Shared care arrangements and wellbeing among families in Aotearoa New Zealand

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DISCLAIMER: The views and interpretations in this report are those of the researchers and not the Ministry of Social Development or Inland Revenue.

Executive summary

Families, households, and arrangements for the care and support of children are more diverse and fluid than in the past. Parental separation often involves parents establishing agreements on how they both want to continue to share the responsibilities of raising their children. Called shared care arrangements (also known as co-parenting, joint custody, or joint parenting), these agreements often involve children spending consistent time living in each parent's or caregivers' households (e.g., regular set number of days in a month). Despite national estimates that point to the experience of living with a sole parent being (and forecasted to continue to be) a common experience for children in Aotearoa New Zealand, national-level surveys seldom ask about the shared care arrangements across households. Thus, we do not have robust estimates of the rates of shared care arrangements; the configurations of these arrangements; which families are most likely to have these arrangements; and how they might matter for wellbeing.

This study attempts to fill this gap by leveraging new survey data through the 2022 New Zealand Income Support Survey (study analytical sample *n* = 972) to better understand the living and shared care arrangements among a contemporary cohort of low-to-middle-income Aotearoa New Zealand families. This study asks five primary research questions:

1) What are the characteristics of shared care arrangements?
2) What are the characteristics of families that have shared care arrangements?
3) What types of in-kind support (i.e., the provision of non-cash resources, such as clothes and food or paying for extracurricular activities) do children in shared care arrangements receive from non-resident caregivers?
4) What characteristics are associated with different levels of in-kind support of children in shared care arrangements?
5) Are different levels of in-kind support across shared care arrangements and family structures associated with differences in family economic wellbeing and parents' mental health?

One in five low-to-middle income families with children have shared care arrangements

Close to one in five families (19.11%) at the time of the survey (2022) had at least one child in their household that had a shared care agreement, spending at least some of their time with a non-residential parent or caregiver. This proportion is higher than previous estimates but indicates that shared care arrangements are a common experience among low-to-middle income families.

Families are more diverse than official statistics tell us, especially families navigating shared care arrangements

When taking into consideration more nuanced relationships among family members (e.g., biological relatedness, parent role) and whether children live in multiple households, families are far more diverse than national data portraits of family structure suggest. This includes different children within the same household having different shared care arrangements. Current methods for reporting family structure mask the complexity of family roles and responsibilities that parents are navigating.

Low levels of in-kind support from the other parent in a shared care arrangement were coupled with other family complexities

Low levels of in-kind support went hand-in-hand with other aspects of shared care arrangements that may point towards less equal involvement and responsibility among parents, such as informal or intermittent care arrangements and a more unequal split in care time responsibilities. The pattern of findings suggests that in-kind support may say more about the quality of the co-parenting relationship and parental involvement than the financial positions of, or families' need for support from, the other parent in the shared care arrangement.

Pacific low-to-middle income parents are less likely than European/Pākehā and Māori low-to-middle income parents to have shared care arrangements

Pacific parents in the survey were less likely to report shared care arrangements overall, and among sole parents. In cases where there were shared care arrangements, Pacific parents reported lower levels of in-kind support. Future qualitative research could uncover why there are ethnic disparities in shared care arrangements and non-residential parent involvement. It could also unpack whether immigration and residence status, or accessibility issues with the Family Court system (among other factors), play a role in these differences.

Having a disabled child was associated with sole parenthood, lower rates of shared care arrangements, and lower in-kind support from the other parent

Respondents who had a disabled child in their family were less likely to have a shared care arrangement and when they did, they reported lower levels of in-kind support from the other parent. Taken together, the findings suggest the financial and social stressors of children's disabilities may impact whether, or to what extent, non-residential parents stay involved with their children after parental separation.

The quality of the shared care arrangement matters for parents' wellbeing

Parents in shared care arrangements with low levels of in-kind support were more likely to report high levels of anxiety symptoms, compared to parents in shared care arrangements with medium/high levels of in-kind support and families without shared care arrangements. Sole parents without shared care arrangements had similar levels of anxiety as parents with high levels of in-kind support from the other parent in the shared care arrangement. Shared care arrangements and different levels of in-kind support were not associated with differences in material hardship or the ability for children to engage in educational or extracurricular activities.

These findings offer several important implications for policy

Detailed information about family relationships and shared care arrangements is needed in national surveys

The findings from this study have shown the need for more insights into family diversity and children's living arrangements, with a substantial proportion of children in low-to-middle-income families having more diversity than a "two parent" or "sole parent" categorisation of family structure allows. National surveys should collect more detailed information on the relationships between family members and whether children's care is shared across households, information that would be challenging to extract from administrative data. Collecting this information can better inform policies aimed at supporting families and challenge the underlying assumptions about what families do and should look like.

Further understanding of how families interact across government systems is needed to address inequities in shared care arrangements and levels of in-kind support

Families with a disabled child and Pacific families were less likely to have shared care arrangements, particularly among sole-parent families (e.g., families that are more likely to have shared care arrangements). When families with disabled children and Pacific families did have shared care arrangements, they were more likely to say the non-residential parents provided low levels of in-kind support. These families were also more likely to receive government support (in the case of families with a disabled child) and potentially interact with the immigration system (in the case of Pacific parents). Policies aimed at addressing these disparities in non-residential parents' involvement should incorporate understandings of how these families interact across multiple government entities and systems.

Encouraging in-kind support from non-residential parents may be a way of promoting healthier shared care relationships and family wellbeing

Higher levels of in-kind support among families with shared care arrangements were found to be protective of parents' mental health. While these findings are

correlational and not causal, encouraging more in-kind support from the non-residential parent may be a way to promote healthier shared care relationships and family wellbeing.

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Introduction

Families, households, and arrangements for the care and support of children are more diverse and fluid than in the past. While more recent national-level estimates of the proportion of children who experience parental separation are not available, information from the mid-1990s estimated that spending at least some time in a sole-parent family is a relatively common experience, with almost half (46%) of Aotearoa New Zealand mothers spending at least some time as a sole parent by the age of 50 (Dharmalingam et al., 2004). Over a third of children have lived with a sole mother by the age of 17 (Dharmalingam et al., 2004). More recent national-level estimates show that approximately one-quarter of families with children in Aotearoa New Zealand are sole-parent families. These rates have remained fairly stable since the 2000s and are projected to remain steady over the next two decades (Ministry of Social Development, n.d.; Statistics New Zealand, 2021).

Despite this family complexity and fluidity, existing measurement practices for capturing household and family structure in Aotearoa New Zealand's national surveys seldom capture this diversity or the caregiving roles across households for individual children. For example, most official statistics identify families based on the relationships of people living together in one household and do not enquire about shared care of children by parents living in different households or whether each partner in a co-resident couple acts in a 'parent role' for the other's children. Estimates on whether, and to what extent, both parents stay involved in the day-to-day caregiving responsibilities of their children through shared care arrangements are unknown.

This study uses new data collected through the 2022 New Zealand Income Support Survey (study analytical sample n = 972) to better understand the living and shared care arrangements among a contemporary cohort of low-to-middle-income Aotearoa New Zealand families. Specifically, this study examines what shared care arrangements look like among this cohort, the extent to which non-residential parents provide in-kind supports through covering educational costs and providing other everyday needs (such as food and clothing), and whether these different levels of in-kind support within shared care arrangements are associated with disparities in families' economic wellbeing and parents' mental health.

By examining these questions, this study aims to provide insights to better understand the family and household contexts of children living in low-to-middle income families, and how well the assumptions that underpin eligibility rules for income support payments reflect reality for a contemporary and diverse cohort of low- and middle-income families in Aotearoa New Zealand.

Background

In Aotearoa New Zealand, as in other countries, shared care (also known as co-parenting, joint custody, or joint parenting) is where the parents or caregivers of a dependent child live apart and the child spends time with each of the parents (Merson, 2015). These shared care arrangements do not need to be an even 50/50 split in terms of parents' time responsibility (Eden Family Law, n.d.). Shared care arrangements can be decided privately between parents. However, in more complex and challenging situations the Family Court may order shared care as a part of parenting orders. Robertson et al. (2009) estimated that the majority of separating parents in Aotearoa New Zealand make their own private arrangements to share the care of their children. In cases where parents initially contacted the Family Court, approximately half eventually settled their disputes privately, and those that did were more likely to be satisfied with their arrangement (Maxwell et al., 1990).

Family structure and shared care arrangements in Aotearoa New Zealand

As noted, there are little to no nationally representative data available on rates of shared care parenting, nor are there national estimates of separation, blended families, or couples who live apart (all of which are events and statuses that often result in shared care arrangements). Part of the reason why estimating these figures is difficult is because of the way families and households are captured in national surveys, such as the Census and the General Social Survey. The household matrix (which collects information on the relationships among those living within households) does not identify biological relatedness between children and adults in the home, nor are families asked whether children live in multiple households.

Despite the data needed for more precise estimates of stepfamilies and children's living arrangements across households not being available consistently through national surveys, there are other sources that do shed light on the potential prevalence of family structures that are more likely to have children with shared care arrangements. Moreover, there are datasets that, while not nationally-representative, are large and ask explicitly about shared care arrangements.
For instance, the Census has estimated that in 2018, 24.49% of families with dependent children aged under 18 years were sole-parent families (Statistics New Zealand, n.d.).[1] While sole parenthood rose during the 1970s through to the1990s, the proportion of families with children that were sole-parent families has remained fairly stable since 1991 (Krassoi Peach & Cording, 2018).

In addition, both marriages and divorces have been declining, with the marriage rate (the number of marriages and civil unions per 1,000 people aged 16 and over not married or in a civil union) steadily falling from a peak of 45.5 in 1971 to 7.7 and 9.3

[1] Based on authors' own calculations from Statistics NZ census estimates.

in 2021 and 2022, respectively (Statistics New Zealand, 2023).[2] The divorce rate (number of divorces per 1,000 existing marriage/civil unions) peaked in 1982 at 17.1 divorces per 1,000 existing marriages/civil unions, falling to 6.2 in 2021 before a recent uptick in 2022 at 7.4 in 2021 (Statistics New Zealand, 2023).

Of course, marriage and divorce rates do not tell the whole story about the prevalence of experiencing parental separation among children. Indeed, as marriage rates have fallen, births into cohabiting relationships (that is, two parents who co-reside but are not married) have risen. In 1960, 95% of births were between two married parents. By 2023, that rate fell to 49% of births. Approximately two-thirds of those non-marital births were to unmarried cohabiting parents. This is to say that while divorce rates may have been a good-enough proxy for the experience of parental separation in the past, these rates are much less of a stand-in for the rate of parental separation experienced by children today. This is because a large proportion of births are to parents in cohabiting and de-facto relationships, separations that are not counted in official divorce statistics.

To that end, researchers have attempted to use new and existing datasets to estimate the prevalence of stepfamilies and parental separation at the national level. For example, using data linked from the Household Labour Force Survey to administrative birth records in Statistic New Zealand's Integrated Data Infrastructure, one study estimated that between 6.3-6.9% of children under 18 years old were living with a stepparent in 2019 (Gath et al., 2023).

While identifying the proportion of children in these type of family structures gives a sense of the potential population of children who are most likely to be living in multiple households, estimating the proportion who are in shared care arrangements from available administrative data proves a harder task. Hence, estimates of shared care arrangements in the Aotearoa New Zealand context have come from existing surveys which, at some point, have asked bespoke questions on the shared care of children.

The most recent national-level proxy estimates of shared care arrangements come from the 2010 General Social Survey. Findings from this survey suggested that 15% of families with adults who identified as being parents of dependent children (17 years and younger) said that their children were with them only some or none of the time (Statistics New Zealand, 2012). It is important to note, however, that this is not the same thing as having a shared care arrangement. That is, some proportion of

[2] Statistics NZ divorce rate time series began in 1962 at 3.2 for every 1,000 existing marriages or civil unions, with a divorce rate low of 3.1 in 1965 followed by a persistent and then sharp rise from the mid-1970s through to a peak of 17.1 in 1982 before a drop and steady decline in the 2000s through 2010s.

these families could have no shared care arrangement responsibilities, but they still identified as having dependent children who spent some time with them.

One Aotearoa New Zealand longitudinal birth cohort study has tried to understand living arrangements for individuals across childhood. The children (born between 1991-1995) of the Dunedin's Study's longitudinal birth cohort (born between 1972-1973) were retrospectively asked about their household living arrangements from birth through age 15 through a life history calendar (Sligo et al., 2017). This included shared care arrangements across households, where shared care arrangements were defined as spending at least 35% of the week with the non-primary caregiver (a strict shared care criteria). At any given age, between 0.48% (the first year of life) and 8.13% (ages 11, 12, 13, and 14) of the sample were in a shared care arrangement. Overall, 12% of the sample had experienced a shared care living arrangement between birth and age 15 years.

Shared care arrangement characteristics

Despite over one in ten children in Aotearoa New Zealand potentially experiencing a shared care arrangement at some point during their childhood, relatively little is known about how shared care arrangements are structured and what types of support parents in these arrangements provide in terms of time and in-kind support. One exception, however comes from a qualitative study from Robertson et al., (2009), who divided their 31 participants study into four types of arrangements: 1) shared care (defined by them as spending at least 30% of the time with each parent); 2) weekend contact with overnight stays; 3) monthly contact; and, 4) infrequent contact. They found that most shared care arrangements included overnight stays. Ten of the 31 families had children that spent at least 30% of the time in each household. The authors note, however, that the proportion of families with a more equal shared care arrangement may reflect that parents with more positive co-parenting relationships self-selected into the study.

There is little known about the characteristics of families who are in shared care arrangements, beyond the assumption that a large majority come to shared care arrangements due to parental separation. In Aotearoa New Zealand, sole parents are more likely to be disadvantaged across multiple dimensions, including having lower incomes, being younger when they have their children, and living in poorer quality housing (Krassoi Peach et al., 2017). In the international research, factors such as low incomes, unemployment, and low educational attainment are associated with increased odds of divorce and separation (see Amato, 2010, for a review).

Whether and how these sociodemographic factors differ between parents with and without shared care arrangements is unknown in the Aotearoa New Zealand context. Among sole parents, for example, some have shared care arrangements while others will not. The nature of the shared care arrangement, such as time

responsibilities and the formality of the arrangement, may also differ across other characteristics such as income levels, educational attainment, and ethnicity. Indeed, international research has found that similar factors associated with parental separation are also associated with the prevalence of shared custody arrangements and lower incomes (Meyer et al., 2017), lower educational attainment (Walper et al., 2021), and parents' non-standard or irregular work schedules (Bala et al., 2017) associated with lower odds of there being a shared care or custody arrangement in place. In short, higher incomes and mothers' labour force engagement prior to separation facilitate shared care arrangements (Juby et al., 2003).

In sum, current research and existing national data sources do not allow for a contemporary examination of the likely diversity in shared care arrangements among Aotearoa New Zealand families. Moreover, who has shared care arrangements might differ by key characteristics, such as income, education, and ethnicity. Thus, understanding these factors can help point to potential inequities in the continued involvement of separated parents in the Aotearoa New Zealand context.

In-kind support from non-resident parents

Of course, sharing care of a child with another parent outside the home is not just about time, but also about the types of intrinsic supports that are needed to raise a child, like clothing and feeding them, and ensuring they can fully participate in educational and extracurricular experiences. These are types of in-kind support that go beyond child support payments. The most recent data from the 2010 New Zealand General Social Survey on in-kind support from non-residential parents suggests that a large majority (87.1%) of parents who had at least one child who did not live with them said they provided some form of in-kind or monetary support (Statistics New Zealand, 2012). Close to half (49.0%) of these parents said they provided clothing, followed by child support payments (46.3%), and pocket money (40.6%). These parents were much less likely to provide money for regular household costs such as paying bills (18.7%) or for big cost items (12.5%). Overall, the findings suggest there is wide variability in the extent to which parents who live in separate households invest resources in children above and beyond time responsibilities.

While there is some expectation that in-kind supports are provided while children are in the care of each parent (e.g., parents are feeding the children and paying for one-off activities when they are in their care), these types of in-kind supports are not court-mandated and not often agreed upon formally. This differs from the decisions around time arrangements or child support payments, which, although not always court-mandated, are key factors that need to be decided on in terms of immediate caregiving responsibilities during separation.

Indeed, studies outside of Aotearoa New Zealand have found that the purchase or provision of goods and gifts to children is often on an ‘as needed’ basis. This means there is an informal agreement about what the non-residential parent (often the father) will pay for, in-lieu of child support, when non-resident parents struggle to pay. These arrangements are less about providing items in a consistent matter, but to demonstrate love and create memories (Edin, 2018; Ryznar, 2017; Waller et al., 2018).

Aotearoa New Zealand research investigating the nature of child support among separated Pacific mothers has found that, even though formal child support payments were viewed as a necessary part of fathers’ moral obligations to their children, mothers also viewed informal financial and in-kind supports as a means of maintaining the relationship between the father and their children. Importantly, the informal nature of support made the transaction one of love, not mandated obligations (such as formal child support payments). Indeed, formally pursuing Western notions of child support can run antithetical to Pacific values of family solidarity and identity, where wider family networks support themselves collectively and are an important source of support for sole parents. This further increases the importance of informal in-kind supports as a means for mothers to support their children, and continue to facilitate a co-parenting relationship, while sustaining cultural values of family solidarity and sustainability (Keil & Elizabeth, 2017, 2023).

In short, while it appears that a large proportion of parents in shared care arrangements are providing in-kind support for children, it is likely these in-kind supports are not as structured nor consistent as child support or formal time-sharing arrangements. Thus, a better understanding of the levels of support parents receive from non-residential parents and caregivers, particularly depending on other shared care arrangement characteristics, such as time responsibilities, is important for a more holistic lens of parental investments in children across households.

Shared care arrangements, in-kind support, and family wellbeing

Given the variation in parents’ experiences of sharing the responsibility for providing care and other necessities for their children with a parent or caregiver in another household, often an ex-partner, the day-to-day maintenance and negotiation involved in that relationship could have implications for parents’ and families’ wellbeing. Indeed, there is a large body of work that has demonstrated a decrease in wellbeing, such as physical and mental health, among parents during and after separation and divorce (Bertoni et al., 2018; Gibb et al., 2011). This is partially due to the stressors and financial hardships of separation, but also to the outsized impact of divorce on people already experiencing mental distress and poorer physical health prior to separation (Sbarra et al., 2019).

Shared care arrangements, however, do not always result in poorer wellbeing. For example, one longitudinal study has found that shared custody arrangements (vs. sole physical custody arrangements) are associated with a greater likelihood of being employed among sole mothers (Bonnet et al., 2022). These outcomes were particularly pronounced among those with lower incomes or who were previously disengaged from the labour market prior to separation. These results demonstrate how shared care arrangements may facilitate greater economic security among sole mothers versus moving forward post-separation without a shared care arrangement.

Whether and how shared care arrangements matter for wellbeing may depend, too, on the nature of the relationship prior to separation, particularly in cases of high-conflict or low-quality relationships (Amato & Hohmann-Marriott, 2007; Bourassa et al., 2015). Continued ongoing conflict after separation, which might be necessary among parents who need to continue shared care, can be damaging for mental health (Symoens et al., 2014). Indeed, studies have documented how post-separation conflict among parents also has consequences for children's wellbeing (e.g., Baxter et al., 2011; Lucas et al., 2013).

Shared care arrangements in the event of separation have the potential, then, to either exacerbate poorer outcomes or provide much needed support that bolsters wellbeing. For example, research indicates that there is likely a difference between shared parenting and co-parenting. The latter is defined as parents who coordinate and cooperate in the shared responsibility of caring for their children, both perceiving and acting with positive regard to the other parent (Bertoni et al., 2018). Parenting in this way is as important to wellbeing after separation, as when couples were together (Gasper et al., 2008; Molgora et al., 2014). Indeed, some studies that have examined the association between shared care arrangements and parental wellbeing has found no relationship between children's physical custody arrangements (i.e., the amount of time spent in each parents' care) and parents' wellbeing (Augustijn, 2022, 2023a), pointing to the way that the quality of the relationship may matter above and beyond equal time investments.

