Assessment of Aphasia in Portugal: Past, present and future

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Introduction: Aphasia is a common consequence of stroke, affecting one third of the stroke population (Darrigrand et al., 2011; Kelly, Brady & Enderby, 2010). In Portugal, stroke is the first cause of death (DGS, 2008) and disability (DGS, 2010; Martins, 2006). Due to the increased survival and growth of the elderly population in Portugal, its prevalence has been increasing, causing a tremendous impact not only on the individual but also in their own family and in general society (DGS, 2006).

According to the International Classification of Functioning, Disability and Health (ICF) (WHO, 2001) framework, health professionals need to consider, in their intervention with an individual, the consequences of a disease in its different domains, including in their Body Functions and Structures, Activities and Participation in daily real life situations. Considering that the choice of goals and intervention approaches to use in therapy with people with aphasia (PWA) is strongly influenced by the initial assessment performed (Kagan & Simmons-Mackie, 2007), assessment of aphasia should include measures that evaluate each component of the ICF framework. Failure to consider these components may result in under or overestimation of how individuals with aphasia are functioning in their daily environments and relationships (Murray & Coppens, 2013).

Overall, there is increasing interest in the usage of aphasia assessments in clinical practice in acute and rehabilitation settings (Rose et al., 2014; Simmons-Mackie, Threats & Kagan, 2005; Verna et al., 2009; Vogel et al., 2009). Many aphasia assessment tools have been developed and described in literature considering the ICF framework (Brown, Dijkers et al. 2004; Long, Hesketh et al. 2007; O’Halloran, Worrall et al. 2004; Simmons-Mackie, 2011; Swinburn & Byng 2006). In Portugal, the existing literature on the topic of assessment of aphasia is scarce. The existing tools used by speech and language therapists (SLTs) in clinical practice with PWA don’t enable therapists to assess all the ICF framework components, which may limit a broader intervention that integrates these directives (Matos, 2012). However, in the last decade, there have been many research studies that have been undertaken with the aim of filling the gap of assessment tools in this field in Portugal, particularly projects aimed at translating and adapting different language assessment tools to the Portuguese reality.

Aim: The aim of this work is to explore the aphasia assessment tools available in Portugal.

Methodology: In order to answer this question, a literature review was conducted to identify all the studies that report the development and/or translation and adaptation of aphasia assessment tools in Portugal.
tools to European Portuguese. A search was conducted in the following databases: Medline; Pubmed; B-on; Scielo; Databases of Portuguese journals related with health and social sciences; and the National (scientific) open access repository. Papers published in English or European Portuguese were considered. Searches were conducted using the following keywords: “aphasia”; “assessment”; “assessment of aphasia”; “translation and adaptation of assessment tools”; “aphasia assessment in Portugal”; and “aphasia screening test in Portugal”. The same words and equivalent expressions were used in European Portuguese.

**Results:** A total of 20 assessment tools were identified (see Table 1). Ten (10) of these tools are impairment-based namely: BAAL (Castro-Caldas, 1979; Damásio, 1973; Ferro, 1986); PAAT (Lauterbach, Martins & Ferreira, 2004); PAL-PORT (Festas et al. 2008); SADQ Portuguese Version (Rodrigues, Santos & Leal, 2006); PALPA-P (Castro, Caló & Gomes, 2007); Bateria de Evaluación de la Afasia e Transtornos Relacionados (Pestana, Maia, Leite & Silva, 2008); MMSM (Matos, 2012; Matos & Jesus, 2011b); PLINC (Santos, Neto, Loff, Velez & Leal, 2013); BL Portuguese Version (Cruz, Santos, Reis & Faisca, 2014); Token Test (Renzi & Faglioni 1978) – Versão Portuguesa (Jesus & Aguiar 2014). Four (4) assess activity limitations, namely: EFA (Leal et al. 2006); ASHA-FACS Portuguese Version (Leal & Sancho, 2013); FAI – Portuguese Version (Jesus, Marques, Roberto, Rosa, & Patrício, In Press; Martins, 2006; Martins, Ribeiro & Garrett, 2003); BI – Portuguese Version (Jesus, Marques, Roberto, Rosa, & Patrício, In Press). Four (4) assess activity limitations and participation restrictions: POPS – Portuguese Version (Matos, 2012; Matos & Jesus, 2011c; Matos, Jesus, Cruice, & Gomes 2010b); TAPP (Matos, 2012; Matos & Jesus, 2011d; Matos, Jesus, Cruice, & Gomes 2010a); COAST – Portuguese Version (Jesus, Silva & Patrício, In Press); CDP – Portuguese Version (Matos, 2012; Matos & Jesus, 2011a; Matos, Jesus, Cruice, & Gomes 2010b). The CDP also assesses contextual factors. One instrument assesses barriers and facilitators (Matos & Jesus, 2013). Finally, one tool (beyond the ICF), the SAQOL 39 – Portuguese Version (Rodrigues & Leal, 2013), assesses quality of life.

