Financial disadvantage and children’s school readiness

Ben Edwards, Jennifer Baxter, Diana Smart, Ann Sanson and Alan Hayes

The transition from home to school is a major change in children’s lives. It marks the first compulsory and universal point of contact between children and social institutions beyond their home and neighbourhood. The transition to school can be a challenging period for children, as they have to adjust to a generally much larger institution than they have previously encountered—with its own culture, rules and expectations—along with new people (both teachers and school mates), and the new physical environments of classrooms and playgrounds.

Children vary in their “readiness” for this change in their lives, with marked differences visible in their cognitive and social/emotional skills when they enter school. The importance of making a good transition to school is indicated by evidence that school readiness is predictive of later outcomes: children who are less “ready” are less likely to excel academically, and are more likely to have behavioural and emotional problems, be retained in a grade or drop out of school (Blair, 2001; Duncan et al., 2007; Reynolds & Bezruczko, 1993). Such children are also more likely to become teenage parents, engage in criminal activities and have poorer employment records (Schweinhart, 2003).

Given this evidence that a “good start” to schooling is so influential for later wellbeing, researchers have tried to identify the factors and processes associated with children’s readiness for school. School readiness encompasses not only the children themselves, but also their school, family and community (Hair, Halle, Terry-Humen, Lavelle, & Calkins, 2006).

Current conceptualisations of children’s school readiness (e.g., Hair et al., 2006) include multiple facets of children’s lives, such as their language development, cognitive abilities, general knowledge, approaches to learning, social/emotional development, and physical health and development. However, in this paper we focus on children’s cognitive and learning skills. The findings are from a recent report commissioned by the Smith Family and undertaken by Institute staff and Professor Ann Sanson (Smart, Sanson, Baxter, Edwards & Hayes, 2008), which addresses social/emotional elements of school readiness in addition to cognitive and learning aspects.

The first section of this paper provides a short summary of the research literature and describes two theoretical models that seek to explain why financial disadvantage is related to school readiness. For this paper, we use low income as the measure of financial disadvantage, as it is the most widely used in the literature and the results are similar for other measures of financial disadvantage (see Smart et al., 2008). We then present evidence of a consistent association between low income and the cognitive and learning components of children’s school readiness at 4–5 years of age. The extent to which low income is an independent risk factor for low school readiness net of other child, parental and community factors is then examined. We find that there is evidence of an independent, albeit modest, association between financial disadvantage and one cognitive measure of school readiness, but not for the other. A wide range of risk and protective factors associated with
school readiness are identified, including child and parental characteristics, parenting style, the family educational climate, early education and care, and neighbourhood characteristics. These risk and protective factors are also likely to underpin the links between financial disadvantage and school readiness. To illustrate this point we create an index of risk factors for low school readiness. The index shows that most children living in financial disadvantage have a greater number of risks for low school readiness than children not in financial disadvantage.

What past research tells us

A comprehensive review of the Australian and international literature on how financial disadvantage may be linked to poorer school readiness identified a number of risk and protective factors related to children's readiness for school (see Smart et al., 2008). Major conclusions were:

- child, family and community characteristics all influence children’s school readiness;
- individual child factors and family factors appear to have a stronger impact on children’s school readiness than community-level factors;
- the child characteristics of early cognitive ability and temperament have been consistently found to influence children’s cognitive and behavioural readiness for school;
- among numerous other family characteristics, parenting style, the home learning environment, maternal education and family income seem to be the most influential in determining school readiness;
- not only do parenting and the home environment have a strong direct effect on school readiness, they are also crucial mediators of the relationship between financial disadvantage and school readiness; and
- although community-level variables appear to have a smaller impact on children’s school readiness, child care and preschool attendance have been consistently found to affect early child development.

Most of the findings cited in the review came from North American and British studies. Although there is Australian research that addresses school readiness and effective transitions among Australian children in general (e.g., Dockett & Perry, 2001), there appears to be little Australian research looking particularly at the home-to-school transitions of children living in financially disadvantaged households. Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC) is the only comprehensive, contemporary large-scale longitudinal study examining Australian children’s cognitive, socio-emotional and physical development over the important transition period into school that also collects extensive data on children’s home, child care, preschool and school experiences (Sanson, Nicholson, et al., 2002). It thus provides a unique opportunity to examine the factors that contribute to the school readiness of Australian children, including those living in financial disadvantage.

Why are there links between school readiness, financial disadvantage and other risk factors?

