

**Scoping review on augmentative and alternative communication (AAC)  
interventions in low-and-middle income countries**  
**Long Abstract**

**Introduction**

Individuals with disabilities are overrepresented in low and middle-income (LAMI) nations (Maloni et al., 2010). An estimated 85% of children with disabilities live in LAMI countries (Helander, 1993). Worldwide prevalence numbers for individuals with specific disabilities such as communication disabilities are scarce (Olusanya, Ruben, & Parving, 2006). However, there are some estimates, for example, Hartley and Wirz (2002) reported that between 38-49% of people who sought rehabilitation services in Pakistan, Uganda, and Zimbabwe were found to have communication difficulties.

The challenges with providing communication services in LAMI countries are significant. By definition, LAMI countries have a largely rural population, limited health, education, and technology resources, and a poorly performing economy (World Bank, 2012). Providing any kind of rehabilitation services under these conditions is challenging (Wylie, McAllister, Davidson, & Marshall, 2013). This is even more so for individuals with communication disorders and CCN.

The field of augmentative and alternative communication (AAC) has grown exponentially in the last few years. However, most research has been conducted in developed countries. As a result, these findings may not be applicable in LAMI countries where there are significant differences in culture, economy, education, healthcare, and technology. There is an urgent need for LAMI countries to provide individuals with CCN access to AAC services. In addition, there is a significant need to conduct research studies in these countries to determine the most appropriate and feasible AAC solutions. Currently, a small number of studies exist that discuss AAC interventions in LAMI countries. For example, Bornman and Alant (1999) trained three teachers to facilitate communication with children diagnosed with autism spectrum disorder using digital voice output devices at a school in South Africa. In addition, Bornman, Alant and Lloyd (2007) conducted a group training for primary healthcare nurses in South Africa. Finally, Bunning, Gona, Newton, & Hartley (2014) provided an AAC intervention for home-based caregivers who had children with CCN in a rural part of Kenya. These studies are just a few examples. Although these are limited in number they provide preliminary evidence that AAC interventions can be successfully conducted in LAMI countries. It is important to consider the current state of research on AAC interventions in LAMI countries prior to determining what more needs to happen to further the field in this area.

**Aim**

The primary purpose of this scoping review was to evaluate the current evidence base on AAC interventions in LAMI countries and consider any gaps in the research.

**Method**

This review used a scoping review methodology. A scoping review is a type of preliminary assessment to understand the scope and amount of available research on a particular topic (Grant & Booth, 2009). The primary purpose of a scoping review is to

capture the current state-of-the-art on a topic that in turn may help to initiate new research (Hanson, Beukelman, & Yorkston, 2013). The following inclusionary criteria were specified: (a) published between 1995 and 2015; (b) published in English or translated into English; (c) published in peer-reviewed journals; (d) included at least one participant reported to have complex communication needs; (e) study was implemented in a LAMI country; and (e) implementation of an aided or unaided AAC system. A multifaceted search strategy was implemented to identify all studies that met the inclusionary criteria. An electronic search and a hand search were conducted. This search is currently on going.

### **Results**

Studies identified will be coded according to: (a) LAMI country, (b) intervention, (c) who provided the intervention, (d) to whom the intervention was provided to, (e) what type of AAC intervention (e.g., low-tech or high-tech), and (f) outcome. Full results and findings will be discussed at ISAAC 2016.

### **Conclusion**

There are a limited number of research studies that have been conducted in LAMI countries. However, it is in these countries that AAC resources are most scarce. Therefore, it is a priority to identify the current research base on AAC interventions in LAMI countries as well as to consider the gaps in research.

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