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Family Structure Stability and Transitions, Parental Involvement, and Educational Outcomes

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Abstract: The family environments children live in have profound effects on the skills, resources, and attitudes those children bring to school. Researchers studying family structure have found that children who live with two married, opposite-sex, biological parents, on average, have better educational outcomes than children living in alternate family structures, perhaps due to higher resources, lower stressors, or different selectivity patterns. Socioeconomic stratification plays a major role in family structure, with low-income families seeing more instability. We argue that the impact of family structure is attenuated by transitions in and out of family structures that may decrease a specific resource important to child academic outcomes: parental involvement. This may contribute to increased academic differences already noted across class gaps. Using waves 1 to 6 of the *Growing Up in Australia: Longitudinal Study of Australian Children* (LSAC) data, we examine the relationship of family stability and transitions from birth to age 10/11 years on parental involvement and educational outcomes, adjusted for resource, stressor, and selectivity covariates. We find that changes in parental involvement are only apparent for families that experience both a transition and single parenting, and that these differences in parental involvement impact academic outcomes.

Keywords: family structure; parental involvement; child educational outcomes; stratification

1. Introduction

Because academic achievement and attainment are so closely tied with other desirable life outcomes, such as occupational attainment and health (Cheng and Furnham 2012; LeSherban et al. 2014; Bradley and Greene 2013), societies often emphasize ways to improve individuals' academic outcomes. Yet, stratification in academic outcomes persists. Blame for some students' failure to thrive is often placed on schools and teachers (Rivkin et al. 2005), yet students' living conditions external to schools often play a role in their success or failure in school. For example, living with two married, opposite-sex, biological parents is often associated with positive educational and well-being outcomes (Pong et al. 2003; Furstenberg 2014). In contrast, living with a single-parent, stepparent, or cohabitating adult has been linked with lower academic achievement (Breivik and Olweus 2006; Dufur et al. 2010, 2013). The relationship between poverty and family structure is bilateral, as economic uncertainty makes marriage less likely, and the transition to single parenthood often brings decreased resources (Sweeney 2002; Thomas and Sawhill 2002; Brown et al. 2015). What is not as clear is *why* there appears to be a penalty for not living with two biological parents. We posit here that family structure is related not just to physical resources, but to social resources, and that as a result, students in non-traditional families may have less parental involvement in their schooling. As such, we view parental involvement

as being stratified through family structure mechanisms (Tan et al. 2020), and therefore an important mechanism in educational stratification. Cross-national research on childhood educational outcomes that emphasizes not just family structure but also the *transitions* in and out of family structures point to explanations that hinge on economic resources and family stressors more so than selectivity. However, these explanations neglect the impact that transitions in and out of family structures may have on stratifying social resources such as parental involvement. We posit that family transitions decrease parental involvement, which in turn results in reduced child educational outcomes. Understanding how, or even if, family structure transitions and instability might affect the social resources children bring to schools can help illuminate the degree to which potential interventions to improve academic outcomes should be directed at schools or externally to schools, such as targeting families.

2. Literature Review

2.1. Parental Involvement

At first glance, parental involvement in a child's life appears to be a straightforward idea: parents invest social, emotional, and physical resources in their children, and those investments return tangible outcomes such as better grades. Indeed, research from the United States Department of Education (Vaden-Kiernan and McManus 2005) demonstrates that parents who are highly involved in their children's education are connected to better academic outcomes for their children in elementary and secondary school. This crucial parental involvement is multidimensional and exists in different spheres of children's lives. Home-based parental involvement includes creating an enriching home environment, helping children plan out time to do homework, looking over homework assignments, and engaging in parent-child communication (Eccles and Harold 1993; Jezierski and Wall 2019). School-based parental involvement involves direct contact and interaction with school personnel, such as attending parent-teacher conferences or school functions and supporting children in athletic events (Hill and Taylor 2004; Dufur et al. 2013).

Studies have shown that school-based parental involvement, especially involvement that includes direct school contact, is associated with greater academic achievement, better behavior, and a more positive outlook and attitude toward school (Hornby and Blackwell 2018; Cole-Henderson 2000; Grolnick et al. 1997). Metanalyses demonstrate the effectiveness of both home-based and school-based involvement in facilitating academic achievement across a broad literature (Fan and Chen 2001; Henderson and Mapp 2002; Jeynes 2007; Pomerantz et al. 2007). As a result of this strong evidence connecting multiple aspects of parental involvement to desirable academic outcomes, researchers continue to attempt to identify the most effective type of parental involvement, as well as ways to facilitate and even increase parents' involvement with their children's school (Grolnick and Slowiaczek 1994). While some researchers have suggested the superiority of home-based parental involvement for gains in student achievement (Harris and Goodall 2008; Dufur et al. 2013), overall, a robust literature indicates positive outcomes associated with any kind of parental involvement.

