# Innovating to interact and include - Evaluating a multidisciplinary, multi-modal training approach for AAC Teams in regional Australia

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**Short Abstract** 

## Background

Collaborative interprofessional practice is the recognised gold standard for supporting children with complex communication needs. However, research suggests that clinicians may experience knowledge and skill gaps that prevent best practice, particularly if practicing outside of metropolitan areas. This study investigates the effectiveness of a multi-modal training program for Alternative and Augmentative Communication (AAC) on a multidisciplinary team in regional Australia.

## Methodology

A mixed-methods design was utilised. Participants were clinicians at a private paediatric practice in regional Australia, who had participated in the training program. Participants completed a short video-recorded semi-structured interview, followed by a brief anonymous questionnaire. Data analysis of the interviews is currently being completed using thematic coding methods.

## Results

Preliminary analysis indicates that participants appreciated receiving a structured didactic introduction to AAC practice, along with individual and group supervision sessions. The site visits during which participants co-treated with the teaching clinicians were reported to provide the most effective learning outcomes. Participants reported increases in knowledge, skills and confidence in the field of AAC clinical practice, including some who reported now feeling ready to train others in AAC practice. Weaknesses of the program included unclear timeframes for achievement of training milestones, uncertainty of how to best participate in group supervision sessions, and insufficient explicit inclusion of Physiotherapists in the training program.

## Conclusion

The outcomes of this research will assist practice managers, universities, clinicians and researchers to provide high quality training and ongoing support to clinicians practicing with children with complex communication needs, especially in regional areas.

## Long Abstract

#### Background

Augmentative and Alternative Communication (AAC) is a form of multimodal communication and includes oral (speech, vocalisations), manual (sign and gesture), all forms of aided and unaided systems and strategies, and any other assistive technologies that support communication. AAC is a critical field that requires a comprehensive, multidisciplinary approach to address the diverse needs of individuals with complex communication needs. The onus of responsibility for effective AAC prescription and intervention falls on the speech pathologist and involves collaboration among various clinicians, including occupational therapists, physiotherapists, psychologists, educators and technology experts. Each team member brings unique expertise that, when integrated, enhances the development and implementation of tailored AAC solutions. This collaborative model ensures a holistic approach to communication support, which is crucial given the multifaceted nature of AAC interventions and the diverse needs of users. As advancements in technology and research continue to shape the field, service providers must ensure they maintain an effective multidisciplinary team who have the knowledge, skills, and resources to stay abreast of changes in the technology to optimise the outcomes for AAC users.

Speech pathologists have a pivotal role on the AAC team and need the skill and confidence to implement multimodal communication interventions across the lifespan, however research has concluded that it remains unclear whether pre-service programs equipped clinicians for entrylevel AAC practice. Despite the established importance of AAC evidence suggests that many clinicians, especially those based in less accessible locations, lack sufficient training in this dynamic field. Therefore, clinicians need to adopt a lifelong approach to learning in AAC. The shortage of specialised training opportunities in regional areas further compounds this issue. Access to specialised AAC training for healthcare clinicians remains limited, with clinicians working in a metropolitan area reporting greater knowledge, confidence, and attitude in comparison to those working in regional areas. This could be due to the additional barriers regional clinicians face accessing professional development, including the cost and time of travel, as well as having a more generalist role, leading to less clinical experience in AAC as well as the need for professional development in a large range of clinical areas. Building the capacity of clinicians in regional Australia is extremely important given that families living in these areas already face significant barriers to accessing services equitable to their metropolitan counterparts. This gap in resources can hinder the effectiveness of AAC interventions, which are crucial for improving the quality of life and communicative abilities of individuals with complex needs.

There is a need for a wide variety of training in AAC, dependent on previous training and experience, as well as client groups. It is essential to recognise that clinicians need access to diverse learning modalities to enhance their AAC competencies. The training must be tailored to meet the individual needs of the service providers so that it produces outcomes that are meaningful to the workplace. The sustained use of AAC is associated with training that

provides adequate demonstration of the use of the devices, adequate opportunities to use the devices and receive feedback, and opportunities for self-evaluation of mastery. The incorporation of theoretical lectures and practical skills practiced throughout the activities, has been shown to support transfer of knowledge gains into their workplaces. Traditional forms of professional development, such as workshops, may not suffice given the rapid advancements in AAC technology and practices. Tailoring professional development opportunities to meet the unique needs of clinicians is crucial for ensuring that they can provide high-quality AAC services. No previous research has investigated the effectiveness of a multi-modal training program for AAC on a multidisciplinary team in regional Australia.

# Aim

This study seeks to address this gap by evaluating a novel, multi-modal training approach designed to equip AAC teams in regional Australia with the necessary skills and knowledge to support their clients effectively. This research will explore the efficacy of this innovative training model by assessing its impact on the competencies of AAC clinicians and the subsequent quality of AAC service delivery. Addressing these training needs will help bridge the existing knowledge gaps and improve AAC service delivery, ultimately benefiting individuals with complex communication needs across Australia. From this exploration, a conceptual model will be developed which can explain their experiences and can inform the learning needs of multidisciplinary teams working in the area of complex communication needs and improve their clinical practice in this area.

# Methodology

The methodology was devised retrospective to a three-year learning program employing multiple teaching methods. Participants were seven clinicians at a private practice in regional Australia, recruited using convenience sampling. A mixed-methods design was employed – a qualitative survey ranking participant's perspectives on their pre- and post-training, and a qualitatively designed interview. Participants were invited to attend a short, interview which was followed up with a five question anonymous questionnaire. Data analysis is currently being completed using thematic coding methods.

# Results

Preliminary analysis indicates that participants appreciated the structured introduction to the caseload, along with individual and group supervision. The most effective learning outcomes came from site visits during which clinicians co-treated with the teaching clinicians. Clinicians reported a knowledge and skill increase along with increased confidence. Some clinicians reported now being ready to train others in assessment and implementation of AAC. Suggestions for improvement were also suggested - results indicated time frames for achieving milestones in the training program would have been useful, training in how to participate in group supervision was recommended, and it was evident that Physiotherapists were not well catered for in the training. Other challenges involved issues with communication with external agencies, and some internal communication issues, such as with Physiotherapy, were discussed by participants. A need for a framework for skill development for all clinicians, inclusive of the client support team, was suggested, as was a person-centred approach that individualised the training pathway for the clinician.

# Conclusion

The outcomes of this research will assist practice managers, universities, clinicians and researchers to provide high quality training and ongoing support to clinicians practicing with children with complex communication needs, especially in regional areas.