Characteristics of parents living apart in Norway: Comparing four residence arrangements

Maria Morbech¹, Kristin Gustavson¹,² & Tonje Holt¹

¹ Norwegian Institute of Public Health, ² University of Oslo

Address correspondence to: Maria Morbech, Norwegian Institute of Public Health, Department of Childhood and Families, P.O. Box 222 Skøyen, N-0213 Oslo (Norway). Email: maria.morbech@fhi.no

Abstract

Objective: This study investigates differences in characteristics between parents practicing four different residence arrangements by applying a novel categorisation of residence arrangements.

Background: The research field on factors associated with shared and sole physical residence is growing. This binary approach may neglect important differentials within these two groups.

Method: The sample included 1007 parents from the FamC-study, recruited from family counselling offices across Norway. Mixed effects multinomial regression analyses were used to estimate the likelihood of practising four residence arrangements (i.e. symmetric shared, asymmetric shared, extended sole and limited sole residence) based on relevant factors (i.e. number and age of children, time since separation, financial difficulties, employment status, new partners, interparental dynamics and mental health).

Results: Parents with more and older children, fewer financial difficulties and who separated more recently had higher likelihood of practising symmetric shared residence. Parents with younger children were more likely to practise asymmetric shared residence. Parents with younger and fewer children and who had been separated for longer had higher likelihood of practising extended sole residence. Lastly, parents with fewer children and who had more financial difficulties were more likely to practise limited sole residence.

Conclusion: The current findings reveal differences between four residence arrangements when expanding the traditional division between “shared” and “sole” residence, emphasising the importance of using a nuanced differentiation of residence arrangements.

Key words: post-separation living arrangement, child custody, custody arrangement, shared parenting, shared residence, family policy, divorce
1. Introduction

In Norway, almost one in four children under the age of 18 have parents who live in separate households (Statistics Norway, 2022). Patterns of residence arrangements for these children have changed dramatically in Norway, as in many other Western countries over the past few decades. There has been a shift from the previous standard of sole residence, where the child lives only with one parent, typically the mother, to an increase in arrangements in which the child lives with each parent almost equally (Kitterød & Lyngstad, 2014). This is typically referred to as shared physical residence and implies that children live 30–50% of the time with each parent (Steinbach, 2019). There are no exact numbers on children living in a shared physical arrangement in Norway. However, the number of children living in a legal shared residence is 39%, and the overlap between physical and legal shared residence is high in Norway (Wiik, 2022).

Parents who practise shared residence have been characterised by high socioeconomic status, an ability to cooperate well with each other, and by low levels of interparental conflict (Kitterød & Lyngstad, 2014; Möller, Eriksen, et al., 2023; Sodermans et al., 2013). Whereas previous studies have operationalised residence arrangement as a binary construct and only comparing shared to sole physical residence, the current study applies a nuanced set of four residence arrangements (i.e., symmetric shared residence, asymmetric shared residence, extended sole residence, limited sole residence), which is more realistic representation of the residence arrangements that parents practice. This approach thus enables novel insights, and characterisations and comparisons of parents practising these four arrangements in a sample recruited from family counselling offices across Norway between 2017 and 2019. The measure of residence arrangements is based on the actual division of time spent with the child for each parent (physical residence arrangements; henceforth residence arrangement), and not the legal arrangement. We adapt an ecosystemic approach based on Bronfenbrenner’s (1979) theory and Kurdek’s (1981) model of divorce as a theoretical framework.

2. Ecological system perspective of factors related to residence arrangements

Ecological systems theory describes human development as occurring within nested contexts, namely, the (1) microsystems, (2) mesosystems, (3) exosystems, and (4) macrosystems. These systems range from smaller, proximal settings in which individuals interact directly to larger, distal settings that indirectly influence human development (Bronfenbrenner, 1979). Kurdek (1981) argued that divorce-related experiences need to be understood in terms of hierarchically embedded psychological, familial, social, and cultural contexts. Consequently, he developed a model for integrating the research on children’s adjustment to divorce occurring within four systems, based on Bronfenbrenner’s framework. The individual, most often the child, has typically been the centre of the model, but we could also position the parental dyad in the centre. In this way, Kurdek’s (1981) model of divorce can offer an understanding of how the exosystemic, mesosystemic, and microsystemic levels influence post-separation residence arrangements – more specifically, how parents who practise different residence arrangements differ from each other seen in the light of this approach. The different levels of the ecological system are presented separately. However, all the characteristics surrounding a family are linked, and one residence arrangement can work well for one family but not for another, depending on the different circumstances and contexts surrounding each individual family. The model, with its different levels exemplified by the variables included in the current study, is shown in Figure 1.

The ecological systems approach to parental separation allows for an examination of several characteristics that are associated with and can be influential of the different arrangements parents practise. At the exosystem level (see Fig. 1), we position the parents’ socioeconomic background including employment status and financial situation. Several studies have found that shared residence is most common in high-income groups (Juby et al., 2005; Kaspiew et al., 2009; Kitterød & Lyngstad, 2014; Steinbach, 2019; Wiik, 2022). This is conceivable given that to practise such an arrangement both parents need to be able to offer adequate housing and equipment for the children (Fransson et al., 2018; Kitterød & Lyngstad, 2012). We expect our results to further support previous findings that shared residence groups are more prevalent for parents with high socioeconomic status with fewer financial difficulties.
At the mesosystem level (see Fig. 1), we place the variables concerning the number and age of the children in the parental dyad, time since the parents separated, and parents’ new partners. Regarding the number of children, some findings indicate that one-child families are more likely to practice shared residence than families with more children (Kitterød & Lyngstad, 2014; Maccoby & Mnookin, 1992), whereas others find no such associations (Kitterød & Lyngstad, 2012; Melli & Brown, 2008). It is argued that the high expenses of providing two homes big enough to house larger families hinder parents with more children from choosing shared residence (Juby et al., 2005). Many findings show that the age of the children also matters. Studies have shown that shared residence seems most common when children are in the middle age group, from 4–10 years old (Juby et al., 2005; Kitterød & Lyngstad, 2014; Sodermans et al., 2013; Walper et al., 2021), while sole residence is more common for infants and toddlers (Juby et al., 2005), and when the children approach adolescence (Møller, Askvik, et al., 2023; Skjøten et al., 2007; Spruijt & Duindam, 2009). Based on the current knowledge status, we expect shared residence arrangements to be most common among parents who have few children and among parents with children in the middle age group.