Indeed, while in-kind support from non-resident caregivers/parents can offer an extrinsic (albeit inconsistent) safety net of support to families to help relieve material and other financial hardships (Kalil & Ryan, 2010), in-kind support may also offer intrinsic value in terms of co-parenting relationships, which have the ability to affect parents' wellbeing. For example, studies have found that non-residential parents' motivations for contributing in-kind support go beyond providing non-cash goods and services, but were relational in terms of fostering relationships with their children and the other parent (Kane et al., 2015; Natalier & Hewitt, 2010). Others have argued that acts of in-kind support are ways that non-resident parents, most often fathers, make visible their role and investment in their children's lives in their absence (Natalier & Hewitt, 2010).

In this way, examining in-kind support above and beyond time responsibilities and child support agreed upon by parents, Inland Revenue, and/or between the Family Court system, speaks to the ways shared parenting arrangements matter for families' economic wellbeing and parents' mental health. While shared care arrangements may have implications for the ways that children experience living across households, the other ways in which parents contribute to children's economic and social wellbeing through providing other necessities or maintaining a similar standard of living prior to separation may also be important for understanding both parents' and children's wellbeing.

Shared care responsibilities and policies and programmes supporting families

As noted, the ways that families share the care of children across households and how non-resident parents provide for their children outside of child support and time are potentially important for understanding how these diverse patterns of shared care arrangements matter for families' wellbeing. The way parents split time and contribute to providing for their children, however, is also salient for understanding policy aimed at supporting families navigating these arrangements.

Indeed, in Aotearoa New Zealand the shared care of children across households can affect qualification for, and amount of, benefit and/or Working for Families tax credits received. The arrangement type, such as how caregiving time is split across households, can also affect if and how parents provide financial child support to another parent or caregiver. For example, to qualify for Working for Families tax credits, a parent must care for their child at least one-third of the time. This equates to around five days every two weeks. This arrangement needed to have been, or intended to be, in place for at least four months.

As another example, a parent or caregiver can only receive financial child support from another parent if they are providing at least 35% of the ongoing daily care, whereas parents who provide financial child support need to provide at least 28% (about two nights per week) of daily ongoing care in order for that time commitment to be taken into consideration in terms of amount of child support they provide (Inland Revenue, 2023). Parents who provide more than 65% of ongoing daily care do not need to pay child support to the other parent/caregiver.

Being eligible for Sole Parent Support (SPS)—a main benefit aimed at alleviating economic hardship among low-income sole parents—is also determined by the amount of ongoing daily care a parent is responsible for. Parents who are responsible for the child(ren) at least 60% of the time are deemed to have primary responsibility and can apply for SPS (so long as they meet the other income- and relationship-based criteria, among others) (Ministry of Social Development, 2023).

This means that parents who are responsible for the care of their children up to 39% of the time, such as those who have their children on the weekends (a frequent care arrangement among parents in this current study), are not considered to have the child in the shared care arrangement as a dependent child for benefit entitlements, even if they are sharing the costs of that child. This can affect whether they are eligible for certain benefits (in the case of SPS), their main benefit rate (through both the number of dependents and lower income, asset, and abatement thresholds for determining their benefit rate), the amount of supplementary assistance (e.g., Accommodation Supplement, Winter Energy Payment) and hardship assistance (e.g., Food Grants, Temporary Additional Support) they can receive, and the work obligations associated with main benefit receipt, among other factors.

When parents have approximately equal shared care responsibilities, other considerations, such as who pays for material needs such as clothes, who makes decisions about their children's daily activities, their education, and their health, and who primarily pays for other expenses, are considered. Eligibility for Childcare and OSCAR Subsidies, and Child Disability Allowance are all also subject to decisions around shared care arrangements.

In sum, a better understanding of the prevalence and composition of shared care arrangements among families who are most likely to qualify for certain government supports, as well are how families are sharing care across households beyond time responsibilities, can shed light on whether the current policy settings are appropriate for the prevalence and impact of these eligibility settings on families navigating sharing the care of children across households.

The current study

To better understand the diversity of shared care arrangements, levels of in-kind support from non-residential parents/caregivers, and whether and to what extent these experiences matter for families' economic wellbeing and parents' mental health, this study asks five primary research questions:

1) What are the characteristics of shared care arrangements?
2) What are the characteristics of families that have shared care arrangements?
3) What types of in-kind support do children in shared care arrangements receive from non-resident caregivers?
4) What characteristics are associated with different levels of in-kind support of children in shared care arrangements?
5) Are different levels of in-kind support across shared care arrangements and family structures associated with differences in family economic wellbeing and parents' mental health?

This study answers these questions using new data collected in 2022 through the 2022 New Zealand Income Support Survey (study analytical sample *n* = 972). This sample of middle-to-low-income families is particularly salient for understanding shared care arrangements in Aotearoa New Zealand given their income levels are more likely to qualify them for government supports, such as tax credits through Working for Families (e.g., Family tax credit, in-work tax credit), and main benefits (e.g., Sole Parent Support, Jobseeker Support). Eligibility and/or payment rates for these government supports are determined, in part, by the amount of time children are in families' care.

By answering these questions, this study seeks to provide a more detailed portrait of shared care arrangement experiences among a contemporary cohort of Aotearoa New Zealand families. This includes the ways families share time responsibilities for children across households, how they provide for children that they share with non-resident parents above and beyond time responsibilities, and whether these arrangements impact on families' and parents' wellbeing.

Methods

Data and sample

Data

Data came from the 2022 New Zealand Income Support Survey (*n* = 1,852). The survey was designed to understand awareness and uptake of income support payments, such as Working for Families, the Accommodation Supplement, and other supplementary supports available to low- and middle-income families, and to understand experiences of applying for income support among a nationally representative sample of low-to-middle income families. Income levels covered by the survey were those at which people were potentially eligible for income support payments that are administered by the Ministry of Social Development and Inland Revenue. The survey also aimed to generate a contemporary understanding of people's relationships, such as the care responsibilities for children in diverse family structures.

Households were pre-selected from primary sampling units from the New Zealand Post address database. Upon contact with each pre-selected household, households were then screened by the survey eligibility criteria, whereby the household must have had at least one member between the ages of 18-64 years old who:

- met at least one of four family-type criteria (couple (neither partner full-time students) with no children; single person (not a full-time student) with no children; couple with children; single person with children), and
- had income levels (thresholds of which varied by region) that meant they might be eligible for Working for Families payments (WFF) or Accommodation Supplement (thresholds for which varied by region).

In the case of families with dependent children, the interview was generally with the person with primary responsibility for the care of the children. The final survey sample was diverse in terms of age, ethnicity, urbanicity, neighbourhood deprivation level, family type, and benefit receipt status, with oversampling of certain groups (e.g., women, families with children, people aged 25-54 years, Māori).

Respondents were either interviewed face-to-face, in-person by an interviewer via computer-assisted personal interviewing (CAPI), or face-to-face through the Virtual Interface Platform (e.g., video computer software). Respondents were asked to self-complete some questions privately. These included questions on benefit receipt, ethnicity, gender identity, health, and disability.

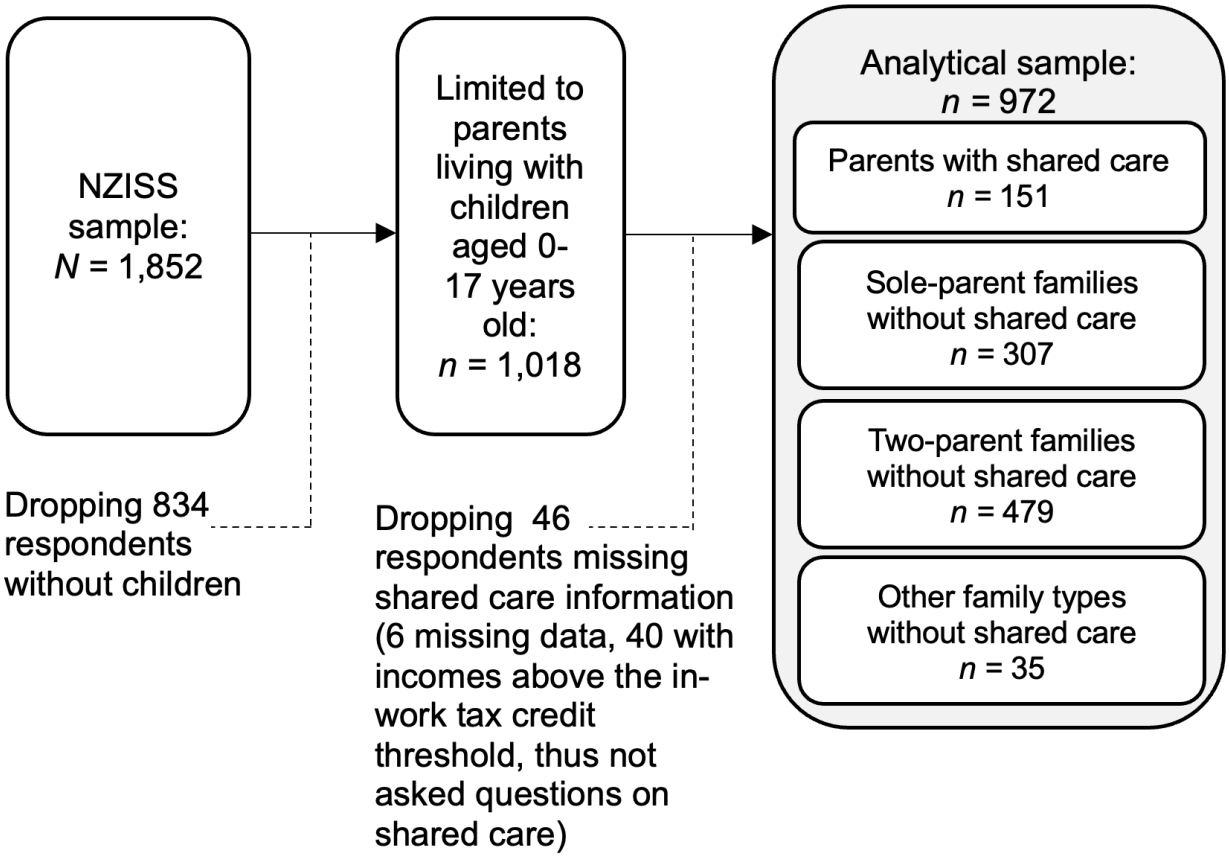
Additional information about the methodology of the 2022 New Zealand Income Support Survey is available on the MSD website.

Sample

Figure 1 presents how the analytical sample was identified from the total survey sample for the study analyses. The final analytical sample consisted of 972 respondents with at least one dependent child aged between 0-17 years old (dropping 834 respondents) and who were not missing information on whether any of their children had a shared care arrangement (dropping 46 respondents). Of the 46 dropped respondents, 40 had incomes above the in-work tax credit income cap, but below the Accommodation Supplement income cap, so were not asked questions about shared care, and 6 did not answer the question on shared care or responded "don't know".

Overall, 151 respondents had a dependent child that had a shared care arrangement with another parent or caregiver who did not live in the same household. It is important to note the small number of respondents with children in shared care arrangements, which is a limitation.

Figure 1. Identification of the analytical sample



Variables

Shared care arrangements

Survey respondents were asked several questions about whether they shared care responsibilities for any dependent children with other caregivers in other households and details of the shared care arrangement, such as how care time was split across households and with whom.

To determine whether a child was in a *shared care arrangement*, parents were asked, “do you [or your partner] share care of your child/any of your children with another adult not living in your house?” A binary variable was constructed to indicate whether at least one child in the home was in a shared care arrangement. Another binary variable measuring *shared care complexity* indicated whether all the children in the home had a shared care arrangement, or whether one or more children in the home had a shared care arrangement while other children did not.

Respondents who indicated that one or more of their children were in a shared care arrangement were then asked follow-up questions about the shared care settings. These follow-up questions were used to create a binary indicator of whether the other caregiver was a biological parent of the child or had some other relationship to the child (e.g., a stepparent, grandparent) and a categorical variable of the amount of time during an average fortnight the child(ren) stays with the respondent (less than 50% of the time; 50% of the time; more than 50% of the time). Parents were asked whether this arrangement was a “formal arrangement,” with the answer used to create two binary variables, indicating whether one or more arrangements were formal and whether one or more arrangements were not formal (i.e., informal).[3] These indicators were mutually inclusive because a number of families (*n* = 27; 17.9% of families with shared care arrangements) indicated that one child in their home had a formal arrangement while another had an informal arrangement, for example.

In most cases where two or more children in the home had a shared care arrangement, other details of the arrangement were similar (e.g., the relationship

[3] Specifically, parents are asked “is the shared care a formal agreement?” Or, in the case of multiple children, “are the shared care arrangements formal agreements?” Parents are then told “Formal means an official agreement that carers need to uphold.” We do not know how parents may be interpreting what an official agreement is, such as one agreed upon through court mandate, for example. However, all agreements are taken to mean a shared care arrangement that is regular and consistent, because prior survey questions ask about the average number of days children stay in their care during a fortnight.

between the children and the caregiver was the same for each child, the amount of time spent with the other caregiver was the same for each child).[4]

There was also a lack of variation in some additional questions about the shared care arrangement, such as whether the arrangement was intended to be in place for four or more months (there were only four cases where arrangements were *not* intended to be in place for four or more months) and whether the child stayed overnight in the other adult's care (all said their children did). Hence, these characteristics of shared care arrangements were not examined in this study.

In-kind support

Parents who reported having a child who was part of a shared care arrangement were asked about the types of in-kind support the other person in the shared care arrangement provided the children. Survey questions came, and were slightly adapted, from those used in The Future of Families and Child Wellbeing Study from the U.S. (formerly known as the Fragile Families and Child Wellbeing Study) (McLanahan et al., 2019).

Specifically, parents were asked, "please tell me how often the other person buys or pays for" the following things for their children, with answer options along a four-point scale where 0 = never, *1* = rarely, *2* = sometimes, and *3* = often. Parents were asked this of the following eight types of expenses:

1) Clothes;
2) Food;
3) Education costs, such as school supplies, camp, or transport to/from school;
4) Entertainment items, such as videos, computer games, toys, and sports equipment;
5) Personal items (e.g., haircuts, phone bill);
6) Pocket/spending money;
7) Special events or outings; and,
8) Sports/extracurricular activity fees (e.g., swimming, dance, or music lessons).

The responses to these questions were used to construct two in-kind support variables. First, the responses across all eight items were totalled to create a scale score of in-kind support ranging from 0 through 24 (M = 13.02; SD = 6.74; Cronbach alpha = 0.92). Second, a binary indicator of medium/high versus low in-kind support was created, primarily for use in the multivariate models examining wellbeing outcomes, with those respondents reporting 16 or higher on the in-kind support scale

[4] In seven cases where the time responsibility differed, respondents were assigned the value for the largest time responsibility (i.e., if their time responsibility for one children was more than 50% or the time and for another it was 50%, they were assigned to the "more than 50% time responsibility" group.

considered to have “higher” in-kind support, compared to those with a 15 or less on the in-kind support scale considered to have “lower” in-kind support. This split broadly represents the difference in those more often than not saying the other caregiver would “sometimes” or “often” provide the different types of in-kind support (in the case of having higher levels of support) compared to saying “rarely” or “never” (in the case of lower levels of support).

Family structure

Family structure was constructed from a household family relationship matrix, whereby respondents were asked about the relationships between each member of the immediate family who lived in the household. Moreover, the relationship types that could be chosen from contained a greater level of detail than the standard household matrix used on Aotearoa New Zealand national surveys. For example, it is possible to identify the specific type of relationship between a child and a ‘parent-like’ figure in the home. This included relationships such as a biological parent, stepparent, adoptive parent, whāngai parent, foster parent, grandparent, or ‘other – nonrelative’, in the case of a biological parent living with a partner that might not consider themselves in a parent-like role. Because the relationship type was identified individually for each member of the family to every other family member, it was possible to distinguish cases where children in the family might have different relationships to the adults (e.g., a father may be a biological father to one child, but a stepfather to another child). In this way, the family matrix can shed light on the diversity of family beyond simple one- or two-parent family types.

For this study, and for the descriptive analyses, we used the family matrix to create a seven-category family structure variable:

1) Married parents, biological children only (*n* = 392; 32.95% of the weighted sample);
2) Married parents, biological and step-children (*n* = 45; 2.80%);
3) Cohabiting (not married) parents, only biological children (*n* = 41; 3.48%);
4) Cohabiting parents, biological and step-children (*n* = 31; 2.00%);
5) Sole parents (*n* = 418; 55.38%);
6) Children living with partnered non-parent caregiver (*n* = 22; 1.57%); and,
7) Children living with sole non-parent caregiver (*n* = 23; 1.81%).

Given small cell sizes among some family structure groups, households were simply grouped into a binary variable indicating whether the family type was a two-parent (categories 1, 2, 3, and 4) or sole-parent (category 5) family, or some other non-parent caregiver family type (categories 6 and 7) for the multivariate analyses.

It was not possible to identify exactly which child in the family matrix was the child in a shared care arrangement in cases where some children in the home had a shared care arrangements and others did not (34 cases, representing 22.52% of families

with shared care arrangements). Moreover, the family matrix was limited to those household members in the primary family unit. This means there was no information on the relationships between the primary family unit members and other people (primarily adults) living in the home, beyond whether those other adults were relatives or not related, which survey respondents were asked about in a follow-up question. From these questions, a categorical variable was constructed to indicate whether there were other adult household members (*0* = no other adult household members beyond the family unit; *1* = only related adult household members; *2* = non-related adult household members (with or without relative household members).

Shared care arrangements, in-kind support, and family structure

From measures of shared care, in-kind support, and family structure, a five-category variable was constructed and examined to understand which families were most likely to have children in a shared care arrangement, as well as whether these arrangements were associated with wellbeing. These categories were:

1) Family with a shared care arrangement with low in-kind support (unweighted *n* = 86; 12.59% of the weighted sample);
2) Family with a shared care arrangement with medium/high in-kind support (*n* = 65; 6.61%);
3) Sole parents with no shared care arrangement (*n* = 307; 39.27%);
4) Two-parent (married or cohabiting, biological or stepparent to children) family with no shared care arrangement (*n* = 479; 39.00%); and,
5) Some other family structure type with no shared care arrangement (*n* = 35; 2.53%).

Covariates

A range of sociodemographic characteristics of the respondents and their family were included in the analyses. First, respondent characteristics included *ethnicity*, which was constructed as a four-category variable using administrative-prioritised ethnicity, whereby Māori was prioritised first, followed by Pacific, some other ethnicity (of which 77.46% identified as Asian), and European/Pākehā. While this mutually-exclusive variable is primarily used to discuss the findings, the findings by total response are also presented in the tables. Ethnicity total response variables were captured in four binary variables: 1) Māori or not; 2) Pacific or not; 3) other ethnicity or not; 4) European/Pākehā or not. This is important because a non-trivial proportion of the sample (16.46%) identify as having two or more ethnicities. Importantly, this affects some groups more than others. For example, 42.06% of Māori respondents identified as having two or more ethnicities, compared to 28.23% of European/Pākehā respondents, 22.93% of Pacific respondents (including 13.38% who also identified as Māori and are only counted as Māori in the admin-prioritised

ethnicity measure), and 9.93% of those of some other ethnicity. While the administrative-prioritised mutually-exclusive categorical variable was used in the multivariate analyses as well as the bivariate findings that are discussed in the report, tables also present the findings using the ethnicity total response indicators.

Respondent *disability status* was identified through the Washington Group Short Set on Functioning (Washington Group on Disability Statistics, 2021). The Washington Group Composite Disability Indicator was created from respondents reports of having a lot of difficulty or not being able to do at all at least one of five difficulty functioning domain tasks related to seeing, hearing, mobility, cognitive functioning, and self-care (e.g., washing the whole body, dressing).

