5	107.0	119.8	63.4

Source = Statistics New Zealand 2006

* Birth rate = number of births per 1,000 mean estimated female population in each age group.

Present Study

Given these demographic shifts in the developmental timing of the transition to parenthood, there is good reason to raise concern about the socio-economic circumstances of those individuals who make an early or “off-time” transition to parenthood and family formation relative to the norm (Butler 1992, Maughan and Lindelow 1997, Moffitt 2002, Woodward et al. 2006). We need to better understand the links between life-course experiences, the timing of family formation and socio-economic wellbeing. A clearer picture of these developmental pathways can inform social policy and provide important knowledge for designing interventions to help reduce cycles of poverty.

While large-scale nationally based data sets have provided valuable information on the extent to which New Zealand families are struggling to provide for their children in fluctuating social and economic conditions, these studies provide little information

about the day-to-day living standards and material conditions of young parents and their children. Accordingly, the aim of this study was to describe the living standards and material circumstances of a high-risk sample of young parents ($N = 155$) who became parents prior to the age of 25. The specific objectives were to:

- provide a descriptive profile of the personal characteristics and socio-economic circumstances of a cohort of young parents caring for dependent children
- describe the day-to-day material living conditions and hardship experiences of this group of young parents and their children
- examine the life-course pathways and concurrent risk factors that place young parents at elevated risk of material hardship during their early parenting years.

METHOD

Participants

The Christchurch Health and Development Study (CHDS) is a prospective longitudinal study of a birth cohort of 1,265 Christchurch-born young people who have been studied at regular intervals from birth to age 25 years. In 2002, at the 25-year follow-up, all cohort members who had become biological parents or who were currently parenting a non-biological child as a step- or foster parent, were asked to participate in a separate parenting and family life interview. A total of 174 parents participated in this interview (75% of those eligible). Explanations for sample loss included refusal to participate (19%) and failure to trace or contact (6%). No significant ($p < .05$) differences were found between those who consented to participate in the parenting interview and those who did not when compared on measures of ethnicity, gender and age of onset of parenthood. Ethical approval for this study was obtained from the Canterbury Regional Ethics Committee, and written informed consent was obtained from all participants.

The present analysis was confined to the sample of 155 participants (110 women and 45 men) who were living full-time with at least one dependent child (either as a biological parent or step-parent/guardian). Compared to their non-parenting same-age peers, early parenting cohort members were more likely to be women ($p < .001$) and to identify as Māori ($p < .001$). The majority of participants (80%) had only one or two children in their care ($M = 1.8$, range = 1 to 6). One in seven (14%) were parenting a non-biological step- or foster child. Less than a quarter were married (22%), half (50%) were in a cohabiting partnership, and 28% were single parents (all female). Most families were living on their own (62%), with 13% living with their parents or parents-in-law and 25% living with one or more other adults (e.g. flatmates).

Measures

As part of the parenting interview, parents were asked a wide range of questions regarding their family and living circumstances, partner relations, child characteristics, financial and material wellbeing, parenting style and support mechanisms. This information was then combined with a range of other measures extracted from the wider CHDS database. A description of each of the variables selected for inclusion in this analysis is given below.

Family Material Hardship

To assess family material hardship, parents responded to a series of custom-written items about the extent of material and financial difficulties experienced in the family. These questions focused largely on aspects of economising behaviours and serious financial difficulties experienced by the family, and as such were very similar to items used in the development and validation of the Economic Living Standards Index (ELSI) for New Zealand (Jensen et al. 2002). Specifically, parents were asked to indicate if in the past year the family had experienced any of the following hardships due to financial constraints:

- having to borrow money from family or friends
- been unable to pay rent/mortgage, electricity or phone bills
- visited the budget advisory service
- received a summons regarding unpaid bills
- sought assistance from Work and Income to pay bills
- sought help from a food bank or similar social agency
- moved to cheaper accommodation
- bought second-hand clothing
- postponed doctor or dental visits
- sold or pawned belongings
- skipped meals
- were declared bankrupt.

In addition, parents were asked to rate the adequacy of the family's income to meet everyday living costs. Ratings were made on a four-point scale, ranging from more than adequate (1) to very inadequate (4). For the purposes of the present analysis, this item was dichotomised (more than adequate/adequate vs. inadequate/very inadequate). Confirmatory factor analysis of the 16 items showed that these items could be combined to form a single one-dimensional scale representing the extent of material hardship (fit indices: chi-square = 112.1 (92), $p = .08$, comparative fit index = .96, and the root mean square error of approximation = .04). For the purposes of this analysis, a scale score was created by summing the 16 dichotomous items to produce a measure

reflecting the total number of material hardship experiences reported for each family ($M = 3.12$, $SD = 3.17$, range = 0 to 13). The KR20 reliability of the resulting scale was .83.

Current Family Economic Circumstances

Parents were questioned on a range of measures reflecting their family's current economic circumstances. When relevant, economic data were collected on both the participant and their partner. These measures included:

- the extent and nature of current paid employment, if any
- current sources of income (paid employment, welfare benefits, family assistance and other sources), and the amounts received each week after tax from each source
- estimated gross income from all sources over the previous 12 months
- the total value of any savings/investments the family had accrued, and the total value of any current debts (excluding mortgage)
- estimates of the family's weekly expenditure (rent/mortgage, food/household needs, clothing, electricity/heating, phone, credit cards and other loans, car/transport, and entertainment).