A small literature challenges the idea that parental involvement leads to greater academic achievement, instead arguing that these relationships are spurious, and can be explained by other family characteristics or processes. For example, Desimone (1999) reported negative effects of parental involvement, suggesting that parents become more involved in their children's schooling in response to negative feelings about students' poor performance. Other studies reported no significant connections between parental involvement and academic outcomes (Fan 2001; McNeal 1999). Scott-Jones (1984) suggests that inconsistent results concerning the efficacy of parental involvement may be due to variation in operational definitions utilized for parental involvement, widely divergent samples, divergent sources of data reporting (parent, teacher, or child), or specific educational outcomes measured. In addition, research that shows no relationship between parental involvement and academic outcomes often controls for a broad set of family and child characteristics, suggesting

that positive effects of parental involvement in undercontrolled studies might be capturing other family resources.

However, some studies that seem to find no relationship between parental involvement and academic achievement in direct tests indicate spillover positive effects. For example, work that found no contemporaneous effect of parental involvement on primary education outcomes did find a relationship with enhanced social functioning and fewer behavior issues, which in turn had a positive influence on later academic achievement (El Nokali et al. 2010). In addition, many researchers agree that parental involvement for younger children may be more beneficial than for adolescents (Eccles and Harold 1993; Kurtulmus 2016).

Taken together, the bulk of evidence suggests positive relationships between parental involvement and child educational outcomes. As a result, it becomes important to understand how to facilitate greater parental involvement in children's educational activities, both at home and in their schools. This suggests a need to explore how parental involvement might be unequally distributed across students and families (Tan et al. 2020). With our focus on how family structure instability might be related to unequal distribution of parental involvement in children's educational endeavors, and resulting stratification in educational outcomes, we lay out in the following sections how family structure instability and parental involvement might be related to other stratification mechanisms connected to education.

2.2. Family Structure & Socioeconomic Status

Socioeconomic status factors heavily into family structure stability, with low-income families experiencing higher rates of divorce and separation and lower rates of marriage (Bramlett and Mosher 2002; Brown et al. 2015). Increasingly, marriage is seen as something to be done *after* economic stability is established (Addo 2014; Gibson-Davis et al. 2018). Furthermore, families that go through a structural transition often experience a dip in resources as a result, with the economic consequences being especially strong for women (De Vaus et al. 2014). This two-fold trend suggests that family structure instability and low socioeconomic status seem to reinforce each other.

Both family structure and socioeconomic class continue to be powerful predictors of students' academic success (Sirin 2005; Breivik and Olweus 2006; Dufur et al. 2010, 2013). As such, students living with unstable family structures *and* lower SES are met with significant barriers to high educational performance. To some degree, it is hard to separate these two factors in regard to connections to achievement. Some research has found the relationship between family structure and measures of children's achievement to be spurious when accounting for SES (Burnett and Farkas 2009). Additionally, while evidence supports the idea that family structure *transitions* into marriage are beneficial for academic achievement, most research on this topic focuses on the possibilities of families acquiring new resources after marriage (Shaff et al. 2008; Mitchell et al. 2015). While socioeconomic status and family structure instability are intertwined, it is possible that each exert independent influence on the social resources children bring to school, particularly in the form of parental involvement.

2.3. Parental Involvement & Socioeconomic Status

Research has shown that parental involvement also differs by socioeconomic status. School-based parental involvement is higher among those with higher income than lower income (Hill and Taylor 2004; Hornby and Blackwell 2018). Lack of resources, lack of knowledge about educational processes, or unavailability due to work or lack of transportation, all obstacles concentrated among low-income families, may prevent parents from being actively involved with their children's school (Archer-Banks and Behar-Horenstein 2008). Parental education is also significantly related to parental involvement; the higher the level of parental education, the higher the average level of parental involvement (Englund et al. 2004). Parents of higher and middle social economic status are more likely to create partnerships with school personnel, and they are more likely than individuals

from lower socioeconomic status to work collectively with other parents to deal with school issues (Horvat et al. 2003).

Parental involvement in educational settings is tied to social capital explanations, where parental school connections are functions of social networks (Coleman 1988, 1991; Pribesh and Downey 1999). However, parental involvement in academic settings can also be nurtured or thwarted due to cultural capital explanations (Mattingly et al. 2002). Thus, we know that parental involvement also differs widely along racial/cultural lines (Hornby and Blackwell 2018; Boethel 2003; Epstein and Dauber 1991; Lareau 1987; Lareau and Hovatt 1999). Taken together, the ways family structure instability and parental involvement are closely tied to SES stratification make them important processes to study to understand whether the social and physical resources students bring to school are as or more important indicators of school success than are school characteristics.