Two influential models provide explanations for the links between financial disadvantage and poorer school readiness.

The family stress model proposes that the effect of income on children’s school readiness is through its impact on family relationships and interactions. For example, financial stress and poverty have been found to influence children's behaviour problems through their effect on parents' emotional health, marital relationships and parenting practices (Duncan & Brooks-Gunn, 1994; Jackson, Brooks-Gunn, Huang, & Glassman, 2000; Linver, Brooks-Gunn, & Kohlen, 2002; Yeung, Linver, & Brooks-Gunn, 2002). While parenting style has also been found to mediate the relationship between income and children's cognitive outcomes (Guo & Harris, 2000), this pathway is weaker and less consistent than for behavioural outcomes (Jackson et al., 2000; Linver et al., 2002). From the perspective of the family stress model, financial disadvantage influences children’s behavioural outcomes (and to a lesser extent their cognitive and learning capacities) by draining parents’ psychological and emotional resources, which in turn can disrupt parent–child interactions and parenting styles.

The investment model, which focuses on the cognitive and intellectual climate in the family, postulates that children from low-income families have fewer opportunities to develop their skills because financial strain limits their parents' ability to invest in a cognitively stimulating home environment, nutritious food, high-quality child care and safe living conditions. Longer work hours can also limit the time parents can spend with children. Higher income levels have been found to be associated with higher levels of parental involvement and increased availability of stimulating materials (Bradley, Corwyn, McAdoo, & Coll, 2001; Hart & Risley, 1995; Votruba-Drzal, 2003). More specifically, the Home Observation for Measurement of the Environment (HOME) index—a composite measure incorporating parents' engagement with children, the availability of cognitively stimulating materials and the physical condition of the home—has been found to be a strong mediator.
of the relationship between income and children’s cognitive outcomes (Duncan & Brooks-Gunn, 1994; Linver et al., 2002; Smith, Brooks-Gunn, & Klebanov, 1997). Higher HOME scores have also been found to reduce the harmful impact of low family income on children’s school readiness (Dearing, McCartney, & Taylor, 2001). In addition, the quality of the home environment has been found to be an intervening link between income and children’s emergent literacy, behavioural and emotional adjustment (Foster, Lambert, Abbott-Shim, McCarty, & Franze, 2005).

Furthermore, financial disadvantage can affect the neighbourhoods in which families live. Low-income families are often forced to reside in impoverished neighbourhoods that are characterised by high crime and unemployment rates, and limited availability of resources such as playgrounds, parks, child care and health care facilities.

The non-maternal child care and preschool programs in which parents enrol children can also be affected by financial disadvantage. Parents with higher levels of income and education can not only afford more expensive (and hence generally higher quality) care, but are also more likely to be concerned about the characteristics of the preschool their children attend (Melhuish et al., 1999; National Institute of Child Health and Human Development, Early Child Care Research Network, 1999). Research on disadvantaged children attending high-quality child care programs, such as the HighScope Perry Preschool Program, Early Head Start program and Abecedarian Project, indicates that high-quality preschool programs can improve children’s cognitive and social/behavioural readiness for school (Frede & Barnett, 1992; HighScope Educational Research Foundation, 2006; Ramey & Ramey, 2004; Reynolds, 1995; Schweinhart, 2003; Schweinhart, Barnes, & Weikart, 1993). Furthermore, the finding that preschool and child care attendance is more beneficial for disadvantaged children suggests that high-quality early care programs can have a compensatory effect by providing a more stimulating environment than is present in impoverished homes.

The family stress and investment models are also likely to be complementary. There is, for example, evidence that aspects of the family stress model (e.g., parenting and maternal emotional distress) mediates the relationship between home environment and behavioural development (Yeung et al., 2002).

Summing up, although the complex relationship between income and child development is yet to be fully understood, the evidence suggests that the family stress model may provide a better explanation for the relationship between income and children’s emotional and behavioural outcomes (through parenting practices), while the investment model may best explain the relationship between income and children’s cognitive outcomes (through the home physical and learning environment). It is more likely, however, that these models act in unison or interactively and are not mutually exclusive.