**Discussion & Conclusions:** According to Leal et al. (2014), the most used assessment tools by Portuguese SLTs (N= 55) to evaluate aphasia are the BAAL, the AAT Portuguese version, the EFA, and the PALPA-P. SLTs also use informal assessment tools developed or translated by themselves. However, based on the current review, ten (10) of the available aphasia assessment tools in Portugal were translated and adapted and/or created after 2008, which may explain these results (data presented by Leal et al. (2014) was collected in 2007). According to the same study (Leal et al. 2014), Portuguese SLTs’ practice is characterised by the Rehabilitation Model (Worrall & Hickson, 2003) and focuses on the activity level, and future reviews of practice in coming years are likely to reflect assessments usage that supports this. The results in our study show a change in the focus of intervention of Portuguese SLTs with people with aphasia, considering the consequences of aphasia in a broader perspective, as suggested by the ICF. The most recently developed assessment tools are centred in activity limitations, participation restrictions, contextual factors and quality of life. Many of these assessment tools’ psychometric properties are still being studied.

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References


Matos, M., Jesus, L., Cruice, M., & Gomes, A. (2010b). Portuguese translation and adaptation of the communication disability profile (CDP) and the participation objective, participation subjective (POPS) tools. In Proceedings of the 28th World Congress of the International Association of Logopedics and Phoniatrics (IALP 2010), Athens, Greece, pp. 60–63.


<table>
<thead>
<tr>
<th>ICF Domain</th>
<th>Assessment Tool - Portuguese Version</th>
<th>Portuguese Authors</th>
<th>Original Authors</th>
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<tr>
<td>Impairment</td>
<td><strong>Impairment</strong> Bateria de Avaliação de Afasias de Lisboa (BAAL)</td>
<td>(Castro, Caldas, 1979; Damásio, 1973; Ferro, 1986)</td>
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<td>Activity Limitations and Participation Restrictions</td>
<td><strong>Activity Limitations and Participation Restrictions</strong> Communication Disability Profile (CDP) – Versão Portuguesa</td>
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<td>Participation Objective Participation Subjective (POPS) (Brown, Dijkers et al. 2004; Brown 2006)</td>
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<td>Language Modified Mini Mental State Examination (LMMS) (Pashek 2008)</td>
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<td>Barriers Facilitators Checklist (BFC)</td>
<td>(Matos, 2012; Matos &amp; Jesus, 2011d; Matos, Jesus, Cruize, &amp; Gomes 2010a) – under validation</td>
<td>Original</td>
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<td>Contextual Factors</td>
<td>Portuguese version of the Stroke and Aphasia Quality of Life Scale-39 (SAQOL 39)</td>
<td>(Santos, Neto, Loffi, Velez, &amp; Leal, 2013)</td>
<td>Original</td>
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<td>Impairment</td>
<td><strong>Impairment</strong> PLINC – Provas de Avaliação de Linguagem Complexa</td>
<td>(Leal &amp; Sancho, 2013)</td>
<td>Functional Assessment of Communication Skills for Adults (ASHA - FAC)</td>
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<td>Activity Limitations</td>
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<td>(Cruz, Santos, Reis &amp; Faisca, 2014)</td>
<td>(Frattali et al. 1995)</td>
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<tr>
<td>Impairment</td>
<td>Bedside de Lenguage (BL) – Portuguese Version</td>
<td>(Jesus &amp; Aguiar, 2014)</td>
<td>Bedside de Lenguage (BL) (Sabe et al. 2008)</td>
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<td>Activity Limitations and Participation Restrictions</td>
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<td>(Jesus, Silva, &amp; Patricio, In Press)</td>
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Table 1 Assessment tools (listed in chronological order of development in Portugal).