In this study, we draw upon frameworks proposed by Ho and Willms (1996), as well as Dimock et al. (1996), which include involvement domains such as participation in classroom activities, communication between teacher and parent, and parents' receptiveness to that communication, all forms of parental involvement that could vary both by SES status and by family structure categories or exposure to family structure instability. Understanding that schools influence parental involvement, we examine parental involvement through both the teachers' and parents' lenses (Kerbow and Bernhardt 1993).

2.4. Family Structure Instability and Parental Involvement

Parental involvement, then, may be stratified along axes of both socioeconomic status and family structure. If this is the case, it is unlikely that interventions targeted at schools can make up for stratification processes that make family social resources less available not just to children in poor families, but also to children in unstable families, and perhaps especially to children in poor, unstable families. We examine the linkages between family structure instability and parental involvement as they influence child educational outcomes. While some previous research has examined family structure and parental involvement, most work in this tradition has dichotomized the idea of family structure into two-parented or single-parented families (Berthelsen and Walker 2008). This is not surprising, given difficulties in making fine distinctions among family types and transition timing, even in large samples (McLanahan et al. 2013). In this study, we capture movement in and out of eight family types from birth to ages 10–11 and differences in parental involvement across family structures while at the same time accounting for competing explanations of socioeconomic resources, stress, and selectivity. While students from lower socioeconomic strata may bring fewer social resources such as parental involvement to school, we argue that family structure instability may also disrupt families' abilities to provide social resources such as parental involvement, and that this stratification in access to social resources in the home may translate into stratification in educational outcomes at school. We hypothesize that family transitions impinge on parental involvement, and that child educational outcomes diminish as a result.

3. Materials and Methods

3.1. Data

We use the nationally representative birth cohort study *Growing Up in Australia: The Longitudinal Study of Australian Children* (LSAC). Starting in 2004 with 5107 family units, by wave 6 (approximately 10/11 years old), 3764 remained in the sample. Accounting for missing data, our analytic sample started with 5071 cases in the birth year, which then attrited to a final sample of 3250 children in wave 6. Mothers provided information about children and families; as children aged into school, teachers were asked questions about parental involvement in school and child school performance. In 94% of cases, mothers supplied parent data. Due to very small sample sizes, we did not include children who were born into families with same-sex parents. This research was reviewed and given exempt approval

status by the Human Subjects Research Committee at the first author's institution under the category of research using de-identified secondary data.

3.2. Measures

3.2.1. Family Structure Stability and Transition

We used household rosters to construct three baseline family structures in wave 1 (0/1 years) (See Table 1):

Biological Married: Two opposite-sex parents who are the biological parents of the target child; parents are married and are living in the same household.

Biological Cohabit: Two opposite-sex parents who are the biological parents of the target child; parents are not married and are living in the same household.

Biological Single: One parent who is the biological parent of the child is living in the household.

For waves 2 to 6, we calculated eight family structures that indicate stability or transition. When some cases had missing data for family structure in specific waves but had complete data in other waves, we constructed family structure for waves for which we had a pre and post status. Thus, if a child lived with two married biological parents in wave 1 and wave 3, but data for wave 2 data were missing, we imputed that wave 2 status was also living with two married biological parents. This approach produced eight family structures that captured the number of parents in the home, relationship of parent to child, relationship of parental figures to each other, and stability or instability. The first three family structure categories mirror the family structures at birth but reflect stability in those family structures over time:

Biological Married Stable. Mother was married to the child's biological father prior to the child's birth and has remained married through all subsequent waves.

Biological Cohabiting Stable. Mother was unmarried but cohabiting with the biological father prior to the child's birth and has remained so in all subsequent waves.

Biological Single Stable. Mother was single at the child's birth and has neither married nor cohabited since the child's birth.

We also constructed five family structures that indicated a transition or transitions at some point since the birth of the child:

Post-Birth Biological Married. Mother married the biological father after the child was born and remains married through the wave from which we drew the dependent variable.

Post-Birth Biological Cohabiting. Mother began cohabiting with the biological father after the child was born and remains cohabiting with this partner through the wave from which we drew the dependent variable.

Post-Birth Biological Single. Mother became single after the child's birth. This includes mothers who were divorced, separated, or widowed and could include mothers who were either married or cohabiting at child's birth.