Although few studies have included time since separation in their analyses, there is evidence that shared residence is more likely when the separation is more recent (Kitterød & Lyngstad, 2012). Sole residence, however, seems more likely when more time has passed since the separation (Recksiedler & Bernardi, 2021). Regarding re-partnering, research has revealed contradictory findings. Whereas some studies have found that the presence of new partners increases the likelihood of shared residence compared to sole residence (Juby et al., 2005; Kaspiew et al., 2009), other studies have found that new partners...
decrease the likelihood of shared residence (e.g. Cashmore et al., 2010; Lyngstad et al., 2014a; Ottosen et al., 2018; Smyth, 2004). Based on the existing studies, we expect shared residence arrangements to be most common among parents who are recently separated. As the results concerning the association between parents’ re-partnering and residence arrangement are mixed, we take an exploratory approach to determine whether such a relationship exists in the current study.

At the microsystem level (see Fig. 1), we can situate the relationship within the parental dyad as well as parental mental health. Studies have shown that both the level of interparental conflict and parental cooperation are important correlates of residence arrangements (e.g. Bakker & Mulder, 2013; Kitterød & Lyngstad, 2012; Møller, Eriksen, et al., 2023; Sodermans et al., 2013). More specifically, research findings indicate that it is more likely to have a cooperative parental relationship with few conflicts within the shared residence group (Bakker & Mulder, 2013; Cashmore et al., 2010; Kitterød & Lyngstad, 2012; Kitterød & Wiik, 2017; Møller, Eriksen, et al., 2023; Ottosen et al., 2018; Sodermans et al., 2013; Steinbach, 2019; Wiik, 2022). Shared residence requires a certain level of contact between the parents, and parents with a non-cooperative relationship, unable to communicate and coordinate an alternating child, may struggle to make shared residence work. Similarly, parents with a high level of conflict are less likely to agree on a shared residence arrangement. The literature on residence arrangements and parental mental health, however, has been sparse and contradictory (see Juby et al., 2005; Ottosen et al., 2018; Recksiedler & Bernardi, 2021). A study by Melli and Brown (2008) showed better mental health for parents with shared residences compared to parents with sole residences. Fritzell et al. (2020), on the other hand, found a tendency for a higher risk of mental health problems for parents with shared residence relative to having their children live with them most or all the time. Others have failed to find any association between residence arrangements and parental mental health (Recksiedler & Bernardi, 2021; Sodermans et al., 2013; Spruijt & Duindam, 2009). Although the current knowledge status is unclear due to mixed results in the research literature, it is reasonable to assume that parents’ mental health is related to residence arrangements. Studies from Belgium and the Netherlands have shown that parents with shared residences report higher levels of life satisfaction (Heijden et al., 2021; Sodermans et al., 2015). Moreover, parents practising shared residence are more satisfied with their arrangement, feel less time pressure; and have more free time for leisure activities, social life and participation at work (see Steinbach, 2019). Other advantages could be reduced child-related workload and stress relative to full-time parents (Breivik & Olweus, 2006). In addition, shared residence parents get to spend a considerable amount of time with the child and maintain the parent–child relationship. Taken together, these factors could all contribute to better parental mental health. Additionally, shared residence may not be a viable option for families where one of the parents has major mental health difficulties. Based on the current findings on the microsystem level, we expect it to be more likely that parents practise shared residence arrangements if they cooperate well, have low levels of interparental conflict, and if they have few mental health symptoms.

3. A four-part approach on residence arrangements within the Norwegian context

Whereas most previous studies have investigated shared residence only in comparison with sole residence, we aim to expand this categorisation by using a four-part approach, operationalised as 1) symmetric shared residence (50/50); 2) asymmetric shared residence (36–49% of the time with one parent); 3) extended sole residence (16–35% of the time with the non-resident parent) and 4) limited sole residence (1–15% of the time with the non-resident parent). This approach is based on categorisations provided by previous studies that differentiate between symmetric shared residence (50/50 arrangement) and asymmetric shared residence (between 30/35–49% with one parent) (Meyer et al., 2017; Steinbach & Augustijn, 2022; Steinbach et al., 2021; Turunen et al., 2021). However, to further differentiate the arrangements, we divided the “sole group” into two groups. The extended sole residence arrangement entails one afternoon and every other weekend with the non-resident parent, including overnight stays, and a division of the official holidays between the parents (The Children Act, 1981, § 43). In Norway, this arrangement falls within what we refer to as “normal visitation schedule”, that has previously been the most common form of residence arrangement within the Norwegian context (Lyngstad et al., 2014b).

Some additional features within the Norwegian context are relevant for the current study. First, the Norwegian society is characterised by high aspirations regarding gender equality. Equal opportunities in labour and increased equality in household tasks between men and women contribute to a more
symmetrical family life. Subsidised kindergarten and parental leave rights that include both mothers and fathers promote the combination of full-time employment and childcare, leading to more equal parenting practices (Kitterød & Wikland, 2017). These trends in nuclear families have been accompanied by significant changes in fathers’ involvement in their children’s lives in post-separation families. It is reasonable to assume that acknowledging the father’s contribution could have caused mothers to react more positively to shared residences than previously (Kitterød & Lyngstad, 2014). Second, in Norway all parents who are separating (regardless of marital status) and have common children under the age of 16 are obliged to see a mediator to reach an agreement concerning permanent residence and contact arrangements that is in the child’s best interest (The Children Act, 1981, § 51). The mediation scheme provides parents with advice and guidance from experienced mediators and therapists when they are in the process of deciding on a residence arrangement. Only one mediation session is mandatory, but the process is free of charge for up to seven sessions.

The current study seeks to increase the knowledge base about the characteristics of parents practising different residence arrangements in a sample recruited from family counselling offices in Norway. The study is adding to the existing literature by differentiating between a nuanced set of physical residence arrangements. We use factors encompassed in four eco-systemic contexts.