Method

Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC) aims to shed light on the development of the current generation of Australian children, and to investigate the contribution of the children’s social, economic and cultural environments to their adjustment and wellbeing. More specifically, it seeks to improve understanding of the complex interplay of factors that foster or impede healthy early childhood development, to identify opportunities for early intervention and prevention in policy areas concerning children and families, and to inform the policy debate in general. The study employs a cross-sectional design with 10,090 children in two age cohorts of approximately equal size: children born between March 2003 and February 2004 (infancy; B cohort) and children born between March 1999 and February 2000 (early
The investment model, which focuses on the cognitive and intellectual climate in the family, postulates that children from low-income families have fewer opportunities to develop their skills because financial strain limits their parents’ ability to invest in a cognitively stimulating home environment, nutritious food, high-quality child care and safe living conditions.

Measures of school readiness

The specific indices used to assess learning aspects of school readiness at 4–5 years of age (preschool for the majority of children) comprised two measures that were both standardised direct assessments administered by interviewers, namely: the Who Am I? (WAI) test (de Lemos & Doig, 1999), which assesses children’s ability to perform pre-literacy/pre-numeracy tasks such as reading, copying and writing letters, words and numbers; and a specially adapted version of the Peabody Picture Vocabulary Test (PPVT) (Dunn & Dunn 1997), which assesses receptive language and vocabulary. Since the WAI and PPVT do not provide established cut-off points by which to identify children who are not “school ready”, the lowest quintile was chosen as the cut-off point for each of these indicators to identify children with low school readiness.

Measures of financial disadvantage

There are a number of possible indicators of financial disadvantage, but most research to date has used either income or a composite measure such as socio-economic status (SES). Several possible measures were available within the LSAC dataset, including: low income, financial hardship, parental perceptions of being “poor” or “very poor”, and parental reports that their major source of income was derived from government allowances or benefits. Close to three-quarters of the LSAC sample did not experience any of these four types of financial disadvantage, but when they did, most commonly this was on more than one indicator of financial disadvantage (Smart et al., 2008, Appendix B.2). Smart et al. first investigated the association between each of these measures of financial disadvantage with the measures of school readiness and progress. They found a very similar picture across the four measures of financial disadvantage, so despite them tapping partially distinct aspects of disadvantage, as far as school readiness is concerned, they appeared to operate similarly. We thus chose family income as the measure of financial disadvantage for subsequent analyses, since this is the most robust and also the most commonly used indicator in the literature.

The measure of income was derived from the primary carer’s report of her own income as well as her partner’s, if she had one. This gross weekly parental income was adjusted, or equivalised, for household size and composition.
Results

Financial disadvantage and cognitive aspects of school readiness at 4–5 years

Figure 1 shows relationships between low income and children’s cognitive skills, as assessed by the PPVT and WAI test. It shows the percentage of children with low pre-literacy/pre-numeracy skills and low receptive language skills from financially disadvantaged and non–financially disadvantaged families.

The “I” bars at the top of the columns in Figure 1 represent the 95% confidence intervals. Where confidence intervals for the columns being compared do not overlap, we can be 95% confident that the values are significantly different. As an example, for the two left-hand columns, the confidence interval for the group of children from financially disadvantaged families does not overlap with the confidence interval for the group of children from non–financially disadvantaged families, indicating that there are significant differences in the percentage of children in these two types of families who had low PPVT scores.

Children from low-income families were significantly more likely to have lower levels of receptive language skills as measured by the PPVT. Approximately twice as many children from financially disadvantaged families were in the low PPVT category (40%) compared to their peers from non–financially disadvantaged families (around 20%). A similar, less powerful, pattern of differences was also found for pre-literacy/pre-numeracy skills, as evident from their WAI scores.

Links between financial disadvantage and children’s school outcomes

The previous analysis indicates that there is a reasonably strong relationship between family financial disadvantage and school readiness, but it does not take into account the effect of other factors that might influence children’s school readiness or the links between family financial disadvantage and school readiness. That is, it may be that financial disadvantage does not in itself lead to poorer outcomes, but reflects the presence of other characteristics that are more commonly found in financially disadvantaged families than non–financially disadvantaged families.

Characteristics suggested as important by the literature review and that were available within the LSAC dataset were used in these analyses (refer to Smart et al., 2008, for details), including:

- child characteristics—gender, persistent temperament style, and age;
- parental characteristics—paternal absence/presence and employment status, maternal employment status, maternal age, maternal education, maternal Aboriginal and Torres Strait Islander background, maternal country of origin/facility with English and maternal mental health;
- parenting style—parental warmth, hostile parenting, parental consistency and use of reasoning;
- family educational climate—frequency of reading to the child, other home learning activities, number of children’s books in the home, and amount of television watching;
- neighbourhood characteristics—neighbourhood socio-economic disadvantage and metropolitan/non–metropolitan and remoteness of residence; and
- children’s child care/preschool experiences.

