Parents’ perceptions of the neighbourhoods they live in have the potential to influence many decisions they make with respect to their children. For instance, parents’ willingness to allow their children to play in the neighbourhood are likely to be influenced by their perception of the quality of playgrounds, parks and ovals. Perceptions of the quality of the neighbourhood (as well as financial resources) are also likely to be important considerations when choosing a new neighbourhood to live in. Although neighbourhood socio-economic status has been associated with children’s social-emotional and learning outcomes (Edwards, 2005), parental perceptions of the neighbourhood have been found to be associated with children’s outcomes. For example, research suggests that parental perceptions of the neighbourhood influenced Australian and US children’s social and emotional outcomes over and above neighbourhood socio-economic status (Edwards & Bromfield, submitted; Xue et al., 2005).

To highlight the importance of parents’ perceptions of neighbourhood facilities and neighbourhood social processes such as a sense of belonging, a brief description follows of the conceptual and empirical research investigating how these factors influence children’s development.

Neighbourhood facilities

Neighbourhood facilities encompass a broad range of different elements including access to services and public transport as well as to parks for children to play in. From a conceptual perspective, neighbourhood facilities fit within a resource model of how neighbourhood influences children’s outcomes. In this model, the availability, accessibility and quality of resources in the community could influence children’s outcomes (Leventhal & Brooks-Gunn, 2000). Two review articles (Leventhal & Brooks-Gunn, 2000; Sampson et al., 2002) have shown that community-level analyses linking these resources to child and adolescent outcomes are rare, despite the public policy relevance of such an investigation.

Neighbourhood social processes

In contrast to the investigation of the influence of neighbourhood facilities on children’s outcomes, there has been many studies on the influence of neighbourhood social processes on child and adolescent outcomes (for a review see Sampson et al., 2002). Neighbourhood measures such as a sense of belonging to a neighbourhood and trust in neighbours have been found to be associated with a range of child and adult physical and mental health outcomes (for example, Sampson et al., 2002).

In Australia, the federal and state/territory governments have adopted policies and fund programs that emphasise community development as one way to foster positive child development and family environments. Consequently understanding the factors that are associated with parental perceptions of their neighbourhood are important to inform these
policies. One important consideration is whether parental perceptions are similar despite the age of the children. If parental perceptions of the neighbourhood differ as a function of child age, then community development policies to enhance the quality of the neighbourhood may target areas of the neighbourhood that are important for parents of one group of children but not another.

Agreement between parents within a particular neighbourhood about the quality of the neighbourhood is also an important consideration for policymakers. Although individual perceptions will always vary from one individual to another to some degree, the variation of perceptions within the same neighbourhood will also reflect the objective variation in the quality of the neighbourhood environment within different parts of a particular neighbourhood. If there is considerable objective variation in the quality of the neighbourhood then community development policies need to be more nuanced and targeted.

An understanding of specific neighbourhood features associated with parent’s perceptions of neighbourhood facilities and sense of belonging are also of interest as they provide policymakers with information to create policies that foster and promote better communities. For instance, one of the only studies to examine factors associated with parents’ perceptions of the quality of neighbourhood facilities reported that poorer quality neighbourhood facilities were associated with parents living in poorer neighbourhoods and neighbourhoods with a greater proportion of children to adults (Coulton et al., 1999).

An understanding of the factors that are associated with parents’ perceptions of neighbourhood facilities and a sense of belonging is important to create better policies to promote better child and family functioning. This article will address the following questions of relevance to policymakers:

1. Do parental perceptions of neighbourhood facilities and their sense of belonging differ according to the ages of the children?

2. How similar are the perceptions of neighbourhood facilities and sense of belonging of parents living in the same neighbourhood?
Statistical analyses

Several complex statistical analyses were conducted for this study. A brief description of each of the analyses conducted for research questions two and three follows. For those who are interested in the more technical aspects of these analyses, a technical appendix is available on request from the author.

How similar are the perceptions of neighbourhood facilities and sense of belonging of parents living in the same neighbourhood?

