BRIEF REPORTS

TOWARDS THE DEVELOPMENT OF AUGMENTATIVE AND ALTERNATIVE COMMUNICATION PRACTICE IN A SPECIAL NEEDS SETTING IN BANGALORE, INDIA

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ABSTRACT

Augmentative and Alternative Communication (AAC) in India is becoming an increasingly popular intervention offered to individuals with little or no functional speech. However, ensuring the AAC taught is effective and sustainable requires an AAC implementer to depart from traditional working practices and, when working in an institution, facilitate staff development as one of the primary goals of intervention. This article describes the first steps in the evolution of this style of practice in the Spastics Society of Karnataka, Bangalore, the results to date and key factors which other AAC developers in India may find helpful when considering AAC Practice development.

INTRODUCTION

Augmentative and Alternative Communication (AAC)

AAC is a term used to describe various communication methods and a field of educational or clinical practice (1).

Learning to use AAC methods is considered useful by and for individuals who are unable to achieve their communication needs through natural speech (non- speaking individuals). Using AAC methods (Table 1) may supplement or completely replace the speech of the AAC user (1). AAC methods can also be used to facilitate developing expressive language skills, support comprehension, stimulate early literacy development and promote organisational skills (1, 2).

AAC practice is the framework or ethos within which these methods are introduced. It is a shared understanding and agreement between an AAC developer and the institution which employs them about the key issues of service delivery such as;

- Who will carry it out?
- When will it occur during the day?
- With which children?
- Where?
- How?

AAC literature suggests answers to these questions (1-10), but many AAC workers and institutions start implementation based on the pervasive or traditional working practices of that institution or profession. These are often inappropriate for the effective and sustainable teaching and use of AAC. Recognising this and formulating a mutual plan for change within the institution, is essential for successful AAC practice.

Table 1. AAC Methods (3).

Unaided Methods	**Aided Methods**
i.e. those that use only the user's body · Body language, eye pointing, facial expression, natural gesture, use of vocalization/intonation, sensory stimulation · Sign Language e.g. ISL, BSL · Signing Systems e.g. finger spelling · Signed Vocabularies e.g. Makaton · Verbal/gestural strategies used to compensate for poor speech e.g. cued articulation/cued speech	i.e. those that require equipment in addition to the user's body · Objects, photographs, pictures, graphic symbols or words which may be organised into charts or books · Electronic communication aids which produce digitised or synthesised speech and or text. The above systems require reliable methods of access, e.g., direct access such as pointing to items, eye-pointing, use of keyboard, use of lightpointer and or indirect access such as use of scanning input switch, pointer control system (joystick), listener mediated scanning.

The Special Needs Setting: The Spastics Society of Karnataka, Campus Programmes

The Spastics Society of Karnataka (SSK) is a Non–Governmental Organisation (NGO), committed to and working towards the inclusion of disabled individuals in mainstream education and society. It provides educational, medical, rehabilitation, vocational and social services to infants, children and young adults with neuro-muscular and developmental disabilities. These services are provided in a variety of locations including its campus, and other sites such as community halls and hospitals in Bangalore. Its campus programmes are typical of a Secondary Service, that is specialist services provided on site by specially trained personnel to a small proportion of disabled children. (8)

Pre-service training and continuing education programmes for people working in the disablity field are also provided on the SSK campus, as well as opportunities for research into the prevention and management of disabilities.

AAC PRACTICE DEVELOPMENT

Why in the SSK?

In 2003 an AAC Developer/Coordinator was employed at SSK. This was an honorary position and created for a Speech and Language Therapist from the UK with experience in AAC practice. The Director of SSK, the Research and Training Officer, Head Speech and Language Pathologist and AAC Coordinator reviewed the current AAC service and agreed a plan for change and development. This agreement was based on recognition by the group that AAC practice at SSK was limited in its availability, scope, and teaching style, leading to ineffective and unsustainable implementation (Table 2). Long standing attitudes, beliefs and working practices needed to be challenged and shifted, to help staff develop the "shared goals, values and methods of working" central to effective and sustainable AAC practice (8).

The SSK model was not particular to this institution, rather a reflection of the predominant Speech and Language Pathology model of intervention in India (9).

