**Aphasia-friendly health information: Text formatting facilitators and barriers**

Tanya Rose, Linda Worrall, Louise Hickson and Tammy Hoffmann

Communication Disability Centre
The University of Queensland, Brisbane, Australia.

---

**Introduction**

The benefits of providing people with written health information are well documented. Much of the written information received by people with aphasia, however, is inappropriately formatted to meet the needs of a person with language difficulties.

"Oh no irreducible…Well ah you think you’re a …university student before you can understand them…it’s just beyond. Throw it away because I can’t understand…too complicated!"

**We know:**

- Text modifications can significantly assist people with aphasia to comprehend written information.
- People with aphasia post-stroke appear to have more specific design preferences compared to people without aphasia.
- People with aphasia and speech pathologists have shown considerable differences regarding their perceptions of communicative accessibility.
- There is a limited evidence base for “best practice” formatting guidelines for stroke patients in general.

---

**Aim**

- To explore the text formatting preferences of people with aphasia by asking participants to consider what makes written patient education materials easier and harder to read.

---

**Method**

**Participants**

40 adults with aphasia caused by stroke

- Age: 32 years – 84 years
- Gender: 24 males / 16 females
- Time Post-Onset: 2 months – 14 years

**Method of Data Collection and Analysis**

Semi structured in-depth interviews:
- Quantitative Content Analysis
- Descriptive Statistics
- Pearson Chi Square Tests
- Mann Whitney U Tests

---

**Research Questions and Results**

**What font size and type did people with aphasia prefer?**

- Larger fonts i.e., 14 point
- San serif fonts e.g., Arial and Verdana

**What line spacing did people with aphasia prefer?**

<table>
<thead>
<tr>
<th>Line Spacing</th>
<th>Easiest to read</th>
<th>Hardest to read</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 line spacing</td>
<td>41%</td>
<td>18%</td>
</tr>
<tr>
<td>Double line spacing</td>
<td>21%</td>
<td>28%</td>
</tr>
<tr>
<td>Single line spacing</td>
<td>69%</td>
<td>36%</td>
</tr>
</tbody>
</table>

**What picture type did people with aphasia prefer?**

- Photographs: 48% (most preferred)
- Microsoft ClipArt: 17%
- Pictographic Communication Symbols: 14%
- Colour Compic: 9%
- Black and White Compic: 4%

**What were the reactions to pictures?**

- Harmful: 95%
- Childish: 40%
- Appealing: 85%
- Embarrassing: 35%
- Considerate: 83%
- Offensive: 13%

- 4 of the 5 participants who were offended by pictures were from the group of participants with greater reading difficulties.

"It’s very obvious. It’s very good…but on my own…not on the bus. At least I would know. Not in public. Well I think…cookey man …people could just glance over and they could see…"

[statement made by participant when looking at written health information containing several pictures]

**How did people with aphasia prefer numbers to be represented?**

- No clear overall preference for either orthographic or numeric representations
- Preference for orthographic representations of fractions
  - One third will recover: 67%
  - \( \frac{1}{2} \) will recover: 33%

- 88% of participants said no one else had asked them about how to make health information easier to read
- It is important to ask people with aphasia what formatting helps them

---

**Conclusions**

- Current practice in health education is not meeting the needs of people with aphasia post stroke.
- This research provides evidence based formatting recommendations for the provision of written health information in more comprehensible and welcomed formats.