The intraclass correlation coefficients that appear in Figures 2 and 3 are based on a statistical analysis called multilevel confirmatory factor analysis that was conducted (for further information on intraclass correlation see Snijders & Bosker, 1999). Intraclass correlation coefficients were also calculated for each questionnaire item included in the analyses. Figure 3 displays the intraclass correlation coefficients for each questionnaire item that comprises neighbourhood facilities and belonging.

What features of the neighbourhood are associated with parental perceptions of neighbourhood facilities and belonging?

To answer this question, confirmatory factor analyses were employed to develop aggregate variables of perceptions of neighbourhood facilities and belonging for the two cohorts: one confirmatory factor analysis for parents of new born children and one for parents of four-year old children. The primary advantage of this statistical approach is that conventional approaches that sum all scores on a series of questions designed to capture particular variables such as neighbourhood facilities also include errors in their measurement. Confirmatory factor analysis excludes measurement error and hence is a pure measure of the variable of interest.

Another advantage of confirmatory factor analysis is that it provides statistical indicators of whether the set of questionnaire items that are designed to capture the variable of interest (for example, neighbourhood facilities) actually do it well. Results from the confirmatory factor analysis of parents’ of newborn children and parents’ of four-year-old children indicated that the suggested factor structure fitted the data very well and were almost exactly the same for parents’ of the younger and older children.

Another feature of the confirmatory factor analyses in this study was that they accounted for clustering using the complex samples procedure in the statistical program Mplus (Muthen & Muthen, 2006). Clustering occurs as multiple families were selected from the same postcodes and parents who live in the same postcode are likely to have more similar perceptions to parents residing in different postcodes. The degree of similarity in perceptions in the same postcode affects the accuracy of the results obtained from many statistical techniques.

The confirmatory factor analyses also incorporated population weights developed for the LSAC (Soloff et al., 2006) so that findings could be generalised to parents of new born and four-year-old children in the Australian population.

The neighbourhood facilities and belonging variables constructed through the confirmatory factor analyses were then regressed on demographic characteristics (age of the parent, family household income and whether the family rented the house), neighbourhood socioeconomic status, proportion of children in the postcode and neighbourhood remoteness. Parent’s gender was not included in the analyses as only one parent was asked questions about their neighbourhood and over 97 per cent of these parents were mothers (98.6 per cent mothers of new born children and 97.1 per cent mothers of four-year-old children).

3. What features of the neighbourhood are associated with parental perceptions of neighbourhood facilities and belonging?

LSAC and parental perceptions of the neighbourhood

Growing Up in Australia: the Longitudinal Study of Australian Children (LSAC), was designed to examine neighbourhood effects on children (Sanson et al., 2002). As with the majority of studies of neighbourhood effects, LSAC uses administratively defined units (such as postcodes) to characterise neighbourhoods. Postcodes have the advantage of being able to include aggregated census data as a source of information about neighbourhood characteristics.

The advantage of LSAC is that it has a wide range of neighbourhood variables including information from parents about many characteristics of the neighbourhoods in which their children live. The sampling of neighbourhoods (postcode) from across Australia also ensures sufficient diversity in neighbourhood environments. The linkage of LSAC data with postcode-level census data from the Australian Bureau of Statistics (ABS) and the Socio-Economic Indices for Areas (SEIFA), also developed by the ABS (Trewin, 2001), enables neighbourhood-level variables to be constructed.

Measures

Neighbourhood facilities comprised six questions that asked parents to rate their neighbourhood’s parks, playgrounds and play spaces; streets lighting; footpaths and roads; access to close, affordable, regular public transport; access to basic shopping facilities; and access to basic services like banks and medical clinics.

Sense of neighbourhood belonging consisted of four questions that assessed parents’ trust of neighbours, a sense of identity with the neighbourhood, how well informed they were about local affairs and knowledge about where to find information about local services.

Neighbourhood socio-economic status was measured by the Socio-Economic Indices for Area’s (SEIFA) Index of Advantage/Disadvantage for each postcode area (Trewin, 2001). Lower scores indicate more disadvantage and less advantage and higher scores indicate the reverse. The SEIFA Index is a composite of 31 variables – for example, income, unemployment, occupation and education. The validity of the Index of Advantage/Disadvantage has been established by the ABS (Trewin, 2001) and postcode-level information was used for the current study.