Post-Birth Stepfamily. Mother married a nonbiological parent after the child was born and remains married through the wave from which we drew the dependent variable.

Post-Birth Social Family. Mother began cohabiting with a nonbiological parent after the child was born and remains cohabiting with this partner through the wave from which we drew the dependent variable.

Table 1. Australian family structures over six waves.

| | Wave 1 (0/1 yrs) | | Wave 2 (2/3 yrs) | | Wave 3 (4/5 yrs) | | Wave 4 (6/7 yrs) | | Wave 5 (8/9 yrs) | | Wave 6 (10/11 yrs) | |
|--------------------|---------------------|-------|---------------------|-------|---------------------|-------|---------------------|-------|---------------------|-------|-----------------------|-------|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Bio married | 3677 | 72.00 | - | - | - | - | - | - | - | - | - | - |
| Bio cohabit | 920 | 18.01 | - | - | - | - | - | - | - | - | - | - |
| Bio single | 474 | 9.28 | - | - | - | - | - | - | - | - | - | - |
| Bio married stable | - | - | 3378 | 66.14 | 3118 | 61.05 | 2906 | 56.90 | 2698 | 52.83 | 2405 | 47.09 |
| Bio cohabit stable | - | - | 561 | 10.98 | 397 | 7.77 | 350 | 6.85 | 306 | 5.99 | 259 | 5.07 |
| Bio single stable | - | - | 305 | 5.97 | 207 | 4.05 | 157 | 3.07 | 115 | 2.25 | 80 | 1.57 |
| PB bio married | - | - | 157 | 3.07 | 228 | 4.46 | 211 | 4.13 | 188 | 3.68 | 162 | 3.17 |
| PB bio cohabit | - | - | 38 | 0.74 | 46 | 0.90 | 45 | 0.88 | 43 | 0.84 | 35 | 0.69 |
| PB bio single | - | - | 205 | 4.01 | 276 | 5.40 | 359 | 7.03 | 411 | 8.05 | 431 | 8.44 |
| PB stepfamily | - | - | 9 | 0.18 | 35 | 0.69 | 52 | 1.02 | 57 | 1.12 | 58 | 1.14 |
| PB social family | - | - | 26 | 0.51 | 83 | 1.63 | 123 | 2.41 | 187 | 3.66 | 203 | 3.97 |
| Total | 5071 | 99.30 | 4679 | 91.62 | 4390 | 85.96 | 4203 | 82.30 | 4005 | 78.42 | 3633 | 71.14 |

3.2.2. Parental Involvement

We use three scales to capture parental involvement: communication with teacher, involvement in class activities, and feelings about receiving guidance from school (See Table 2). To assess parent's communication with schools, parents were asked questions such as, "During this school term, have you contacted the child's teacher?". Involvement in class activities was rated by the teacher with items such as, "To the best of your knowledge, during this school year has a parent of the study child done any of the following . . . volunteered in child's class." Finally, we assess parents' attitudes toward accepting guidance and information from the school with items such as, "How well does the teacher help you understand what children at your child's age are like?". The scales each ranged from 0 to 7, where 7 represents more involvement.

Table 2. Descriptive statistics of variables (wave 6).

| | | N | Valid% | M | SD |
|---------------------------------|--------------------|------|--------|---------|---------|
| <i>Dependent Variables</i> | | | | | |
| Teacher communication | | 3640 | 0.71 | 2.76 | 0.77 |
| Involvement in class activities | | 2954 | 0.58 | 0.47 | 0.23 |
| Feelings about guidance | | 3641 | 0.71 | 3.30 | 0.52 |
| Language and literacy | | 3093 | 0.61 | 4.03 | 0.86 |
| Math thinking | | 3053 | 0.60 | 3.66 | 0.99 |
| <i>Independent variables</i> | | | | | |
| <i>Family Structure</i> | | | | | |
| Family structure at Wave 6 | Bio married stable | 2405 | 66.20 | | |
| | Bio cohabit stable | 259 | 7.13 | | |
| | Bio single stable | 80 | 2.20 | | |
| | PB bio married | 162 | 4.56 | | |
| | PB bio cohabit | 35 | 0.96 | | |
| | PB bio single | 431 | 11.86 | | |
| | PB stepfamily | 58 | 1.60 | | |
| | PB social family | 203 | 5.59 | | |
| <i>Resources</i> | | | | | |
| Household Income (Aus. \$) | | 3568 | | 2485.00 | 1791.61 |
| Mother's Government payment | No | 2170 | 59.32 | | |
| | Yes | 1488 | 40.68 | | |
| No. of Siblings | | 3759 | | 1.61 | 1.01 |

