Expressive and receptive language skills in six year old sequential bilingual Turkish-Dutch children compared to monolingual Dutch children in Flanders.

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Purpose

The purpose of this study was to measure and compare expressive and receptive Dutch language skills in six year old sequential bilingual Turkish-Dutch children compared to monolingual Dutch children in Flanders.

Methods

N=50
Mean age: 6 years, 7 months (range: 6;1 y – 6;11 y)

Inclusion criteria:
- Born in 2007, aged between 6 y and 6;11 y
- First year at primary school in Ghent, Flanders
- Following normal education
- Normal cognitive development as reported by the parents and the teacher
- Absence of identifiable neurological abnormality and developmental disorders

SUBJECT GROUP
n = 25
- Sequential bilingual Turkish-Dutch children
- 14 girls, 11 boys
- Turkish as mother tongue
- Minimum exposure Dutch: 2 years

CONTROL GROUP
n = 25
- Monolingual Dutch children
- 14 girls, 11 boys
- Dutch as mother tongue
- Matched with subject group for:
  - Age (+ 2 months)
  - Gender

Clinical Evaluation of Language Fundamentals (CELF-4 NL, Dutch version)
- Core Language Index (CLI),
- Expressive Language Index (ELI)
- Receptive Language Index (RLI)

SAME assessment protocol for the subject and control group

Results

<table>
<thead>
<tr>
<th>CELF-4-NL</th>
<th>Subject group</th>
<th>Control group</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>In percentile scores</td>
<td>Mean</td>
<td>Median</td>
<td>SD</td>
</tr>
<tr>
<td>CLI</td>
<td>5.3</td>
<td>1.2</td>
<td>1.9</td>
</tr>
<tr>
<td>ELI</td>
<td>5.0</td>
<td>1.9</td>
<td>1.6</td>
</tr>
<tr>
<td>RLI</td>
<td>9.6</td>
<td>2.7</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Bilingual Turkish-Dutch children scored significantly lower for all test subtest compared to the monolingual Dutch speaking children. For the CLI, the group of Turkish children scored 54.5 percentiles (or 3 standard deviations) lower than the control group. For the RLI and the ELI the mean percentile scores were respectively 43.3 and 59.8 percentiles lower than the control group. The scores on the three subtests in the subject group were also lower (mean difference of 20 percentiles) compared to the norm scores for non-western immigrants of the CELF-4 NL.

Normative data non-Western immigrants

<table>
<thead>
<tr>
<th></th>
<th>Mean pc</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLI</td>
<td>25.2</td>
</tr>
<tr>
<td>ELI</td>
<td>25.2</td>
</tr>
<tr>
<td>RLI</td>
<td>29.7</td>
</tr>
</tbody>
</table>

Conclusion

The results of this study show that Turkish bilingual children in Flanders (with a minimum exposure to Dutch of 2 years) score significantly lower for expressive and receptive language skills compared to monolingual Dutch children at the age of 6. The results for expressive and receptive language in the sequential bilingual children were even lower than the normative data of the CELF for non-Western immigrants. The impact of other influencing factors, like socioeconomic status, neonatal outcome, psychological factors and long-term follow up of the language abilities of these children are subject for further research. Language scores of different immigrant groups in different cities might vary and more research is necessary to investigate the language abilities of these children and to improve language support.