4. Methods

4.1 Data and analytic sample

The present study uses data from the Norwegian Dynamics of Family Conflict Study (FamC), aimed at increasing knowledge about family dynamics and conflicts in Norwegian families. The FamC study has more than 2700 participating families who were recruited when they attended a family counselling office for help relating to the parental relationship, the parenting role or when attending mediation because of separation or divorce. The therapists and mediators were trained to invite all visiting families to participate in the study. The only inclusion criterion was that the parents had at least one common child under the age of 16. Parents received an electronic questionnaire immediately after consenting to participate. The study was approved by the Regional Committee for Medical and Health Research Ethics in Norway, and all study procedures fulfilled the recommendations of the Helsinki Declaration.

The analytic sample consisted of families where the parents 1) lived apart or were about to move apart, 2) had a residence arrangement for their children at the time they answered the questionnaire (valid response on the dependent variable), and 3) had valid responses on all independent variables. This included a total of 1007 participants: 543 mothers and 464 fathers from 743 families. In addition to this sample, 280 parents had valid responses on at least one of the predictor variables but missing values on others. Because of the listwise deletion approach (described under the analytic strategy), this sample was not included in the current study. In 35.5% of the 743 families (n = 264), both parents answered the questionnaire; in 37.2% of the families (n = 276), we only had responses from the mother, and in 27.3% of the families (n = 203), only the father. The participating parents were between 19 and 62 years old, with a mean age of 39.3 years (37.9 years for mothers and 41 years for fathers).

We chose to exclude parental dyads where there were no contact between the child and one of the parents. We made this choice because the parents within this group most likely had no contact with each other, making the investigation of cooperation and conflicts between them challenging and not appropriate. Additionally, the sample in which one parent had no contact with the child was very small (n = 12), which further supported the exclusion of this group.

4.2 Measures

4.2.1 Dependent variable

The proportion of time with each parent was operationalised based on several questions. First, parents responded to the type of arrangement: “shared residence, the child lives equally with both of us”, “shared residence, but the child lives more with one of us”, “mother is the custodial parent”, and “father is the...
custodial parent”. Parents who reported one of the three latter options were further asked how many days the child spent with the respondent relative to the other parent in a typical 14-day period. An open-ended question also allowed parents to elaborate on cases in which they needed to describe their arrangement in more detail, such as if the child stayed with one parent only during the holidays. In cases where parents responded differently about their residence arrangements, we randomly selected a response from either the mother or the father (n = 16).

Subsequently, the families were divided into four different residence groups. Shared residence was grouped as symmetric shared residence (50/50). If the child spent 36–49% of the time with the non-resident parent, they were grouped as “asymmetric shared residence”, which corresponds to asymmetric joint physical custody in recent literature (e.g. Steinbach et al., 2021). Families where the child spent 16–35% of the time with the non-resident parent were grouped as “extended sole residence”. This included parents with a “normal visitation schedule”, which has been a common form of living arrangement in Norway. “Limited sole residence” was made up of families where the child spent 1–15% of the time with the non-resident parent.

4.2.2 Independent variables

The family’s financial situation was assessed based on the question “How do you expect that you will manage financially in the near future?”. The response categories were as follows: 1 = I will do really well, 2 = I will do well, 3 = I will do OK, 4 = I will do poorly, and 5 = I will do really poorly.

Parents’ employment status was based on the question “What best describes your working situation right now?”, with response categories as follows: 1 = paid work or self-employed full-time (80% or more), 2 = paid work or self-employed part-time (less than 80%), 3 = in education, 4 = parental leave, 5 = sick leave or disabled, 6 = job seeker, and 7 = other. This was further dichotomised (1 = employed full- or part-time, in education or parental leave versus 0 = in sick leave, receiving disability benefits or job-seeking).

Parents’ status regarding a new partner was measured with the question “Do you have a new partner?”. The response categories were 1 = yes and 0 = no.

Time since separation was based on the question “What best describes the living situation between you and the other parent?”. Parents reported if they were in the middle of separation, if they had lived apart for more or fewer than six months or if they had never lived together. Parents who had lived apart for more than six months were further asked how many months and years ago they had moved apart. The exact time calculated in years was used to measure the time since separation. A value of 0 was given to parents who were in the middle of separation, and a value of 0.25 was given to parents who had lived apart for fewer than six months. Parents who had never lived apart were given the value equivalent to the age of their child.

Cooperation and conflicts between parents were examined using the two subscales Cooperation and Verbal Aggression from the short versions of the Conflicts and Problem-Solving Scales (CPS) (Helland et al., 2021; Kerig, 1996). Cooperation considers means to approach the other cooperatively (e.g. “listen to the other’s point of view”), whereas verbal aggression taps aggressive expressions such as cursing, accusing or yelling (e.g. “say or do something to hurt the other’s feelings”). The subscales consisted of 3 items each, and parents rated how often they and the co-parent behaved in this way in a four-point scale (0 = never, 1 = rarely, 2 = sometimes, 3 = often). A decision to use co-parent reports was made based on findings of relatively higher predictive validity of partner-report over self-report on conflict behaviours (Sanford, 2010). In the current sample, the CPS subscales had an internal consistency of alpha .82 for cooperation and .77 for verbal aggression.

Frequency/intensity of conflicts was measured with two items, also from the CPS: 1) “how often do you and the other parent have minor disagreements?” and 2) “how often do you and the other parent have major disagreements?”, tapping the frequency of low- and high-intensity conflicts, respectively. The items were rated on a six-point scale: 1 = once a year or fewer, 2 = every 4–6 months, 3 = every 2–3 months, 4 = once or twice every month, 5 = once or twice every week, and 6 = almost every day. As recommended by Kerig (1996), high-intensity conflict values were double-weighted before the items were summed into one frequency/intensity index (range: 3–18). Higher scores indicate more frequent/intense conflicts.

Parental mental health (i.e. symptoms of anxiety and depression) was assessed with a short version (SCL) (Tambs & Røysamb, 2014) of the Hopkins Symptoms Checklist–25 (Derogatis et al., 1974). The SCL–8 is made up of eight statements (e.g. “nervousness or shakiness inside”, “feeling everything is an effort”) rated on a four-point scale (1 = not bothered, 2 = a little bothered, 3 = quite bothered, and 4 = very bothered). The measure showed good internal consistency, with alpha = .87.
Table 1 shows the descriptive sample statistics, including the descriptive statistics by residence arrangement. Just over half of the sample (54.2%) reported that they had an arrangement with symmetric shared residence (n = 546). The parents had an average of 1.7 children (SD = 0.74, median = 2), and the mean age of their youngest child was 6.7 years (SD = 3.93). In 13.2% of cases (n = 133), the parents were unemployed. The mean time since separation was 2.1 (SD = 2.88) years, and 31% of the parents (n = 311) had new partners.