Table 2. Cont.

| | | N | Valid% | M | SD |
|--|----------------------|------|--------|--------|------|
| Stressor | | | | | |
| Stressful Life Events Index | 3661 | | | 2.46 | 2.31 |
| Selectivity | | | | | |
| Parents' Region of Birth | Both Aus. | 3082 | 60.35 | | |
| | One outside of Aus. | 1351 | 26.45 | | |
| | Both outside of Aus. | 674 | 13.20 | | |
| Mom age at birth (year) | | 5100 | | 30.71 | 5.46 |
| Parent Highest Education level | Postgraduate degree | 571 | 18.54 | | |
| | Graduate diploma | 402 | 13.05 | | |
| | Bachelor degree | 775 | 25.16 | | |
| | Advanced diploma | 414 | 13.44 | | |
| | Certificate | 902 | 29.29 | | |
| | Other qualifications | 16 | 0.52 | | |
| Parental self-efficacy | | 3662 | | 4.17 | 0.65 |
| Children's Sex | Male | 2608 | 51.07 | | |
| | Female | 2499 | 48.93 | | |
| Child age (month) | | 3764 | | 131.06 | 4.05 |
| SDQ Prosociality scale (reverse coded) | | 3663 | | 1.42 | 1.66 |
| SDQ Hyperactivity scale | | 3663 | | 3.11 | 2.43 |
| SDQ Emotional symptoms scale | | 3663 | | 1.84 | 1.98 |
| SDQ Peer problems scale | | 3663 | | 1.47 | 1.69 |
| SDQ Conduct problems scale | | 3663 | | 1.13 | 1.46 |

Note. Total possible N = 5107.

3.2.3. Child Educational Outcomes

When children were between the ages of 8 and 9 years old, their teachers were asked to rate them on (1) language and literacy and (2) mathematical thinking. The language and literacy scale has 10 items measuring communication and age-appropriate literacy skills based on a five-point scale (Not Yet, Beginning, In Progress, Intermediate, and Proficient). The mathematical thinking scale uses the same response scale, but is based on eight items, including “demonstrates understanding of place value” and “compares whole numbers”.

3.2.4. Potential Explanatory Factors

We control for a-priori factors known to be related to either parental involvement or educational outcomes and purported to be linked to family structure, including resources, family stressors, and selectivity. Disadvantaged status on these factors could be related to both family structure instability and to lower educational outcomes. To measure resources, we first concentrate on financial resources such as the receipt of government payments, as well as household income in Australian dollars. Number of siblings in the household ranges from 0 to more than 3 children. Selectivity measures include parents' highest education level, mother's age at birth of study child, study child's gender, and parents' region of birth. We capture stressors with the Stressful Life Events Index. Feelings about how one parents may be linked to parental involvement; thus, we measure parental efficacy. We also include the five subscales of the Strength and Difficulties Questionnaire (SDQ) that capture child behavior issues that could both affect parental involvement and teachers' assessment of academic success.

3.3. Analytic Approach

We use general linear models to investigate the relationships between family structure stability/transition and parental involvement, and then relationships to educational outcomes. We use MANCOVA analyses, because the dependent variables were moderately correlated (See Table 3). Multiple imputation was conducted on all independent variables to fill in a minor amount of missing data. Sampling weights were applied to approximate the Australian population. We conducted

appropriate assumption checking prior to running analyses and found that we did not violate any assumptions.

Table 3. Correlation matrix of dependent variables.

| | 1 | 2 | 3 | 4 | 5 |
|-----------------------------------|---------|---------|---------|---------|---|
| 1 Teacher communication | - | | | | |
| 2 Feelings about guidance | 0.30 ** | - | | | |
| 3 Involvement in class activities | 0.18 ** | 0.11 ** | - | | |
| 4 Language and literacy | 0.04 * | 0.22 ** | 0.19 ** | - | |
| 5 Math thinking | 0.03 | 0.18 ** | 0.16 ** | 0.78 ** | - |

Note. Listwise $N = 3250$; * $p < 0.05$, ** $p < 0.01$.

4. Results

4.1. To What Extent Does Parental Involvement Vary among Different Family Structures after Controlling for Other Explanatory Variables?