Parenting, Family Structure and Living Arrangements

Parents were questioned about aspects of their parenting and partnership history, including:

- their current relationship status (not currently partnered, married, or cohabiting)
- their history of cohabiting relationships
- the presence of extended family or other unrelated adults (e.g., flatmates) in the home
- the age, in whole years, when they first became a parent
- the birth dates, relationship status (biological parent or step-parent/guardian) and caregiving arrangements (i.e. full-time caregiver or shared caregiving with another non-resident parent) for each of their children.

Antecedent Childhood and Family Circumstances

A large number of measures were available from the CHDS database to examine antecedent childhood, family and individual factors that may place young parents at elevated risk of material hardship. Preliminary analysis of a wide range of theoretically relevant variables identified the following measures which were selected for inclusion in this analysis:

Family socio-economic adversity. The extent of family socio-economic adversity was assessed using three measures.

- (i) **Family socio-economic status:** this was assessed at the time of the participant's birth using the Elley–Irving (1976) revised scale of socio-economic status for New Zealand.
- (ii) **Parental education:** both maternal and paternal education levels were assessed at the time of the participant's birth using a three-level classification system reflecting the highest level of educational attainment (no formal qualifications, high school qualifications, tertiary qualifications).
- (iii) **Standard of living:** at each assessment from age 1 to age 12 years, interviewer ratings of the family's standard of living were obtained using a five-point scale that ranged from "obviously affluent" to "obviously poor/very poor".

In order to simplify the prediction model for material hardship and reduce the number of variables included in the regression analysis, an overall index of the extent of childhood family socio-economic adversity was constructed from these variables by creating a points score as follows. The sample member received a point for each of the following criteria that applied: (a) the family was of low (semi-skilled or unskilled) socio-economic status; (b) both parents lacked formal educational qualifications; (c) the family was rated as having below average living standards on three or more occasions.

Family instability and conflict. Comprehensive data on family placement and changes of parents were collected at annual intervals from birth to age 16 years. This information was used to construct two measures of family stability over the period 0–16 years.

- (i) *Single-parent family:* this measure was based on whether the child had ever spent time in a single-parent family before age 16, either as a result of entering a single-parent family at birth, or as a result of parental separation/divorce.
- (ii) *Changes of parents:* an overall measure of family instability was constructed on the basis of a count of the number of changes of parents experienced by the child before age 16 years.
- (iii) *Inter-parental violence:* information on family instability was supplemented by a further measure of parental conflict. At age 18 sample members were questioned using items from the Conflict Tactics Scale (Straus 1979) to assess the extent to which they had witnessed incidents of physical violence or serious threats of physical violence between their parents prior to age 16.

Again, for the purposes of the regression analysis of material hardship, an overall measure of family instability/conflict was created by scoring a point for each of the following criteria that applied: (a) the child had spent time in a single-parent family; (b) the child had experienced three or more changes of parents; (c) the young person reported witnessing physical violence or threats of violence between parents.

Parental adjustment. The extent to which the participant's parents experienced adjustment problems was assessed on the basis of four dichotomous measures. When participants were aged 15 years, parents were questioned as to whether any parent had a history of (i) *alcohol problems*, (ii) *criminality* or (iii) *depression or anxiety disorder*. In addition, when sample members were aged 11, information was obtained from parents as to whether any parent had a history of (iv) *illicit drug use*. An overall index of parental adjustment problems was created by summing the four measures for each sample member to produce a count of the number of parental adjustment problems reported.

Educational achievement. At ages 18 and 21 participants were questioned in detail about their secondary education and record of achievement in high school qualifications, including School Certificate, Sixth Form Certificate, Higher School Certificate and University Bursary.

Adolescent mental health problems. At ages 15, 16 and 18 years participants were administered a comprehensive interview that examined aspects of mental health and adjustment since the previous assessment. These interviews included standardised assessments of DSM-III-R or DSM-IV (American Psychiatric Association 1987, 1994), diagnostic criteria for major depression and anxiety disorders (generalised anxiety, phobias, panic disorders), as well as questioning about suicidal behaviours. An overall index of adolescent mental health problems from 14–18 years was created by summing the number of different mental health problems (depression, anxiety, suicidal ideation) reported over this period.

Adolescent adjustment problems. At ages 15, 16 and 18 years participants were also assessed on DSM-III-R or DSM-IV diagnostic criteria for conduct disorder, alcohol abuse and illicit drug abuse since the previous assessment. An overall index of adolescent adjustment problems from 14–18 years was created by summing the number (out of the three) disorders for which the participant met diagnostic criteria over this period.

Māori identification. At age 25 participants were questioned about their ethnic identification using the 2001 census ethnicity questions. For the purposes of this analysis, participants were classified as Māori if they identified either as sole Māori or as Māori combined with another ethnic identification.