Concentration of children was measured by the percentage of people in the neighbourhood under the age of 18 and was based on data collected from the 2001 Census. Similar measures have been included in other studies as an indicator of the extent to which there are adults available to care for children and monitor adolescent and children’s behaviour (Coulton et al., 1999; Freisthler, 2004). In this study it was also assumed that the local government areas that had more children would experience a greater demand by residents to provide facilities conducive
to children and this would then translate into better facilities for these children.

Remote neighbourhood was measured by the Accessibility/Remoteness Index for Australia (ARIA). ARIA measures remoteness based on road distances to 201 centres where services are located. The index comprises five categories that reflect the remoteness from a range of goods and services and opportunities for social participation (major cities; inner regional; outer regional; remote and very remote). As there were very few postcodes in this study that were remote (11 postcodes, 3.2 per cent) or very remote (5 postcodes, 1.5 per cent) these two ARIA categories were grouped together.

Several demographic variables were also included: parent’s age; parent’s combined weekly income; and whether it was a rental household. The demographic variables selected as controls in this study were consistent with other studies of neighbourhood quality (Sampson & Raudenbush, 1999).

Results

Do parental perceptions of neighbourhood facilities and their sense of belonging differ according to the ages of the children?

Table 1 describes neighbourhood facilities and sense of belonging questions for parents of newborn children and parents of the four-year-old cohort. To ensure that the presence of younger and older siblings do not bias parents perception of their neighbourhood, parents were included in this analysis if the target child in both cohorts (birth and four-year olds) was the youngest child in the family.

Responses of parents from both cohorts were very similar for all neighbourhood questions. Of all the services and facilities examined, parents of both newborn and four-year-old children were most satisfied with access to basic shopping and least satisfied with good roads and footpaths. In terms of sense of belonging, approximately 70 per cent of both sets of parents indicated that they knew where to find information on local services. One third of parents from the birth cohort and 45 per cent of parents of four-year-olds strongly agreed or agreed with the statement that they felt a sense of identity with their neighbourhood.

The average scores of parents of newborn and four-year-old children on neighbourhood facilities and sense of belonging are presented in Figure 1. Average scores for neighbourhood facilities were almost identical for parents of newborn and four-year-old children. The average rating of sense of belonging was very similar but parents of four-year-old children had significantly higher levels of sense of belonging than parents of newborn children. Perhaps parents of four-year-old children had lived in the area for a longer period of time than parents of newborn children and hence had an opportunity to develop a sense of belonging. Although the results show that parents of four-year-olds did have a greater sense of belonging than parents of newborns, the difference between a score of 3.5 and 3.7 on a five-point scale seems limited and may not represent any practical or observable differences. Consequently, future analyses of the LSAC data investigating the influence of neighbourhood facilities and neighbourhood belonging can assume that newborn and four-year-old children are residing in neighbourhoods of similar quality. In terms of public policy, policies that aim to enhance neighbourhood

