**Enablers and Barriers in AAC use when working with Adults with Acquired Brain Injury**

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## Short Abstract

**Overview/aim:** Augmentative and Alternative Communication (AAC) in the Acquired Brain Injury (ABI) population presents unique challenges and often requires a very different approach. The aim of this presentation is to present a review of the literature on AAC use with people with ABI, along with case studies, and discuss barriers and enablers when working with this population as a speech pathologist.

**Method:** Case studies and a review of the literature was conducted to investigate the experiences of both the speech pathologist and user of AAC systems.

**Results:** There are a range of factors to be considered that can impact the success of AAC acceptance and use in adults with ABI. These can relate to the specific cognitive or language profile of the person with an ABI, which can vary significantly depending on the injury type. Another consideration in this population is their readiness to use AAC after experiencing such a traumatic event, and this may also be closely related to their existing concept of self. Lastly, environmental factors also play a role as adults with an ABI often experience multiple changes in regards to their environmental supports.

**Conclusion:** A number of unique challenges have been identified in regards to implementing AAC for adults with an ABI. An individualised approach to AAC is recommended for this population that takes into account existing use of mainstream technology and devices, their cognitive profile, their stage of physical & psychological recovery, their changing environmental supports and their concept of self.

## Long Abstract

**Overview/aim:** Augmentative and Alternative Communication (AAC) in the Acquired Brain Injury (ABI) population presents unique challenges and often requires a very different approach. Additionally, existing research on AAC usually focuses on paediatric and developmental disability populations, with little research focussing on adults with acquired brain injuries such as stroke or traumatic brain injury (TBI). In all publications in the Augmentative and Alternative Communication Journal, only 17% of publications across a 30 year year period were related to acquired communication disorders (Mc-Naughton & Light, 2015). The aim of this presentation is to present a review of the literature on AAC use with people with ABI, along with case studies, and discuss barriers and enablers when working with this population as a speech pathologist.

**Method:** A review of the literature was conducted to investigate the experiences of both the speech pathologist and user of AAC systems. Case studies are also presented to highlight some of the barriers and enablers for AAC in the ABI population in real-world situations.

**Results:** There are a range of factors to be considered that can impact the success of AAC acceptance and use in adults with acquired brain injury. These can generally be grouped into three categories. Firstly, there are factors that relate to the specific cognitive or language profile of the person with an ABI, which can vary significantly depending on the injury type. In the TBI population language is generally preserved, however, cognition is affected which can result in a cognitive-communication (or social communication) impairment. This can affect a range of skills such as memory, attention, and cognitive flexibility, all of which are required to successfully navigate and use an AAC device. In contrast, adults may present with an acquired language disorder (aphasia), following stroke. This can have significant effects on the ability to access language using AAC as semantic organisation in this population can be "atypical" and therefore the categorisation of language on a device might require more modifications. Additionally, difficulty in accessing language can extend to picture-based vocabulary and therefore the use of symbols versus personally meaningful photos needs to be taken into account. Another consideration in this population is their readiness to use AAC after experiencing such a traumatic event, as well as their existing sense of self following this. A factor that may increase readiness or acceptance of AAC is utilising any existing technology or devices that the person is already familiar with. This is particularly important in younger adults who may not want to be viewed differently to their peers, but is also relevant to other age groups, as adults with an ABI often don't view themselves as having a disability. Further complicating readiness to accept AAC can be related to the cognitive skill of self-awareness or insight, which is often impaired in the TBI population. It is also important to ensure these adults are provided with appropriate psychological supports, especially given the increased likelihood of depression post brain injury, as research has shown that depression following stroke is much more likely if that person has aphasia (Zanella, et al, 2022). Lastly, the changing environment needs to be considered. Not only is it common for adults with ABI to transition through a number of living environments during their rehabilitation journey but adults with TBI often have unstable housing situations (Hwang, et al, 2008). This will have a direct impact on access to consistent and ongoing facilitator support, which is an important factor for AAC success.

**Conclusion:** A number of unique challenges have been identified in regards to implementing AAC for adults with an ABI. An individualised approach to AAC is recommended for this population that takes into account multiple factors. It is recommended that speech pathologists take into account existing use of mainstream technology and devices, their cognitive and language profile, their stage of physical and psychological recovery, their changing environmental supports and their concept of self.