RESULTS

Description of Sample and Comparison with CHDS Cohort

Table 2 provides a description of the sample of 155 parents studied and compares the parent sample with other participants in the CHDS who had not become parents by age 25 on a range of measures reflecting the young person's childhood family circumstances

and individual characteristics. Between-group differences were tested for significance using the chi-square test of independence. The table shows that in comparison to their peers who had yet to become parents, those who became parents early were a relatively disadvantaged group in terms of both family and childhood characteristics. Specifically, those becoming parents before age 25 more often came from less well-educated families ($p < .001$) and families of low socio-economic status ($p < .001$); and had higher exposure to family adversity, including parental change ($p < .001$), domestic violence ($p < .001$) and parental adjustment problems ($p < .001$). As adolescents, early parenting sample members were more likely to have left school without qualifications ($p < .001$), and had higher rates of adolescent adjustment ($p < .001$) and mental health problems ($p < .001$). In addition, this group was more often female ($p < .001$) and Māori ($p < .001$).

Table 2 Comparison of Parent Sample with CHDS Peers Who Had Not Become Parents by Age 25

Measure	Young Parents (N = 155)	CHDS Peers (N = 772)	p
Antecedent family background characteristics			
% female	71.0	48.5	< .001
% Māori	21.9	8.0	< .001
% both parents lacked high school qualifications (birth)	45.8	26.9	< .001
% family of semi-skilled/unskilled SES (birth)	40.7	19.3	< .001
% experienced 3+ changes of parents (0–16 years)	40.1	13.7	< .001
% experienced repeated inter-parental violence (0–16 years)	33.3	19.3	< .001
% parental adjustment problems (depression, anxiety, alcohol, drug, offending) (0–15 years)	61.6	45.8	< .001
Antecedent child/adolescent characteristics			
% left school without qualifications	33.3	12.7	< .001
% adolescent adjustment problems (conduct disorder, substance abuse) (14–18 years)	35.8	23.3	< .001
% adolescent mental health problems (depression, anxiety, suicidal ideation) (14–18 years)	66.2	44.2	< .001

Variations in Material Living Standards

Table 3 shows the sample of 155 families classified into four groups on the basis of the material hardship score. These groups range from those who reported no difficulty or hardship (29% of the sample) to those who reported six or more problems (18%). For each group, Table 3 shows the profile of item responses to the 16 items comprising

the hardship scale. Associations between each item and the four-group classification were tested for significance using the Mantel-Haenszel chi-square test of linearity. The table also shows the reported prevalence of each item in the total sample of 155 parents. Inspection of the results leads to the following general conclusions.

Table 3 Hardship Item Profiles, by Overall Level of Material Hardship

Hardship Item	Hardship Score				Total Sample (N = 155)	p
	0 (N = 45)	1-2 (N = 39)	3-5 (N = 35)	6+ (N = 36)		
% borrowed money from family or friends	0	56.4	74.3	94.4	52.9	< .001
% unable to pay electricity bill	0	2.6	17.1	61.1	18.7	< .001
% unable to pay rent	0	0	8.6	44.4	12.3	< .001
% unable to pay phone bill	0	0	20.0	50.0	16.1	< .001
% visited budget advisory service	0	5.1	5.7	44.4	12.9	< .001
% received a summons regarding unpaid bills	0	0	5.7	44.4	11.6	< .001
% sought assistance from Work and Income to pay bills	0	0	28.6	66.7	21.9	< .001
% income inadequate to meet family's needs	0	15.4	28.6	50.0	21.9	< .001
% sought help from a food bank or similar social agency	0	0	8.6	55.6	14.8	< .001
% moved to cheaper accommodation	0	5.1	22.9	36.1	14.8	< .001
% bought second-hand clothing	0	33.7	68.6	69.4	40.0	< .001
% postponed visits to the doctor	0	2.6	37.1	58.3	22.6	< .001
% postponed visits to the dentist	0	28.2	57.1	55.6	32.9	< .001
% sold or pawned belongings	0	2.6	17.1	33.3	12.3	< .001
% skipped meals	0	0	2.9	19.4	5.2	< .001
% been declared bankrupt	0	0	0	5.6	1.3	–

Those in Group 4 (six or more problems) reported generally high levels of difficulty across most hardship items. Nearly all (94%) had to borrow money from friends or family in the past 12 months; the majority reported difficulties paying bills, buying

second-hand clothing or postponing medical consultations to save money; just under two-thirds had sought financial assistance from Work and Income or visited a food bank; approximately 50% reported difficulties paying the rent, receiving a summons for unpaid bills, or visiting the budget advisory service; just over a third reported moving to cheaper accommodation or selling/pawning belongings to make ends meet; and 50% reported that their income was inadequate to meet the family's needs. These findings clearly indicate that this group of young families were subject to very substantial material hardship and difficulty.

Those in Group 3 (three to five problems) in general reported substantially lower rates of problems than Group 4, but were still subject to difficulties in a number of areas: 76% of these families reported having to borrow money; 70% had purchased second-hand clothing; over half had postponed medical or dental appointments to save money; a third had sought assistance from Work and Income to pay bills; and just over a quarter reported that their income was inadequate.

With few exceptions, those in Groups 1 and 2 reported minimal or no difficulties. However, just over half (56%) of those in Group 2 reported borrowing money from friends or relatives, and approximately a third had bought second-hand clothing or postponed dental visits to make ends meet.