Table 1 Parents’ responses to neighbourhood questions

<table>
<thead>
<tr>
<th>Neighbourhood items</th>
<th>Facilities</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Good parks, playgrounds and play spaces</td>
<td>Birth</td>
<td>28.9</td>
<td>45.9</td>
<td>18.3</td>
<td>4.9</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>29.6</td>
<td>47.7</td>
<td>17.2</td>
<td>4.9</td>
</tr>
<tr>
<td>Good street lighting</td>
<td>Birth</td>
<td>15.2</td>
<td>54.2</td>
<td>21.9</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>15.7</td>
<td>54.4</td>
<td>22.1</td>
<td>7.0</td>
</tr>
<tr>
<td>Good roads and footpaths</td>
<td>Birth</td>
<td>11.6</td>
<td>52.0</td>
<td>24.7</td>
<td>11.5</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>12.4</td>
<td>56.1</td>
<td>22.3</td>
<td>8.8</td>
</tr>
<tr>
<td>Access to close and regular public transport</td>
<td>Birth</td>
<td>25.4</td>
<td>45.9</td>
<td>13.8</td>
<td>10.9</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>24.5</td>
<td>46.4</td>
<td>14.7</td>
<td>10.6</td>
</tr>
<tr>
<td>Access to basic shopping</td>
<td>Birth</td>
<td>36.0</td>
<td>53.9</td>
<td>6.2</td>
<td>3.9</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>34.8</td>
<td>54.9</td>
<td>6.8</td>
<td>3.3</td>
</tr>
<tr>
<td>Access to basic services</td>
<td>Birth</td>
<td>28.7</td>
<td>49.9</td>
<td>14.8</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>25.7</td>
<td>50.6</td>
<td>17.2</td>
<td>6.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sense of belonging</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Know where to find information on local services</td>
<td>Birth</td>
<td>18.9</td>
<td>49.3</td>
<td>12.1</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>22.0</td>
<td>47.5</td>
<td>10.5</td>
</tr>
<tr>
<td>Feel sense of identity with neighbourhood</td>
<td>Birth</td>
<td>7.3</td>
<td>27.1</td>
<td>39.1</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>10.9</td>
<td>34.0</td>
<td>31.3</td>
</tr>
<tr>
<td>Trust most people in neighbourhood</td>
<td>Birth</td>
<td>5.6</td>
<td>31.1</td>
<td>39.1</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>8.6</td>
<td>38.1</td>
<td>30.0</td>
</tr>
<tr>
<td>Well informed about local affairs</td>
<td>Birth</td>
<td>3.9</td>
<td>38.9</td>
<td>30.4</td>
</tr>
<tr>
<td></td>
<td>4 years</td>
<td>7.7</td>
<td>43.7</td>
<td>24.7</td>
</tr>
</tbody>
</table>

a Parents of children in the birth cohort (n = 2,115) and 4-year-old cohort that were the youngest child (n = 2,658)
facilities and a sense of belonging are likely to have equal significance for parents of newborn and four-year-old children.

The comparisons of parents’ ratings of neighbourhoods depending on the age of the parents’ child is one novel aspect of this study. A search of the literature failed to find research investigating the relationship between perceptions of the neighbourhood and the age of the parents’ child. Consequently, the present study is novel, even though no practical differences were observed between parents’ ratings of the quality of neighbourhood facilities and sense of belonging for parents of four-year-olds and newborn children. As the results in relation to question 1 indicated that there were no systematic differences in parent’s perceptions according to the age of their child, all parents’ data from the birth and four-year-old cohort were included to answer subsequent research questions.

The similarity of parental perceptions of neighbourhood facilities and belonging within a neighbourhood can be assessed by comparing parents perceptions within the same neighbourhood to the perceptions of parents living in different neighbourhoods. The outcome of this statistical procedure is referred to as an intraclass correlation coefficient. The higher the intraclass correlation coefficient, the more similar the ratings of the neighbourhood would be for parents residing in the same neighbourhood. For example, an intraclass correlation coefficient of 1.00 indicates that all parents who live in the same neighbourhood have exactly the same rating of the neighbourhood. An intraclass correlation coefficient of 0 would occur when parents who live in the same neighbourhood have no more similar ratings of their neighbourhood than parents living in other neighbourhoods.

The similarity of the perceptions of neighbourhood facilities and sense of belonging within the same neighbourhood are displayed in Figure 2. The most striking aspect of Figure 2 is that parents living in the same neighbourhood had much more similar scores for neighbourhood facilities than for sense of belonging. This pattern of results applied to parents of newborn and four-year old children. For example, the scores for neighbourhood facilities from parents of four-year old children in the same neighbourhood were 30 per cent more similar than parents of children living in another neighbourhood. The similarity in scores of parents residing in the same neighbourhood was much less for sense of belonging. In the case of parents from the four-year old cohort, parents who lived in the same neighbourhood had belonging scores 12 per cent more similar than parents who lived in different neighbourhoods. The characteristics of neighbourhood facilities are more objective in nature than the characteristics of sense of belonging, which may explain these results.

Another point to note from Figure 2 was that there was more similarity in the perceptions of parents of four-year-olds’ sense of belonging within the same neighbourhood than for parents of newborn children. Perhaps socialisation with neighbours in the neighbourhood increases once a child is born and a greater convergence of views is a result of this continued increase in socialisation with neighbours.