Table 1: Descriptive sample statistics for all study variables

<table>
<thead>
<tr>
<th>Residence arrangement (N, %)</th>
<th>All Parents</th>
<th>Symmetric shared M (SD)</th>
<th>Asymmetric shared M (SD)</th>
<th>Extended sole M (SD)</th>
<th>Limited sole M (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symmetric shared residence</td>
<td>546 (54.2%)</td>
<td>1.72 (0.74)</td>
<td>1.89 (0.74)</td>
<td>1.70 (0.75)</td>
<td>1.42 (0.65)</td>
</tr>
<tr>
<td>Asymmetric shared residence</td>
<td>162 (16.1%)</td>
<td>6.69 (3.93)</td>
<td>7.42 (3.69)</td>
<td>5.95 (3.91)</td>
<td>5.60 (3.81)</td>
</tr>
<tr>
<td>Extended sole residence</td>
<td>186 (18.5%)</td>
<td>874 (86.8%)</td>
<td>496 (90.8%)</td>
<td>142 (87.7%)</td>
<td>149 (80.1%)</td>
</tr>
<tr>
<td>Limited sole residence</td>
<td>113 (11.2%)</td>
<td>311 (30.9%)</td>
<td>152 (27.8%)</td>
<td>55 (34%)</td>
<td>67 (36%)</td>
</tr>
<tr>
<td>Number of children</td>
<td>1.72 (0.74)</td>
<td>1.72 (0.74)</td>
<td>1.89 (0.74)</td>
<td>1.70 (0.75)</td>
<td>1.42 (0.65)</td>
</tr>
<tr>
<td>Age of youngest child</td>
<td>2.11 (2.88)</td>
<td>2.11 (2.88)</td>
<td>1.55 (2.40)</td>
<td>2.32 (2.71)</td>
<td>3.13 (3.55)</td>
</tr>
<tr>
<td>Employed (N, %)</td>
<td>874 (86.8%)</td>
<td>874 (86.8%)</td>
<td>496 (90.8%)</td>
<td>142 (87.7%)</td>
<td>149 (80.1%)</td>
</tr>
<tr>
<td>New partner (N, %)</td>
<td>311 (30.9%)</td>
<td>311 (30.9%)</td>
<td>152 (27.8%)</td>
<td>55 (34%)</td>
<td>67 (36%)</td>
</tr>
<tr>
<td>Time since separation</td>
<td>2.48 (0.79)</td>
<td>2.48 (0.79)</td>
<td>2.41 (0.76)</td>
<td>2.47 (0.80)</td>
<td>2.58 (0.77)</td>
</tr>
<tr>
<td>Financial difficulties</td>
<td>7.98 (3.83)</td>
<td>7.98 (3.83)</td>
<td>7.87 (3.89)</td>
<td>8.20 (3.73)</td>
<td>8.19 (3.71)</td>
</tr>
<tr>
<td>Frequency/intensity of conflicts</td>
<td>1.72 (0.81)</td>
<td>1.72 (0.81)</td>
<td>1.82 (0.80)</td>
<td>1.62 (0.81)</td>
<td>1.59 (0.78)</td>
</tr>
<tr>
<td>Cooperation</td>
<td>1.64 (0.86)</td>
<td>1.64 (0.86)</td>
<td>1.57 (0.88)</td>
<td>1.65 (0.81)</td>
<td>1.76 (0.82)</td>
</tr>
<tr>
<td>Depressive symptoms</td>
<td>0.72 (0.70)</td>
<td>0.72 (0.70)</td>
<td>0.69 (0.69)</td>
<td>0.79 (0.72)</td>
<td>0.75 (0.70)</td>
</tr>
</tbody>
</table>

Note: Employment status: 0 = not employed, 1 = employed. New partner: 0 = no, 1 = yes

4.3 Analytic strategy

All analyses were performed in R (Version 4.1.1). Data inspection and descriptive statistics were performed using the psych package (Revelle, 2019). We then employed multinomial regression models predicting the likelihood of belonging to each residence arrangement. We used a multilevel approach to take account of the hierarchical structure of our data, as half of the sample consisted of dyads in which the parents were nested within the families. “Family” was added as a random effect to account for dependencies within the families. The model was fitted using the “mblogit” function from the “mclogit” R package (Elff, 2022). This model examines how different predictors affect the odds of falling into one response category relative to a baseline category. To make possible all pairwise comparisons, we recoded the residence variable, changing the baseline value each time. We estimated models using listwise deletion – that is, only respondents with data on all study variables were included in the analyses, and respondents with one or more missing values were excluded. However, there were some missing data at the item level. Subscale values (e.g. CPS and SCL) were calculated if the respondents had answered at least half of the items making up each subscale. All determinant variables were added to the model and parent gender was included as a control variable to address respondent bias. Based on previous research, we expected a non-linear association between children’s age and residence arrangement (e.g. Sodermans et al., 2013). Therefore, we included both age and age squared for the youngest child that the parents had together.

Our data included 1287 participants who displayed a value for the outcome variable, where 1007 participants had no values missing, and 280 participants had between 1 and 9 missing on the independent variables. It is worth noting that only 21 participants had missing data on 5 or more independent variables. We further examined whether the sample with no missing data differed significantly from the sample with some missing data. There were no differences between the two samples regarding the variables age youngest child, employment, financial difficulties, new partner, cooperation, or verbal aggression. The groups did, however, differ regarding number of children, time since separation, frequency/intensity of conflicts, parent mental health and residence arrangement.
Statistics was determined using 95% confidence intervals (CIs) and alpha values < 0.05. Beta coefficients and standard errors for each comparison are presented in Table 2. Odds ratios and confidence intervals and average marginal effects (AME) were calculated for all significant predictors and presented in Tables 3 and 4, respectively, to help interpret the coefficients. The AME denotes the average change in the probability of an outcome when a covariate increases by one unit holding all other variables in the model constant. For continuous explanatory variables, the AME shows the predicted change associated with each unit increase in the values of that variable (e.g. each step towards the right end of a scale). When the predictor is binary, the AME shows the change relative to the base category.