Other respondent characteristics included: *age group* (four categories: 18-29 years; 30-39 years; 40-49 years; and, 50 years and older), *gender* (a binary indicator of woman or man), *educational attainment* (four-categories: no high school qualifications; NCEA Certificate level 3-4 or lower; trade certificate or post-secondary diploma; university degree or higher), work status (full time; part time; unemployed and seeking work; or, not in the labour force and not seeking work); and *nativity* (born in the Aotearoa New Zealand vs. not).[5]

Family characteristics included a binary indicator of whether their *family income* was above or below the family tax credit threshold (in lieu of information in the survey data on actual family income), whether any *children in the household were disabled* (a binary yes/no indicator constructed from the response to the question “does your child/do any of your children have a physical, sensory, psychiatric, or intellectual disability?”), a three-category variable indicating the *age of the youngest child* in the family (0-4 years; 5-13 years; or, 14-17 years), and a continuous variable indicating the *number of children* in the family (ranging 1 through 9).

Three variables captured geographic characteristics of where families lived. These included: *Neighbourhood deprivation* (a 1-10 scale, where 10 represents living in the highest deprivation decile of neighbourhoods in Aotearoa New Zealand and 1 represents living in the lowest decile (Atkinson et al., 2020)); *urbanicity* (*1* = lives in an urban area; *0* = lives in a rural area); and, *region* (seven-category variable indicating respondent lives in: 1) Auckland/Northland; 2) Waikato, Bay of Plenty; 3) Tairawhiti, Hawkes’ Bay; 4) Taranaki Manawatu; 5) Wellington; 6) Canterbury, West Coast, Tasman/Nelson, Marlborough; or, 7) Otago, Southland).

[5] In the analytical sample, just one parent identified as non-binary, meaning this gender category could not be analysed. This respondent’s gender was coded as missing and was imputed for the multivariate analyses.

Wellbeing outcomes

Five outcomes were examined in relation to respondents' mental health and stress and family economic hardship.

Depressive symptoms and *anxiety symptoms* were measured using four items (two for depressive symptoms, two for anxiety symptoms) on affect and psychosocial functioning frequency from The Washington Group Short Set – Enhanced tool (Washington Group on Disability Statistics, 2020). Respondents were first asked how often they "feel worried, nervous of anxious" (for the anxiety measure) and how often they "feel depressed" (for the depression measure). Those who reported feelings of anxiety or depression were then asked about the intensity of those feelings, being asked "how would you describe the level of these feelings?" with respondent options including: "a little"; "a lot"; and "somewhere in between a little or a lot." Following Washington Group guidelines, these questions were used to generate two three-category variables. One for anxiety symptoms and one for depressive symptoms, where *1* = no/low level of anxiety/depressive symptoms, *2* = medium level of anxiety/depressive symptoms, and *3* = high level of anxiety/depressive symptoms.[6]

Parenting stress was measured as a 1 through 5 scale through respondents' answer to the question: "In general, how well do you feel you are coping with the day-to-day demands of raising children?" Response options ranges from *1* = very well to *5* = not very well at all. This measure has been asked as part the Ministry of Health's New Zealand Health Survey—Child Questionnaire (Ministry of Health, 2021).

Material hardship was constructed from responses to the question, "…how well [does] your total income meet your everyday needs, for things such as accommodation, food, clothing, and other necessities?" Respondents could answer along a four-point scale ranging from *1* = not enough money through *4* = more than enough money. Response options were collapsed to create a binary indicator where *1* = not enough money to meet everyday needs and *0* = only just enough/enough/more than enough money to meet everyday needs.

Child enrichment hardship was measured through a question that asked parents about whether they had enough money for their children "to take part in school trips, sports and out of schools activities?", with response options being not enough money, just enough money, enough money, and more than enough money. As with material hardship, a binary indicator was created where *1* = not enough money and *0* = only just enough/enough/more than enough money for children's activities. Participation in extracurricular and school enrichment activities have been found to

[6] Washington Group recommends splitting the "no" symptoms from the "low" symptoms group. Due to sample issues and lack of variation between key variables of interest and no versus low symptoms, we have collapsed "no" with "low" symptoms for these analyses.

be associated with more positive child wellbeing and development (Connelly et al., 2022; Knifsend & Juvonen, 2023; Oberle et al., 2019).

Analytical approach

A combination of bivariate and multivariate analyses were used to examine the research questions, with final survey and replicate weights applied to both the bivariate and multivariate analyses to account for the complex sampling approach and generate population-level estimates. All models were estimated with robust standard errors. Analyses were conducted in Stata/MP 18.0 (StataCorp, 2023), with multiple imputation and the suite of *mi estimate* commands used to account for item-level missingness on the independent variables in the multivariate analyses.

Findings

Research Question 1: What are the characteristics of shared care arrangements?

Table 1 presents the characteristics of shared care arrangements in this study. Overall, a population-weighted 19.11% (*n* = 151; unweighted 15.53%) of families in the total analytical sample had at least one dependent child aged 0-17 years old who they were sharing care of with another adult that was not living in their home. Among those with shared care arrangements, 73.49% said the arrangement was a formal arrangement, whereas 39.48% said it was an informal arrangement (note: formal and informal care arrangements total more than 100% due to different types of care arrangements among children within households). In families with multiple children, three-quarters (75.07%) had children who all had shared care arrangements, with the remaining quarter (24.93%) had both children who did and did not have a shared care arrangement.

Just over half of the sample (53.87%) said that the children with shared care arrangements were in their care most of the time (i.e., more than 50%) of the time. Among this group, close to 1 in 5 (18.28% of those parents who had their children more than 50% of the time, or 8.70% of all parents with children with shared care arrangements) said that, despite having a shared care arrangement in place, their children spent no time with the other caregiver in an average fortnight. Also, among this group whose children spend most of their time in their care, one-third (33.10%, or 14.97% of all parents in shared care arrangements) had their children with them 12 of the 14 days and one-fifth (20.05%, or 10.8%) 10 of 14 days. This suggests that a frequent arrangement was for children to spend weekends every fortnight or every week with the other caregiver. Just under one-quarter of families with shared care arrangements said that they had their children with them half of the time (23.12%) or less than half of the time (23.01%).

In most cases (88.41%) the other caregiver in the shared care arrangement was a biological parent of the child. In other 11.59% of cases, the other caregiver was a stepparent (*n* = 3), grandparent (*n* = 12), uncle or aunty (*n* = 3), or sibling (*n* = 1).

As noted previously, there was little variation in the intended duration of the shared care agreement (only four cases did not intend for the arrangement to be in place for four months or longer), whether the children stayed overnight with the other caregiver (all did), and in details of the arrangements among multiple children in the same household with shared care arrangements (most children within household had the same arrangement details).

Table 1. Characteristics of shared care arrangements (n = 151; 19.11% of the total sample)

	All shared care arrangements	
	n	%
Formality[a]		
Formal	111	73.49
Informal	57	39.48
Time responsibility		
Less than 50% of the time	34	23.01
50% of the time	34	23.12
More than 50% of the time	74	53.87
Relationship between children and adults		
Biological parent	132	88.41
Some other adult[b]	19	11.59
Family shared care complexity		
All families with children		
All children in the home have shared care arrangement	117	84.54
Children in the home have different care arrangements	34	15.46
Families with two or more children		
All children in the home have shared care arrangement	61	75.07
Children in the home have different care arrangements	34	24.93

Note. Unweighted *n*s, weighted percents. Total *n* within variable not always add to 151 due to item-level missingness.

[a] Formal and informal arrangements total more than 100% because some children in multi-children households can have different arrangement types from other children in the household.

[b] In all cases this adult was another relative.

Research Question 2: What are the characteristics of families that have shared care arrangements?

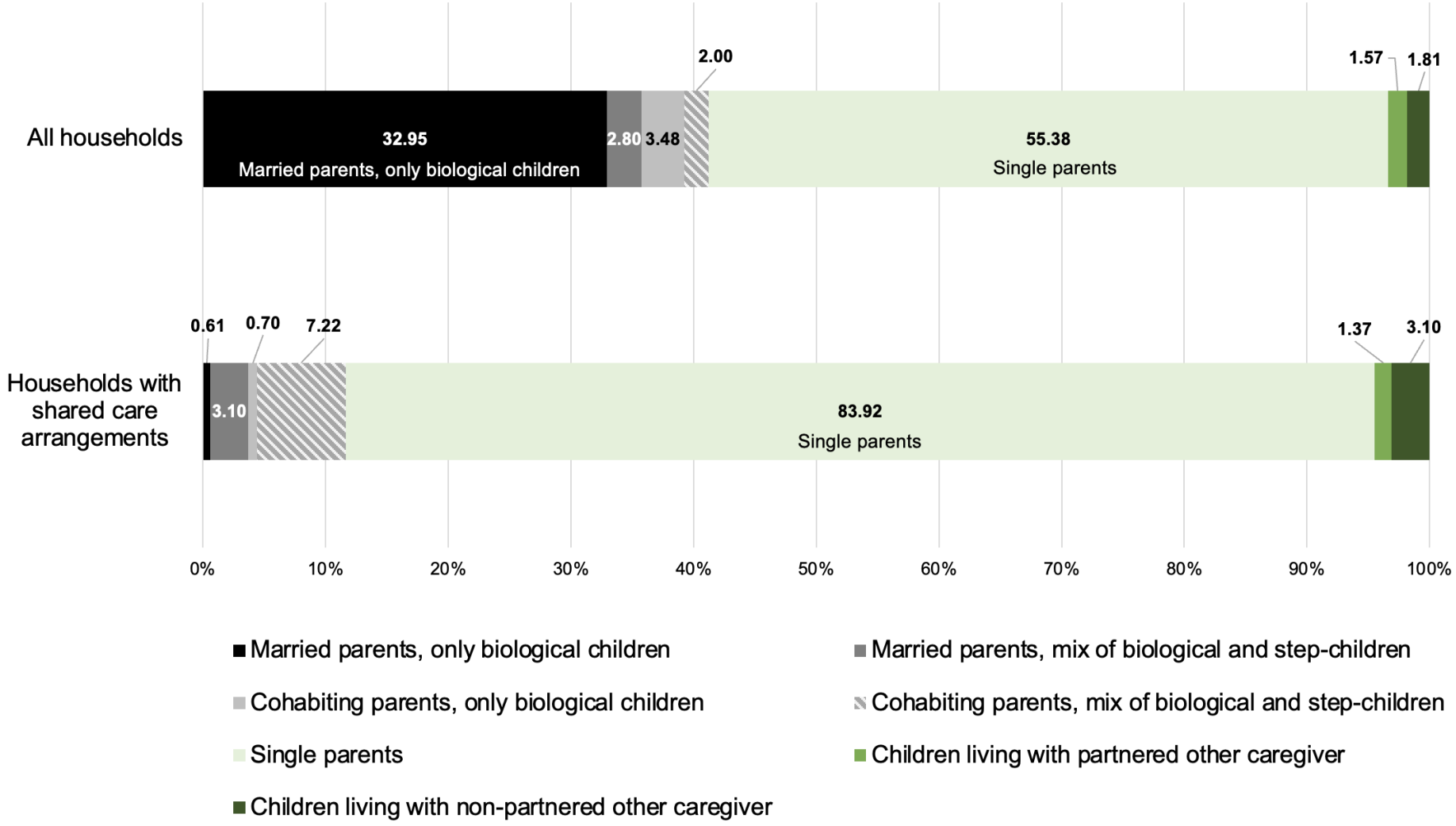
Family structure

To begin, Figure 2 presents the family structure composition of: 1) all families with children in the survey; and, 2) only those families with children who have shared care arrangements. Overall, one third (32.95%) of study families consisted of two married parents where all children in the household were biological children, whereas 3.48% of families were two-parent families with only biological children where the parents were not married (i.e., cohabiting relationship). There was a smaller portion of families where one or more children in the home were not biologically related to one of the adults in the parent-like role (e.g., stepfamilies), with 2.80% of families where the parents were married and 2.00% where the parents were cohabiting. Over half (55.38%) of the families were considered sole-parent families, with three-quarters (76.13%) of those parents' being single mothers. In a further 1.57% of families two adults were coupled but neither adult was a mother or father to the children (e.g., instead is a grandparent, aunty), and a final 1.81% were sole-parent families where the adult was not a mother or father.

Families where there was a shared care arrangement, however, were more likely to be sole-parent families (83.92% of families with a shared care arrangement) and cohabiting (unmarried) stepfamilies (7.22%).

It is important to note that the family structure findings presented are a snapshot in time and that family structure is fluid. That is, for example, while just under 5% of families were considered to be in a stepfamily, a greater proportion of children will have spent at least some time in a stepfamily situation or living with a sole parent across their life course.

Figure 2. Family structure: total sample (n = 972) and among families with children with shared care arrangements (n = 151)

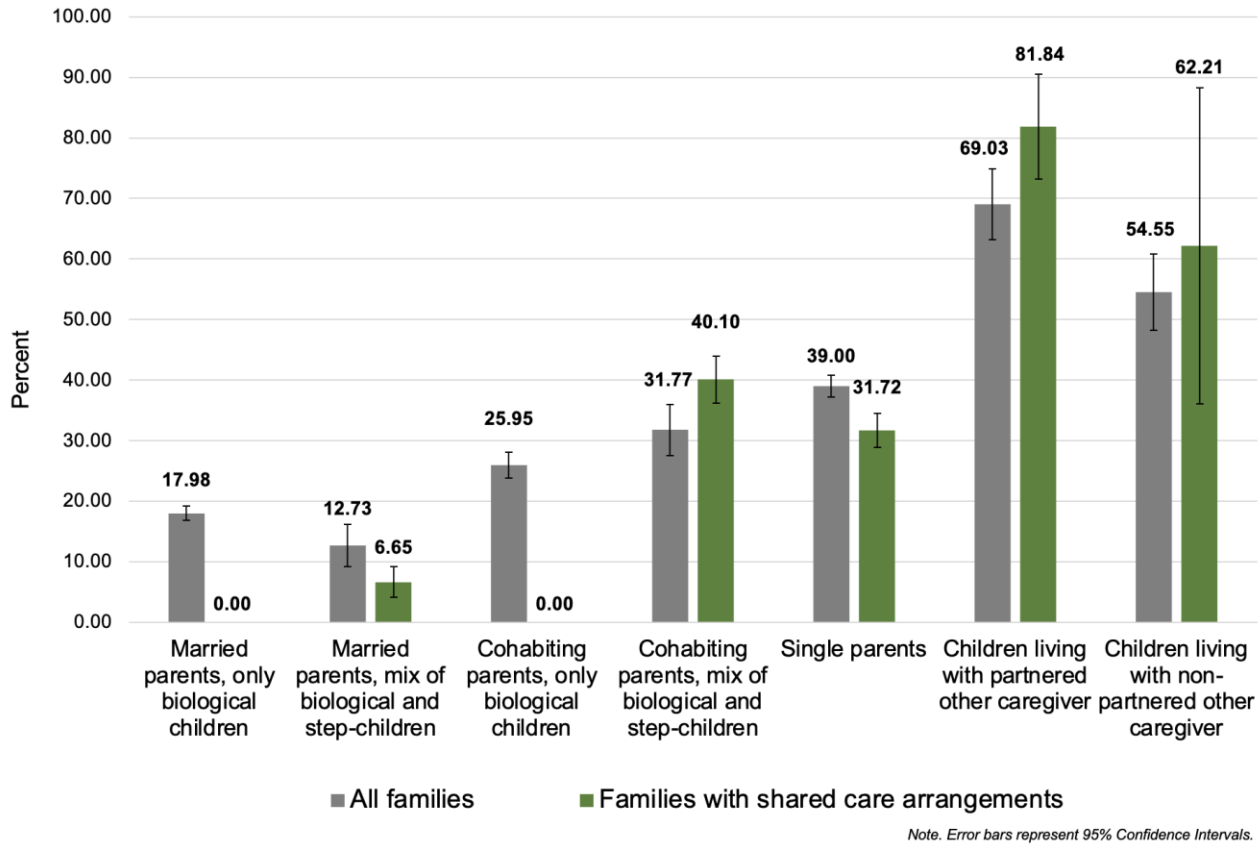


Other adult household members

In total, close to one-third (31.46%) of study families lived with other adults. Most of these cases were adult relatives only (29.32% of the total sample, or 93.13% of families who lived with other adults). A similar proportion of families with shared care arrangements lived with other adults (32.91%), however a slightly smaller proportion of these families lived with adult relatives only (27.02% of the sample of families with shared care arrangements, or 82.09% of families who lived with other adults).

Figure 3 shows the proportion of families who have other relative or non-relative household members living with them by family structure. Caution again needs to be applied to the analyses examining family types among families with shared care arrangements due to small cell sizes. Overall, married two-parent families—both those with only biological children (17.98% of these families) and stepfamilies (12.73%) were least likely to live with other adults. One-quarter (25.95%) of cohabiting (not married) parents with only biological children were living with other adults, while 31.77% of cohabiting stepfamilies had other adults in the home.

Figure 3. Percent of families living with other adult household members by family structure: total sample and among families with shared care arrangements



Among single parents, 39.00% said other adults lived in the home, while families where the parent-figure was not a mother or father were most likely to have other adults living in the home, with 54.55% of non-partnered other caregivers and 69.03% of partnered other caregivers living with other adults. A smaller proportion of sole parents with shared care arrangements reported living with other adults (31.72%) compared to sole parents in the total sample (39. 00%). Cohabiting stepfamilies with shared care arrangements were also more likely to be living with other adults compared with cohabiting stepfamilies in the total sample (40.10% vs. 31. 77%).

Sociodemographic characteristics

Table 2 presents the sociodemographic characteristics of the survey respondents and their families with shared care arrangements, and for families without shared care arrangements by a simplified family structure type (i.e., two-parent family, sole parent family, other family structure).