Table 2. AAC Best Practice and SSK AAC Practice 2003

Service Delivery Issue	AAC Best/Preferred Practice	SSK model (pre 2003)
WHO is responsible for implementation? (Availability)	ALL individuals who interact with the child	Speech and Language Pathologist (SLP)
WHEN does it occur? (Availability)	ALL the time, that is as a part of all usual daily activities	During specific "AAC training sessions", dependent on availability of SLP
WITH WHICH CHILDREN? (Scope)	ANY child who is non-speaking at whatever stage in their development	Those with long term non-speaking status only.
WHERE? (Availability)	WHERE EVER the child is	Speech and Language Therapy Room
HOW is it taught? (Teaching Style) a) to child	FUNCTION BASED i.e. methods introduced as a way to achieve communication needs during everyday activities. AAC teaching integrated as a usual working practice	SKILL BASED i.e. as a skill to teach in the absence of the functional context, during prescribed "AAC TIME". AAC teaching is "tagged" onto normal practice and not integral to it.
b) to parents/professionals	AAC Coordinator actively teaches and shares skills and expertise with others during their normal classroom/clinical activities. Problem solving sessions.	SLP gives lectures to staff about AAC. Some classroom /therapy room demonstration of methods, usually in absence of child where teacher concerned.

The group agreed that moving from the SSK model towards one which promoted trans-disciplinary working and a function based teaching style would be very challenging for most SSK staff. Therefore the AAC practice development process would start with a small number of staff and children rather than the whole institution, and include the following:

1. Staff Training

A one year pilot project in which staff working in two pre school campus programmes would be taught to integrate the teaching of one AAC method within their usual working practice, with selected non speaking children.

2. Provision of Resources

AAC training and implementation tools to support the pilot project would be developed.

3. Formulation of an SSK-wide AAC Practice Development Plan

The results of the pilot project, observations, discussions, clinical experience and literature reviews would be used to inform development of AAC practice for the whole of SSK.

STAFF TRAINING PILOT PROJECT

This was carried out from October 2003 until the end of November 2004

SSK Programmes Selected

The two SSK programmes selected for the Pilot Project were Infant Stimulation (IS) and Home Management (HM).

Infant Stimulation is run by the Therapy Department and consists of campus based Physio, Occupational and Speech/Language Therapy for the under- 3 year age group considered at risk for developmental delay(s) following social service, medical and therapy assessment. Weekly, twice monthly or monthly sessions are offered to parents to learn how to stimulate their child's development, and explore methods to help the child compensate for his/her disability. The staff involved are Physio, Occupational and Speech/Language Therapists.

Home Management is classroom based pre school education for the 3-6 year old age group, on a twice or three times a week basis, run by the Education Department. The children are usually referred by the IS once they are 3 years old, with others being referred directly from the SSK Multidisciplinary Assessment Service if over 3 years on first assessment. Emphasis is laid on training children to acquire the skills necessary to access the Indian school curriculum on school entry (6 years.) The staff involved are Special Educators, with weekly visits from an Occupational/Physiotherapist (Speech/Language Therapy input was not available during the project period. Parents were included in classroom activities for the first 7 months of the project. Reorganisation of HM in the 8th month excluded parents from the classroom).

In choosing two pre school/early intervention programmes, the training was addressing the misconception of many staff and parents that AAC methods are only useful once the child is known to have a long term speech problem (i.e. usually well after 7 years of age in SSK). It would also give the opportunity to address other myths about AAC in this age group, in particular that AAC hinders or stops speech development (it does not), and that children must have a certain set of skills before AAC intervention should start (they do not) (10). Also staff were trained from different professional groups, rehabilitation (IS) and education (HM), none of whom were using AAC methods with any of their patients/pupils in their programmes. The idea was to instil that AAC is everyone's responsibility and not just the "Therapists'" or the "Educators'".

AAC Method Chosen

The AAC method chosen for the pilot project was aided, direct access. That is, an individual directly touching or looking at an object, photograph or picture symbol in order to communicate.

This method was chosen as it is one of the most naturally used and known AAC communication techniques. By choosing a relatively easy AAC method, particularly in reference to access technique, it allows the staff to concentrate more on the less intuitive side of the method i.e. learning how to teach children the use of objects and pictures to achieve a variety of communication needs- the "aided" part of the equation.

The ultimate aim was direct access to picture symbols on a chart, for communication needs.

Child selection and grouping

The AAC Co-ordinator assessed all non- speaking children in the 2 programmes over a 3 month period and allocated those selected to one of 3 AAC Skills groups.

The assessment used to achieve this was a modified form of the Augmentative Communication Assessment Profile (ACAP) (11). The results were used to exclude some children from the project, and to group those included.

Exclusions were made in order to help programme staff learn and practise the fundamentals of AAC Practice under the easiest circumstances, as with AAC method (as mentioned earlier). Table 3 shows the selection criteria.

Table 3. Selection Criteria

> 1. The child must pass the pre-assessment criteria of the ACAP, namely:
>   - Has the client as least fleeting attention skills?
>   - Have some intentional communicative behaviours been observed?
>   - Is there evidence that he can differentiate between people and objects?
>   - Is he motivated by at least one item/activity?
> 2. The child has no significant visual impairment, following correction, which inhibits him seeing/recognising objects or pictures.
> 3. The child must be predominantly non-verbal in his communication. That is the majority of his communication interactions do not involve recognisable or meaningful speech.
> 4. The child must not require a signing AAC method as made evident by the ACAP full observation results.
> 5. The child must attend 80% of programme sessions offered.