5. Results

The results of the multinomial regression model show the predicted probabilities of belonging to each respective residence arrangement (see Tables 2, 3 and 4). Only a few significant average marginal effects emerged across the different residence arrangements (see Table 4). First, the results show that with a one unit increase in number of children, parents were 9.7 percentage points more likely to practise symmetric shared residence, 5.9 percentage points less likely to practise extended sole residence, and 5.3 percentage points less likely to practise practicable sole reside (keeping all other predictors in the model constant). Second, as the age of their youngest child increased by one year, parents were 3.3 percentage points more likely to practise symmetric shared residence, 5.9 percentage points less likely to practise extended sole residence, and 1.8 percentage points less likely to practise extended sole residence (keeping all other predictors in the model constant). Third, the results show that with a one unit increase in financial difficulties (e.g. from “I will do OK” to “I will do poorly”), parents were 5 percentage points less likely to practise symmetric shared residence, and 3 percentage points more likely to practise limited sole residence (keeping all other predictors in the model constant). Last, as time since separation increase by one year, parents were 4.1 percentage points less likely to practise symmetric shared residence and 2.5 percentage points more likely to practise extended sole residence (keeping all other predictors in the model constant). The average marginal effects for the other predictor variables did not reach significance.

Table 2: Differences in beta coefficients for multinomial regression models predicting residence arrangements

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Asymmetric shared vs. symmetric shared</th>
<th>Extended sole vs. symmetric shared</th>
<th>Limited sole vs. asymmetric shared</th>
<th>Limited sole vs. shared</th>
<th>Limited sole vs. extended sole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>0.110 (0.781)</td>
<td>0.447 (0.805)</td>
<td>1.030 (0.908)</td>
<td>0.257 (0.828)</td>
<td>0.719 (0.918)</td>
</tr>
<tr>
<td>Parent gender</td>
<td>0.014 (0.205)</td>
<td>0.047 (0.209)</td>
<td>-0.180 (0.253)</td>
<td>0.026 (0.230)</td>
<td>-0.414 (0.268)</td>
</tr>
<tr>
<td>Number of children</td>
<td>-0.137 (0.154)</td>
<td>-0.690 (0.173)</td>
<td>-0.845 (0.208)</td>
<td>0.532 (0.181)</td>
<td>0.694 (0.215)</td>
</tr>
<tr>
<td>Age youngest child</td>
<td>-0.362 (0.010)</td>
<td>0.108 (0.110)</td>
<td>-0.536 (0.117)</td>
<td>-0.053 (0.111)</td>
<td>-0.256 (0.118)</td>
</tr>
<tr>
<td>Age youngest child</td>
<td>0 (0.000)</td>
<td>0.014 (0.008)</td>
<td>0.034 (0.008)</td>
<td>0.000 (0.008)</td>
<td>0.019 (0.008)</td>
</tr>
<tr>
<td>Time since separation</td>
<td>0.171 (0.043)</td>
<td>0.278 (0.048)</td>
<td>0.184 (0.052)</td>
<td>0.104 (0.050)</td>
<td>0.020 (0.053)</td>
</tr>
<tr>
<td>Financial difficulties</td>
<td>0.071 (0.144)</td>
<td>0.37 (0.146)</td>
<td>0.460 (0.167)</td>
<td>0.252 (0.154)</td>
<td>0.422 (0.173)</td>
</tr>
<tr>
<td>Employment status</td>
<td>-0.039 (0.336)</td>
<td>-0.412 (0.307)</td>
<td>-0.576 (0.341)</td>
<td>-0.411 (0.329)</td>
<td>-0.539 (0.357)</td>
</tr>
<tr>
<td>New partner</td>
<td>0.136 (0.249)</td>
<td>0.026 (0.246)</td>
<td>0.112 (0.290)</td>
<td>-0.060 (0.263)</td>
<td>0.012 (0.299)</td>
</tr>
<tr>
<td>Frequency/intensity conflicts</td>
<td>0.011 (0.034)</td>
<td>0.002 (0.035)</td>
<td>-0.035 (0.041)</td>
<td>-0.007 (0.037)</td>
<td>-0.045 (0.042)</td>
</tr>
<tr>
<td>Cooperation</td>
<td>-0.206 (0.161)</td>
<td>-0.083 (0.164)</td>
<td>-0.191 (0.187)</td>
<td>0.139 (0.174)</td>
<td>0.040 (0.194)</td>
</tr>
<tr>
<td>Verbal aggression</td>
<td>-0.068 (0.162)</td>
<td>0.140 (0.165)</td>
<td>0.184 (0.188)</td>
<td>0.220 (0.178)</td>
<td>0.263 (0.198)</td>
</tr>
<tr>
<td>Parental health</td>
<td>0.154 (0.158)</td>
<td>0.006 (0.162)</td>
<td>-0.102 (0.192)</td>
<td>-0.151 (0.171)</td>
<td>-0.261 (0.197)</td>
</tr>
</tbody>
</table>

Note: Employment status: 0 = not employed, 1 = employed. New partner: 0 = no, 1 = yes. * p < .05. ** p < .01. *** p < .001
Table 3: Marginal odds ratios and upper and lower confidence intervals for the significant predictor variables of residence arrangements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asymmetric shared</td>
<td>Extended sole</td>
<td>Limited sole</td>
<td></td>
</tr>
<tr>
<td></td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td></td>
</tr>
<tr>
<td>Number of children</td>
<td>0.872 (0.644, 1.180)</td>
<td>0.502 (0.357, 0.705)</td>
<td>0.429 (0.286, 0.645)</td>
<td></td>
</tr>
<tr>
<td>Age youngest child</td>
<td>0.862 (0.808, 0.919)</td>
<td>0.812 (0.756, 0.871)</td>
<td>0.870 (0.810, 0.934)</td>
<td></td>
</tr>
<tr>
<td>Financial difficulties</td>
<td>1.073 (0.810, 1.423)</td>
<td>1.401 (1.053, 1.865)</td>
<td>1.584 (1.142, 2.196)</td>
<td></td>
</tr>
<tr>
<td>Time since separation</td>
<td>1.186 (1.077, 1.306)</td>
<td>1.320 (1.202, 1.451)</td>
<td>1.202 (1.085, 1.332)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of children</td>
<td>0.587 (0.412, 0.837)</td>
<td>0.500 (0.329, 0.760)</td>
<td>0.810 (0.556, 1.318)</td>
<td></td>
</tr>
<tr>
<td>Age youngest child</td>
<td>0.946 (0.878, 1.019)</td>
<td>1.004 (0.931, 1.083)</td>
<td>1.085 (0.931, 1.214)</td>
<td></td>
</tr>
<tr>
<td>Financial difficulties</td>
<td>1.287 (0.951, 1.741)</td>
<td>1.524 (1.085, 2.141)</td>
<td>1.146 (0.931, 1.416)</td>
<td></td>
</tr>
<tr>
<td>Time since separation</td>
<td>1.109 (1.007, 1.222)</td>
<td>1.020 (0.919, 1.132)</td>
<td>1.085 (0.931, 1.214)</td>
<td></td>
</tr>
</tbody>
</table>