These comparisons suggest that in the region of 45% of these families were experiencing some appreciable material hardship and difficulties, with around one in five families experiencing substantial hardship.

Correlates of Material Hardship

Table 4 shows the sample classified into the four groups described in Table 3. This classification is then related to a series of predictors of family material hardship. These predictors were divided into four blocks of variables, including antecedent childhood and family circumstances, parenthood/partnership history, current family structure and living arrangements, and current family economic circumstances. To simplify the data presentation, the multiple measures of antecedent childhood and family circumstances have been combined into a number of summary indices reflecting the extent of childhood exposure to family socio-economic adversity, family instability/conflict, and parental and adolescent mental health/adjustment problems (see the Method section for a description of these indices). Each association has been tested for trend using either the Mantel-Haenszel chi-square test of linearity for dichotomous measures, or one-way analysis of variance for continuous measures. In each case the strength of association has been summarised by the Pearson correlation coefficient between the continuously scaled hardship score and the variable of interest.

Table 4 Associations Between Antecedent and Concurrent Predictors of Material Hardship at Age 25

Measure	Hardship Score				r	p ¹
	0 (N = 45)	1-2 (N = 39)	3-5 (N = 35)	6+ (N = 36)		
Antecedent childhood and family circumstances						
Mean (SD) family socio-economic adversity score	0.8 (0.8)	0.7 (0.7)	0.8 (0.8)	1.11 (0.9)	.19	< .05
Mean (SD) family instability/conflict score	1.3 (1.0)	1.2 (1.0)	1.2 (1.0)	1.6 (1.0)	.11	.16
Mean (SD) parental adjustment problems score	0.9 (.09)	0.7 (0.9)	1.4 (1.1)	1.2 (1.1)	.18	< .05
Mean (SD) adolescent mental health problems score (14-18 yrs)	0.7 (0.8)	1.0 (0.9)	1.5 (1.1)	1.7 (1.1)	.35	< .001
% left school without qualifications	29.6	23.1	37.1	45.7	.15	.08
% respondent female	68.9	71.8	65.7	77.8	.05	.53
% respondent Māori	17.8	18.0	25.7	27.8	.11	.21
Parenthood/partnership history						
Mean (SD) number of cohabiting partners	1.2 (0.7)	1.3 (0.7)	1.6 (1.0)	1.5 (1.0)	.18	< .05
Mean (SD) age at 1st parenthood	20.4 (2.5)	20.9 (2.1)	19.8 (2.3)	20.6 (2.4)	-.03	.72
Current family structure						
% single-parent family	22.2	12.8	34.3	44.1	.24	< .005
Mean (SD) number of dependent children	1.4 (0.6)	1.8 (0.9)	1.7 (0.9)	1.8 (0.8)	.12	.15
% living with parents/parents-in-law	17.8	17.9	11.4	2.8	-.17	< .05
% living with additional adults	26.7	25.6	31.4	16.7	-.07	.46
Current family economic circumstances						
% family in receipt of welfare benefits	17.8	15.4	43.2	64.7	.40	< .001
Mean (SD) gross family income past 12 months (\$000) ²	46.4 (24.5)	47.9 (29.5)	31.8 (17.0)	28.2 (18.1)	-.37	< .001
Mean (SD) savings/assets (\$)²	4,416 (15,546)	2,310 (5,760)	395 (1,696)	34 (147)	-.39	< .001
Mean (SD) current debts excluding mortgage (\$)²	2,319 (5,618)	5,885 (12,959)	3,481 (4,714)	6,180 (9,808)	.31	< .001
Mean (SD) % of net weekly income spent on rent/mortgage	27.7 (18.0)	29.3 (12.1)	30.3 (12.9)	37.5 (15.6)	.23	< .005
Mean (SD) % of net weekly income spent on debt repayments (excl mortgage)	6.1 (7.8)	7.4 (7.3)	12.2 (11.1)	11.1 (13.0)	.24	< .005
% At least one parent in full-time employment	82.2	84.6	54.1	35.3	-.44	< .001

1 Significance of linear associations tested using Mantel-Haenszel chi-square test of linearity for dichotomous measures and one-way analysis of variance for continuous variables.

2 Pearson correlation and test of significance based on log-transformed data to stabilise variance.

Examination of the table shows the following: There were modest tendencies, suggesting that those reporting greater material hardship at age 25 were more likely to have been raised in families characterised by greater socio-economic disadvantage ($r = .19$; $p < .05$) and higher levels of parental adjustment problems ($r = .18$; $p < .05$). In addition, there was a moderate association between the extent of the young person's mental health difficulties in adolescence and later material hardship ($r = .35$; $p < .001$). However, the extent of hardship was not significantly related to other measures of antecedent childhood or family characteristics.

Those reporting higher levels of hardship reported greater instability in their own partner relationships ($r = .18$; $p < .05$), but there was no trend for those who became parents at a younger age to experience higher levels of hardship. The level of hardship was moderately related to the likelihood of the young person being a single parent ($r = .24$; $p < .005$) and living with their parents or parents-in-law ($r = -.17$; $p < .05$), but was unrelated to the number of dependent children and the presence of additional adults (e.g. flatmates) living in the home.