Table 2. Sociodemographic characteristics by shared care arrangement and family type

	Total		With shared care arrange-ments	Without shared care arrangements		
	Unweighted *n*	Mean / %	Mean / %	Two-parent families Mean / %	Sole-parent families Mean / %	Other family structure Mean / %
Respondent characteristics						
Ethnicity, admin-prioritised (column adds to 100%).						
European/Pākehā	366	43.61	55.98[bcd]	43.42[acd]	39.48[ab]	14.71[ab]
Māori	321	28.87	38.23[bd]	15.78[acd]	34.34[bd]	77.77[abc]
Pacific	136	11.83	1.23[bc]	9.39[a]	20.02[a]	5.09
Other ethnicity	140	15.70	4.55[b]	31.41[acd]	6.15[b]	2.43[b]
Ethnicity, total response (column adds to >100%)						
European/Pākehā	510	57.36	75.71[bcd]	52.41[a]	55.16[a]	27.47[a]
Māori	321	28.87	38.23[b]	15.78[acd]	34.34[bd]	77.77[bc]
Pacific	157	13.20	3.22[bc]	10.86[a]	20.99[a]	6.49
Other ethnicity	145	16.72	4.55[b]	31.58[acd]	8.62[b]	2.43[b]
Gender						
Man	238	29.52	38.17	38.37[c]	17.32[b]	14.48
Woman	718	70.48	61.83	61.63[c]	82.68[b]	85.52

Table 2 continued on next page

Table 2 continued

Age						
18-29 years	181	16.78	11.65[d]	15.79[d]	20.28[d]	16.25[abc]
30-39 years	398	40.78	47.38[d]	43.59[d]	37.17[d]	3.89[abc]
40-49 years	250	27.87	27.52	31.37	25.67	10.95
50 years and older	142	14.56	13.45[d]	9.24[d]	16.88[d]	68.91[abc]
Educational attainment						
No high school qualifications	147	12.15	9.78[cd]	9.41[cd]	14.26[abd]	41.09[abc]
Higher school certificate	447	46.53	51.05[b]	35.14[ac]	55.97[b]	44.98
Trade certificate/diploma	175	19.06	19.31[c]	24.22[c]	14.45[ab]	7.09
University degree or higher	179	22.25	19.86[b]	31.23[acd]	15.31[b]	6.84[b]
Work status						
Full time	337	36.69	37.00[c]	46.12[cd]	28.67[ab]	11.02[b]
Part time	163	16.21	14.34	17.01	17.00	5.67
Unemployed	91	11.02	20.47[b]	7.18[a]	9.64	20.21
Not in the labour force	369	36.07	28.19[cd]	29.69[cd]	44.69[ab]	63.10[ab]
Nativity						
Born overseas	265	27.33	9.14[bc]	43.47[acd]	21.56[ab]	4.96[b]
Born in NZ	706	72.67	90.86[bc]	56.53[acd]	78.44[ab]	95.04[b]
Disability status						
Not disabled	876	82.44	85.29[b]	94.44[acd]	92.44[b]	84.71[b]
Disabled	93	17.56	14.71[b]	5.56[acd]	7.56[b]	15.29[b]
Family and child characteristics						
Child(ren) disability status						
No disabled child	796	79.45	77.11[b]	87.89[acd]	72.30[b]	78.15[b]
Disabled child	176	20.55	22.89[b]	12.11[acd]	27.70[b]	21.85[b]
Main benefit receipt						
Does not receive a main benefit	636	64.61	56.19[bc]	87.52[acd]	47.66[ab]	38.14[b]
Receives a main benefit	336	35.39	43.81[bc]	12.48[acd]	52.34[ab]	61.86[b]
Family income						
Above the family tax credit threshold	198	21.05	12.10[bc]	33.81[acd]	13.33[ab]	11.52[b]
Below the family tax credit threshold	774	78.95	87.90[bc]	66.19[acd]	86.67[ab]	88.48[b]
Number of children	972	2.07 (1.16)	2.08 (1.14)	2.22 (1.08)	1.90 (1.16)	2.40 (1.90)
Age of youngest child						
0-4 years	445	38.72	22.87[bc]	49.35[acd]	36.56[abd]	27.92[bc]
5-13 years	411	49.19	70.26[c]	39.29[cd]	48.25[abd]	57.27[bc]
14-17 years	116	12.09	6.86	11.36[c]	15.19[b]	14.81

Table 2 continued on next page

Table 2 continued

Other adult household members						
No other adults	698	68.52	67.09[cd]	81.55[cd]	58.03[ab]	41.08[ab]
Related adult household members only	249	29.32	27.02[cd]	17.53[cd]	40.24[ab]	58.92[ab]
Unrelated adult household members	25	2.16	5.89[bc]	0.92[a]	1.72[a]	0.00
Geographic characteristics						
Neighbourhood deprivation (NZDEP; 1-10 scale)	972	6.55	6.45[cd]	6.13[cd]	6.95[ab]	7.55[ab]
		(2.59)	(2.45)	(2.62)	(2.55)	(2.67)
Urbanicity						
Rural area	83	10.02	5.44[b]	13.81[ac]	8.53[b]	9.50
Urban area	889	89.98	94.56[b]	86.19[ac]	91.47[b]	90.50
Region						
Auckland, Northland	254	23.11	12.50[bc]	24.95[a]	26.82[a]	17.28
Waikato, Bay of Plenty	157	15.60	22.27	15.83	11.88	19.65
Tairawhiti, Hawkes' Bay	126	7.49	3.40[cd]	5.99[cd]	9.16[ab]	35.56[ab]
Taranaki, Manawatu	136	17.50	30.74[bcd]	14.69[a]	14.64[a]	5.43[a]
Wellington	103	14.86	10.83	16.34	15.86	6.89
Canterbury, West Coast, Tasman/Nelson, Marlborough	109	13.68	7.30[b]	16.34[a]	14.04	15.19
Otago, Southland	87	7.76	12.95[bc]	5.87[a]	7.61[a]	0.00
n	972		151	479	307	35
% of sample		100.00	19.11	39.04	39.32	2.53

Note. Unweighted *n*s, weighted percents. Standard deviations in parentheses. T-tests and chi^2 tests denoting statistically different at at least $p < 0.05$ from: [a] with shared care arrangements; [b] two-parent families without shared care arrangements; [c] sole-parent families without shared care arrangements; [d] other family structure without shared care arrangements.

Ethnicity

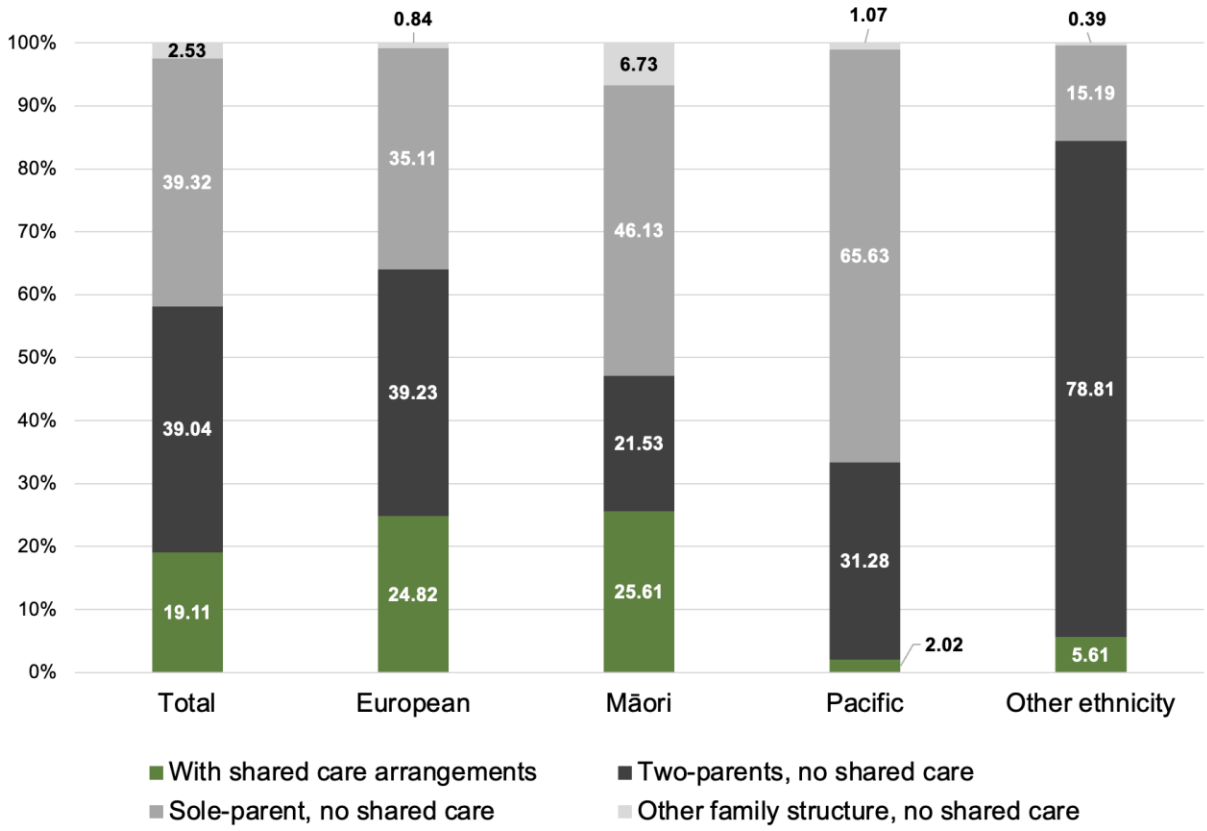
European/Pākehā respondents were overrepresented among families with shared care arrangements (55.98%) compared to the total sample composition (43.61% of the sample). Māori respondents were also overrepresented among families with shared care arrangements (38.23%) and among sole-parent families (34.34%) and some 'other family structure' (77.77%) without shared care arrangements compared to their sample representation (28.87%). Pacific respondents were overrepresented among sole-parent families without shared care arrangements (20.02%) and underrepresented among families with shared care arrangements (1.23%) compared to their sample representation (11.83%).[7]

Put another way, Figure 4 presents the shared care arrangement and family structure groups by ethnicity. One quarter of European/Pākehā (24.82%) and Māori (25.61%) respondents had children who had shared care arrangements, compared to just 2.02% of Pacific respondents and 5.61% of respondents in other ethnic groups (the majority of whom are Asian). Over one-third of European/Pākehā respondents were in two-parent (39.23%) and sole-parent (35.11%) families with no shared care arrangements, compared to 21.53% and 46.13% of Māori respondents, respectively. Two-thirds of Pacific respondents were sole-parents without shared care arrangements (65.63%), with a further 31.28% in two-parent families with no shared care arrangements.

Overall, European/Pākehā and Māori respondents were more likely to have shared care arrangements compared to Pacific respondents.

[7] The pattern of findings were substantively similar when examined by total response ethnicity. These estimates can be found in Table 2.

Figure 4. Shared care arrangement and family structure group: by ethnicity



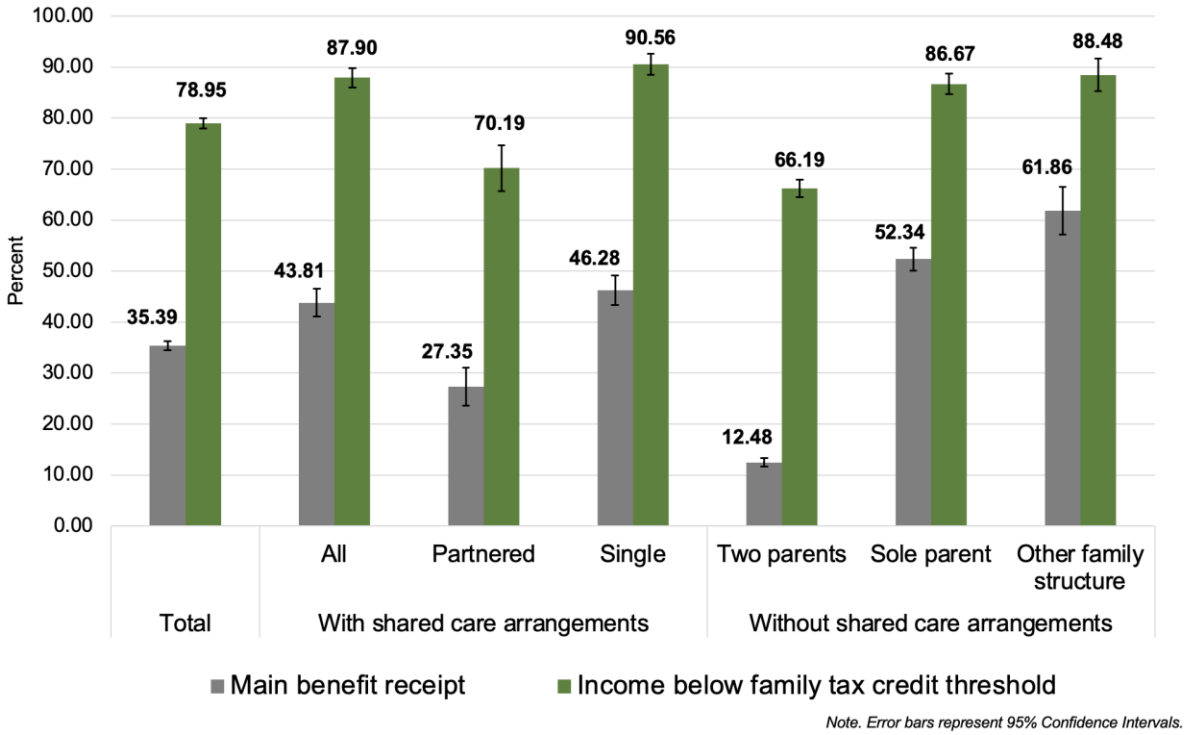
Income and main benefit receipt

While parents with children with shared care arrangements were just as likely to have household incomes below the family tax credit threshold as sole parents without shared care arrangements (87.90% vs. 86.67%, respectively), a smaller proportion of parents in shared care arrangements received a main benefit compared with sole parents without shared care arrangements (43.81% vs. 52.34%, respectively) (Figure 5). Among parents with shared care arrangements who were sole parents, however, the proportion receiving a main benefit was similar to that of sole parents without shared care arrangements (46.28% vs. 52.34%, respectively), as too was the proportion with incomes below the family tax credit threshold (90.56% vs. 86.67%, respectively).

Among the small number of two-parent families with shared care arrangements, however, a greater proportion received a main benefit (27.35% vs. 12.48%, respectively) and had incomes below the family tax credit threshold (70.19% vs. 66.19%, respectively) compared to two-parent families without shared care arrangements.

In short, on these two economic measures, the financial position of sole parents was similar regardless of whether their children were in shared care arrangements or not, although the financial position of two-parent families with children with shared care arrangements was worse compared to two-parent families without shared care arrangements.

Figure 5. Main benefit receipt and family tax credit threshold income status: by shared care arrangement and family structure group

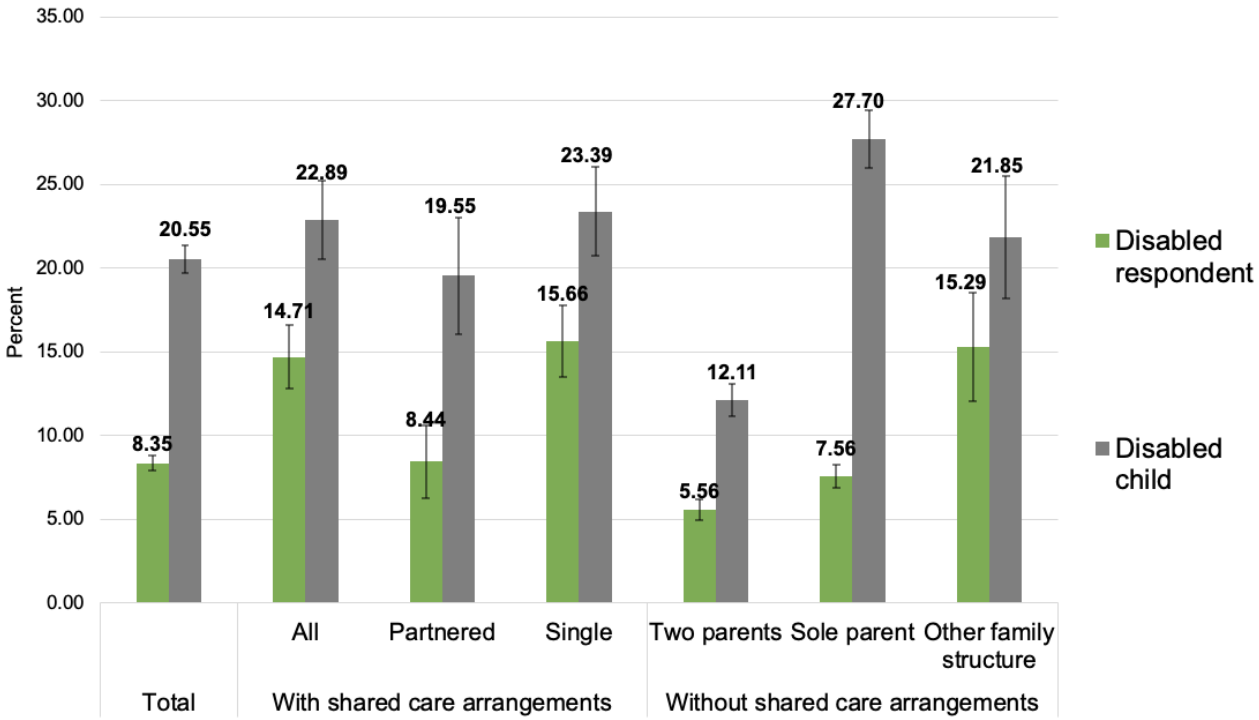


Disability

Figure 6 presents the proportion of respondents who reported were disabled or they had a disabled child. Sole parents with shared care arrangements were more likely to be disabled (15.66%) or report their child was disabled (23.39%) compared to the overall sample (8.35% and 20.55%, respectively). A smaller proportion of sole parents without a shared care arrangement (compared to sole parents with a shared are arrangement) were disabled (7.56%), however a similar proportion reported their child was disabled (27.70%).

Respondents in some 'other family structure' without a shared care arrangement had high rates of disability (15.29%), however this high rate among this small number of respondents is mostly explained by differences in age (i.e., 68.91% were aged 50 years and older compared to 14.56% of the total sample) and educational attainment (6.84% have a university degree, compared to 22.25% of the total sample) —two factors associated with health and disability status.

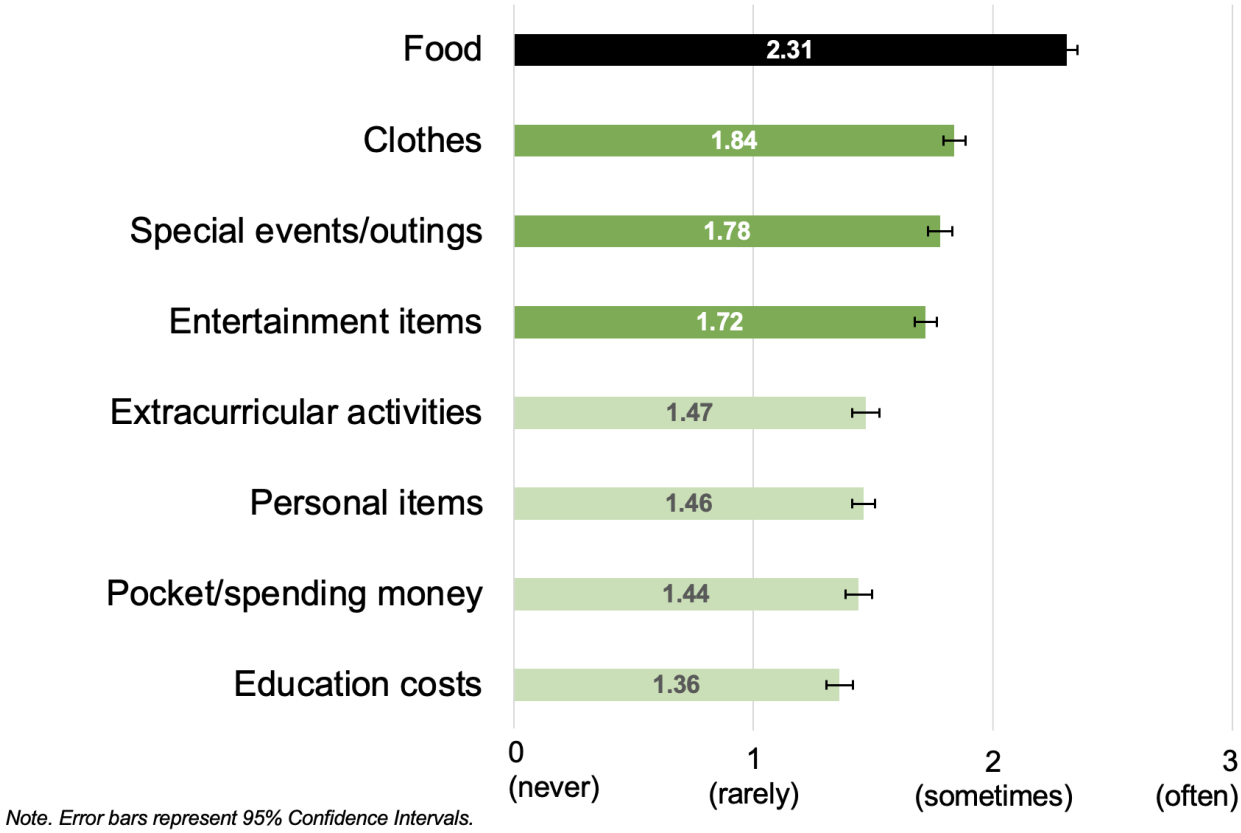
Figure 6. Respondent and child disability: by shared care arrangement and family structure group



Research Question 3: What types of in-kind support do children in shared care arrangements receive from non-resident caregivers?

Parents whose children were in shared care arrangements were asked about the frequency of in-kind support such as food, clothing, and extracurricular activities, that the other parent or caregiver in the shared care arrangement provided for their children. Figure 7 displays the average level of in-kind support across the eight items that parents were asked about.