Family structure stability and transitions were significantly related to parental involvement ($F(21, 8463) = 4.21, p < 0.001$, Partial $\eta^2 = 0.01$) after considering resources, selectivity, and stressors (See MANCOVA results in Table 4). Further examination using ANCOVA models indicates that this relationship was present for teacher communication ($F(7, 3500) = 4.07, p < 0.001$, Partial $\eta^2 = 0.008$), involvement in class activities ($F(7, 3500) = 8.29, p < 0.001$, Partial $\eta^2 = 0.02$), and feelings about guidance ($F(7, 3500) = 2.77, p < 0.01$, Partial $\eta^2 = 0.006$) (See Table 5). Pairwise comparison results reveal that post-birth biological single families had significantly lower scores than biological married stable and biological cohabiting stable families on teacher communication and involvement in class activities. Furthermore, post-birth social families scored significantly higher than post-birth biological single families on teacher communication, scored significantly lower than biological married stable families on involvement in class activities, and scored significantly higher than post-birth biological cohabiting families on feelings about guidance. In general, households with two parents, regardless of marital status or parental biological relationship to the child, had higher levels of parental involvement than households that were headed by one parent and had experienced a transition. Interestingly, levels of parental involvement did not vary between single parent-headed households and dual-headed households that did not experience any transitions, suggesting that instability might have more to do with limiting parental involvement than does family structure itself. As expected, parental efficacy, parents' education level, stressors, children's behavior problems, and child's gender influenced levels of parental involvement. These findings suggest some evidence for our assumptions that family structure instability might be a source of stratification in the social resources students bring to school.

Table 4. MANCOVA results of parental involvement (weighted).

| Effect | Pillai's V | F | Hypothesis df | Error df | Partial η^2 |
|--------------------------------|------------|-----------|---------------|----------|------------------|
| Family structure at Wave 6 | 0.03 | 4.21 *** | 21 | 8463 | 0.010 |
| Household Income (Aus. \$) | 0.00 | 1.92 | 3 | 2819 | 0.002 |
| Mother's Government payment | 0.01 | 4.99 ** | 3 | 2819 | 0.005 |
| No. of Siblings | 0.00 | 0.60 | 3 | 2819 | 0.001 |
| Stressful Life Events Index | 0.01 | 8.39 *** | 3 | 2819 | 0.009 |
| Parents' Region of Birth | 0.03 | 14.86 *** | 6 | 5640 | 0.016 |
| Mom age at birth (year) | 0.01 | 4.28 ** | 3 | 2819 | 0.005 |
| Parent Highest Education level | 0.06 | 10.88 *** | 15 | 8463 | 0.019 |
| Parental self-efficacy | 0.02 | 18.91 *** | 3 | 2819 | 0.020 |
| Children's Sex | 0.01 | 6.21 *** | 3 | 2819 | 0.007 |

Table 4. Cont.

| Effect | Pillai's V | F | Hypothesis df | Error df | Partial η^2 |
|----------------------------------|------------|-----------|---------------|----------|------------------|
| Children's age (month) | 0.00 | 2.85 * | 3 | 2819 | 0.003 |
| SDQ Prosociality (reverse coded) | 0.01 | 4.56 ** | 3 | 2819 | 0.005 |
| SDQ Hyperactivity | 0.02 | 14.16 *** | 3 | 2819 | 0.015 |
| SDQ Emotional symptoms | 0.00 | 1.37 | 3 | 2819 | 0.001 |
| SDQ Peer problems | 0.00 | 0.41 | 3 | 2819 | 0.000 |
| SDQ Conduct problems | 0.00 | 1.74 | 3 | 2819 | 0.002 |
| Intercept | 0.04 | 42.69 *** | 3 | 2819 | 0.043 |

Note. Dependent variable: Three parent's involvement subscales; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 5. ANCOVA results of three parent's involvement subscales (weighted).