The children selected (n. 19) were divided into 3 groups according to the AAC skill level they achieved in relation to developing picture pointing as the ultimate AAC method. These 3 Levels were devised using the ACAP criteria and provided the basis for goal setting and activity selection.

Staff training and implementation

At the beginning of the project, before the child assessment phase, staff from the two programmes (n. 3) received 6 hours of basic AAC awareness training spread over 6 consecutive working days. This was didactic in nature.

During the child assessment process and after the selected children had been allocated to specific AAC Skill Levels, the 3 members of staff received more training from the Co-ordinator, but this time within their working environments, during usual clinical or educational activities with the children, including parental guidance and advice.

By observing assessments of and activities modelled with selected children, the therapists and special educators were exposed to and practised, under supervision, activities relevant for each AAC Skills Level.

All goals and activities for each Level were documented and given to the staff as an AAC implementation pack/guide. They also had a record of the goals set for each child selected. All implementation picture material was supplied.

This phase finished at the end of the 5th month of the project.

At this stage, the AAC Coordinator reviewed and adjusted goals as necessary and then withdrew. The implementation for the remaining 7 months was carried out by the programme staff with monthly supervisory and modelling visits from the AAC Coordinator or Assistant. (For HM 2 of the 7 months was vacation). Additional picture material was provided as requested by staff or deemed necessary by the AAC Coordinator and Assistant.

Two new staff joined the HM Management team in the 7th month of the project. They observed AAC activities carried out by the existing member of staff and were encouraged by her to use them with the selected children. They also received 3 hours didactic training from the AAC Coordinator in AAC basics and activities, as well as monthly supervision/modelling.

During the 12th and 13th months the children remaining in the project (n. 6) were reassessed by the AAC coordinator, using the modified ACAP.

RESULTS

Did the staff learn how to integrate the teaching of an AAC method within their existing programmes?

Following the assessment and staff training period, it took another 5 months before real change in staff working practice became evident. That is, by month 10 staff began to integrate AAC activities without reminders from the Coordinator. This was only evident in the staff who had been a part of the project from the beginning, and not the newcomers who joined the programmes in month 7.

Main changes observed in staff practices by end of project:

- Staff beginning to let children make choices, rather than selecting objects and activities for them.
- Staff beginning to MODEL picture pointing for communication purposes, rather than expecting the child to perform the skill on request/demand.
- Staff spontaneously requesting further picture/symbol material to support various activities.
- Use of picture materials increased significantly, having been predominantly object based for activities.
- Staff beginning to reduce verbal prompting and attempt expectant waiting to stimulate communication.
- Staff beginning to react to child's spontaneous picture pointing as if the child may be requesting/commenting ("Ah! You want the ball? Let's find it!") rather than as a cue for the staff to simply name it ("Ball. It's a ball").

Did the children start to develop AAC skills?

Yes. Of the 6 remaining in the project, 5 developed core skills towards the use of aided direct access AAC.

Were training and implementation tools developed?

Yes.

- Didactic staff training pack (AAC awareness).
- Assessment process and pack.
- Goals and Activities pack for each AAC Skill Level (including equipment).

These have continued to be developed and modified since the end of the pilot project.

**Was a practice development plan formulated following the completion
of the project?**

Yes. Encouraged by the positive changes which had occurred in the original 3 project staff and children, a structure and process was devised in order to expand or "roll out" AAC service delivery to other programmes and departments. This plan has been implemented since June 2005, and is called the AAC Link Programme as detailed:

A "stand alone" AAC Service (i.e. no longer a service co-ordinated by the Speech and Language Therapy Department).

By creating a separate service, the Director of SSK is sending a clear signal to staff and parents that AAC is not the domain of any one profession. It is currently coordinated by an Educator with a special interest in AAC, and training adults in the disability field. The AAC Service continues the focus of the pilot project in developing AAC skills in SSK staff as its primary function.

An AAC Link Network

Each SSK programme has nominated a person to be the formal LINK between them and the AAC Service (AAC Link Person).

Through meetings with, training and support from the AAC Service the LINK person is responsible for:

- Raising awareness amongst department staff of the availability and benefits of AAC for both non speaking and speaking children.
- Helping develop the structure, processes and staff skills necessary to introduce and sustain AAC in their department in the long term.
- Promoting the concept of collaborative working in AAC, within and between departments.

