Clients’ Utilization and Satisfaction with Intensive Therapy in Aphasia

Kelly Ingram, Yu-kyong Choe, Pamela Mathy, & Tamiko Azuma
Arizona State University

Introduction
Intensive therapy is a strong predictor of outcome in speech treatment. Research has shown that intensive speech therapy has functional and neural effects.

Methods
Participants:
Fifteen patients (8 male and 7 female) with aphasia who previously attended speech-language therapy at the Arizona State University Aphasia Center during the spring term. The average treatment intensity in the fall and spring terms was 4.6 hrs/wk for the range of 4.1 – 5.2 hrs/wk.

Results
Amount and frequency of treatment
- Total amount of therapy received by each participant during the 5-week period ranged from 18 to 45.5 hrs (i.e., 2.5-12 hrs/wk), and the frequency of clinic visits varied from 1 to 4 times/week.

Objective Measures of Progress
- Therapy intensity and frequency of treatment had noticeable correlation with the progress made during the 5-week session.
- There were no significant changes in the number of correct informational units or in auditory comprehension measures. Most clients had a high level of comprehension during the pre-treatment assessment.

Subjective Measures of Progress
- Data from pre- and post-treatment tests indicate that participants with relatively non-fluent speech (80) made significant improvements in written expression (r =.035). It is likely that participants with less verbal output learned to develop compensatory strategies for their speech deficits.

Procedure
- Before the 5-week summer term, participants and their primary caregivers were given the opportunity to choose the frequency of therapy (1 to 12 days/week) and the amount of therapy (1 to 5 hrs/day).

Baseline severity in auditory comprehension, written expression or written expression was not strongly correlated with total amount of therapy received (r=.63, r=.274, r=.358, respectively) for frequency of clinic visits (r=.065, r=.315, r=.310, respectively).

Age of patients did not have a noticeable correlation with total amount of therapy (r=.04) or frequency of clinic visit (r=.05).

Participants who could attend therapy sessions independently (i.e., who could drive or walk alone in the clinic) (r=0) participated in a slightly higher frequency of clinic visit (2-3 visits/week) than those who needed caregivers to accompany them to the clinic (r=2-1 visits/week). However, those who were not independent in terms of transportation requested slightly more amount of therapy (1.5 hrs/week) than independent participants (0.6 hrs/week).

Objective Measures of Progress
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- There were no significant changes in the number of correct informational units or in auditory comprehension measures. Most clients had a high level of comprehension during the pre-treatment assessment.

Data from pre- and post-treatment tests indicate that participants with relatively non-fluent speech (80) made significant improvements in written expression (r=.035). It is likely that participants with less verbal output learned to develop compensatory strategies for their speech deficits.

Theme: Thermometer
- One participant of a stroke was not strongly correlated with the reported amount of therapy (r=.275) or frequency of clinic visits (r=.250). In other words, patients pursued therapy service regardless of the duration of aphasia.

Subjective rating on improvements and therapy sessions
- Participants and their primary caregivers rated participants’ improvements during the summer program using a 5-point scale (1=not at all, 2=very little, 3=moderate, 4=very much, 5=great deal) of various communicative skills given in the questionnaire. Patients reported the most improvements in ‘writing words’, whereas their caregivers rated ‘socializing’ the highest. The average scores on the communicative skills were 3.8 by patients and 3.4 by caregivers.

Table 1. Demographic profiles of the participants

<table>
<thead>
<tr>
<th>Category</th>
<th>Range</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (yrs)</td>
<td>20 - 76</td>
<td>54.0</td>
<td>15.2</td>
</tr>
<tr>
<td>Time spent clinic (hrs/week)</td>
<td>6 - 60</td>
<td>25.1</td>
<td>38.8</td>
</tr>
</tbody>
</table>

Table 3. Mean ratings on participants’ improvements from the summer clinic (5-point scale)

<table>
<thead>
<tr>
<th>Specific area</th>
<th>Patients</th>
<th>Caregivers</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Understand words</td>
<td>5.0</td>
<td>5.0</td>
<td>5.0</td>
</tr>
<tr>
<td>2. Understand simple Q’s</td>
<td>4.1</td>
<td>3.6</td>
<td>3.8</td>
</tr>
<tr>
<td>3. Understand directions</td>
<td>3.9</td>
<td>3.3</td>
<td>3.6</td>
</tr>
<tr>
<td>4. Word finding</td>
<td>3.8</td>
<td>3.5</td>
<td>3.7</td>
</tr>
<tr>
<td>5. Describe or explain</td>
<td>4.5</td>
<td>3.7</td>
<td>4.1</td>
</tr>
<tr>
<td>6. Write words</td>
<td>3.0</td>
<td>3.6</td>
<td>3.3</td>
</tr>
<tr>
<td>7. Read words</td>
<td>3.3</td>
<td>3.6</td>
<td>3.5</td>
</tr>
<tr>
<td>8. Computer use</td>
<td>3.4</td>
<td>2.4</td>
<td>3.1</td>
</tr>
<tr>
<td>9. Socialize</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
</tr>
</tbody>
</table>

• 80% of patients and 91% of caregivers reported generalization effects in communication at home, and 40% of patients and 55% of caregivers reported generalization into communication in community settings.

Discussion
- Results from the study demonstrate that time post-stroke, severity of aphasia, and age do not determine the intensity of therapy requested by patients with aphasia.
- Overall, fewer clients opted for intensive therapy than expected. This may be due to the fact that patients were satisfied with their accustomed treatment schedule.
- Although patients’ and their caregivers’ subjective ratings on their communicative improvements and effectiveness of the therapy were positive, objective scores from the assessments did not demonstrate statistical significances in all areas tested. Improvement of written expression was significant for clients with a non-fluent aphasia. The clients’ perception that this was the area with the most improvement reflects a self-awareness of their therapy progress. Caregivers rated socialization in the area of most improvement which may be due to the large number of group therapy sessions that were provided.
- Future research in this topic should include assessment tools to capture the improvement in social communicative ability and explore whether clients and caregivers value less intense therapy delivered over a long duration of time more than intense therapy delivered over short periods of time.

References