The similarity of parents’ perceptions within the same neighbourhood for each of the neighbourhood facilities and sense of belonging questions is presented in Figure 3. There was a greater degree of similarity in parental perceptions of neighbourhood facilities within the same neighbourhood compared with other neighbourhoods than for the questions designed to assess a sense of belonging.

For questions concerning neighbourhood facilities, the highest level of similarity of parents living in the same neighbourhood was for the question assessing the availability of close, affordable and regular public transport. For sense of belonging, neighbourhood trust was the question with the highest similarity in parents’ scores within the neighbourhood but was still only half the size of the smallest intraclass correlation coefficient for a neighbourhood facility question (that is, street lighting). The results discussed in this section suggested that there is considerable similarity in the perceptions of neighbourhood facilities of parents who live in the same neighbourhood due to their objective characteristics but there is considerable variation within the same postcode in parents’ perceptions of sense of belonging. Previous studies that have investigated the extent to which perceptions of the neighbourhood
vary have also reported that ratings of neighbourhood characteristics that are publicly accessible (for example, the presence of public transport or parks, litter, people drinking in public) of people who live in the same neighbourhood to be more similar than people who lived in different neighbourhoods (Coulton et al., 1999; Raudenbush & Sampson, 1999).

As a consequence of these results, the scope of interventions to target neighbourhood facilities and sense of belonging would need to be very different. Policies aimed to enhance neighbourhood facilities could be targeted at the geographic region (the postcode) whereas interventions aimed at enhancing a sense of belonging would need to incorporate community level interventions and interventions that are more individually focused. For instance, community development initiatives could encourage social gatherings of families in their neighbourhood and may be particularly effective as a mechanism to build social relationships, develop mutual trust and provide information about local services. Coupled with information mailed to every household about support services and opportunities to socialise with other parents in the community, this combination of community level and individually focused support could enhance parents’ sense of belonging.

This section focuses on the variables that are associated with neighbourhood facilities and belonging. Table 2 displays the associations between neighbourhood facilities and belonging with family demographic characteristics and other neighbourhood variables. These variables explained 18 to 19 per cent of the variation of neighbourhood facilities of parents of newborn and four-year-old children. The proportion of variability in sense of belonging explained by the association with the same set of variables was less (six to eight per cent).

Table 2 displays the associations between the variables used to predict variation in parental perceptions of neighbourhood facilities and belonging. The numbers presented in Table 2 represent associations that have been standardised so the strength of the association between the predictor variable (for example, age) and the outcome variable (for example, neighbourhood facilities) can be directly compared to the association between another predictor variable (for example, family income) and the outcome variable. Where associations are positive, higher levels of the variable are associated with a higher level of the outcome variable. For example, parents who live in more affluent neighbourhoods (those with a higher neighbourhood socioeconomic status) report higher levels of neighbourhood facilities. Where associations are negative, higher levels of the variable are associated with lower levels of the outcome variable. For example, older parents in the infant cohort of children report lower levels of neighbourhood facilities. Another key to interpreting Table 2 is to note that associations that are statistically significant are denoted by one or more asterisks (depending on the level of statistical significance).

**Perceptions of neighbourhood facilities**

Neighbourhoods that were more socioeconomically disadvantaged, more remote and that had higher concentrations of children were all associated with perceptions of lower quality neighbourhood facilities. The association between concentration of children and parents’ perceptions of neighbourhood facilities is disturbing as it suggests that neighbourhoods with
the greatest proportion of children also have the poorest facilities. Results not presented here also suggest that neighbourhoods that were more socioeconomically disadvantaged and more remote also had the greatest proportion of children. The most likely explanation for this set of findings is the trend towards increasing geographic concentration of poverty and affluence observed in studies in Australia, US, Canada and other parts of the world (Gregory & Hunter, 1995; Hunter & Gregory, 2001; Massey, 1996). The implications of the geographic concentration of socioeconomic disadvantage is evident from the results of this study. Neighbourhoods with a greater proportion of children are the ones parents rate as having poorer facilities.