Figure 7. Average frequency the other caregiver in the shared care arrangement provided different types of in-kind support



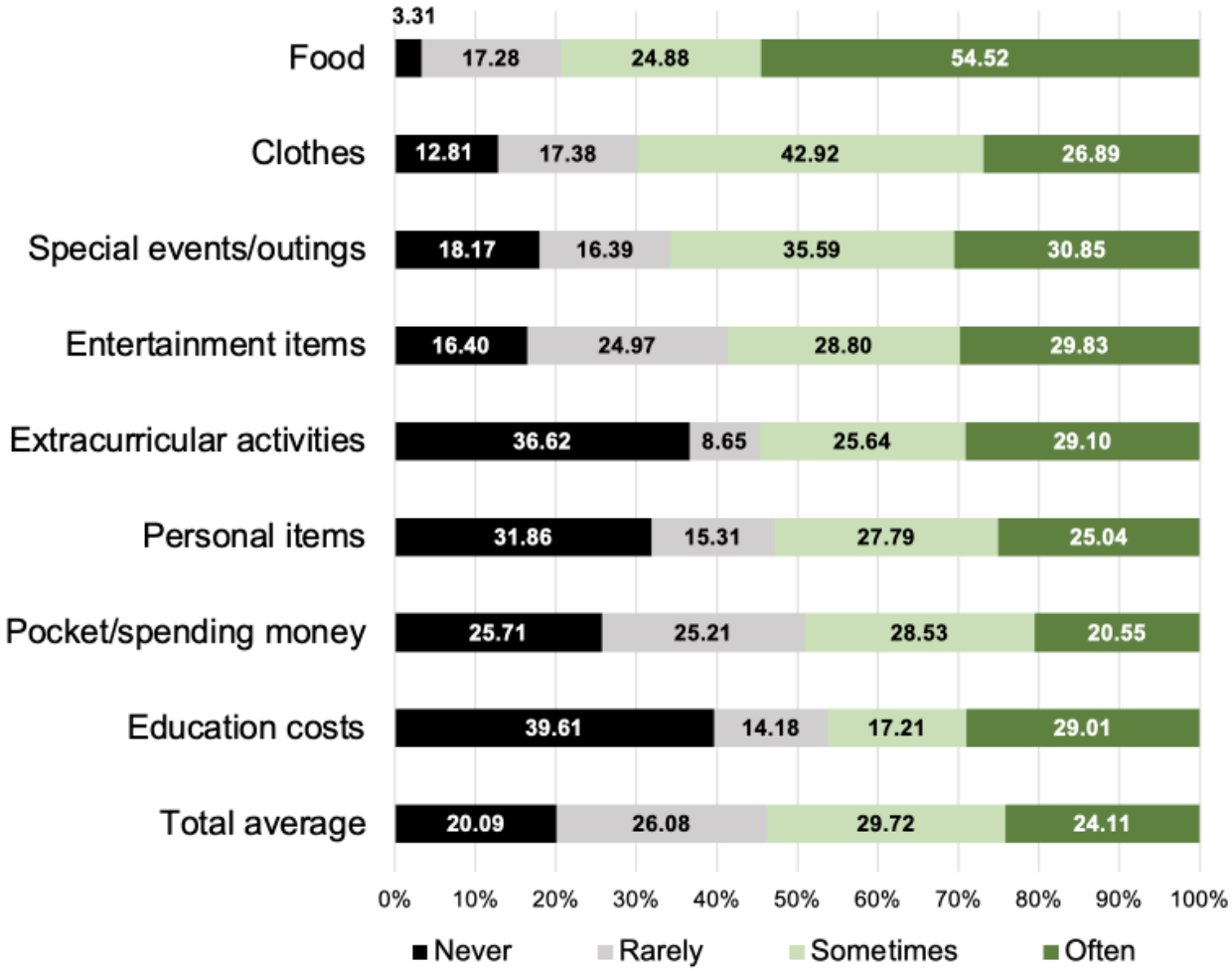
Note. Error bars represent 95% Confidence Intervals.

Overall, the frequency of in-kind support fell into three groups (based on their averages): 1) essential; 2) gifts and outings; and, 3) daily maintenance and support. In the 'essential' in-kind support group, parents were most likely to report that the other caregiver would provide food for the children (*M* (mean) = 2.31 on a *0* = never through *3* = often scale). A second group of three items with similar means included items that were more likely to be gifts or activities during time spent in the other caregivers' care. This included providing clothing (*M* = 1.84), special events and outings (*M* = 1.78), and entertainment items (*M* = 1.72). A final group of items with the lowest levels of reported in-kind support frequency were items that could be considered ongoing, and often large, expenses to do with daily maintenance and support. This included paying for extracurricular activities (*M* = 1.47), paying for

personal items like haircuts and phone bills (*M* = 1.46), providing pocket and spending money (*M* = 1.44), and education costs (*M* = 1.36).

Figure 8 presents the distribution of in-kind support across the different response options: *never, rarely, sometimes*, or *often*. For example, examining in-kind support provided in the form of food, four in five parents (79.40%) said that the other non-residential parent often (54.52%) or sometimes (24.88%) provided food for their children, with just 3.31% of parents saying the other parent never provided food.

Figure 8. Distribution of the frequency the other caregiver in the shared care arrangement provided different types of in-kind support



Interestingly, differences in the average level of support between the group of in-kind supports representing gifts and outings (i.e., clothes, special events, entertainment) and those representing daily maintenance (e.g., person items, education costs) were driven more so by higher rates of parents saying the other parent never provided in-kind support for daily maintenance and support items, rather than much lower rates

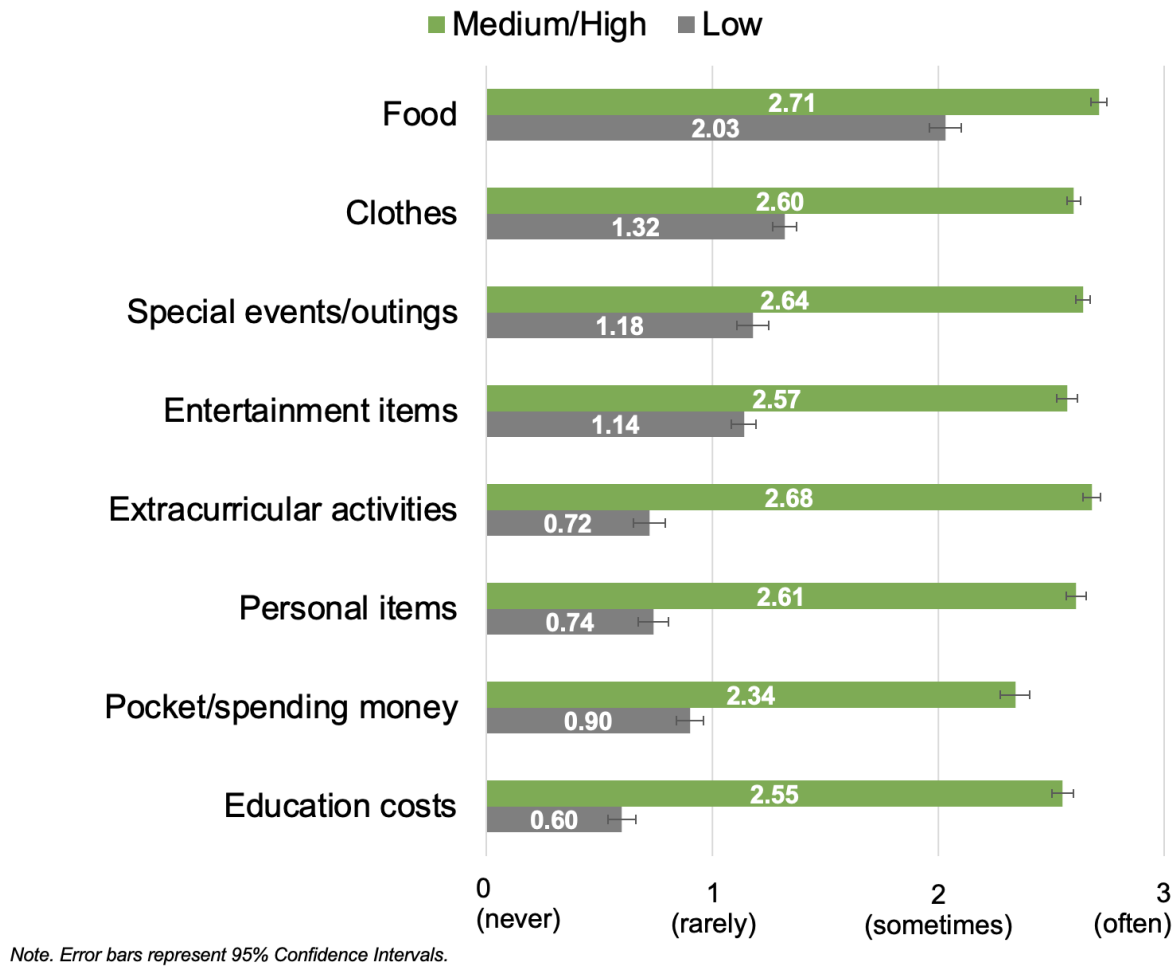
of saying they often did. As an example, 39.61% of parents said the other parent never covered education costs compared to around 13-18% of parents who said the other parent never provided in-kind support in the form of clothes, special events, and entertainment items. However, 29.01% of parents said the other parent often covered education costs, which is similar to the proportion of parents who said the other parent often provided support for clothes, special events, and entertainment items (between 29-31%).

As mentioned previously, for the analyses examining wellbeing across different shared care arrangement and family type groups, those with shared care arrangements were split into two groups:

1) medium/high in-kind support (i.e., a total in-kind support scale score between 16-24) (34.05% of those with shared care arrangements; *n* = 86); and,
2) low in-kind support (i.e., a total in-kind support scale score less than 16) (65.95%; *n* = 65).

Figure 9 shows the average level of in-kind support across the eight items by these two groups (i.e., medium/high support vs. low support). Overall, while the patterns of results tended to follow those in the total sample of parents with children in shared care arrangements, there were much fewer statistical differences in the average values of in-kind support across the different items for parents in the medium/high in-kind support group than for parents in the low support group. That is, while the non-resident parent providing food was reported most frequently by parents (*M* = 2.71 among the medium/high support group), there were few statistical differences across the remaining items. Frequency of providing pocket/spending money (*M* = 2.34) was statistically lower than the other items (clothes, special events/outings, entertainment items, extracurricular activities, personal items, and education costs with average values ranging from 2.55 to 2.68).

Figure 9. Frequency of types of in-kind support from other caregiver in the shared care arrangement: by medium/high and low total in-kind support



Note. Error bars represent 95% Confidence Intervals.

In short, parents who reported medium/high in-kind support from the other parent sharing the care of a child tended to consistently report high support across all the different types of in-kind support. Parents who reported low/medium in-kind support from the other caregiver, however, tended to report higher support for essentials such as food (*M* = 2.03), but a steep decline in support as needs transitioned away from food and providing entertainment and into large ongoing expenses such as education (*M* = 0.60) and extracurricular activities (*M* = 0.72).

Research Question 4: What characteristics are associated with different levels of in-kind support of children in shared care arrangements?

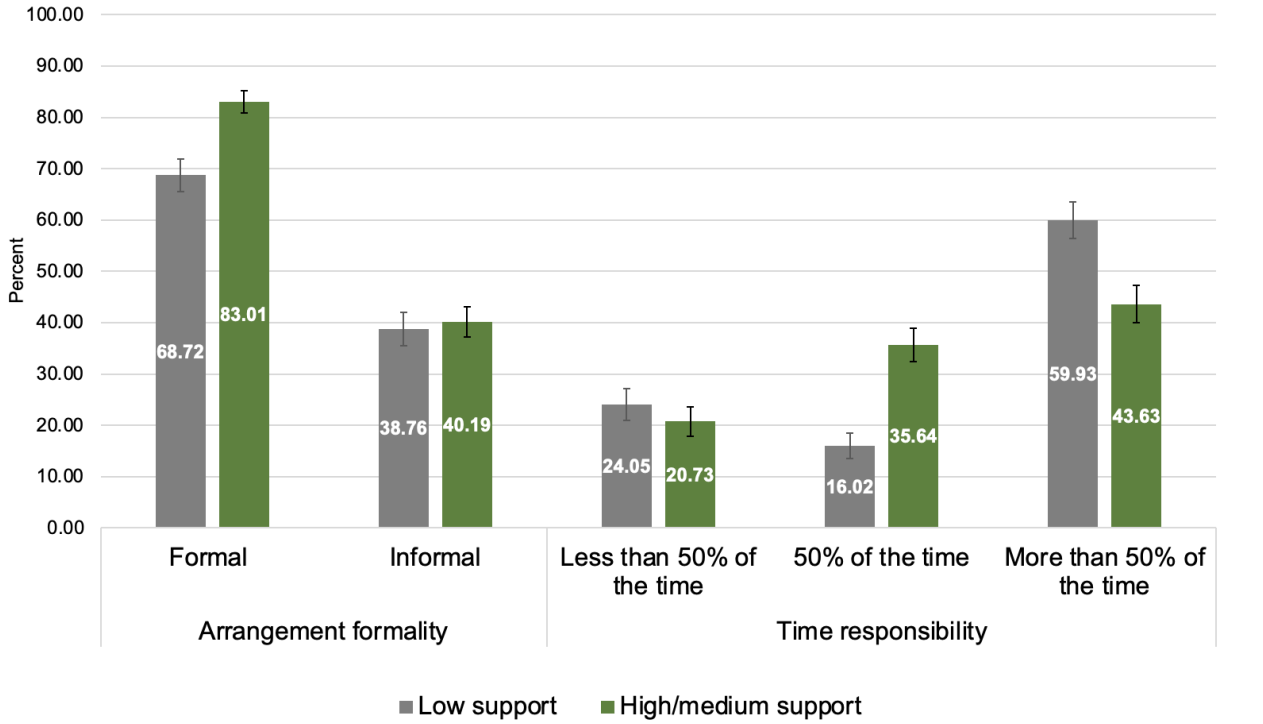
Next, we examined whether there were differences in how shared care arrangements were structured and the sociodemographic characteristics of families by whether they reported receiving low or medium/high levels of in-kind support.

Table A1 in the appendix provides the descriptive bivariate statistics for the key shared care arrangement characteristics across all sociodemographic variables that were included in the wellbeing regression models. It is extremely important, again, to note the small cell sizes (*n* = 151, with an unweighted sample of 86 for those receiving low in-kind support and 65 for those receiving medium/high levels of in-kind support). Thus, statistically significant differences across the two groups were harder to detect despite some (seemingly) large differences.

Characteristics of shared care arrangements

First, regarding formality and time characteristics of shared care arrangements (Figure 10), a larger proportion of parents who had shared care arrangements and received medium/high levels of in-kind support from non-resident parents reported the arrangement was formal compared with parents who received low levels of in-kind support (83.01% vs. 68.72%, respectively). A greater proportion of parents who received medium/high levels of in-kind support said the time agreement was a 50/50 split (35.64% vs. 16.02%) and a smaller proportion said they had their children more than 50% of time compared to parents who received low levels of in-kind support (43.63% vs. 59.93%).

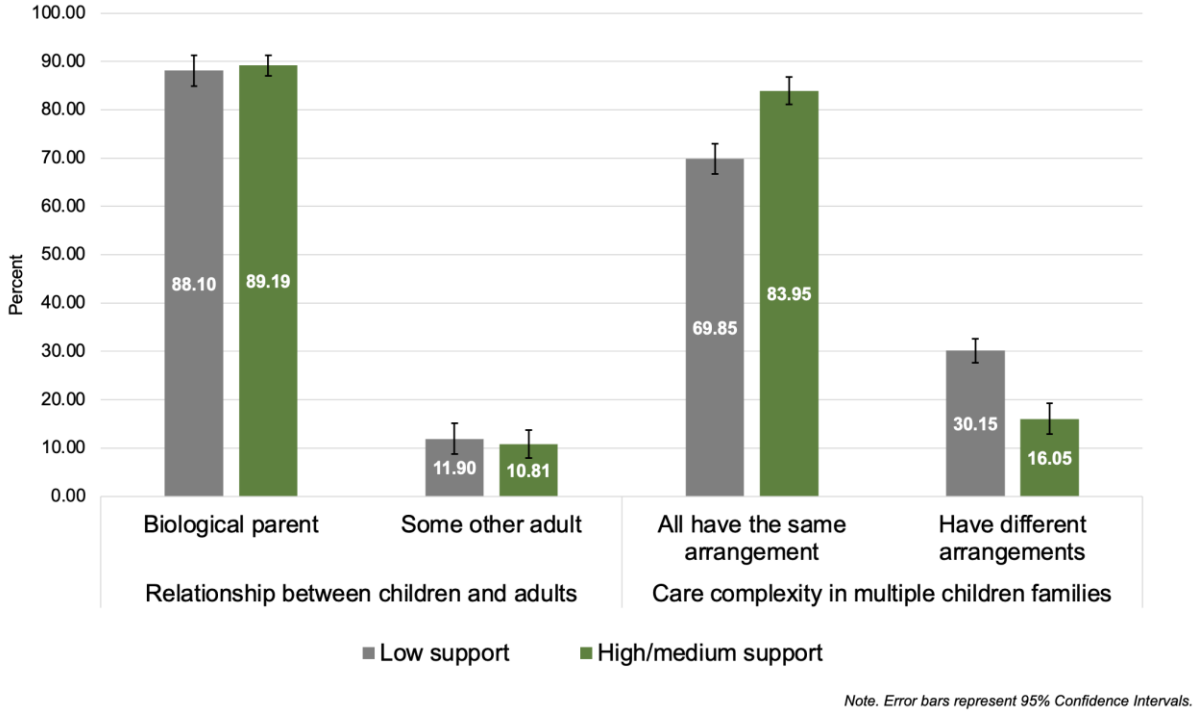
Figure 10. Formality and time characteristics of shared care arrangements: by medium/high and low total in-kind support



Note. Error bars represent 95% Confidence Intervals.

Looking at care complexity for parents with multiple children in the home (Figure 11), those who received low levels of in-kind support were more likely to have children with different shared care arrangements compared with those who received medium/high levels of support (30.15% vs. 16.05%, respectively). Overall, the findings point to low levels of in-kind support being coupled with care arrangements where the other caregiver was also less likely to have an equal or greater care time responsibility, where care arrangements may be more fluid or unstable (i.e., 'informal'), and where parents are managing situations where each of their children have different care arrangements.

Figure 11. Relationship and care complexity characteristics of shared care arrangements: by medium/high and low total in-kind support



Note. Error bars represent 95% Confidence Intervals.

Ethnicity

Given small cell sizes among Pacific and other ethnicity groups when using the administrative-prioritised ethnicity measure, for these analyses we focus on the total response ethnicity measure (i.e., respondents may be counted multiple times in the analysis if they identified as having multiple ethnicities).

Among the low levels of in-kind support group, 77.31% of respondents identified as European/Pākehā, 40.32% were Māori, 2.91% were Pacific, and 4.55% were of some other ethnicity.[8] Within the medium/high levels of in-kind support group, 72.63% were European/Pākehā, 34.18% Māori, 3.82% were Pacific, and 4.10% were of some other ethnicity.

In terms of rates, 69.55% of Māori respondents reported receiving low levels of in-kind support (vs. medium/high levels of in-kind support) compared with 67.33% of European/Pākehā respondents, and 59.63% of Pacific respondents. These findings, however, were not statistically significant.

[8] The use of total response ethnicity means proportions sum to more than 100%.

Income and main benefit receipt

There were no differences in terms of the proportion of parents who reported low levels of in-kind support who had incomes above or below the family tax credit thresholds. Parents who received a main benefit made up a larger proportion of parents who said they had low levels of in-kind support (48.36% receiving low support were receiving a main benefit) compared to those who said they had medium/high levels of in-kind support (34.43%).[9] Among those who received a main benefit, just over one quarter (27.21%) said they received medium/high levels of in-kind support from the other parent/caregiver, whereas 40.00% of those who were not receiving a main benefit reported receiving medium/high levels of in-kind support. None of these differences were statistically significant.