Using multivariate analysis, associations between school readiness and financial disadvantage as well as these other characteristics were explored. The inclusion of variables other than financial disadvantage in the analyses enabled us to determine whether financial disadvantage itself remains a unique predictor of low school readiness once other factors are taken into account. Logistic regression was used, which is appropriate when the variable of interest has only two possible values (in this case, low school readiness versus adequate school readiness).

Results from these analyses suggest that when financial disadvantage was included along with other variables in the multivariate analyses, it remained a significant, albeit modest, risk factor for low PPVT scores (24% of the financially disadvantaged group of children were predicted to have low PPVT scores, compared to 19% of the non-disadvantaged group; odds ratio = 1.38), but was not a significant risk for low WAI scores (16% of the financially disadvantaged group of children were predicted to have low WAI scores, compared to 18% of the non-disadvantaged group; odds ratio = 0.85).

The multivariate analyses also confirmed that a large number of other risk and protective factors were related to cognitive and learning measures of school readiness. These include:

in order to take into account differences in the costs of living, using the Organisation for Economic Co-operation and Development (OECD) equivalence scale. Following Bradbury (2007), families whose income was in the lowest 15% of the LSAC sample distribution of equivalised income were categorised as being financially disadvantaged. The average parental income for this group was $183 per week; most (90%) were in the range from $83 to $236.
child characteristics—being male (risk), having a less persistent temperament style (risk), being older (protective);

parental characteristics—mother’s education (less than Year 12 attainment conferring risk and a university education being protective), mother’s age being less than 22 years old when their child was born (risk), mother’s labour force participation (being in employment tended to be protective), mother’s Indigenous background (risk);

parenting style—inconsistent parenting style (risk);

family educational climate—the child is read to on fewer than 3 days per week (risk), having fewer than 30 children’s books in the home (risk);

neighbourhood characteristics—family residence in a disadvantaged area (risk), residence in a non-metropolitan but accessible area (protective); and

children’s child care/preschool experiences—children not being in formal care or pre-school education (risk), children being in school (protective).

Most risk and protective factors applied similarly to both financially disadvantaged and non-financially disadvantaged groups. The exceptions included maternal employment and children being read to. For the financially disadvantaged group of children only, maternal employment was associated with better performance for both pre-literacy/pre-numeracy skills and language skills. Similarly, children being read to on fewer than 3 days a week was a stronger risk for low language skills for financially disadvantaged than non-disadvantaged children. Thus, there was only limited support for the notion that in an environment of financial disadvantage, adaptive parent and family factors are more important for children’s cognitive school readiness.

However, it is important to recognise that many of the risk factors for low school readiness are more common in financially disadvantaged families than they are in other families (see Appendix Table A1). In particular, compared to non-financially disadvantaged families, within financially disadvantaged families the father was more often absent or not employed; mothers were more often not employed, more likely to have incomplete secondary education and more likely to be relatively young; parents were more likely to exhibit low levels of parental warmth and consistency, and to read to their child less often; and children had fewer books and watched more television. Further, 41% of children in financially disadvantaged families lived in the lowest neighbourhood SES quintile.

Exposure to a greater number of risks may contribute—in addition to the effects of individual risk factors—to the propensity to have lower school readiness among financially disadvantaged children. In fact, other research shows that poor outcomes can be related to the total number of risk factors encountered by a child, rather than to any single risk factor (Ackerman, Izard, Schoff, Youngstrom, & Kogos, 1999; Burchinal, Roberts, Hooper, & Zeisel, 2000).

To examine the occurrence of risks among financially disadvantaged and non-disadvantaged children, a combined risk index was developed. The index was formed by identifying and summing the family and neighbourhood risk factors (listed below) that were applicable to each child.3

parental characteristics—father absence, father unemployment, mother unemployment, mother less than 22 years of age at the birth of the child, mother having completed less than Year 12 education, mother born overseas and having poor English, and maternal psychological distress;

parenting style—lower warmth, higher hostility, lower use of reasoning and lower consistency;

family educational climate—reading to the child on fewer than 3 days per week, fewer other home learning activities, fewer than 30 children’s books in the home, and higher levels of child television watching; and

neighbourhood characteristics—high socio-economic indexes for areas (SEIFA) disadvantage and remote non-metropolitan area.

