Fact Sheet 7
Autism & Key Word Signing (Makaton)

What is the issue?

Interventions using sign language have been used with people on the autism spectrum since the 1970s to teach receptive and/or expressive communication. Even though most people on the spectrum are not deaf and can hear, it has been found that using signs (from sign language used by the Deaf community) and speaking at the same time may help people on the spectrum to understand language better and to communicate. Key Word Sign and Gesture (also known as Makaton and sometimes called ‘total communication’) uses signs from the Deaf community, along with speech to help the communication of people with communication difficulties. Signs and speech are used at the same time and only the main words in a sentence are signed. In Australia, the Deaf community sign language is called Auslan, which is a full and complete language that does not need English to be spoken at the same time. In Key Word Sign, some individual signs of Auslan are used to highlight the main words in a sentence while the sentence is being spoken. For example, a parent might sign the underlined words while saying “Go and get your bag and your hat”.

What is the hypothesis?

Key Word Sign is a type of alternative and augmentative communication (AAC) system. AAC systems are commonly use with children on the spectrum to provide a means of communication when speech is delayed or absent. It is important to remember that the goal of AAC is to provide children with an effective communication system, rather than to teach children to speak.

What does the research say?

Research into the effects of signing for people with communication difficulties who also have an intellectual disability has shown positive impacts on speech development, social interaction and vocabulary development. Research and reviews into the use of Key Word Sign with children on the spectrum have looked at a range of questions and issues, including:

- The ability of children to learn signs compared with AAC systems that use pictures or photos
- The impact of the use of sign-and-speech interventions compared with speech-only interventions
- The impact of sign interventions on speech development
- The relationships between fine motor and apraxia measures on the use of signs

There are not many studies that have looked at whether signing helps children communicate in a functional way. The research in this area is also limited because most studies have looked at only very small numbers of children. The wide range of research questions and the limited quantity and quality of the research means that making a simple statement about how useful and appropriate Key Word Signing is for people on the spectrum is difficult. Some of the research findings about signing and autism include the following:

- Using signs can provide effective communication options for children on the spectrum
- Results show that children on the spectrum can learn single words more quickly when that are taught using sign and speech together, rather than just speech
- Signing does not stop children from speaking and generally has a positive (though modest) impact on speech production
• It is becoming clear that individual difference among children on the spectrum may mean a preference
for, and greater success with, one type of communication compared with another Individual differences
should be taken into account when choosing and designing communication systems.\(^6\) \(^9\) \(^10\) \(^11\)
• Some children have shown preference for ‘selection based’ AAC systems such as picture exchange
(PECS)\(^12\) rather than learning signs. This may be because of the memory and learning skills required to
learn and use signs
• Research involving small numbers of children has compared the rate of learning signing compared with
picture exchange and speech generating devices\(^13\) and found that children learn to use an AAC system
fastest when it is their preferred system
• It seems that children who benefit most from signing tend to have more limited communication\(^1\), better
fine motor skills\(^14\) and imitation skills\(^10\)
• Reviews of the evidence indicate that using speech and sign together has positive effects on the speech
and language production of young children with difference kinds of disabilities
• A recent Australian study of 3 preschool children on the spectrum looked at the effect of modelling Key
Word Signs. The level of signing and speech production varied across the children, but all showed
acquisition and generalisation of some signs and the intervention had a neutral or positive effect on
spoken word production\(^15\)

In Summary

Manual signing may be a useful option for some children on the spectrum to support their overall communication
skills, when used in conjunction with speech and other AAC strategies, such as picture exchange, speech
generating devices and visual supports. Some of the skills that may make signing an appropriate option include
good fine motor and imitation skills. It is clear from the evidence that using signs along with speech will not slow
or stop the development of speech.

References


intervention on the speech production of individuals with developmental disabilities: A research review. Journal of
Speech, Language and Hearing Research, 49(2), 248 – 264.

verbalisations by toddlers with and without disabilities in inclusive classrooms. Journal of the Association for
Persons with Severe Handicaps, 26(2), 120 – 126.


Reviewed February 2015