| Source | Teacher Communication | | | Involvement in Class Activities | | | Feelings about Guidance | | |
|--------------------------------|-----------------------|-----------|------------------|---------------------------------|-----------|------------------|-------------------------|------------|------------------|
| | df | F | Partial η^2 | df | F | Partial η^2 | df | F | Partial η^2 |
| Family structure at Wave 6 | 7 | 4.07 *** | 0.008 | 7 | 8.29 *** | 0.020 | 7 | 2.77 ** | 0.006 |
| Household Income (Aus. \$) | 1 | 2.28 | 0.001 | 1 | 3.44 | 0.001 | 1 | 0.34 | 0.000 |
| Mother's Government payment | 1 | 12.02 ** | 0.003 | 1 | 5.37 * | 0.002 | 1 | 0.05 | 0.000 |
| No. of Siblings | 1 | 0.01 | 0.000 | 1 | 1.19 | 0.000 | 1 | 0.94 | 0.000 |
| Stressful Life Events Index | 1 | 19.67 *** | 0.006 | 1 | 14.93 *** | 0.005 | 1 | 0.21 | 0.000 |
| Parents' Region of Birth | 2 | 0.59 | 0.000 | 2 | 41.00 *** | 0.028 | 2 | 2.16 | 0.001 |
| Mom age at birth (year) | 1 | 2.73 | 0.001 | 1 | 13.76 *** | 0.005 | 1 | 1.68 | 0.000 |
| Parent Highest Education level | 5 | 1.01 | 0.001 | 5 | 5.09 *** | 0.009 | 5 | 30.69 *** | 0.042 |
| Parental self-efficacy | 1 | 28.46 *** | 0.008 | 1 | 1.44 | 0.001 | 1 | 56.92 *** | 0.016 |
| Children's Sex | 1 | 10.92 ** | 0.003 | 1 | 2.45 | 0.001 | 1 | 4.18 * | 0.001 |
| Children's age (month) | 1 | 0.65 | 0.000 | 1 | 4.49 * | 0.002 | 1 | 1.98 | 0.001 |
| SDQ Prosociality (rev. coded) | 1 | 16.67 *** | 0.005 | 1 | 4.19 * | 0.001 | 1 | 9.90 ** | 0.003 |
| SDQ Hyperactivity | 1 | 23.01 *** | 0.007 | 1 | 8.83 ** | 0.003 | 1 | 36.92 *** | 0.010 |
| SDQ Emotional symptoms | 1 | 1.15 | 0.000 | 1 | 0.18 | 0.000 | 1 | 1.04 | 0.000 |
| SDQ Peer problems | 1 | 0.04 | 0.000 | 1 | 0.05 | 0.000 | 1 | 0.04 | 0.000 |
| SDQ Conduct problems | 1 | 5.28 * | 0.002 | 1 | 0.01 | 0.000 | 1 | 1.03 | 0.000 |
| Intercept | 1 | 34.74 *** | 0.010 | 1 | 0.02 | 0.000 | 1 | 139.95 *** | 0.038 |

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

4.2. To What Extent do Child Educational Outcomes Vary among Different Family Structures after Taking Parental Involvement and Other Explanatory Variables into Account?

We then turn to the question of whether the stratification in family social resources associated with family structure instability is related to stratification in child educational outcomes. Family structure instability and transitions appeared to be related to Language and Literacy ($F(7, 2813) = 3.58, p < 0.01$, Partial $\eta^2 = 0.009$) and Math Thinking ($F(7, 2778) = 3.91, p < 0.001$, Partial $\eta^2 = 0.012$) after taking into account other explanations such as differences in parental involvement, family resources, selectivity, stressors, parental efficacy, and child behavioral issues (See Table 6). Pairwise comparison results indicated that children from biological married stable families achieved higher scores than those from post-birth social families. Interestingly, parents' feelings about guidance and teacher communication were significantly related to both math thinking and language. However, parent involvement in class activity was only significantly related to children's language literacy rating and not to math. As expected, household income, stress, parents' region of birth and education level, children's sex, age, and behavior issues influenced academic outcomes.

Table 6. ANCOVA results of two academic outcome subscales (weighted).

| Source | Language Literacy | | | Math Thinking | | |
|---------------------------------|-------------------|------------|------------------|---------------|------------|------------------|
| | <i>df</i> | <i>F</i> | Partial η^2 | <i>df</i> | <i>F</i> | Partial η^2 |
| Family structure at Wave 6 | 7 | 3.58 ** | 0.009 | 7 | 3.91 *** | 0.012 |
| Teacher communication | 1 | 21.27 *** | 0.008 | 1 | 11.93 ** | 0.005 |
| Involvement in class activities | 1 | 40.89 *** | 0.014 | 1 | 3.56 | 0.002 |
| Feelings about guidance | 1 | 40.71 *** | 0.014 | 1 | 21.62 *** | 0.010 |
| Household Income (Aus. \$) | 1 | 7.90 ** | 0.003 | 1 | 5.67 * | 0.003 |
| Mother's Government payment | 1 | 2.39 | 0.001 | 1 | 4.58 * | 0.002 |
| No. of Siblings | 1 | 6.09 * | 0.002 | 1 | 1.78 | 0.001 |
| Stressful Life Events Index | 1 | 4.50 * | 0.002 | 1 | 10.04 ** | 0.005 |
| Parents' Region of Birth | 2 | 10.93 *** | 0.008 | 2 | 14.14 *** | 0.013 |
| Mom age at birth (year) | 1 | 0.64 | 0.000 | 1 | 2.53 | 0.001 |
| Parent Highest Education level | 5 | 11.56 *** | 0.020 | 5 | 8.90 *** | 0.020 |
| Parental self-efficacy | 1 | 1.88 | 0.001 | 1 | 9.28 ** | 0.004 |
| Children's Sex | 1 | 28.36 *** | 0.010 | 1 | 14.47 *** | 0.006 |
| Children's age (month) | 1 | 10.78 ** | 0.004 | 1 | 24.63 *** | 0.011 |
| SDQ Prosociality (rev. coded) | 1 | 5.15 * | 0.002 | 1 | 3.79 | 0.002 |
| SDQ Hyperactivity | 1 | 217.94 *** | 0.072 | 1 | 110.28 *** | 0.047 |
| SDQ Emotional symptoms | 1 | 0.51 | 0.000 | 1 | 2.79 | 0.001 |
| SDQ Peer problems | 1 | 13.62 *** | 0.005 | 1 | 7.80 ** | 0.004 |
| SDQ Conduct problems | 1 | 1.43 | 0.001 | 1 | 8.08 ** | 0.004 |
| Intercept | 1 | 25.44 *** | 0.009 | 1 | 3.07 | 0.001 |