Figure 2 shows the distribution of risks within financially disadvantaged and non-disadvantaged families. Clear differences were evident, with 41% of non-disadvantaged families exhibiting zero or one risk, compared with only 11% of financially disadvantaged families. At the other extreme, 40% of financially disadvantaged families experienced five or more risks, compared with 14% of non-disadvantaged families. This higher prevalence of risk in the financially disadvantaged group helps explain the lower school readiness of these children.

To summarise the results, there is evidence of a consistent association between financial disadvantage and cognitive and learning components of children’s school readiness at 4–5 years of age. There is not clear evidence to suggest that financial disadvantage is a strong independent risk factor when other child, parental and community factors are included. Family financial disadvantage had an independent, albeit modest, association with one cognitive measure of school readiness when other aspects of the child, family and community were included, but not for the other. These analyses also identified a wide range of risk factors (which tended to be more common in financially disadvantaged families) and these are likely to underpin the links between financial disadvantage and school readiness. The type and range of risk factors also suggest that both the family stress and investment models are relevant to our understanding of financial disadvantage and children’s school readiness.
Implications for intervention

Based on the current findings, it is evident that, with few exceptions, the same child, family and community factors affect school readiness in children from both financially disadvantaged and non-disadvantaged families, but that these factors tend to be more common in the financially disadvantaged group. Additional support is thus needed for financially disadvantaged families as they tend to carry a greater cumulative burden of risk. However, it is also important to recognise that the financially disadvantaged group comprises only 15% of the population (as defined in this paper) and so does not include the bulk of those with low school readiness. Consequently, to focus policy and service provision efforts solely on financially disadvantaged children would miss many children in need of support to become school-ready. An alternative approach is to focus efforts on risk factors that are strongly related to school readiness, irrespective of a family’s financial status. Because of the higher prevalence of these factors in the financially disadvantaged group, interventions targeting these variables would apply particularly, but not exclusively, to that group.

To date, the most promising strategy for improving school readiness among disadvantaged children in the US has been the delivery of multimodal programs that combine high-quality early education with parent support. Such programs are characterised by not only a cognitively stimulating curriculum, but also attention to health, nutrition, parenting and family support services, and are delivered by well-trained staff in small groups. An example is the combination of the Head Start program, which contains both a child and parent program (National Head Start Association Research & Evaluation Department, 2008), with Webster-Stratton’s The Incredible Years parenting program (Webster-Stratton & Reid, 2008). Together they result in improvements in most aspects of school readiness, including greatly improved child behaviour.

An Australian model is The Smith Family’s Families Learning Together model, which combines the education and care of children, the enhancement of parents’ education and parenting skills, and health care. Families Learning Together integrates four streams of learning within a single cohesive learning system for parents and their children by providing:

- early education and development for children—to aid their cognitive and non-cognitive development and assist their transition to school;
- parenting education for adults—to build their confidence and capacity to provide a stable home environment;
- parent and child together time—to improve skills and strengthen relationships and communication within families; and
- adult education for parents—to assist them in engaging in learning opportunities and improving their prospects for entering the workforce.

Similarly, the Australian Pathways to Prevention program (Homel et al., 2006) promotes child language and social development in a highly deprived community, and has been found to improve language, cognitive school readiness, and many aspects of children’s behaviour.

These combined programs address a number of the risk factors identified in this paper, such as parenting, educational stimulation and neighbourhood disadvantage.

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Strengths and limitations

One of the strengths of the present study was the use of multiple methods and multiple informants in assessing the relationship between financial disadvantage and school
readiness. The school readiness measures were based on standardised direct assessments, while financial disadvantage and many of the other risk and protective factors were reported by parents.

The variables included in the multivariate analyses covered the great majority of factors identified in past research as being relevant to school readiness. However, a few additional factors have been implicated in some studies (e.g., parental cognitive ability). These variables were not included for a range of reasons, including their absence from the LSAC dataset or their lack of variability and, more importantly, the need to focus on those factors most strongly implicated in existing research and/or those most amenable to change.

Children from financially disadvantaged families are at greater risk of poor school readiness, due to the much higher rates of risk factors evident among this group and the accumulation of risks experienced.

Conclusion

In conclusion, the findings from this large-scale Australian study show many consistencies with the international research into the type of factors found to be relevant to children’s school readiness. Most factors applied similarly to children from financially disadvantaged and non-financially disadvantaged households, although some distinct relationships were found for particular groups.

The findings make clear that children from financially disadvantaged families are at greater risk of poor school readiness, due to the much higher rates of risk factors evident among this group and the accumulation of risks experienced.

