Effect of Maternal Sensitivity on Language Acquisition of Multiples

Madhuri Prayaga
Virginia Commonwealth University, prayagam@vcu.edu

Follow this and additional works at: http://scholarscompass.vcu.edu/uresposters

Part of the Child Psychology Commons, and the Developmental Psychology Commons

© The Author(s)

Downloaded from
http://scholarscompass.vcu.edu/uresposters/124

This Book is brought to you for free and open access by the Undergraduate Research Opportunities Program at VCU Scholars Compass. It has been accepted for inclusion in Undergraduate Research Posters by an authorized administrator of VCU Scholars Compass. For more information, please contact libcompass@vcu.edu.
Acknowledgements:

I would like to thank my mentor Professor Mary C. Boyes for her assistance, support and mentorship during my research, UROP for financial assistance, and NCUR for the opportunity to present my research at their conference.

Introduction

In recent years, the occurrence of multiples birth has been on the rise, having increased tenfold since the 1980s. However, even though multiple birth has been on the rise, there are still many risks associated; specifically, language acquisition has been observed to be delayed or underdeveloped in multiples. Maternal sensitivity, a key component to a child's development, has been thought to be associated with language development. The purpose of this study was to examine language acquisition and development in multiple birth children compared to singleton children in order to examine how decreased maternal sensitivity amongst mothers of multiples compared to mothers of singletons affects language acquisition skills in children.

Methods

McMahon and Dodd used a variety of scales are used to measure language skills in children during controlled adult-child interactions to compare language skills of singletons and triplets. Results are shown below:

<table>
<thead>
<tr>
<th>Measure</th>
<th>Singletons</th>
<th>Twins</th>
<th>Triplets</th>
<th>Newborns</th>
<th>3 months</th>
<th>6 months</th>
<th>12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>MU (Mean Length of Utterance)</td>
<td>3.02</td>
<td>3.01</td>
<td>2.68</td>
<td>3.02</td>
<td>2.90</td>
<td>2.35</td>
<td>2.31</td>
</tr>
<tr>
<td>PR (Phonemic Repertoire)</td>
<td>16.50 (4.39)</td>
<td>18.37</td>
<td>17.08 (2.61)</td>
<td>16.50 (4.39)</td>
<td>18.37</td>
<td>17.08 (2.61)</td>
<td>16.50 (4.39)</td>
</tr>
<tr>
<td>DCA (Dore's Conversational Acts)</td>
<td>11.47 (2.08)</td>
<td>12.70 (2.15)</td>
<td>11.47 (2.08)</td>
<td>12.70 (2.15)</td>
<td>11.47 (2.08)</td>
<td>12.70 (2.15)</td>
<td>11.47 (2.08)</td>
</tr>
</tbody>
</table>

The results indicated delayed development of pragmatic skills as well as high incidence of speech difficulties in multiples. This can lead to:

- Delayed development of reading and writing skills leading to difficulties in school
- Negative impact on socialization with peers necessary to build solid behavioral and social foundations

Maternal Sensitivity at Newborn, 3, 6, and 12 Months in Singletons, Twins, and Triplets

<table>
<thead>
<tr>
<th>Maternal Sensitivity</th>
<th>Singletons</th>
<th>Twins</th>
<th>Triplets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Newborns</td>
<td>0.05</td>
<td>0.01</td>
<td>-0.44</td>
</tr>
<tr>
<td>3 months</td>
<td>0.24</td>
<td>0.04</td>
<td>-0.30</td>
</tr>
<tr>
<td>6 months</td>
<td>0.17</td>
<td>0.04</td>
<td>-0.48</td>
</tr>
<tr>
<td>12 months</td>
<td>0.07</td>
<td>0.03</td>
<td>-0.45</td>
</tr>
</tbody>
</table>

Potential Solution/Applications

Social Support

In order to prevent any decreased self-efficacy or depression in mothers of multiples, which may affect their maternal sensitivity, social support from close relatives and friends is necessary. Not only will it help the mother, but give children other language partners to converse with as they acquire language.

Supplemental Language Acquisition Toys

Since infants need to be immersed in language by parents in order to acquire language and children of multiples do not receive as much immersion, parents can use special educational and language development toys that can speak back to the child, allowing them to be interacted with in a similar way parents would interact with them. VTech "Toys and Leapfrog" are two companies which specialize in educational electronic toys for young children and infants that help develop a child language skills.

Elementary Language Acquisition Programs

Programs can be made in elementary schools for multiples so they can receive specialized, unique, and individualized attention to help stimulate their language development in order to catch up to their peers and prevent them from suffering from learning problems as they go through elementary education.

References