Expanding the AAC Service to other programmes needed the continuation of the idea started in the project that its function is as a facilitator of staff skills and an AAC resource bank (picture symbols etc) and **not** the provider of AAC directly to the child. By having a person from **within** a department being explicitly responsible for AAC service development there,

AAC Service provision aims to be time and resource efficient, promote the idea of AAC as everyone's responsibility and raise awareness of AAC as a practice which can also support other developmental needs and not just expression (e.g. organisational skills, comprehension, literacy).

Assessment of children's AAC skills

This will continue to be provided directly by the AAC Service during the initial roll out phase. A reduction is anticipated over a 2-3 year period as staff become more skilled in selecting appropriate goals and activities without reference to the AAC Service. Complex AAC needs assessments will continue to be coordinated by the AAC Service in the long term.

CONCLUSIONS

Has AAC Practice evolved at SSK since the project and with the establishment of an AAC Link Service?

An ethos of AAC is steadily developing.

More staff than before understand what AAC is, its benefits and are aware of the need to actively carry out AAC intervention within their own settings, and not rely on the AAC Service to do so.

There is an increasing understanding that the AAC Service facilitates others to carry out implementation, but will carry out expert assessments with children with complex needs.

More staff are aware of and attempt to integrate some AAC within their normal practice whenever they see a non speaking child.

More non speaking children than before, now have access to AAC.

Virtually no AAC implementation is now taking place in the "Speech Clinic" room.

More staff are beginning to understand and use a more functional approach to teaching AAC, rather than the traditional skills training method. However, this is the area of **most** need in staff training.

The AAC Service now provides the vast majority of its staff training through active teaching methods, rather than the traditional didactic.

AAC is beginning to be perceived as an approach which can be used with a wider group of individuals than just the non-speaking. For example, use of picture symbols in public areas labelling rooms/clinics for those non-Kannada (local language) or English readers visiting SSK.

What has been learned through this process that may be helpful for others developing AAC Practice in an institution?

These recommendations are based on observations of pre existing services, the changes that occurred in children and staff during the project, discussions with staff and a review of the literature.

1. Establish management support for the need to change

Each institution manager needs to understand, accept and support the service delivery changes proposed. Make clear to that person what needs to be achieved, how this will be attempted and what support is needed from them, BEFORE starting the process.

2. Establish clear roles and responsibilities for all staff involved in AAC process

When moving away from the traditional expert led model towards a trans disciplinary one, be explicit about what changes people need to make in their roles and responsibilities, why, and how the AAC Service (and the institution manager) will support them in the transition.

3. Actively teach staff their roles and responsibility

Didactic training has its place, but active teaching and sharing through modelling and joint problem solving seems the most effective way to encourage new working practices and attitudes. Show what is needed in the **real** situation during a **typical** activity. Wait, and observe the member of staff trying the suggestion. Modelling and leaving without supervising the staff's attempt is incomplete teaching.

4. Change in working practices happens slowly, but needs to happen

Where traditional working practices, beliefs and attitudes are long established in individuals and institutions, change will take time. If change from the traditional is not attempted, AAC intervention will be largely ineffective and unsustainable. Time taken to effect long term

change in staff and institutions is much better spent, than on short term fixes in child "performance". Staff development is essential for child AAC development.

5. Take small steps

Introduce one new activity at a time to staff and allow time for that to become established as an everyday working practice. It is very tempting to model a number of activities in one teaching session, particularly if the children have different needs. However, introducing too much new information is confusing and often de-motivating for staff who need time to adapt. At first, the principle of **integrating** AAC activities into everyday situations is more important than how many activities the staff know.

6. Supervise regularly

Once initial training is complete (didactic and active), visit staff in situ regularly to ensure activities are being integrated and to praise success. Gather information from observation and questioning of staff about further training needs, and set up these sessions as separate from supervision/inspection. It is very important that the staff learn to view the AAC Coordinator as a facilitator for **their** continued AAC development and not as the person who "delivers AAC" to the child.

7. Keep records of training and supervision, and meet Manager/Head of Department regularly to give feedback

Feedback to the institution manager and/or Head of Department/Programme of objective information regarding staff training needs is an essential part of service development. Without their active support and agreement, staff may be reluctant to change.

8. Get involved in student training

The earlier good practice is instilled, the better. Again, ACTIVE teaching through modelling in situ is most effective.

FINAL WORDS

From an infrequent, traditionally implemented and ineffective service, AAC now has a positive "presence" in SSK. It is becoming established, gradually, as a core service, trans- disciplinary in nature and functional in its approach.

There are signs that this newly introduced approach is having positive effects on children's AAC skills and perhaps more importantly at this early stage, in staff attitudes, beliefs and working practices regarding AAC.

Many challenges still exist in introducing a service of this nature in a society which values a didactic, expert led, traditional skills training approach to education and rehabilitation. Continued collaboration and support by SSK management and Heads of Departments, and continuity in the AAC Coordinator position are essential to ensure the positive changes emerging become fully accepted and established.

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