The implications drawn from the findings could be used to guide future interventions to reduce the gap between financially disadvantaged and non-financially disadvantaged children in school readiness and to assist in helping all children make a positive start to school.

Endnotes

1 Risk factors are defined as factors that increase the statistical the probability of a negative outcome occurring, while protective factors lessen the probability of a negative outcome.
2 Having a father absent or not employed was a risk factor for children’s poor social and emotional outcomes but not cognitive and learning components of school readiness.
3 An important assumption in the risk index is that risks are additive. This may not always be the case, as two risk factors may interact with each other to the further disadvantage of the child. For instance, Edwards (2005) reported that living in a disadvantaged neighbourhood had a greater impact for boys’ socio-emotional outcomes than girls.

References

Appendix

Table A1 Profile of financially disadvantaged and non–financially disadvantaged groups

<table>
<thead>
<tr>
<th></th>
<th>Financially disadvantaged</th>
<th>Non–financially disadvantaged</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male gender</td>
<td>52%</td>
<td>51%</td>
</tr>
<tr>
<td>Low persistence</td>
<td>22%</td>
<td>24%</td>
</tr>
<tr>
<td>Age (months)</td>
<td>57</td>
<td>57</td>
</tr>
<tr>
<td>Parental characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Directly linked to low income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Father resident in home, employed</td>
<td>30%</td>
<td>90%</td>
</tr>
<tr>
<td>Father resident in home, not employed</td>
<td>24%</td>
<td>2%</td>
</tr>
<tr>
<td>Father absent</td>
<td>46%</td>
<td>8%</td>
</tr>
<tr>
<td>Mother not in the labour force</td>
<td>66%</td>
<td>35%</td>
</tr>
<tr>
<td>Mother unemployed</td>
<td>11%</td>
<td>8%</td>
</tr>
<tr>
<td>Mother works part time</td>
<td>18%</td>
<td>42%</td>
</tr>
<tr>
<td>Mother works full-time</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td>Not directly linked to low income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother &lt; Year 12 education</td>
<td>44%</td>
<td>23%</td>
</tr>
<tr>
<td>Mother completed Year 12 education</td>
<td>47%</td>
<td>49%</td>
</tr>
<tr>
<td>Mother completed bachelor degree or</td>
<td>9%</td>
<td>28%</td>
</tr>
<tr>
<td>higher</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mother aged &lt; 26 years</td>
<td>12%</td>
<td>4%</td>
</tr>
<tr>
<td>Mother is of Indigenous background</td>
<td>6%</td>
<td>2%</td>
</tr>
<tr>
<td>Mother is Australian-born</td>
<td>68%</td>
<td>76%</td>
</tr>
<tr>
<td>Mother is non–Australian, born, good English</td>
<td>24%</td>
<td>22%</td>
</tr>
<tr>
<td>Mother is non–Australian, poor English</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>Maternal psychological distress</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Parenting style</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower warmth</td>
<td>23%</td>
<td>21%</td>
</tr>
<tr>
<td>Higher hostility</td>
<td>16%</td>
<td>12%</td>
</tr>
<tr>
<td>Lower use of reasoning</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>Lower consistency</td>
<td>36%</td>
<td>20%</td>
</tr>
<tr>
<td>Family educational climate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading to child &lt; 3 days per week</td>
<td>37%</td>
<td>22%</td>
</tr>
<tr>
<td>Low other home learning activities</td>
<td>29%</td>
<td>27%</td>
</tr>
<tr>
<td>&lt; 30 children’s books in home</td>
<td>35%</td>
<td>16%</td>
</tr>
<tr>
<td>High TV watching</td>
<td>43%</td>
<td>28%</td>
</tr>
<tr>
<td>Neighbourhood characteristics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High SEIFA disadvantage</td>
<td>41%</td>
<td>22%</td>
</tr>
<tr>
<td>Metropolitan</td>
<td>58%</td>
<td>65%</td>
</tr>
<tr>
<td>Accessible non-metropolitan</td>
<td>38%</td>
<td>31%</td>
</tr>
<tr>
<td>Remote non-metropolitan</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Child care</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal or parent-only care</td>
<td>11%</td>
<td>4%</td>
</tr>
<tr>
<td>Child care</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>Preschool</td>
<td>51%</td>
<td>59%</td>
</tr>
<tr>
<td>School</td>
<td>21%</td>
<td>16%</td>
</tr>
</tbody>
</table>

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