Finally, there were moderate to strong associations between the extent of hardship and a wide range of measures of the family's current economic circumstances, including: family income, assets and debt levels; the relative percentage of income spent on rent/mortgage or to service debt; and measures of parental employment and welfare dependence. The Pearson correlations ranged (in absolute value) from $r = .23$ to $r = .44$ ($p < .005$ in all cases).

Taken together, these findings suggest that the extent of material hardship experienced by this group of young parents was broadly related to a mix of characteristics reflecting childhood and family disadvantage, partnership history, current family structure and economic circumstances, with the strongest associations reflected in measures of the family's current economic functioning.

Predictors of Material Hardship

The significant correlates of material hardship shown in Table 4 were then entered into a multiple regression analysis to examine the factors that made significant net contributions to the prediction of material hardship. In this analysis, material hardship was scaled as a continuous scale score (rather than in the four groups used in Tables 3 and 4). In addition, the measures of family income, savings and debt levels were log-transformed because the log-transformed data showed stronger predictive associations with material hardship. Given the relatively small size of the parent sample, and hence the somewhat restricted power of the analysis, the decision was also made to include all variables in the fitted model that made significant or marginally significant ($p < .10$) contributions to the prediction of hardship.

Table 5 Fitted Multiple Regression Model for Predicting Material Hardship

Measure	B (se)	β	p
Antecedent childhood factors			
Family socio-economic disadvantage	0.43 (0.25)	.11	.09
Adolescent mental health problems	0.58 (0.19)	.20	< .01
Current family structure			
Living with parents / parents in-law	-2.38 (0.64)	-.25	< .001
Current employment and income factors			
At least one parent in full-time employment	-2.15 (0.59)	-.32	< .001
Total saving/assets (log)	-0.26 (0.14)	-.13	.06
Total current debts (log)	0.33 (0.11)	.20	< .01
Gross family income past 12 months (log)	-2.72 (0.96)	-.23	< .01
% of current net weekly income spent on debt servicing	0.06 (0.02)	.19	< .01

Note: Multiple R = .70

Table 5 summarises the fitted regression coefficients, standard errors and tests of significance for all variables included in the final fitted model which shows the following.

The multiple correlation between the set of predictors and material hardship was .70, implying that 49% of the variance in living standards could be explained. This suggests that moderate to good prediction of material living standards is possible from the data gathered.

The key predictors of material hardship included a mix of factors reflecting antecedent childhood factors (family socio-economic disadvantage, adolescent mental health problems); current family structure (living with parents); and current family economic circumstances (parental employment, income, assets, debt levels, and the costs of debt servicing). Two factors in particular protected against material hardship: full-time paid employment and living with parents.

The regression model was then extended to test for interactions between measures of family structure (e.g. single-parent family, gender, ethnicity of respondent) and other predictors. These analyses showed no evidence of significant interactions, suggesting that a simple main effects model was adequate to explain variations in material hardship in this young parent sample.

DISCUSSION

In this paper we have described the living standards and material wellbeing of a cohort of young New Zealand parents who were caring for dependent children by 25 years of age. We also examined the risk factors and life-course processes that placed these young parents at elevated risk of material hardship following family formation. Below, we discuss the major findings from this study in light of current research and social policies in New Zealand.

Consistent with previous research, our study confirmed that the early or off-time transition to parental roles and responsibilities is a highly selective process (Bardone et al. 1996, Manlove 1997, Maughan and Lindelow 1997, Fagot et al. 1998, Jaffee et al. 2001, Woodward et al. 2001, 2006). Specifically, findings showed that early parenting cohort members tended to have been raised in family backgrounds characterised by higher levels of socio-economic disadvantage and parental instability when compared to those young adults from the CHDS who were not parents at age 25. During adolescence, younger parents had also gained fewer educational qualifications and reported higher rates of antisocial behaviour and other mental health problems than their non-parenting CHDS peers. These results confirm previous findings that point to elevated rates of social disadvantage, educational under-achievement and personal disadvantage among those who become parents at an early age (Woodward et al. 2001, 2006, Gershoff et al. 2007).

An examination of the hardship experiences of young parents and their children further confirms the socioeconomic disadvantages and challenges faced by this vulnerable group. Although a proportion of young parents were living relatively free of material hardship (29% reported no hardships), many reported being forced to make sacrifices in one or more areas of their family's life, with 18% reporting a high level of material hardship (six-plus hardship items). Overall, one in five families judged their income to be inadequate for meeting their family's needs, and between 10 and 30% were unable to pay basic bills (rent, phone, electricity), had moved to cheaper accommodation, sought assistance from Work and Income or social welfare agencies, and postponed visits to the doctor or dentist.