Note: N = 1007. OR = odds ratios, CI = confidence intervals

Table 4: Average marginal effects for the significant predictor variables of residence arrangements

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Symmetric shared</th>
<th>Asymmetric shared</th>
<th>Extended sole</th>
<th>Limited sole</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>shared</td>
<td>shared</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of children</td>
<td>.097***</td>
<td>.016</td>
<td>-.059**</td>
<td>-.053**</td>
</tr>
<tr>
<td>Age youngest child</td>
<td>.033***</td>
<td>-.009*</td>
<td>-.018***</td>
<td>-.006</td>
</tr>
<tr>
<td>Financial difficulties</td>
<td>-.050*</td>
<td>-.008</td>
<td>.028</td>
<td>.030*</td>
</tr>
<tr>
<td>Time since separation</td>
<td>-.041***</td>
<td>.010</td>
<td>.025***</td>
<td>.006</td>
</tr>
</tbody>
</table>

Note: * p < .05, ** p < .01, *** p < .001

The squared term for age of the youngest child was significant in the models with symmetric shared residence and limited sole residence as reference categories, indicating a non-linear relationship. Based on the estimated probability for belonging to the symmetric shared residence group, we see that the quadratic slope indicates that symmetric shared residence is less common when the child is very young, becoming more common in the middle age group, and then less common again as the child approaches adolescence (Figure 2). Descriptive statistics showed that for almost 70% of parents practising symmetric shared residence, their youngest child was between 4 and 11 years old.
Figure 2: Estimated relationship between symmetric shared residence and age of the youngest child

Note: Quadratic relationship based on estimated probability for belonging to the symmetric shared residence group

Figure 3: Estimated relationship between limited sole residence and age of the youngest child

Note: Quadratic relationship based on estimated probability for belonging to the limited sole residence group

The slope based on the estimated probability of belonging to the limited sole residence group indicates the opposite trend to that for symmetric shared residence. Limited sole residence seems more common when the child is very young, becoming less common towards the middle age group, and then more
common again during adolescence (Figure 3). Descriptive statistics showed that for almost 50% of the parents practising limited sole residence, their youngest child was younger than 5 years old.

6. Discussion

The aim of the present study was to gain knowledge about the characteristics of parents practising different residence arrangements in a sample recruited from family counselling offices in Norway, adding to the existing literature by differentiating between a more nuanced set of post-separation residence arrangements. Our results show that parents’ characteristics differed regarding how many children they had, the age of their youngest child, financial difficulties, and time since separation. More precisely, parents with more and older children, fewer financial difficulties, and who separated more recently had a higher likelihood of practising symmetric shared residence. When parents had younger children, they were more likely to practise asymmetric shared residence. Parents with younger and fewer children and a longer time since separation had a higher likelihood of practising extended sole residence. Lastly, parents with fewer children and parents who had more financial difficulties were more likely to practise limited sole residence. The current findings display differences within the traditional categorisation of residence arrangements, emphasising the importance of expanding the differentiation so as not to miss potentially important differences within these groups.

A recent contribution in the literature has been the distinction between shared and asymmetric shared residences (e.g. Steinbach et al., 2021; Turunen et al., 2021). In the present paper, we build on this by differentiating between four different residence arrangements: symmetric shared residence (50/50), asymmetric shared residence (36–49% of the time with one parent), extended sole residence (16–35% of the time with one parent), and limited sole residence (1–15% of the time with one parent). We applied an eco-systemic perspective and made use of Kurdek’s (1981) model of divorce as a framework, representing the correlates of residence arrangements within ecological systems, all of which can be understood within the present cultural context – including beliefs, norms, and attitudes surrounding modern family life and residence arrangements in Norway – at the macrosystem level. Interestingly, we only found differences between the four groups at the exosystem and mesosystem levels.

In line with previous findings showing that shared residence is most common among parents with high socioeconomic resources (Kitterød & Lyngstad, 2014; Møller, Askvik, et al., 2023; Ottosen et al., 2018; Sodermans et al., 2013; Spruijt & Duindam, 2009; Wiik, 2022), we see a tendency towards this association in our sample as well, but only regarding the parents’ financial situation. Parents’ employment status did not yield any significant differences between the groups. Fewer financial difficulties were associated with a higher likelihood of practising symmetric shared residence and parents with more financial difficulties were more likely to practise extended sole residence. There could be several explanations for this. First, this could possibly reflect the demand for more financial resources to afford appropriate housing and child-related equipment in two different homes. Second, shared residence allows parents to be more career-oriented, as they only have care responsibilities for their child half of the time and, as such, they may have possibilities for increased income. Third, even though gender-equal upbringing is encouraged by the authorities, the Norwegian welfare system still provides more extensive financial support for single parents than for parents practising shared residence. If parents struggle financially, shared residence may not be an option, and the financial support provided for parents with sole residence may further encourage them to choose this arrangement.

At the mesosystem level, our results show that symmetric shared residence was more likely when parents had more children, whereas having more children decreased the likelihood of parents practising extended and limited sole residence. This is, in fact, the opposite of what some previous studies have found, namely, that one-child families are more likely to have shared residence (Kitterød & Lyngstad, 2014; Maccoby & Mnookin, 1992). A typical assumption is that shared residence is more likely for families with only one child, as it might be too expensive for separating parents to provide two homes big enough to house larger families (Juby et al., 2005). Having more children also means a more comprehensive schedule for the separated parent to work around, which will inevitably influence their working hours and social lives. This might be a strong argument for parents with more children to split their time equally.