Disability

Parents who reported low levels of in-kind support were more likely to be disabled (16.66%) and have a disabled child (28.03%) than parents who reported medium/high levels of in-kind support (10.95% and 12.93%, respectively). Turning to rates, 74.67% of disabled respondents with shared care reported receiving low levels of in-kind support compared with 64.44% of those not disabled with shared care arrangements. This proportion was even larger among parents with a disabled child. Four in five (80.76%) parents with shared care who had a disabled child said they received low levels of in-kind support (vs. 19.24% who said they received medium/high levels of in-kind support), compared to 61.55% of parents with shared care with no disabled child. None of these differences were statistically significant. Again, cell sizes likely limited the ability to pick up statistically significant differences.

[9] It is important to note that receiving goods and services, as well as cash gifts, can be charged as income within the welfare system, inflating income and potentially affecting main benefit eligibility or reducing main benefit payment rates.

Research Question 5: Are different levels of in-kind support across shared care arrangements and family structures associated with differences in family economic wellbeing and parents' mental health?

Finally, we examined whether in-kind support, shared care arrangements, and different family types were associated with differences in mental health among parents and family economic wellbeing. Table 3 presents the key coefficients from the models predicting all outcomes, whereas the full model output can be found in Table A2 in the appendix. Figures 12 through 16 present the unadjusted (i.e., bivariate statistics) and adjusted (i.e., multivariate estimates) wellbeing estimates across the different shared care arrangement, in-kind support, and family structure groups. The adjusted estimates were derived from the regression models presented in Table A2.

Table 3. Multivariate regression analyses predicting wellbeing outcomes

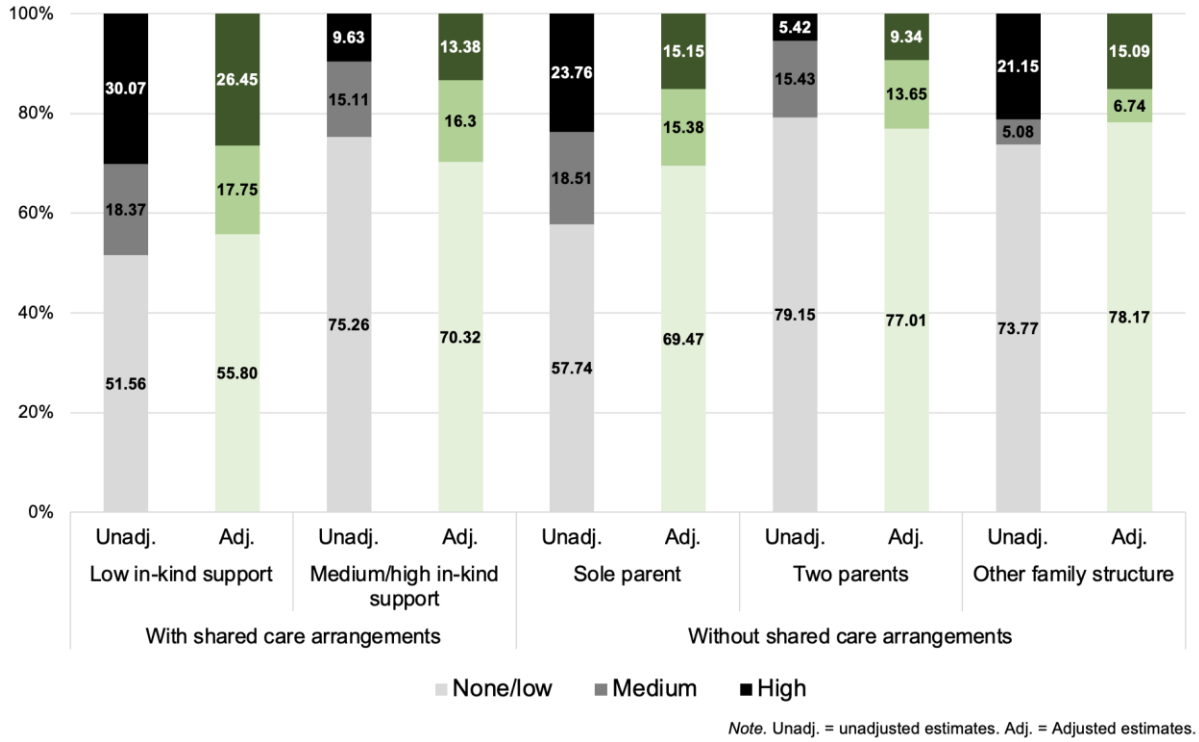
Estimation type	Multinomial logistic		Multinomial logistic		OLS	Logit	Logit
Outcome	Anxiety symptoms (ref: none/low)		Depressive symptoms (ref: none/low)		Parent-ing stress	Material hardship	Child enrichment hardship
	Medium RRR	High RRR	Medium RRR	High RRR	Coeff.	OR	OR
Shared care arrangement group (ref: Shared care arrangement with low in-kind support)							
Shared care arrangement with medium/high in-kind support	0.69	0.36*	0.22*	0.67	-0.16	0.96	0.67
	(0.33)	(0.20)	(0.16)	(0.40)	(0.14)	(0.36)	(0.27)
No shared care arrangement, single-parent family	0.66	0.42*	0.49	0.40	-0.15	0.87	1.12
	(0.25)	(0.15)	(0.23)	(0.23)	(0.12)	(0.25)	(0.35)
No shared care arrangement, two-parent family	0.51+	0.22***	0.30*	0.33+	-0.23+	0.67	0.88
	(0.19)	(0.09)	(0.14)	(0.20)	(0.12)	(0.20)	(0.28)
No shared care arrangement, other family structure	0.24+	0.36	0.49	0.19	-0.06	0.26*	0.78
	(0.20)	(0.23)	(0.37)	(0.25)	(0.20)	(0.14)	(0.41)
r^2 / Pseudo r^2	0.10	0.10	0.18	0.18	.09	0.12	0.14
n	907	907	847	847	947	970	750

Note. Robust standard errors in parentheses. *** p<0.001, ** p<0.01, * p<0.05, + p<0.10.
RRR = relative risk ratio. Coeff = coefficient. OR = odds ratio.
Models control for: ethnicity, age, educational attainment, work status, nativity, gender, whether family income is below the family tax credit threshold, main benefit receipt, disability status, child disability, number of children, age of youngest child, other adult household members, neighbourhood deprivation, urbanicity, and region.

Anxiety symptoms

Figure 12 presents the unadjusted and adjusted proportions within each shared care arrangement and family type group that fall into three anxiety symptom categories: 1) no or low-level anxiety symptoms; 2) medium level of anxiety symptoms; or, 3) high level of anxiety symptoms.

Figure 12. Anxiety symptoms: Unadjusted and adjusted estimates by shared care arrangement in-kind support and family structure group



Note. Unadj. = unadjusted estimates. Adj. = Adjusted estimates.

Thirty percent (30.07%) of parents with children who had a shared care arrangement and received low levels of in-kind support from the non-resident parent/caregiver also reported high levels of anxiety symptoms. This compares to less than one in 10 parents (9.63%) who had a shared care arrangement and received a medium/high level of in-kind support and less than one quarter (23.80%) of sole parents without shared care arrangements. Two-parent families without shared care arrangement reported the lowest levels of anxiety symptoms, with only 5.37% of these parents reporting high symptom levels.

Adjusting for other factors that were associated with being in shared care arrangements or being a sole parent and reporting higher levels of anxiety symptoms, such as lower incomes, main benefit receipt, and higher rates of disability, the large disparities between the groups attenuated. The differences in the likelihood of having high levels of anxiety symptoms (vs. no or low levels of anxiety

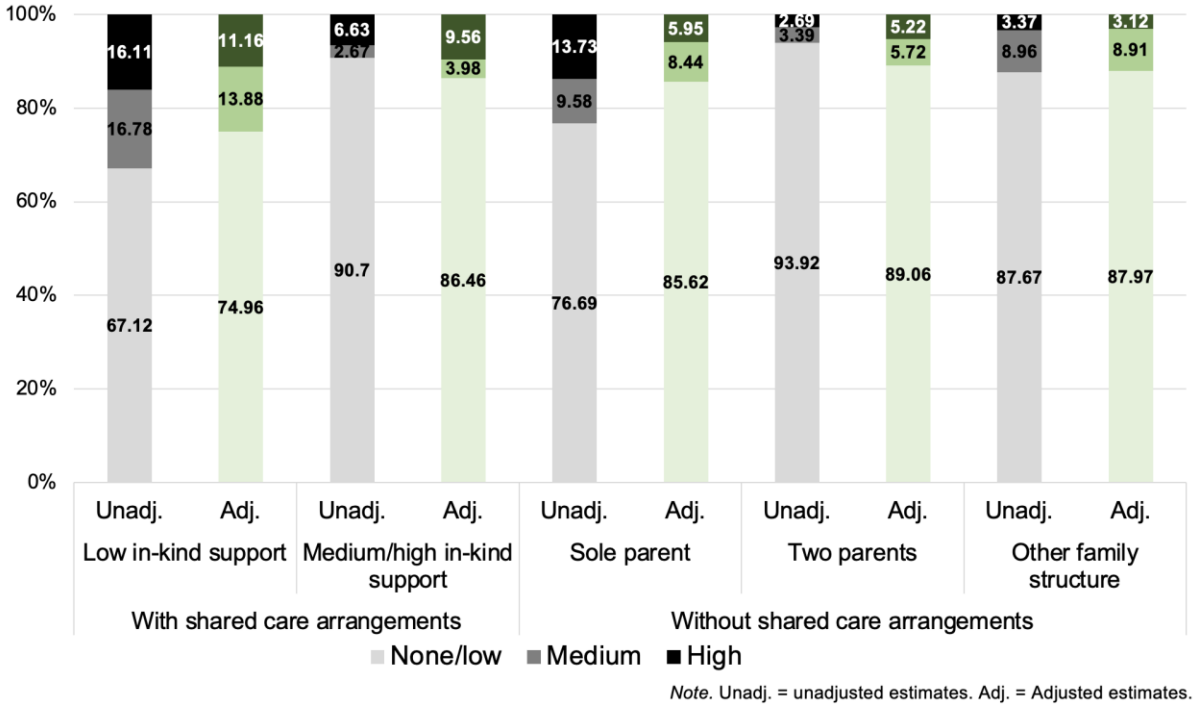
symptoms) between parents with shared care arrangements receiving low in-kind support and other groups, however, were still statistically significant. For example, parents with shared care arrangements who received medium/high levels of in-kind support from the non-resident caregiver were 64% (*relative risk ratio [RRR]* = 0.36; $p < .05$) less likely to report high levels of anxiety symptoms (vs. no/low level of anxiety symptoms) compared to parents with low levels of in-kind support from the other caregiver in a shared care arrangement. This difference was similar when compared with sole parents without shared care agreements (*RRR* = 0.42; $p < .05$).

Depressive symptoms

The pattern of findings was similar for depressive symptoms (Figure 13), albeit challenged with a lack of statistical power, given less variation in the outcome than when examining anxiety symptoms. Overall, 16.11% of parents with children with shared care arrangements who received low levels of in-kind support from the non-resident parent/caregiver reported high levels of depressive symptoms. This was similar to sole parents without shared care arrangements (13.73%). Just 6.63% of parents with shared care arrangements who received medium/high levels of in-kind support from the non-resident parent/caregiver and 2.69% of respondents in two-parent families without shared care arrangements reported high levels of depressive symptoms.

In the multinomial logistic models, however, other factors, such as income and disability, attenuated the higher levels of depression among sole parents without shared care arrangements to a greater degree than they did for parents with shared care and low in-kind support. This means sole parents without shared care arrangements did not have a statistically significant lesser likelihood of having high levels of depressive symptoms (vs. having no/low depressive symptoms) than parents with shared care and low in-kind support. There was no statistically significant difference in the risk of being in the high depressive symptoms group (vs. no/low depressive symptoms group) between parents who received low versus medium/high levels of in-kind support. However, parents with medium/high levels of support were 78% less likely to be in the medium depressive symptoms group (vs. no/low depressive symptoms group) compared with parents with low in-kind support (*RRR* = 0.22; $p < .05$).

Figure 13. Depressive symptoms: Unadjusted and adjusted estimates by shared care arrangement in-kind support and family structure group



Note. Unadj. = unadjusted estimates. Adj. = Adjusted estimates.

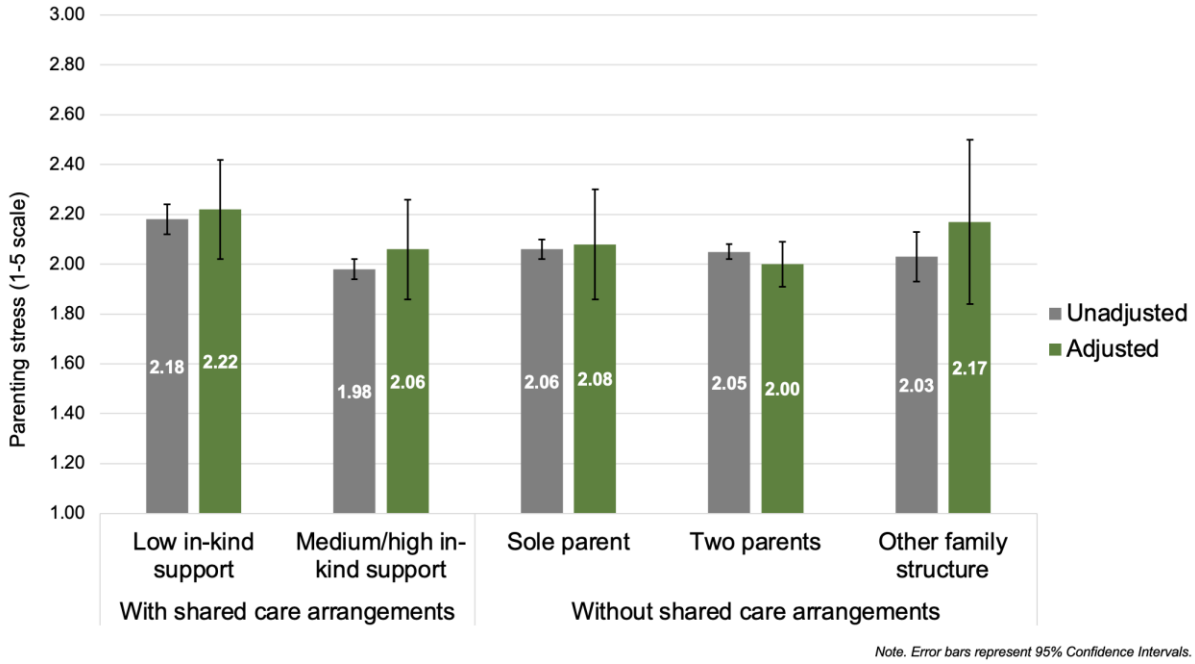
Parenting stress

Turning to parenting stress (i.e., how well parents feel they are coping with daily parenting demands) (Figure 14), parents of children with shared care arrangements and low levels of in-kind support from the non-resident parent/caregiver reported the highest levels of parenting stress (2.18 on a 1-5 scale). This was statistically different from all other groups of parents (except those in some 'other family structure'). These differences ranged from around 22% (parents with shared care arrangements who reported medium/high levels of in-kind support) to 13% (sole parents without shared care arrangements) of a standard deviation difference, a small effect size.

After adjusting for other factors in the multivariate models, however, there was only a small statistical difference between parents with shared care and low in-kind support and parents without shared care in two-parent families (B = -0.23; p < .10), who reported lower levels of parenting stress.[10] Other covariates in the models that were associated with parenting stress included having a family income below the family tax credit threshold (B = 0.19; p < .05), being disabled (B = 0.25; p < .05), having a disabled child (B = 0.23; p < .01), and being a woman (B = 0.18; p < .05).

[10] We have chosen to interpret p-values at the p < .10 level given the often large effect sizes coupled with small cell sizes, indicating that statistical power is likely affecting the ability to reach traditional levels of statistical significance.

Figure 14. Parenting stress: Unadjusted and adjusted estimates by shared care arrangement in-kind support and family structure group



Material hardship

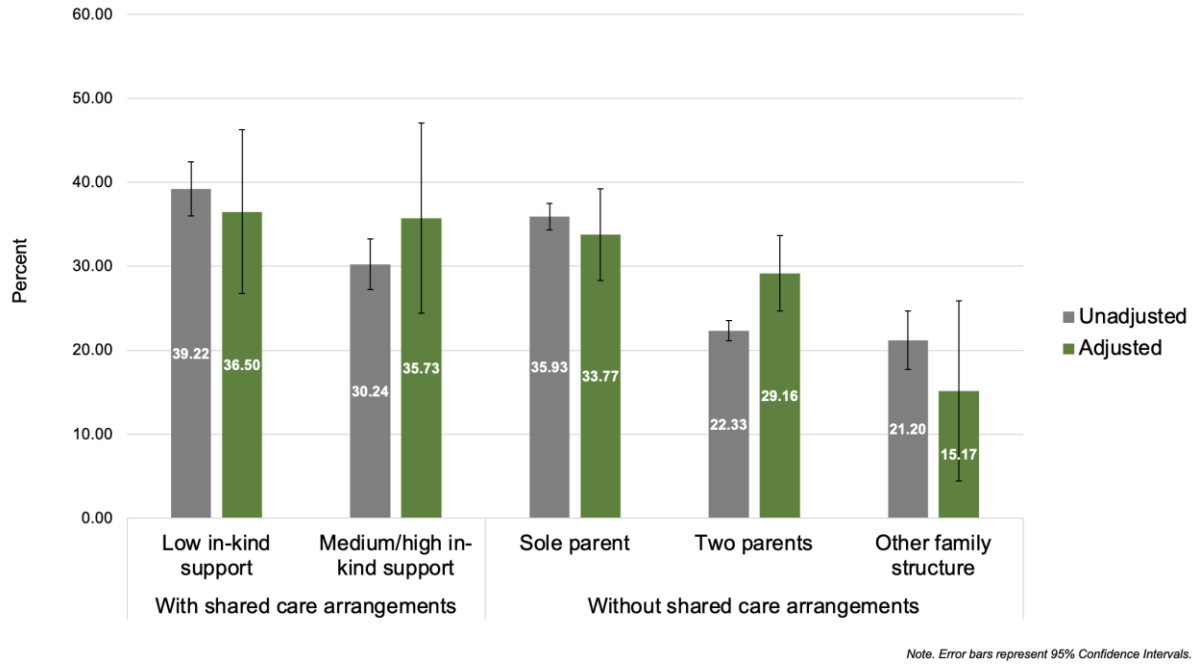
Turning to measures of economic hardship, we first examine material hardship (Figure 15). Parents with shared care arrangements but with low in-kind support from the non-resident parent/caregiver reported the highest rates of material hardship, with almost four in 10 (39.22%) parents saying they did not have enough money to meet everyday needs. This is compared to 35.93% of sole parents without shared care arrangements and 30.24% of parents with shared care arrangements who received medium/high levels of in-kind support. Two-parent families without shared care (22.33%) and parents without shared care in some 'other family type' (21.20%) reported the lowest rates of material hardship.

Adjusting for other factors that might explain material hardship, such as lower incomes, main benefit receipt, and having a disabled person in the family,, attenuated material hardship differences to non-significance, except for those in some 'other family structure' group who were 74% less likely (*odds ratio [OR]* = 0.26; $p < .05$) to report not having enough money to meet every day needs (vs. parents with shared care and low in-kind support).

Other statistically significant factors associated with increased odds of experiencing material hardship included being Pacific (vs, European/Pākehā; *OR* = 2.31; $p < .01$), being unemployed (*OR* = 3.17; $p < .001$) or not in the labour force (*OR* = 2.76; $p <$

.001) (vs. being employed full or part time), having an income below the family tax credit threshold (*OR* = 1.59; *p* < .05), being disabled (*OR* = 1.76; *p* < .05). Being born in New Zealand was protective against material hardship (*OR* = 0.55; *p* < .05).