Table 6 Comparison of Hardship Experiences from Items on the Economic Living Standards Index (ELSI): Young Parents and National Estimates (Jensen 2002)

ELSI Items	Young Parents	National Estimates
% purchase second-hand clothing	40.0	31.0
% judge income as inadequate for meeting family needs	21.9	19.8
% unable to pay electricity bill	18.7	10.0
% sought help from food bank or similar social service agency	14.8	5.0
% unable to pay rent	12.3	7.0
% selling or pawning belongings to meet needs	12.3	7.0
% postponing or putting off visits to the dentist	32.9	38.0
% postponing or putting off visits to the doctor	22.6	25.0
Mean number of ELSI hardship experiences (out of 8)*	1.75	1.43

* $p < .05$; one sample test.

Eight of the 16 items from our material hardship measure were directly comparable to items used in the development or validation of the Economic Living Standards Index (ELSI) scale developed in New Zealand by Jensen and his associates (Jensen et al. 2002). Comparison of the items against the existing national rates for these hardship experiences (see Table 6) shows that the young parents had higher rates on six of the eight hardship experiences, including: buying second-hand clothing, judging income level as inadequate for meeting the family's needs, unable to pay the electricity bill, seeking help from the food bank or similar social service agencies, unable to pay rent, and selling or pawning belongings to meet needs. The two items that were not experienced more frequently by these young parents in comparison to the estimated national rates were postponing or putting off visits to the dentist and doctor.

The aggregate effects of these differences can be seen by comparing the overall number of disadvantages (out of eight) reported by this sample when compared with the national average. Overall, the parents in this study reported an average of 1.75 disadvantages compared to 1.43 for the national sample ($p < .05$; one sample test). This level of material hardship among young parents with children is generally consistent with findings showing that single-parent families and young families have the highest levels of material disadvantage when compared to all New Zealand households (Mowbray 2001, Ballantyne et al. 2003, Maloney 2004, Jensen et al. 2006, Perry 2007).

While, as a group, young families experienced relatively high levels of material deprivation, there was considerable variation in levels of material disadvantage within this group, ranging from the 29% who reported no material hardship to the 18% who reported severe multiple (six-plus) disadvantages. These findings raise important questions about the risk factors and processes that influence levels of material wellbeing among families with young parents. Analysis of this issue suggests that two groups of factors played an influential role in determining the level of material wellbeing of the family.

The first group of factors was associated with family background in childhood and adolescence. In general, young people reared in socio-economically disadvantaged homes and those prone to adolescent mental health problems were at higher risk of material deprivation than other young parents. These findings clearly suggest an intergenerational and mental health component to the transmission of disadvantage.

The second set of processes related to the material wellbeing of young families centred on factors associated with the young parent's current family structure and economic circumstances, including living with parents, income, savings, debt, parental employment, and family living costs. These findings clearly suggest that issues relating to economic inputs and outputs played an important role in determining levels of family material wellbeing. At the same time, it is important to note that the predictive power of these economic factors was modest, and substantial unexplained variability remained in our model (51%). This suggests the possibility of missing economic and other variables in our regression model, and that the material standards that families experience may be only partially determined by economic factors (Jensen et al. 2007). In addition, a possible limitation of our model may have been the use of current income and debt levels only. With a more robust measure of income and debt over time (e.g. both pre- and post-parenthood), it may have been possible to document how accumulated consumer goods or acquired debt further contributed to hardship experiences.

Our analysis revealed that the two strongest predictors which protected families from material hardship net of income, savings, debt, expenditure and antecedent childhood factors were the participation by one parent in full-time paid employment and living with one's parents (a three-generational household). This indicates both the advantages of gainful employment and the importance of family support for the wellbeing of young parents and their children, and also raises complex questions about the social and economic processes that facilitate these key variables and how policies targeted in these areas can help to sustain the living standards of young families. The most likely explanation of the role of workforce participation is that it stands as a proxy measure for a series of personal processes relating to economic planning and related outcomes. It seems possible that those who participated in the full-time workforce may have had

greater personal resources, which enabled them to meet the dual challenges of work and family life, thus resulting in a better standard of living for these families.

In addition, living with parents is likely to provide a variety of material and social support benefits that would otherwise not be available as a single parent or young couple living alone. Previous research with young parents has found similar results: three-generation families (often referred to as grandfamilies) can confer protective benefits for parents and grandchildren, particularly when the parent–grandparent relationship is positive (Gordon et al. 2004, Reiner et al. 2002). These conjectures highlight the important role that “human capital” may play in sustaining family living standards, as well as the importance of social and material supports for young parents with limited resources.

The present findings have a number of important implications for policies directed at minimising hardship among young families. First, these results reinforce findings from previous living standards research showing that income maintenance policies are unlikely to provide a complete solution to the problems of material hardship within families with young children. Even when income and related factors were taken into account, there was still substantial unexplained variation in living standards. Second, these results illustrate the potential for an intergenerational effect of family functioning on material hardship in two ways. A risk factor for material hardship in young adulthood was the experience of disadvantage in childhood. However, a protective factor against material hardship was the influence of a three-generation family living arrangement. This suggests the importance of programmes that address the family’s social and relationship contexts as well as its current economic circumstances. Finally, the finding that participation in the full-time workforce makes an important contribution to family material wellbeing independently of other factors is consistent with policy initiatives focused on reducing levels of welfare benefit dependence. Although, the process by which participation in the full-time workforce reduces material hardship independently of income and other factors is unclear, but it is likely that personal attributes, along with a supportive family network, are important ingredients.