Note. * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

5. Discussion

Parental involvement in children's home and school lives is multifaceted, complicated, and stratified (Grolnick and Slowiaczek 1994; Hornby and Blackwell 2018). While many studies suggest parental involvement makes a difference in children's educational outcomes, it is less clear which child and family characteristics encourage or create stratified access to this important social resource. We hypothesized that family stability and transition mattered in the stratification of parental involvement and educational outcomes. More specifically, we thought that even when controlling for stressors, selectivity factors, and resources, families who experience structural instability and transitions would not fare as well as those that were stable. The disruption of moving from one family structure would erode parental involvement and, in turn, diminish educational outcomes.

Our hypotheses were partially supported. Results indicated that post-birth biological single parents were less involved with children's school lives than families with two biological parents, either married or cohabiting, after accounting for numerous control variables. Thus, levels of parental involvement only differed once we consider a resource argument (a single parent has fewer resources to devote to the kinds of activities we call parental involvement) and its confluence with a transition. Simply being exposed to a transition, or simply residing with a stable single parent, did not reduce access to social resources in the form of parental involvement.

This is generally consistent with prior literature. Ho and Willms (1996), as well as Dimock et al. (1996) and Tan et al. (2020), mention that all school-based forms of parental involvement could vary both by SES status and by family structure categories and/or exposure to family structure instability. We found that family structure was related to all three types of school-based parental involvement. However, when family structure transitions and parental involvement were included in the model along with resource, stressors, selectivity, and parenting explanations, family transitions did not supplant the role of parental involvement on academic achievement. Parental involvement remained a strong predictor of math thinking and language literacy.

We examined parental involvement with a stratification lens in terms of testing if family structure, resources, stressors, and selectivity influence the distribution of parental involvement and found support for the intersectionality of stratifying influences. Thus, we would expect that possible interventions to support parental involvement have to target stratification processes that occur in families before children come to school and outside of school hours. For example, targeting parental

involvement interventions at parents with low SES is not sufficient without understanding that a lack of resources is inherently dampening parental involvement. Interventions should be targeted at structural mechanisms and policies that govern access to resources, and especially resources for single parents. Macro-level interventions targeted at making it easier for parents to be involved in their children's educational lives, such as flexible work hours and paid parental leave, are often stratified themselves, in that they are linked to the kinds of white-collar jobs associated with marriage and education. As a result, such interventions may provide resources in ways that make them less available to the single parents we find need the most help here, increasing rather than decreasing existing stratification patterns.

This work has some limitations. We concentrate on the experiences of children who had opposite-sex parents at birth. Although there might be different processes governing parental involvement in single-sex parented families, most studies have found that children raised in single-sex parented families have similar, or even better, outcomes compared to those raised in opposite-sex parented households (Juros 2017; Mazrekaj et al. 2020). We also do not explore outcomes for students who were primarily parented by fathers. Almost all family data were provided by mothers. We center our work on Australian families and realize that this work would benefit from replication in other countries.

Our findings point to the central role that family resources—both time and money—have to play in children's educational lives. Families that have transitioned or changed are sometimes called “broken” or “fragile”, but our work indicates that it we must look beyond transitions to fully understand how family structure influences the resources children bring to schools and, as a result, the academic success children are able to achieve. Among the Australian children we study here, transitions and resources must be considered simultaneously to understand obstacles to parental involvement and subsequent educational stratification. The nexus of family structure, instability, resources, and parental involvement on educational outcomes we find here is further evidence that the complex family lives of children are among the primary drivers of aggregate stratification we see in education.

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