Figure 15. Material hardship: Unadjusted and adjusted estimates by shared care arrangement in-kind support and family structure group



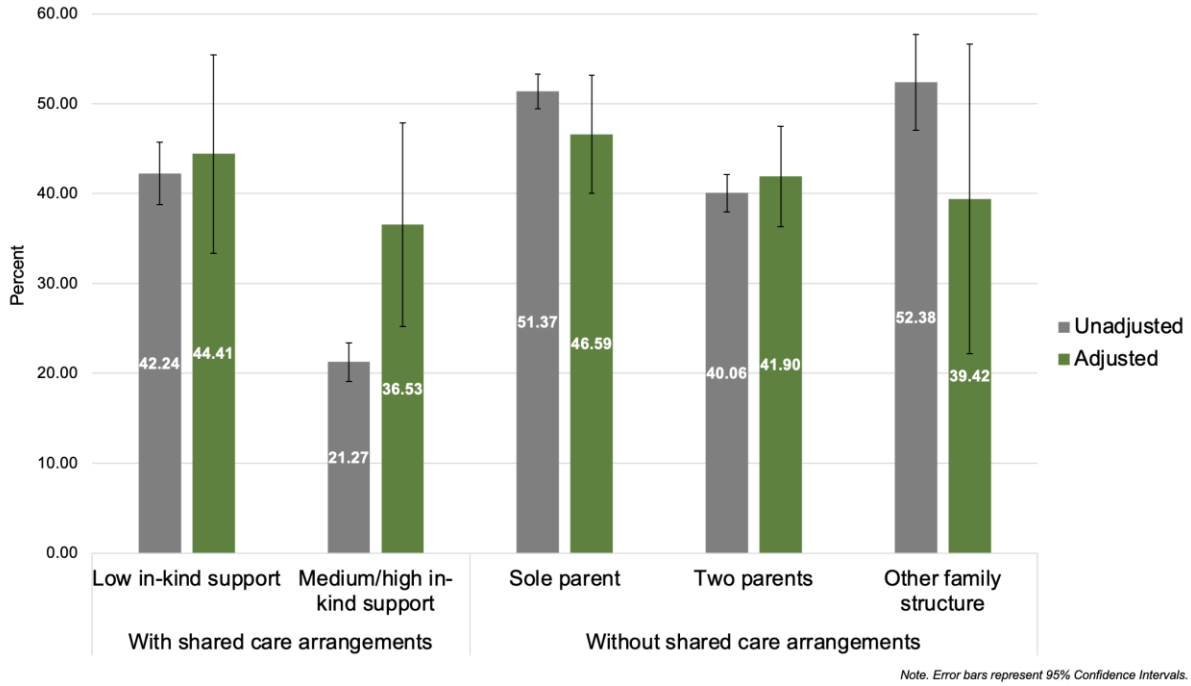
Note. Error bars represent 95% Confidence Intervals.

Child-enrichment hardship

Finally, we examined child enrichment needs (Figure 16). Over half of all sole parents without a shared care arrangement (51.37%) and those in some 'other family structure' without shared care (52.38%) said that they did not have enough money for their children to take part in school trips, sports, or other out of school activities. This compared to four in ten parents in two-parent families without shared care (40.06%) and families with shared care arrangements who received low levels of in-kind support (42.24%), and just two in ten parents with shared care arrangements who received medium/high levels of in-kind support (21.27%).

There were no statistical differences in child enrichment hardship across the shared care and family structure groups when adjusting for other factors (such as low incomes). Factors that were associated with child enrichment hardship were similar to those that increased the risk of material hardship, however having a family income above the family tax credit threshold was not protective against child enrichment hardship (whereas it was against material hardship).

Figure 16. Child enrichment hardship: Unadjusted and adjusted estimates by shared care arrangement in-kind support and family structure group



Discussion

This report set out to provide a contemporary picture of shared care arrangements among low-to-middle income families in Aotearoa New Zealand. It did so by using new nationally representative data collected by a new survey which included questions aimed at understanding diversity in family structure and living arrangements among children. Several important findings emerged.

One in five low-to-middle income families have children who have shared care arrangements

First, close to one in five families (19.11%) had at least one child in their family who lived at least some of the time with an adult in another household as part of a shared care arrangement. This proportion is higher than previous estimates, such as the Dunedin Study, which estimated the highest proportion of children with a shared care arrangement across different child ages at only 8.13% of children, and higher still than estimates from the 2010 GSS where 15% of families said they had children that were only with them some or none of the time.

There may be several reasons for these discrepancies, including sampling differences, changes in the rates of shared care arrangements across time periods, and differences in question wording and definitions of shared care arrangements. Sampling differences, and changes in shared care arrangements over time, likely explain more of the difference. For example, the Dunedin Study participants and those in the GSS will be, on average, slightly more affluent than the 2022 New Zealand Income Support Survey sample and, as such, may have lower rates of sole parenthood and parental separation. There has also been a gradual decline in child support applications received by Inland Revenue between 2016 and 2019, followed by a large and sharp decline in applications in April 2020, coinciding with COVID-19 pandemic-related lockdowns.[11] While applications rose again by August 2020, they did so at half the 2019 rate due to the removal of Section 192 deductions, which were a sanction on parents receiving the sole parent benefit who do not name the other parent of their child (Graham, 2023). These trends point to how shared caregiving arrangements may, too, be changing over time. Indeed, research has pointed to how formal child support payments often act as barriers to involvement among low-income fathers (Edin, 2018; Keil & Elizabeth, 2017; Waller et al., 2018).

The Family Court has also undergone change through the 2014 reforms and the more recent Family Court (Supporting Families in Court) Legislation Act 2020, which aimed to, among other things, promote shared responsibility for children and require

[11] Not all child support payments are managed through Inland Revenue and may be arranged informally among parents.

the use of the Family Dispute Resolution to reach an agreement about the care of their children prior to a court application.[12] These initiatives may have led to an increase in informal arrangements through non-judicial out-of-court mediation. Thus, there may potentially be changes in the rates of shared care arrangements among sole parents, whereby non-residential parents are more likely to establish a shared care arrangement after the reforms. While the time periods differ (with the Dunedin Study's new generation cohort and the GSS wave occurring earlier than the data collection for the NZISS), rates of sole parenthood have remained fairly consistent over the past two decades, and changes in family structure during this period likely do not explain the differences in the shared care arrangement estimates. Moreover, using the stricter criteria for a shared care arrangement used in the Dunedin Study (i.e., children in care in another household at least 35% of the time) only marginally reduces the proportion of families with a shared care arrangement.[13]

In sum, this higher rate of shared care arrangements in this study is likely due to higher rates of parental separation among lower-to-middle income families, generally (vs. higher-income families). But the higher rate of shared care arrangements could also be due to increased use of shared care arrangements today and greater father involvement post-separation, in part driven by changes in the Family Court and broader trends towards greater father involvement (Dotti Sani & Treas, 2016) in general. Future research should empirically test these potential explanations.

Families are more diverse than official statistics tell us, and especially so for families navigating shared care arrangements

Second, most children with shared care arrangements are living in sole-parent (predominately sole-mother) families at the time of the research. However, a larger proportion of families with shared care arrangements have a mix of biological and stepchildren (in terms of their relationships to the parents in the home) than those who have children without shared care arrangements. Overall, one-quarter of families with multiple children and who had a shared care arrangement also had some children living with them in their family group who did not have a shared arrangement.

These findings point to the diversity in children's living arrangements that goes underreported in most national datasets which have more simple measures of family

[12] Note critiques of this mandatory requirement from both Children's Rights (Walker, 2018) and feminist perspectives (Elizabeth, 2019).

[13] Using the Dunedin Study's stricter criteria for a shared care arrangement (i.e., at least 35% of the time the child is in care in another household) reduced the proportion of families with shared care arrangements to 17.24%. Excluding those parents who said the shared care arrangement was with someone other than a parent, believing that some parents may have misunderstood the question, still only lowered the proportion with a shared care arrangement to 15.10%.

structure. Current ways of reporting family structure mask the complexity in family roles and responsibilities that parents may be navigating in the home, or undercount parents who are still have parenting responsibilities but on paper look like single persons because they do not reside with their children most of the time. Better measurement tools in terms of the questions asked about people's family responsibilities and through a more in-depth household matrix can better help provide improved national estimates of children's living arrangements and people's family responsibilities.

Not only is it important that we are collecting the right types of data to understand the diversity and complexities of family life, but these findings also challenge the assumptions around what families look like, which can influence policies affecting families. Indeed, if policy settings are informed by the assumptions around what the majority of families look like, or how they use and share their resources, the intended policy impact will fall short of supporting families to meet their needs. Policies that meet families' (and individuals') needs, however they look, are a more efficient way of supporting families than policies targeted at particular family structures with assumptions around what those needs are (Bernardi & Mortelmans, 2018).

Low levels of in-kind support from the other parent in a shared care arrangement were coupled with other family complexities

Third, parents with shared care arrangements were asked about how often the other parent or caregiver in the shared care arrangement provided eight different items of in-kind support. These questions were aimed at gauging other material ways parents provided for the children beyond time and (potentially) child support. Summed and averaged across the eight items, 34.05% said the other parent sometimes or always provided those items (with 11.49% saying the other parent always provided all of the in-kind items). The remaining 65.95% of respondents said that the other parent never or rarely provided any of the items listed. Only 1.44% of those said the other parent never provided any of the in-kind items listed.

Indeed, it is not that parents in the low in-kind support group did not provide any support. They did. However, the types of in-kind support they provided tended to be in the categories of goods and services that would be purchased during their time when their children were present, such as providing food and paying for special outings. They were less likely to report in-kind support for larger ongoing expenses, such as extracurricular activities and education costs. Moreover, shared care arrangements where there were low levels of in-kind support were also less likely to be formal arrangements, and the other parent was less likely to have 50% of more time responsibilities, and, in multiple-child households, more likely to have some children with a shared care arrangements and others who did not have one.

Taken together, low in-kind support went hand-in-hand with other aspects of shared care arrangements that may point towards less equal involvement and responsibility among parents. They also point towards more complexity in terms of navigating less formal and varied care arrangements among children within households.

Some of these discrepancies in the types of in-kind support provided, however, may also be due to differences in expectations among those providing financial child support payments. That is, non-residential parents who are providing child support may have an expectation that the payments they are providing may be covering those types of maintenance expenses. Indeed, while the New Zealand Income Support Survey did not ask respondents directly whether they received child support payments, the survey did ask respondents how important child support payments were in their decision to earn extra job-related income, with a response option being "not applicable." The assumption here is that those who are concerned about child support payments are receiving them. In total, 63.95% of surveyed parents who received low in-kind support were likely to be receiving child support payments, whereas 41.81% of those with medium/high levels of in-kind support were likely receiving child support payments. This provides some suggestive evidence for the idea that those paying child support may be less likely to provide in-kind support of ongoing child-centred expenses, such as education costs.

Interestingly, and in terms of wellbeing, these low levels of in-kind support did not appear to be associated with more or less material hardship or parents' reports of whether their children missed out on educational or extracurricular opportunities because they could not afford them, after adjusting for other factors that might explain material hardship (e.g., lower incomes, main benefit receipt, and having a disabled person in the family). This finding suggests that reports of in-kind support may say more about the quality of the shared care relationship and parental involvement than about the financial positions of, or families' need for support from, the other parent/caregiver in the shared care arrangement. It also may point to the ways parents who are receiving no or lower levels of in-kind support from the other parents rely on wider family or social networks to support them (The Pew Charitable Trusts, 2016).

A limitation of this study (and many studies that examine in-kind support among separated parents) is that just one parent in the shared care arrangement is surveyed. That means we rely on one parent's subjective reports or knowledge of what another parent provides for their child versus having dyadic information to compare to the other parents' reports of the amount of support they perceive to give. Indeed, other research has demonstrated how separated parents may have conflicting understandings of the level of support they provide or how the other parent views the current arrangement (Keil & Elizabeth, 2023a; Riwhi, 2010). Future data collection from both parents would help shed light on whether concordance/

discordance in views of the in-kind support provided can tell us more about how in-kind support affects parental wellbeing and material hardship (e.g., through co-parenting or shared care quality, through providing essentials children need).

Pacific low-to-middle income parents surveyed were less likely than European/Pākehā and Māori low-to-middle income parents surveyed to have shared care arrangements

Fourth, there were ethnic differences in shared care arrangements that could not be explained solely by ethnic differences in family structures that are more likely to involve shared care arrangements (e.g., sole-parent families). European/Pākehā (24.83%) and Māori (25.61%) respondents were more likely to have shared care arrangements than Pacific (2.02%) respondents. Examining just sole parents, 36.96% of European/Pākehā and 31.65% of Māori sole parents had shared care arrangements compared to 2.93% of Pacific sole parents.

Part of this may potentially be explained by immigration status, whereby the Pacific parents in our sample were far more likely to be born overseas (40.44%) compared to the European/Pākehā (13.15%) and Māori (0.62%) parents. Thus, they may have an increased likelihood that their child's other parent may be living overseas. However, this does not explain the whole story, since a large proportion of Pacific respondents (41.45%) with shared care arrangements were born in New Zealand (albeit, noting the very small cell size of Pacific respondents with shared care arrangements).

Noting that small cell sizes limit the ability to detect whether actual ethnic differences are statistically significant, among those who do have shared care arrangements, Pacific parents also reported lower levels of in-kind support (M = 11.65) compared with European/Pākehā (M = 13.24) and Māori (M = 12.72) parents. Future qualitative research should attempt to uncover why there are ethnic disparities in both shared care arrangements and non-residential parent involvement. This could involve further unpacking whether immigration and residence status plays a role in these differences. For example, whether immigration status may be operating as a proxy for cultural values that shape sources of family support which necessarily fall to mothers and 'other mothers' (e.g., shared care is conducted by mothers of the mothers, or the mothers of the fathers; Keil & Elizabeth, 2022), as well as the potential accessibility issues with the Family Court system, among other factors.

Having a disabled child in the family was associated with sole parenthood, lower rates of shared care arrangements, and lower in-kind support from the other parent

Fifth, those respondents who said any of their children were disabled were more likely to be a sole parent (73.02%) than those with no disabled children (53.34%).

Looking just among sole parents, those who had a disabled child (25.90%) were less likely to say they had a shared care arrangement compared to sole parents with no disabled children in their family (30.03%). When there was a shared care arrangement in place, parents with disabled children (*M* = 11.26) reported lower levels of in-kind support than those with no disabled children (*M* = 13.55). Taken together, these findings point to the financial and social stressors associated with having a disabled child in regard to parental separation, and whether and to what extent non-residential parents stay involved with their children.

Importantly, the lower levels of shared care responsibilities and lower levels of in-kind support may have a compounding economic and social wellbeing effect for parents with disabled children. These families already face greater work constraints (Gordon et al., 2007; Lee, 2019), higher rates of material hardship (Wilson & McLeod, Forthcoming), and parenting stress (Gupta, 2007; Hayes & Watson, 2013) compared to families without disabled children.

To provide insights to develop policy aimed at supporting families with disabled children, further research should unpack the mechanisms that are leading to lower rates of shared care arrangements and less in-kind support from non-residential parents. This includes issues around economic security (of both the primary caregiver and non-residential parent), and a greater understanding of the additional financial needs and unique social stressors of having a disabled child while going through separation.

The quality of the shared care arrangement matters for parents' wellbeing

Sixth, parents who had children with shared care arrangements but reported that the other parent or caregiver in the shared care arrangement was providing low levels of in-kind support were more likely to report high levels of anxiety symptoms compared to parents in shared care arrangements with medium/high levels of in-kind support and those families without shared care arrangements. In fact, sole parents *without* shared care arrangements had the same level of risk of high-level anxiety symptoms as parents with shared care arrangements who reported receiving medium/high levels of in-kind support from the other parent. This suggests that shared care arrangements where the other parent is not seen as contributing could increase anxiety among parents. In addition, a lack of involvement (through no shared care arrangement) may be more beneficial for parents' wellbeing than in cases where the other parent is not contributing to the everyday material needs of their children.

It is important to emphasise that while there may be no benefit to parents' wellbeing if a non-residential parent is perceived to be contributing low levels of in-kind support, shared care arrangements where there is time involvement but low in-kind

support may be beneficial in other ways, such as maintaining the parent-child relationship.

It is also important to note here that reports of in-kind support were from one parent. It could be that parents in more contentious shared care arrangements, that influence mental health and wellbeing (Augustijn, 2023b; Sodermans et al., 2015), are less likely to report a higher level of in-kind support . Regardless, this finding points to the way that shared care quality impacts on the health and wellbeing of parents.

In addition, these associations between low in-kind support and heightened anxiety symptoms are correlational not causal. It could be that parents' already heightened anxiety symptoms potentially leads to disengagement from the other parent (i.e., a bi-directional association between perceived in-kind support and anxiety), or that higher anxiety symptoms are exacerbated in the case of a poorer quality relationship (as other research has suggested, e.g., Sbarra et al., 2019). Despite this caveat, there were few statistical differences in observable sociodemographic characteristics between the low and medium/high in-kind support groups, which the multivariate models also control for. Examining longitudinal data that has repeated measures of anxiety symptoms as well as information on parental separation and shared care arrangements and in-kind support from non-residential parents would be an important next step for determining causality.

Policy implications

The findings from this study provided insight into the complexity of children's living arrangements, as well as who experiences these diverse arrangements and whether they matter for families' wellbeing. In turn, these findings offer several salient insights for policy.

Collecting more detailed information about family relationships and shared care arrangements in national surveys could lead to a better understanding of the prevalence and experiences of families more likely to receive government support

This study points to the need for better data insights into family diversity and children's living arrangements. The findings show that a substantial proportion of low-to-middle income families in Aotearoa New Zealand live in arrangements that deviate from a two-biological parent family structure, and that a substantial proportion of children will experience (based on these data and prior studies) time living across multiple households. Despite a small sample of families with shared care arrangements, this study was still able to glean new insights into family

complexity that has been missing from Aotearoa New Zealand's data and research landscape. Making sure we are collecting information in our national surveys that can count and track changes in these patterns, both nationally and within communities, allows for better targeted supports. Moreover, national surveys are, and will continue to be, important as gaps in the data cannot always be plugged with administrative data.

Knowing who families with shared care arrangements are, and what they are experiencing, is important for providing insights into current eligibility requirements and benefit rate assessments, particularly given that they were more likely to be receiving a main benefit and have lower income levels compared to two-parent families without shared care arrangements. For example, changes to eligibility settings and thresholds for time in care requirements for benefits may necessitate a further examination on whether these current time responsibility thresholds are appropriate in terms of the relative time and money investment between the two parents and what they receive in terms of income support from the government.

Indeed, and as another example, given the lower incomes of sole parents without shared care arrangements in this study compared to sole parents with shared care arrangements (a finding which aligns with the international literature), it raises the question about whether current policy settings make initiating and maintaining shared care arrangements harder for parents with low incomes to achieve.

Understanding the challenges for families with a disabled family member is important for developing policies that help these families more effectively navigate the Family Court system and government assistance

Having a disabled child was consistently associated with greater rates of sole parenthood, lower likelihood of having a shared care arrangement when a sole parent, and higher likelihood of saying they received low levels of in-kind support from the other parent when there was a shared care arrangement. While it is important to further explore how and why disability shapes the pattern of findings just described, it is also important to understand how these factors may matter when families with a disabled person interact with government support (which, a larger proportion do, compared to those families with no disabled family members).

One potentially policy-relevant area to explore could be whether the government safety net is more complicated for families with disabled people, who often rely on multiple government supports, sometimes across multiple Ministries and providers, and whether additional complexities are introduced in the case of shared care arrangements. For example, are non-residential parents' lack of involvement due, in part, to complexity in eligibility rules and how they may impact the multiple supports received by parents caring for disabled children? That is, having a disabled child

incurs additional care costs, and policy settings that only allow for one parent to receive financial assistance for the child's disability costs may not support, or may even discourage, shared care arrangements.