In summary, the findings of this study indicate that policies directed at improving the level of material wellbeing among young parents should focus on:

- a. providing adequate levels of income support and services aimed at reducing debt and increasing savings
- b. providing social support to address the multiple disadvantaged status of these families
- c. setting in place policies that encourage greater participation in the workforce and a reduction in welfare benefit dependence.

All three themes have been recognised in current New Zealand policy planning, with streams of policy focusing on:

- a. the development of income maintenance policies, such as the Working for Families scheme (Perry 2004), and budgeting and financial planning assistance through the www.sorted.org.nz website (Retirement Commission 2007)
- b. the provision of family support via the Family Start/Early Start initiative (Ministry of Social Development 2005a)
- c. the entitlement of families with preschool-age children (3–5) to access up to 20 hours' per week free early childhood education (Ministry of Education 2007)
- d. the development of employment policy such as Working New Zealand (Ministry of Social Development 2006), and schemes such as Jobs Jolt (Ministry of Social Development 2005b), to increase levels of participation in the workforce.

In conclusion, it is important that the findings from this study be considered within the scope of its strengths and limitations. There are several strengths associated with the CHDS data set, including its long-term longitudinal design, and the availability of a wide range of prospectively measured individual, family and environmental variables, many of which have been repeatedly assessed over time. In terms of limitations, the major liability of this analysis was the relatively small and homogeneous nature of this sample of younger parents. This may have limited our ability to identify the factors that best differentiated those who were at risk of hardship from those who were not. Furthermore, follow-up was relatively short, and it is possible that gaps between these young parents and their later parenting peers may change over time. Longer-term examination of the family life experiences and outcomes of these young parents will thus be important. Nonetheless, with these limitations in mind, the present study does confirm the view that levels of material hardship among families with young parents are relatively high, and that the pathways that led to this hardship are likely to involve a complex mix of social, personal and economic factors that will require a multifaceted policy approach.

REFERENCES

- American Psychiatric Association (1987) *Diagnostic and Statistical Manual of Mental Disorders* (3rd edn.), American Psychiatric Association, Washington, DC.
- American Psychiatric Association (1994) *Diagnostic and Statistical Manual of Mental Disorders* (4th edn.), American Psychiatric Association, Washington, DC.
- Ballantyne, S., S. Chapple, D. Maré and J. Timmins (2003) *Movements into and out of Child Poverty in New Zealand: Results from the Linked Income Supplement*, Ministry of Social Development Working Paper.

- Bardone, A.M., T. E. Moffitt, A. Caspi, N. Dickson and P. Silva (1996) "Adult mental health and social outcomes of adolescent girls with depression and conduct disorder" *Development and Psychopathology*, 8:811–829.
- Boden, J.M., D.M. Fergusson, L.J. Horwood (in press) "Early motherhood and subsequent life outcomes" *Child Psychology and Psychiatry*, 49:151–160
- Brooks-Gunn, J., S. Schley and J. Hardy (2000) "Marriage and the baby carriage: Historical change and intergenerational continuity in early parenthood" in L.G. Crockett and R. K. Gilbereisen (eds.) *Negotiating Adolescence in Times of Social Change*, Cambridge University Press, New York, pp. 36–57.
- Butler, A.C. (1992) "The changing economic consequences of teenage childbearing" *Social Science Review*, March:1–31.
- Cheesbrough, S., R. Ingham and D. Massey (1999) *Reducing the Rate of Teenage Conceptions: A Review of the International Evidence on Preventing and Reducing Teenage Conceptions: The United States, Canada, Australia and New Zealand*, Health Education Authority, London, UK.
- Cheung, J. (2007) "Wealth disparities in New Zealand" *Social Policy, Research and Evaluation Conference*, Wellington.
- Coley, R.L. and P.L. Chase-Lansdale (1998) "Adolescent pregnancy and parenthood: Recent evidence and future directions" *American Psychologist*, 53:152–166.
- Duncan, G.J. and J. Brooks-Gunn (2000) "Family poverty, welfare reform, and child development" *Child Development*, 71:188–196.
- Elley, W.B. and J.C. Irving (1976) "Revised Socio-Economic Index for New Zealand" *New Zealand Journal of Educational Studies*, 11:25–36.
- Fagot, B.I., K.C. Pears, D.M. Capaldi, L. Crosby and C. S. Leve (1998) "Becoming an adolescent father: Precursors and parenting" *Developmental Psychology*, 34:1209–1219.
- Furstenberg, F.F. (1991) "As the pendulum swings: Teenage childbearing and social concern" *Family Relations*, 40:127–138.
- Gordon, R.A., P.L. Chase-Lansdale and J. Brooks-Gunn (2004) "Extended households and the life course of young mothers: Understanding the associations using a sample of mothers with premature, low birth weight babies" *Child Development*, 75:1013–1038.
- Gershoff, E.T., J.L. Aber, C.C. Raver and M.C. Lennon (2007) "Income is not enough: Incorporating material hardship into models of income associations with parenting and child development" *Child Development*, 78:70–95.
- Hotz, J.V., S.W. McElroy and S.G. Sanders (1997) "The impacts of teenage childbearing on the mothers and the consequences of those impacts for government" in R.A. Maynard (ed.) *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy*, Urban Institute Press, Washington, DC, pp. 55–94.