One policy implication is that resources for neighbourhood facilities could be distributed to areas where the highest ratio of children to adults reside and areas with highest levels of socioeconomic disadvantage, rather than an even distribution of resources by geographic region. Other possible strategies include building scattered-site public housing in more advantaged neighbourhoods to more evenly distribute poor families (Leventhal & Brooks-Gunn, 2003). Encouraging and enabling poorer families to move to more affluent neighbourhoods has the positive benefits of giving poorer children access to better neighbourhood facilities but also potentially enhances social capital. For instance, children of families living in areas of high unemployment may observe very few adult parents working and as a result may miss out on the positive role models associated with such behaviours. Moving to an area where at least one parent working is the norm could enable children who have moved to have access to such positive role models. Providing more enriching neighbourhoods for children (for example, more libraries and parks) and increased job and economic opportunities for residents of poorer neighbourhoods may alleviate the negative consequences of growing up in disadvantage (Jarrett, 1999).

In addition to the neighbourhood variables that were associated with neighbourhood facilities, several demographic variables also had statistically significant associations with neighbourhood facilities. Older parents of newborn children reported lower levels of neighbourhood facilities while parents of newborn children that had higher family income reported higher levels of neighbourhood facilities. Parents of four-year-old children who were renting reported better neighbourhood facilities than parents of four-year-olds who were home owners, which suggests that some parents of children aged four years may choose to rent in a neighbourhood with better facilities rather than buy in a neighbourhood with worse facilities.

**Parents' sense of belonging**

Fewer neighbourhood variables were associated with parents' sense of belonging than with neighbourhood facilities. Instead, family demographic variables had stronger associations with neighbourhood belonging. Being in a rental household and being a younger parent were both associated with a lower sense of belonging. Coupled together, these results suggest that spending more time living in a neighbourhood is associated with a greater sense of neighbourhood belonging. While not examined in this study, other studies have suggested that frequent residential mobility disrupts social ties, which is one of the more important determinants of sense of belonging.

Parents with higher levels of family income also had a greater sense of neighbourhood belonging (but there was not a strong association with neighbourhood socioeconomic status as there was with neighbourhood facilities). Parents from more remote neighbourhoods in Australia also indicated that they had a greater sense of belonging than their city-dwelling counterparts. This finding is consistent with the “village” view of neighbourhoods in non-metropolitan areas, where a greater proportion of residents know each other.

While not significantly associated with neighbourhood belonging of newborn children, higher levels of concentration of children were associated with a lower sense of belonging for parents of four-year-old children. Again this is a worrying finding as it implies that parents who are living in areas with a greater number of children have lower levels of belonging. Edwards and Bromfield (submitted) highlight the positive associations that parents’ sense of belonging has with four-year-olds’ social and emotional outcomes. This underscores the importance of policies that concentrate community building initiatives in neighbourhoods with the greatest proportion of children relative to adults.

**Conclusion**

In conclusion, several factors were associated with parents’ perceptions of neighbourhood facilities and sense of belonging. Neighbourhoods that were viewed as having worse quality neighbourhood facilities by parents were more socioeconomically disadvantaged, more remote and had the greatest proportions of children to adults. Of particular concern is that neighbourhoods that have the greatest demand for quality neighbourhood facilities for children (that is, those with the greatest proportion of children to adults) were the neighbourhoods that parents perceived as having poor facilities. Several of the policy recommendations mentioned in the previous section may