Regarding the age of the parents’ youngest child, we found that symmetric shared residence was more likely when parents had older children. Parents who had younger children were more likely to practise an
arrangement with asymmetric shared or extended sole residences. Further investigations into children’s ages showed that there was a non-linear relationship between the age of the youngest child in the family and the residence arrangement. The quadratic relationship indicated that symmetric shared residence was most likely when the children were in the middle age group and that limited sole residence was most likely when children were very young or in adolescence. Our findings are consistent with our hypothesis and with previous studies (Juby et al., 2005; Kitterød & Lyngstad, 2014; Møller, Askvik, et al., 2023; Skjøten et al., 2007; Sodermans et al., 2013; Spruit & Duindam, 2009; Walper et al., 2021).

There have been controversies regarding recommendations for overnight stays for the youngest children. Some argue that the child needs to spend equal, or at least frequent, time with both parents to develop secure attachments (Kelly & Lamb, 2005; Maccoby & Mnookin, 1992). Others emphasise the risks related to lengthy and frequent absences from the primary caregiver. Alternating between two parental households might also be more stressful for children, as they experience a lack of stability and a need to adapt to different parental regimes (Spruit & Duindam, 2009; Turunen, 2017). Our results indicate that parents with very young children perhaps choose an arrangement in which the child receives predictability and more time with one of their parents more often. As they develop into adolescence, children may appreciate more flexibility and being able to change arrangements according to their wishes and needs. Some findings indicate that adolescents find shared residence more and more strenuous as they get older, eventually living for longer periods of time with one parent if they find it more practical and convenient for their everyday lives and to maintain peer relations (Ottosen et al., 2011; Skjøten et al., 2007; Spruit & Duindam, 2009).

We did not find parents’ re-partnering to be related to residence arrangements. Previous studies have found a link, although the results are mixed (see Juby et al., 2005; Kaspiw et al., 2009; Ottosen et al., 2018; Smyth, 2004). Family constellations have become more complex, and children are now more likely to grow up with step-parents and half- and step-siblings. Perhaps more complex families are not considered an obstacle to developing new relationships, either for separated parents or for single men and women, regardless of the arrangement separated parents have for their children.

Time since separation has not been included as a variable in many previous studies. We expected to find a higher likelihood of practising symmetric shared residence for parents who had separated more recently, which our results confirmed. The choice of shared residence could perhaps be an attempt by both parents to preserve closeness to the child immediately after separation. Shared residence is only becoming more and more common, and the less time has passed since the separation, the more likely it is that parents have had shared residence as their starting point of discussion as the most feasible choice. As time passes and the family has gained experience from practising shared residence, they may decide to change to a different arrangement that fits their needs and everyday lives better.

At the microsystem level, we aimed to investigate whether parental cooperation and conflicts were associated with residence arrangements, assuming that shared residence would be more likely for parents with high levels of cooperation and low levels of conflict. Contrary to most previous studies (e.g. Bakker & Mulder, 2013; Kitterød & Lyngstad, 2012; Sodermans et al., 2013), we did not find any differences between the residence groups regarding interparental relations. This is particularly interesting as a newly published report based on numbers from Statistics Norway from 2020 shows that, although there has been a slight decrease in level of interparental conflict in the shared residence group from 2012, they still find that those with a shared residence arrangement have better cooperation and experience less conflict than those opting for sole residence (Møller, Eriksen, et al., 2023). The measure of interparental conflict used in the report from Møller, Eriksen, et al. (2023) is however based on a single question, whereas we applied a more nuanced approach by including various measures of interparental conflict as well as cooperation to capture several aspects of the dynamics in the interparental relationship in the present study. This could explain the differences in these findings.

While practising shared residence may decrease the risk of conflicts over child residence because parents have equal status regarding their parental rights and rights to spend time with the child, it may increase the risk of other types of interparental conflicts. The frequent contact between parents with shared residence may provide them with more opportunities to engage in conflict, and shared childcare may also provide new and frequent topics on which to disagree, such as care cycles, parenting practice, and equipment for the child. We have no obvious explanations as to why we do not find any differences between the groups regarding interparental conflict. However, we can speculate that it could be due to some specific features within the Norwegian context. We know that Norway is one of the few countries in the world
providing mandatory mediation to separating parents. In addition to offering unique opportunities to identify families who are struggling with destructive conflicts, mediation has been shown to improve the quality of co-parenting in the long term (Emery et al., 2001). The mediation process might possibly have reduced the level of conflict within all the residence groups, making them more similar, and the variation within each group more salient. We can only speculate on this issue here, but it could be worth further investigation in future studies.

Previous results from Norway show that shared residence has increased among most groups of parents (e.g. parents with high levels of conflict) (Kitterød et al., 2016; Wiik, 2022). However, these studies still find almost the same differences between the groups in 2004, 2012 and 2020, specifically that shared residence is still less common among parents with high levels of conflict. According to our findings in the current sample, this is not the case. A shift in the profile of shared residence families has also been observed in Belgium (Sodermans et al., 2013). In Belgium, this could be a consequence of the 2006 legislation, which endorses shared residence, even among high-conflict families (Vanassche et al., 2017). Fehlberg et al. (2011) have raised concerns that shared residence may be used as a compromise among high-conflict parents and that the social diffusion of shared residence creates expectations that equal sharing is a “parental right”, shadowing the leading principle of the best interest of the child. The current findings, however, do not support this hypothesis. Professionals in the field generally agree that shared residence can be a beneficial arrangement for most children if certain conditions are met, such as cooperative parents with low levels of conflict. However, there is controversy about whether shared residence is a good arrangement for children if parents do not cooperate or if they have ongoing conflicts (Steinbach, 2019; Augustijn, 2021).