Further examination of how families are navigating the Family Court system, applying for and maintaining government support, and whether these processes increase their administrative burden in ways that discourage healthy co-parenting, is important for working towards equity within government systems.

Lower rates of shared care arrangements and levels of in-kind support reported by Pacific parents requires a systems-level examination of barriers to non-residential parent involvement

There were also ethnic disparities in shared care arrangements and in reports of in-kind support from non-residential parents. Pacific parents were less likely to have shared care arrangements and, when they did have a shared care arrangement, were more likely to report low levels of in-kind support from the non-residential parent. These differences were not explained by ethnic differences in family structures where there was greater prevalence of shared care arrangements, generally (e.g., sole parent families).

Again, the survey was not designed to examine why these disparities might exist. Further research is needed to unpack to what extent a lack of non-residential parent involvement (predominately fathers) is due to what factors. That is, is a lack of involvement due to parents' choice or other structural factors? For example, immigration status and residency regulations may create challenges because non-residential fathers may not be in the country, immigration status might create barriers to more formal acknowledgement of parental engagement through the court system, or there may be greater uncertainty around eligibility for applying for benefits and tax credits or requesting child support. Or, are cultural norms around family supports, identity, and collectivism (Keil & Elizabeth, 2017, 2022) driving the pattern of findings or interacting with the potential policy-related barriers in ways that may create challenges to non-residential parent engagement? Examining these issues at a structural and systems level may be more salient for certain sociodemographic groups that are navigating the same situation (i.e., parental separation and non-residential parent involvement) but needing to interact with multiple systems or Ministries due to their positionality (e.g., immigration status of themselves and their family members).

Indeed, prior studies have shown Pacific mothers express a reluctance to pursuing child support payments through the court system because of their concern they will lose time with their children or it will impact the relationship with the non-residential father (Keil & Elizabeth, 2023). In short, shared care arrangements are not just

important for determining government support through tax credits and benefits, but also interact with other government entities such as the immigration and health sectors in ways that can either facilitate or create barriers to more parental engagement.

Encouraging in-kind support may be important if a policy goal is promoting healthy shared care relationships and family wellbeing, but may be a less effective tool for relieving material hardship

In-kind support was not associated with lower rates of material hardship or child enrichment hardship. We emphasise that these associations are correlational, not causal, and the reasons for this null finding could be numerous. For example, the level of in-kind support, even among the medium/high level of in-kind support group, may not be enough to offset the financial impact of parental separation and sole parenthood. That is, in-kind support may be relieving material hardship or providing certain items or experiences for children they might be missing out on, but this may not be picked up given the much higher rates of material hardship.

However, this does not mean in-kind support should not be encouraged. Indeed, medium-to-high levels of in-kind support from the non-residential parent with whom parents had a shared care arrangement with were protective of mental health compared to parents who received no or low levels of in-kind support from the non-residential parent. Again, while these findings are correlational and not causal, if a policy goal is to promote more engaged non-residential parent involvement in the case of parental separation, shared care orders that encourage or necessitate non-residential parents to provide more in-kind supports could help strengthen the shared care relationship between parents. In turn, better shared care relationships can lead to better mental health and less stress among parents, which leads to better outcomes for children.

In order to effectively encourage more in-kind support, adjustments to welfare settings related to declaring in-kind support need to be made. The value of goods and services received, as well as periodic cash gifts, can be charged as income within the welfare system and can impact the amount of benefit or temporary assistance received. Logically then, if encouraging in-kind support is a policy goal, the current policy settings which potentially financially penalise families for receiving in-kind support would need to be adjusted.

Study limitations

Of course, this study is not without limitations. These limitations are important in terms of interpreting and understanding the findings. While many have been discussed previously, we note a few key limitations here:

- *Small sample size of those with shared care arrangements:* The primarily limitation in this study was our statistically small sample of families with shared care arrangements. This was particularly an issue when wanting to understand shared care arrangements among certain sociodemographic groups, such as those with disabled family members and across different ethnicities. Although this sample represents one of the largest in the Aotearoa New Zealand context in terms of examining shared care arrangements, future larger data collection efforts that can incorporate information on shared care arrangements will push our understanding of Aotearoa New Zealand families' experiences of diverse family arrangements further.

- *Correlational, not causal associations:* The survey was cross-sectional, which limits the ability to examine causal associations between, for example, the level of in-kind support parents receive from non-residential parents and their wellbeing. In addition, while the findings present insights into the prevalence of shared care arrangements, it is important to consider the extent to which other unmeasured or unobservable factors account for the pattern of findings uncovered, and what part selection into different care arrangements plays.

- *Information from only one parent in the shared care arrangement:* We only have information from one parent in the shared care arrangement. In this way, measures of the amount of in-kind support are potentially subjective and may not align with what the non-residential parent believes they have contributed. It is important to recognise that reports of in-kind information are subjective in nature (even with dyadic information, i.e., from both the primary respondent and the non-residential parent). They may not incorporate precise measures of absolute contributions, how contributions might be received, and how contributors perceive the level of in-kind support they are providing.

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Appendix

Table A1. Shared care arrangement and sociodemographic characteristics among those with children with shared care arrangements, by level of in-kind support from other parent/caregiver

	All families with shared care arrangements		Level of in-kind support	
			Low support	High/ medium support
	Unweighted n	Mean / %	Mean / %	Mean / %
In-kind support				
Clothes (0-3 scale)	121	1.83	1.32	2.59*
		(0.97)	(0.83)	(0.58)
Food (0-3 scale)	121	2.30	2.03	2.71*
		(0.87)	(0.93)	(0.60)
Education costs (0-3 scale)	121	1.34	0.60	2.54*
		(1.27)	(0.86)	(0.83)
Entertainment items (0-3 scale)	120	1.71	1.14	2.56*
		(1.06)	(0.85)	(0.74)
Personal items (haircuts, phone bills) (0-3 scale)	120	1.45	0.74	2.60*
		(1.18)	(0.85)	(0.57)
Pocket/spending money (0-3 scale)	110	1.44	0.90	2.34*
		(1.09)	(0.86)	(0.80)
Special events/outings (0-3 scale)	117	1.77	1.18	2.64*
		(1.08)	(0.94)	(0.56)
Extracurricular activities (sports, dance) (0-3 scale)	116	1.46	0.72	2.67*
		(1.25)	(0.92)	(0.61)
Total in-kind support (0-24 scale)	151	13.02	9.15	20.52*
		(6.74)	(4.39)	(3.23)
Shared care arrangement characteristics				
Formality (does not equal 100%)				
Formal	111	73.49	68.72	82.72
Informal	57	39.48	38.76	40.87
Time responsibility				
Less than 50% of the time	34	23.01	24.05	21.08
50% of the time	34	23.12	16.02	36.26*
More than 50% of the time	74	53.87	59.93	42.66*
Relationship between children and adults				
Biological parent	132	88.41	88.1	89.01
Some other adult (relative or nonrelative)	19	11.59	11.9	10.99
Family shared care complexity				
All families with children				
All children in the home have shared care arrangement	117	84.54	82.45	88.60
Children in the home have different care arrangements	34	15.46	17.55	11.40

Table A1 continued on next page

Table A1 continued

Families with two or more children				
All children in the home have shared care arrangement	61	75.07	69.85	83.56
Children in the home have different care arrangements	34	24.93	30.15	16.44
Respondent characteristics				
Ethnicity, total response (columns add to >100%)[1]				
European/Pākehā	108	75.71	77.31	72.63
Māori	62	38.23	40.32	34.18
Pacific	10	3.22	2.91	3.82
Other ethnicity	8	4.55	4.79	4.10
Partnership status				
Partnered	35	12.99	10.22	18.26
Single	116	87.01	89.79	81.74
Gender				
Man	45	38.17	39.36	35.91
Woman	104	61.83	60.64	64.09
Age				
18-29 years	23	11.65	10.60	13.69
30-39 years	64	47.38	48.10	46.00
40-49 years	43	27.52	26.42	29.64
50 years and older	21	13.45	14.88	10.67
Educational attainment				
No high school qualifications	16	9.78	9.36	10.59
Higher school certificate	76	50.05	54.82	43.78
Trade certificate/diploma	33	19.31	15.89	25.91
University degree or higher	22	19.86	19.93	19.72
Work status				
Full time	56	37.00	34.48	41.90
Part time	28	14.34	10.37	22.03
Unemployed	21	20.47	25.81	10.13
Not in the labour force	46	28.19	29.34	25.95
Nativity				
Born overseas	15	9.14	10.18	7.10
Born in NZ	135	90.86	89.82	92.90
Disability status				
Disabled	130	85.29	83.34	89.05
Not disabled	21	14.71	16.66	10.95
Child(ren) disability status				
No disabled child	122	77.11	71.97	87.07
Disabled child	29	22.89	28.03	12.93
Main benefit receipt				
Does not receive a main benefit	85	56.19	51.64	65.00
Receives a main benefit	66	43.81	48.36	35.00
Income below the family tax credit threshold				
Above the family tax credit threshold	22	12.10	11.99	12.33
Below the family tax credit threshold	129	87.90	88.01	87.67
Number of children	151	2.08	1.98	2.28+
		(1.14)	(1.13)	(1.16)

Table A1 continued on next page

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Age of youngest child				
0-4 years	48	22.87	24.47	19.78
5-13 years	87	70.26	68.41	73.86
14-17 years	16	6.86	7.12	6.36
Other adult household members				
No other adults	110	67.09	63.22	74.58
Related adult household members only	31	27.02	32.84	15.75
Unrelated adult household members	10	5.89	3.95	9.67
Neighbourhood deprivation (NZDEP; 1-10 scale)	151	6.45	6.18	6.98
		(2.45)	(2.60)	(2.06)
Urbanicity				
Rural area	9	5.44	0.00	15.99
Urban area	142	94.56	100.00	84.01
Region				
Auckland, Northland	23	12.50	12.60	12.32
Waikato, Bay of Plenty	23	22.27	17.21	32.05*
Tairawhiti, Hawkes' Bay	12	3.40	4.03	2.20
Taranaki, Manawatu	38	30.74	29.09	33.93
Wellington	17	10.83	12.73	7.17+
Canterbury, West Coast, Tasman/Nelson, Marlborough	11	7.30	10.20	1.70+
Otago, Southland	27	12.95	14.14	10.65
Wellbeing outcomes				
Parenting stress (1-5 scale)	147	2.10	2.18	1.97
		(0.87)	(0.89)	(0.82)
Material hardship				
Only just enough/enough/more than enough money	100	64.24	60.78	70.93
Not enough money	51	35.76	39.22	29.07
Child needs				
Only just enough/enough/more than enough money	87	64.89	57.76	78.35
Not enough money	47	35.11	42.24	21.65
Anxiety				
None/low	86	60.89	51.56	76.54+
Medium	25	16.61	18.37	13.66
High	31	22.49	30.07	9.80
Depressive symptoms				
None/low	104	75.36	67.12	90.70
Medium	14	11.84	16.78	2.67+
High	17	12.79	16.11	6.63
n	151		86	65
%		100.00	65.95	34.05

Note. Unweighted *n*s, weighted means/percents. Standard deviations in parentheses.

T-tests and chi2 tests denoting statistical differences with low in-kind support at: * $p < 0.05$, + $p < 0.10$.

[1] Given very small cell numbers among Pacific respondents when using the administrative-prioritised ethnicity measure, only total response ethnicity results are presented.

Table A2. Multivariate regression analyses predicting wellbeing outcomes

	Multinomial logistic regression		Multinomial logistic regression		OLS	Logit	Logit
	Depressive symptoms (ref: none/low)		Anxiety symptoms (ref: none/low)		Parenting stress	Material hardship	Child enrich-ment hardship
	Medium RRR (std. err.)	High RRR (std. err.)	Medium RRR (std. err.)	High RRR (std. err.)	Coeff. (std. err.)	OR (std. err.)	OR (std. err.)
Shared care arrangement group (ref: Shared care arrangement with low in-kind support)							
Shared care arrangement with medium/high in-kind support	0.69	0.36*	0.22*	0.67	-0.16	0.96	0.67
	(0.33)	(0.20)	(0.16)	(0.40)	(0.14)	(0.36)	(0.27)
No shared care arrangement, single-parent family	0.66	0.42*	0.49	0.40	-0.15	0.87	1.12
	(0.25)	(0.15)	(0.23)	(0.23)	(0.12)	(0.25)	(0.35)
No shared care arrangement, two-parent family	0.51+	0.22***	0.30*	0.33+	-0.23+	0.67	0.88
	(0.19)	(0.09)	(0.14)	(0.20)	(0.12)	(0.20)	(0.28)
No shared care arrangement, other family structure	0.24+	0.36	0.49	0.19	-0.06	0.26*	0.78
	(0.20)	(0.23)	(0.37)	(0.25)	(0.20)	(0.14)	(0.41)
Respondent ethnicity (ref: European/Pākehā)							
Māori	1.00	0.94	0.95	1.07	-0.13+	1.31	1.14
	(0.28)	(0.27)	(0.37)	(0.50)	(0.08)	(0.27)	(0.27)

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Table A2 continued

Pacific	0.90	0.80	2.18	2.01	-0.14	2.31**	3.52***
	(0.34)	(0.39)	(1.14)	(1.16)	(0.11)	(0.66)	(1.22)
Other ethnicity	0.83	1.33	0.47	1.42	0.03	0.78	1.76
	(0.35)	(0.73)	(0.33)	(1.07)	(0.12)	(0.25)	(0.62)
Respondent age (ref: 18-29 years)							
30-39 years	1.19	0.74	1.37	0.57	-0.01	0.95	1.55
	(0.37)	(0.23)	(0.66)	(0.27)	(0.08)	(0.22)	(0.50)
40-49 years	0.91	0.70	3.07*	0.76	0.01	0.98	1.18
	(0.33)	(0.26)	(1.65)	(0.37)	(0.10)	(0.27)	(0.42)
50 years and older	0.86	0.90	2.36	0.42	-0.19	1.70	1.88
	(0.40)	(0.41)	(1.45)	(0.27)	(0.13)	(0.56)	(0.74)
Respondent educational attainment (ref: University degree or higher)							
No high school qualifications	1.33	2.09	1.34	1.66	-0.03	1.59	1.20
	(0.53)	(0.95)	(0.87)	(1.12)	(0.11)	(0.47)	(0.38)
Higher school certificate	1.12	2.00+	1.72	1.70	0.06	1.02	0.99
	(0.36)	(0.76)	(1.02)	(0.87)	(0.09)	(0.26)	(0.27)
Trade certificate/diploma	0.98	1.79	1.68	1.42	0.02	1.46	1.18
	(0.36)	(0.74)	(1.00)	(0.82)	(0.10)	(0.39)	(0.35)
Work status (ref: Full time)							
Part time	1.82+	1.24	4.04**	0.61	0.08	1.41	1.45
	(0.57)	(0.49)	(2.16)	(0.45)	(0.09)	(0.36)	(0.38)
Unemployed	1.08	1.20	3.43*	1.27	-0.02	3.17***	2.94**
	(0.42)	(0.58)	(1.89)	(0.88)	(0.12)	(0.96)	(1.02)
Not in the labour force	1.35	1.97+	4.48**	2.61+	-0.10	2.76***	3.03***
	(0.40)	(0.72)	(2.09)	(1.49)	(0.09)	(0.63)	(0.77)

Table A2 continued on next page

Table A2 continued

Income below the Family tax credit threshold (ref: income above the family tax credit threshold)	1.10	1.31	1.58	1.15	0.19*	1.59*	1.34
	(0.30)	(0.43)	(0.82)	(0.51)	(0.07)	(0.35)	(0.30)
Respondent is disabled (ref: Not disabled)	3.82***	3.05***	3.24**	3.32**	0.25*	1.76*	1.50
	(1.19)	(0.96)	(1.17)	(1.23)	(0.11)	(0.45)	(0.43)
Disabled child (ref: No disabled child)	1.39	1.96*	0.94	2.78**	0.23**	1.10	1.41+
	(0.34)	(0.53)	(0.35)	(0.99)	(0.09)	(0.22)	(0.29)
Household received a main benefit (ref: Does not receive a main benefit)	1.10	1.54	0.88	1.83	-0.01	1.15	1.51+
	(0.30)	(0.51)	(0.31)	(1.03)	(0.08)	(0.24)	(0.35)
Respondent born in NZ (ref: Respondent not born in NZ)	0.88	0.81	0.87	0.89	-0.09	0.55*	0.69
	(0.29)	(0.36)	(0.37)	(0.47)	(0.10)	(0.13)	(0.20)
Respondent a woman (ref: Respondent a man)	1.41	1.26	0.49+	0.85	0.18*	1.11	1.36
	(0.40)	(0.38)	(0.18)	(0.35)	(0.07)	(0.23)	(0.29)
Number of children	0.91	0.95	0.71*	0.85	0.03	1.06	1.10
	(0.09)	(0.11)	(0.12)	(0.13)	(0.03)	(0.07)	(0.09)
Age of youngest child (ref: 0-4 years)							
5-13 years	1.22	1.55	1.14	1.46	-0.11	1.12	1.29
	(0.31)	(0.42)	(0.37)	(0.59)	(0.07)	(0.22)	(0.29)
14-17 years	0.46	1.18	0.23*	3.34*	-0.05	1.36	1.72
	(0.22)	(0.50)	(0.16)	(1.86)	(0.12)	(0.43)	(0.57)
Other adult household members (ref: none)							
Related adult household members only	1.11	0.74	1.28	0.61	-0.13+	0.83	1.04
	(0.28)	(0.20)	(0.43)	(0.27)	(0.07)	(0.15)	(0.21)

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Table A2 continued

Unrelated adult household members	2.06	0.83	1.62	1.19	-0.12	2.44+	1.32
	(1.05)	(0.65)	(1.39)	(1.14)	(0.19)	(1.22)	(0.81)
Neighbourhood deprivation							
(NZDEP; 1-10 scale)	0.90*	0.94	1.04	0.86*	-0.03+	1.02	1.04
	(0.05)	(0.06)	(0.10)	(0.07)	(0.02)	(0.04)	(0.05)
Lives in an urban area							
(ref: Lives in a rural area)	1.05	0.87	0.84	0.76	0.01	0.88	0.77
	(0.40)	(0.38)	(0.55)	(0.46)	(0.12)	(0.25)	(0.22)
Region (ref: Auckland, Northland)							
Waikato, Bay of Plenty	1.10	1.12	0.58	1.44	0.00	0.92	1.13
	(0.40)	(0.41)	(0.33)	(0.80)	(0.10)	(0.24)	(0.32)
Tairawhiti, Hawkes' Bay	1.36	1.18	1.00	1.07	-0.23*	1.11	0.86
	(0.50)	(0.43)	(0.52)	(0.64)	(0.10)	(0.31)	(0.27)
Taranaki, Manawatu	0.97	1.33	2.17	1.66	-0.11	1.00	1.13
	(0.34)	(0.47)	(1.03)	(0.88)	(0.10)	(0.27)	(0.33)
Wellington	1.58	0.41+	0.72	0.86	-0.16	0.91	1.29
	(0.56)	(0.21)	(0.45)	(0.48)	(0.11)	(0.27)	(0.43)
Canterbury, West Coast, Tasman/Nelson, Marlborough	1.26	0.67	0.95	0.60	-0.03	1.93*	1.79+
	(0.49)	(0.32)	(0.60)	(0.44)	(0.12)	(0.56)	(0.61)
Otago, Southland	0.95	0.73	1.76	1.77	0.08	0.94	0.99
	(0.40)	(0.34)	(0.99)	(1.14)	(0.11)	(0.30)	(0.36)
Constant	0.28	0.25	0.03**	0.19	2.33***	0.12**	0.07***
	(0.24)	(0.24)	(0.04)	(0.22)	(0.25)	(0.08)	(0.06)
r^2 / Pseudo r^2	0.10	0.10	0.18	0.18	.09	0.12	0.14
n	907	907	847	847	947	970	750

Note. Robust standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$.
RRR = relative risk ratio. Coeff = coefficient. OR = odds ratio.