- Jaffee, S., A. Caspi, T.E. Moffitt, J. Belsky and P. Silva (2001) "Why are children born to teen mothers at risk for adverse outcomes in young adulthood? Results from a 20-year longitudinal study" *Development & Psychopathology*, 13:377–397.
- Jensen, J., V. Krishnan, R. Hodgson, S.G. Sathiyandra and R. Templeton (2006) *New Zealand Living Standards 2004: An Overview*, Centre for Social Research and Evaluation, Ministry of Social Development, Wellington.
- Jensen, J., S.G. Sathiyandra and M. Matangi-Want (2007) "The 2004 New Zealand Living Standards Survey: What does it signal about the importance of multiple disadvantage?" *Social Policy Journal of New Zealand*, 30:110–144.
- Jensen, J., M. Spittal, S. Crichton, S.G. Sathiyandra and V. Krishnan (2002) *Direct Measurement of Living Standards: The New Zealand ELSI Scale*, Ministry of Social Development, Wellington.
- Maloney, T. (2004), "Are the outcomes of young adults linked to the family income experienced in childhood?" *Social Policy Journal of New Zealand*, 22: 55–82.
- Manlove, J. (1997) "Early motherhood in an intergenerational perspective: The experiences of a British cohort" *Journal of Marriage and the Family*, 59:263–279.
- Maughan, B. and M. Lindelow (1997) "Secular change in psychosocial risks: The case of teenage motherhood" *Psychological Medicine*, 27:1129–1144.
- Miech, R.A., A. Caspi, T.E. Moffitt, B.R.E Wright and P.A. Silva (1999) "Low socioeconomic status and mental disorders: A longitudinal study of selection and causation during young adulthood" *American Journal of Sociology*, 104:1096–1131.
- Miller, B.C., B.K. Bayley, M. Christensen, S.C. Leavitt and D.D. Coyl (2003) "Adolescent pregnancy and childbearing" in L. Kowaleski-Jones and N.H. Wolfinger (eds.) *Fragile Families and the Marriage Agenda*, Blackwell Publishing, Malden.
- Ministry of Education (2007) *Early Childhood Education Funding Handbook* (2007 update). Ministry of Education, Wellington.
- Ministry of Social Development (2005a) *Budget 2005 Factual Information: Early Intervention to Help New Zealand Children and Families*, Ministry of Social Development, Wellington.
- Ministry of Social Development (2005b) *Jobs Jolt 2005 Update: The Jobs Jolt Package*, Ministry of Social Development, Wellington.
- Ministry of Social Development (2006) *Working New Zealand: Work Focused Support Cabinet Paper*, Ministry of Social Development, Wellington.
- Moffitt, T.E. (2002) "Teen-aged mothers in contemporary Britain" *Journal of Child Psychology and Psychiatry*, 43:727–742.
- Mowbray, M. (2001) *Distributions and Disparity: New Zealand Household Incomes*, Ministry of Social Policy, Wellington.
- Perry, B. (2004) "Working for families: The impact on child poverty" *Social Policy Journal of New Zealand*, 22:19–54.

- Perry, B. (2007) *Household Incomes in New Zealand: Trends in Indicators of Inequality and Hardship 1982 to 2004*, Ministry of Social Development, Wellington.
- Pogarsky, G., T.P. Thornberry and A.J. Lizotte (2006) "Developmental outcomes for children of young mothers" *Journal of Marriage and Family*, 68, 332–344.
- Poulton, R., A. Caspi, B.J. Milne, W.M. Thomson, A. Taylor, M.R. Sears and T.E. Moffitt (2002) "Association between children's experience of socioeconomic disadvantage and adult health: A life-course study" *Lancet*, 360:1640–1645.
- Retirement Commission (2007) "Sorted.org.nz" retrieved March 2008 from <http://www.sorted.org.nz/>.
- Reiner Hess, C., M.A. Papas and M.M. Black (2002) "Resilience among African American adolescent mothers: Predictors of positive parenting in early infancy" *Journal of Pediatric Psychology*, 27:619–629.
- Statistics New Zealand (2002) *Labour Market Statistics 2002*, Statistics New Zealand, Wellington.
- Statistics New Zealand (2006) *Birth and Fertility Tables 1962–2005*, Statistics New Zealand, Wellington.
- Straus, M.A. (1979) "Measuring intrafamily conflict and violence: The conflict tactics scales" *Journal of Marriage and the Family*, February:75–88.
- Woodward, L.J., D.M. Fergusson, A. Chesney and L. J. Horwood (2007) "Punitive parenting practices of contemporary young parents" *New Zealand Medical Journal*, 120:No1267.
- Woodward, L.J., D.M. Fergusson and L.J. Horwood (2001) "Risk factors and life processes associated with teenage pregnancy: Results of a prospective study from birth to 20 years" *Journal of Marriage and Family*, 63:1170–1184.
- Woodward, L.J., D.M. Fergusson and L. J. Horwood (2006) "Gender differences in the transition to early parenthood" *Development & Psychopathology*, 18:275–294.