Lastly, the parents’ mental health did not seem to differ between the residence groups in our sample. Although we expected shared residence parents to have better mental health than sole residence parents, the present null findings are in line with a few other studies (Ottosen et al., 2018; Reckriedeler & Bernardi, 2021; Sodermans et al., 2015; Spruijt & Duindam, 2009). It is noteworthy how studies have shown differences between shared and sole residence for other important factors related to parental well-being, such as life satisfaction (Heijden et al., 2021; Sodermans et al., 2015), satisfaction with their time use and social situation (Botterman et al., 2015; Cashmore et al., 2010), and child-related workload and stress (Breivik & Olweus, 2006). Therefore, we also expected parental mental health to differ across different residence arrangements. Thus, we failed to add any clarity to the uncertain findings from previous studies regarding this association.

6.1 Strengths and limitations

This study has contributed to the research field with updated data from Norway on family characteristics in different post-separation residence arrangements. By recruiting through family counselling offices, we have managed to reach families with parents who were in the middle of separation, families with parents who had lived apart for a varying length of time, and parents who had never lived together. In this way, we have gathered data covering all families with parents living apart instead of being confined only to divorced parents or parents who have previously lived together, which has often been the case in previous research (e.g. Cancian et al., 2014; Juby et al., 2005; Sodermans et al., 2013). We have also been able to move the field forward by investigating family characteristics between groups with a more nuanced set of residence arrangements.

Nevertheless, this study has some potential limitations, the first following from the sampling design. All families with children under the age of 16 must attend mediation in Norway. However, the family counselling offices do not have any descriptive statistics of the families visiting them; thus, we cannot directly compare them to this sample. Although the therapists and mediators were trained to invite all visiting families, there could be a selection effect for which the families agreed to participate in the study. The families recruited from mediation sessions were recruited from a normal population of separating parents. The sample of families recruited from family counselling sessions, however, were actively seeking help after separation. These families are often characterised by high levels of conflict, and we can assume that they are more vulnerable and have higher levels of difficulty compared to the general population of families where parents live apart. In the sample of parents recruited through family counselling sessions, more time had passed since parental separation compared to the sample recruited through mediation. There could also be some sample bias due to current laws concerning child support in Norway. Parents
with poor economies could strategically opt for a sole residence arrangement rather than a shared residence, with the aim of receiving more financial support from the government.

To obtain distinct groups to answer the research questions, parents who had several children with different arrangements were excluded. Moreover, in some cases there were some discrepancies between the answers of mothers and fathers regarding their residence arrangements. It should also be noted that different cut-offs for the grouping of residence arrangements could yield different results. In the current study, we have not done any sensitivity checks regarding this, but rather based the cut-offs on theoretical background, relevant research literature and the practice within the Norwegian context.

Moreover, for some families, we did not have the data to calculate the exact time since separation. Parents who reported that they had separated six or fewer months before received a value equivalent to three months, which gave them the value between being in the middle of separation and having lived apart for more than six months.

In our analyses, the model took some time to converge, which could be because the sample consisted of both one- and two-respondent families. Future studies should aim to include complete data with two respondents from each family.

Lastly, like most other studies on residence arrangements, our analyses are based on a cross-sectional design. This limits the analysis since we do not have the opportunity to clarify the causal effect of parent characteristics and residence arrangements. It is more likely that the residence arrangement has had an impact on the independent variables for parents who have lived apart for a longer time, relative to parents that are in the middle of separation.

### 6.2 Implications for future research and clinical practice

Studies investigating residence arrangements and child well-being have repeatedly found that children in shared residences tend to be better adjusted than their peers living in sole residences (Steinbach, 2019). The question is whether these results reflect that shared residence has been an arrangement chosen by a group of parents with a set of characteristics that, in general, benefit child development and well-being independent of the residence arrangement. Studies investigating the characteristics of parents and families with different residence arrangements help identify selection effects. It is important to be aware of such selection effects to know which factors that need to be controlled for in investigations of other aspects of residence arrangements, such as the relationship between different arrangements and child well-being. We also need to advance the research on residence arrangements and child well-being by including a broader set of residence arrangements in this research field. Investigating the relations between a more nuanced set of arrangements and child well-being over time will fill an important knowledge gap, as most previous studies are cross-sectional and have only investigated shared residence in comparison with sole mother and sole father residence. For future studies on the characteristics of families with different residence arrangements, longitudinal studies will be required to explore the correlates of residence arrangements in the establishment and development of different residence arrangements among post-separation families.

Research including parental mental health is lacking, which presents the potential to develop new research activities. Interestingly, we did not find an association between interparental conflict and residence arrangements in the current study. An interesting future step could be to investigate whether this association is evident for groups of parents with either high or low socioeconomic status.

Research on residence arrangements has strong clinical relevance as the share of parents choosing shared residence is increasing (Wiik, 2022). Therapists are often asked questions about this topic during mediation or family therapy and should be up-to-date on societal changes, but they should also be familiar with family factors that may be linked to the parents’ choices. Using this information to make parents aware of who “usually” chooses the different types of arrangements may encourage them to think more about their own situation, their needs, and what might work well for them, rather than just adopting the arrangement that seems like the most common choice. We strongly encourage therapists to tailor the advice and guidance they provide to each individual family. By taking into account the family’s situation, including all surrounding family factors, the therapist can help parents choose an arrangement that can work well specifically for them and their child.
Acknowledgments

We are grateful to all the parents and children who participated in the FamC-study, and we are thankful to Dr Linda Larsen for help with data preparation. The current work is supported by the Research Council of Norway (grant number: 288552).

Data availability statement

The data from FamC is not publicly available, but researchers may be granted access after signing a data agreement. Interested parties may request a detailed description of all included measures from the first author. More information about the study can be found on the study website (https://www.fhi.no/en/studies/the-dynamics-of-family-conflict-study/).

References


Information in German

Deutscher Titel
Merkmale von getrennt lebenden Eltern in Norwegen: Vier Betreuungsmodelle im Vergleich

Zusammenfassung


Hintergrund: Das Forschungsfeld zu Faktoren, die mit geteilter und alleiniger physischer Wohnsituation zusammenhängen, wächst. Dieser binäre Ansatz vernachlässigt möglicherweise wichtige Unterschiede innerhalb dieser beiden Gruppen.


Schlagwörter: Betreuungsmodelle nach der Trennung, Sorgerecht, Sorgerechtsregelung, geteilte Elternschaft, gemeinsamer Elternwohnsitz, Familienpolitik, Scheidung