**Introduction**

The World Health Organization's assertion that "health is more than the absence of disease" (WHO, 2001) is relevant to clinicians serving persons with aphasia (PWA). In the framework proposed by the WHO'S *International Classification of Functioning, Health and Disability* (*ICF*) (WHO, 2001) contextual and personal factors are presented as key parts of a model that describes functioning in the context of life with some type of disability. For PWA, life with reduced access to spontaneous and effortless use of language skills represents a daily challenge, but the impact is more far reaching than reductions in language use.

Social networks reduce after aphasia, thus narrowing the field of communication opportunities and possibly leading to social isolation (Hilari & Northcott, 2006; Vickers, 2010). This reduction may be a critical clinical factor because social networks are tied to health, well-being and longevity. Further, post stroke depression is a compounding factor, especially when aphasia is present(Thomas & Lincoln, 2008)**.** A variety of national and international policies support the clinical investigation of social networks. First, evidence based practice calls for clinicians to consider client perspectives and values (ASHA, 2005) . Also, the international Commission on Accreditation of Rehabilitation Facilities (CARF, 2012) sets standards for a variety of program areas, including medical rehabilitation. CARF mandates that qualifying rehabilitation programs offer services uniquely designed for stroke survivors that result in the improvement of the quality of life, increase of life participation, and reduction of activity limitations. Therefore, having a brief and easily accessible instrument to investigate the PWA's sense of social connection versus social isolation could encourage more frequent attention to this aspect of functioning during the rehabilitation process. Such a tool may also provide aphasia group leaders and program directors or specialists with a valuable and quick way to track outcomes related to PWA's participation in programming designed to meet their needs, thus providing support for ongoing programming and development of programs.

**Purpose**

While the language impairments of PWA are elucidated in detail in the literature, there is less quantitative data regarding how PWA perceive their experiences socially after aphasia. As mentioned above, obtaining such data is part of a more fully orbed approach to providing services to PWA at both the outpatient and then post discharge levels of living with aphasia. Using a free research tool called *The Friendship Scale (FS),* (Hawthorne, 2006), this paper presents a summary and description of the scores for 68 community dwelling adults at the chronic stage of living with  aphasia.

*The Friendship Scale* (Hawthorne, 2006), is a brief six item questionnaire that measures sense of social support versus isolation. Hawthorne defines perceived social isolation in terms of the subjective sense of living without supports and social contacts. *The Friendship Scale (FS)* is reported to have strong internal structures and is reliable, with a Cronbach alpha of 0.83. Further, Hawthorne (2006) suggests that the *FS* may be useful in health related quality of life evaluation studies that need a brief measure of perceived social support or social isolation. Hawthorne included 829 participants over the age of 60 when developing the *FS*, including four cohorts of individuals: (a)  those living in some type of assisted living environment, including nursing homes; (b)  hospital outpatients with chronic disabilities, (c)  older veterans, and (d)  a healthy community sample (Hawthorne, 2006).

While PWA are not specifically mentioned in Hawthorne's original study, the *FS* has properties that make it appropriate to use with PWA. For example, sentences are written in present tense and average 8.3 words per sentence. Questions deal with the individual's perceptions within the last four weeks, thus probing the current self-reported state of connectedness. Three of the questions deal with communication (e.g. "I found it easy to get in touch with others when I needed to") while three deal mainly with feelings (e.g. "I felt alone and friendless"). Although PWA were not part of the original sample, Hawthorne responded to a request to provide raw data to assist with application of his data to the population of people with aphasia (Hawthorne, 2008). He concluded that the *FS* "appears to be sensitive to aphasia" (Hawthorne, 2008, p. 3).

**Methods:**

A total of 67 adults with aphasia (mean age 66.15; SD 13.99) gave informed consent and responded to the six questions on the *FS* scale as part of two separate studies investigating life with aphasia for the PWA and also for their partners.. In terms of overall aphasia type, 48 participants were nonfluent and 19 were fluent. Table 1 presents demographic data on the group. An expanded demographic description that includes aphasia severity, cultural group, marital status, education level, number of strokes or brain injuries, number of months post onset, hearing, visual, mobility and driving status will be presented in the poster.

For ease of reading by people with aphasia, all the *FS* items and their response categories were typed in 20-point bold font. Questions were read aloud to most participants as they followed visually. Response options for each of the questions are: (a) Almost always, (b) Most of the time, (c) About half the time, (d) Occasionally, and (e) Not at all. Each question uses a five-point Likert scale, with scoring advice for items to be reverse coded (Hawthorne, 2006). Total scores on the scale range from 0 to 24 points, and the scores are assigned to one of five levels. Higher total scores lead to higher level ratings indicating a stronger self-reported sense of social connectedness, while lower total scores lead to lower level ratings and indicate various amounts of social isolation. Levels with their respective score ranges are as follows: Level 1=0-11 points, *Very Socially Isolated*; Level 2 =12-15 points, *Isolated, Low Level of Social Support*; Level 3=16-18 points, *Some Social Support*; Level 4=19-21, *Socially Connected*; and Level 5=22-24 points, *Very Socially Connected*.

**Results:**

Results indicate that the 67 PWA who have responded to the *FS* so far perceive themselves as isolated, with a low level of support. The group mean was 14.52 [5.35] which corresponds to the FS Level 2: isolated, low level of social support. The groups were not significantly different in terms of age. Results also indicate no significant difference in the FS means when compared by gender.

**Conclusions:**

Data presented here provide quantitative evidence that measurable and significant social isolation occurs in aphasia, with no significant differences in scores when compared by gender. Overall, administration of the *FS* is simple and relatively quick, yields valuable insights about the feelings of PWA for the personal factors dimension, and is freely available via Hawthorne's new website (The University of Melbourne, 2011). Possible uses are including the FS in the

assessment process during outpatient rehabilitation, as a screening tool for persons at risk of social isolation,  and tracking outcomes for persons with aphasia attending community based programs as well.

**References**

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**Table 1**
 **Demographic Characteristics (*n* = 67)**

| Variable | Total *n* | Valid % of *n* |
|---|---|---|
| *Gender* | | |
| Female | 28 | 42 |
| Male | 39 | 58 |
| | | |
| *Age* | | |
| Mean | 66.15 | |
| SD | 13.99 | |
| Female | | |
| Mean | 64.82 | |
| SD | 14.01 | |
| Male | | |
| Mean | 67.13 | |
| SD | 14.08 | |
| | | |
| *Ethnic Group* | | |
| African American | 1 | 1.0 |
| Asian | 11 | 2.0 |
| Hispanic | 5 | 7.0 |
| Native American Indian/Pacific Islander | 2 | 3.0 |
| White/Anglo | 46 | 69.0 |

| | | |
|---|---|---|
| Other | 2 | 3.0 |
| | | |
| *Marital status* | | |
| Married or partnered | 52 | 78.0 |
| Single | 15 | 22.0 |
| Divorced or widowed | | |
| | | |
| *Education level* | | |
| 12 years (high school) | 13 | 20.0 |
| 14 years (junior college) | 24 | 36.0 |
| 16 years (4 year degree) | 23 | 34.0 |
| 17+ years (masters/doctorate) | 7 | 10.0 |
| | | |
| *Aphasia Classification* | | |
| Fluent | 19 | 28.0 |
| Nonfluent | 48 | 72.0 |