---

**Table 2** Variables associated with parents' perceptions of neighbourhood facilities and sense of belonging

<table>
<thead>
<tr>
<th>Facilities</th>
<th>Infants&lt;sup&gt;1&lt;/sup&gt; R&lt;sup&gt;2&lt;/sup&gt; = .19</th>
<th>4 year olds&lt;sup&gt;2&lt;/sup&gt; R&lt;sup&gt;2&lt;/sup&gt; = .18</th>
<th>Belonging</th>
<th>Infants&lt;sup&gt;1&lt;/sup&gt; R&lt;sup&gt;2&lt;/sup&gt; = .06</th>
<th>4 year olds&lt;sup&gt;2&lt;/sup&gt; R&lt;sup&gt;2&lt;/sup&gt; = .08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-06**</td>
<td>.00</td>
<td>.06**</td>
<td>.10***</td>
<td>.09****</td>
</tr>
<tr>
<td>Family income</td>
<td>.08*</td>
<td>0.02</td>
<td>.08**</td>
<td>.09***</td>
<td>.14***</td>
</tr>
<tr>
<td>Rental household</td>
<td>.02</td>
<td>.03</td>
<td>-15***</td>
<td>-14***</td>
<td>.04</td>
</tr>
<tr>
<td>Neighbourhood Socioeconomic status (SEIFA)</td>
<td>.24****</td>
<td>.27****</td>
<td>.05</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Concentration of children</td>
<td>-15***</td>
<td>-10***</td>
<td>-04</td>
<td>-05*</td>
<td></td>
</tr>
<tr>
<td>Remoteness (ARIA)</td>
<td>-16**</td>
<td>-20***</td>
<td>.09***</td>
<td>.13***</td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup>Infants, n = 4,834; <sup>2</sup>4-year-olds, n = 4,660; * p < 0.05; ** p < 0.01; *** p < 0.001;
assist in addressing this issue. A different pattern of associations was evident for factors associated with parents’ sense of belonging. A greater sense of belonging was associated with family demographic characteristics (older parents, more family income and not renting) and living in remote neighbourhoods. Other results suggested that parents’ perceptions of public assessable neighbourhood characteristics such as neighbourhood facilities, were more similar within the same neighbourhood, while a sense of belonging was more variable across the same neighbourhood. As a consequence, policies need to be tailored to the neighbourhood level to address neighbourhood facilities and at the individual level to address parents’ sense of belonging. Results from the current study also suggested that parents had similar perceptions of neighbourhood facilities and sense of belonging irrespective of the age of the child. It is hoped that findings such as in this study will act as a catalyst for policies and programs that promote more effective tailoring of services for children and families. This study also demonstrates the usefulness of national data on the characteristics of children’s neighbourhoods so that the community development service provision models can be refined and improved for the benefit and wellbeing of the Australian community.

Endnotes

1 Details of the suggested factor structure can be found in the technical appendix. A discussion relevant to assessing the model fit follows. As the chi-square ($\chi^2$) is notoriously sensitive to large sample sizes, several alternative indicators for assessing model fit were used. Hu and Bentler’s (Hu & Bentler, 1999) cut-off criteria used for assessing model fit were used with the Tucker-Lewis index (TLI) $>$ 0.95, comparative fit index (CFI) $>$ 0.95 and root mean square error of approximation (RMSEA) $<$ 0.06. Details of how these fit indices are derived can be found in Muthén (Muthen, 2004). The fit indices for parents’ of newborn children were $\chi^2$ (17) = 380.69, $p$ < 0.001, CFI = 0.97, TLI = 0.97, RMSEA = 0.06, were very similar for parents of four-year old children $\chi^2$ (16) = 408.76, $p$ < 0.001, CFI = 0.96, TLI = 0.96, RMSEA = 0.06. Of the fit indices only the RMSEA did not fall within Hu and Bentler’s suggested cut-off, however they did approximate 0.06 and hence were considered to indicate reasonable model fit. Nevertheless, for the purposes of the study it was more important to discover that the suggested factor structure fitted parents of newborn and 4-year-old children equally well.

2 Preliminary analyses also included parents’ combined weekly income squared to investigate non-linear relationships between income and neighbourhood facilities and belonging. As none was found, income squared was not included in the final statistical analyses.

3 It is worth noting that Duncan and Raudenbush (Duncan & Raudenbush, 2001) translated intraclass correlation coefficients into standardised effect sizes and found that a large effect is equivalent to an intraclass correlation coefficient of 0.14. Using this criterion, all of the intraclass correlation coefficients for neighbourhood facilities could be considered to have a large effect size while the intraclass correlation coefficients for neighbourhood belonging had a medium effect size.

References


Dr Ben Edwards is a Research Fellow at the Australian Institute of Family Studies.

Grozing Up in Australia was initiated and funded as part of the Australian Government’s Stronger Families and Communities Strategy by the Australian Government Department of Families, Community Services and Indigenous Affairs. The study is being undertaken in partnership with the Australian Institute of Family Studies, with advice being provided by a consortium of leading researchers at research institutions and universities throughout Australia.