

AUGMENTATIVE AND ALTERNATIVE COMMUNICATION: RELEVANCE FOR PHYSIOTHERAPISTS

ABSTRACT: *Communication is one of the critical components in determining quality of life of individuals and families. All members of the transdisciplinary rehabilitation team therefore need to develop the knowledge and skills to communicate effectively with clients with little or no speech. This involves creating opportunities for communicative interaction and facilitation of functional communication.*

The field of augmentative and alternative communication (AAC) provides strategies and techniques which facilitate the interaction process, and is applicable to a wide range of medical conditions which may impact on the functionality and intelligibility of speech. These strategies are classified either as aided or unaided.

The role of the physiotherapist in AAC assessment and intervention is explored in the context of transdisciplinary teamwork. The importance of exposing students to AAC as part of the undergraduate and postgraduate training programs for physiotherapists is discussed.

KEY WORDS: *QUALITY OF LIFE, AUGMENTATIVE AND ALTERNATIVE COMMUNICATION, PHYSIOTHERAPY, TRANSDISCIPLINARY TEAMWORK, TRAINING*

ROSE J,
B.Sc Physiotherapy (RAND)
BA HONS AAC (UP)¹;
ALANT E, D. Phil (UP)¹

¹ Centre for Augmentative and Alternative
Communication, University of Pretoria.

INTRODUCTION

Issues pertaining to quality of life, self-efficacy, self-care and self-responsibility are receiving a great deal of attention from physiotherapy researchers and clinicians alike. Ensuring that clients have control of their lives, and specifically of their rehabilitation/treatment programmes, is becoming a core value of professional practice (Eales, Stewart and Noakes, 2000; Eales and Stewart, 2001). More than ever, the aim is to empower patients to manage their own health needs through active involvement, not only of the family, but also of the client throughout the process. However, for physiotherapists, 'collaboration in a socially based, client-centered model of

health care is a radical change from the treatment of patients in large acute hospitals dominated by a medical model of healthcare' (Richardson, 1999:468).

The process of communication between clinician and client (and family) is pivotal in enhancing mutual understanding and cooperation in the rehabilitation process. Although physiotherapists have begun to explore ways of empowering their clients, the field of functional communication has received little attention. Without ensuring that the client can be clearly understood it is impossible for physiotherapists to pay more than lip service to their ideals of client-centered intervention. This issue becomes particularly pertinent when dealing with clients who have 'little or no functional speech' (LNFS)¹.

To facilitate communication within the physiotherapy context, therapists need to consider two important issues:

- Firstly, opportunities need to be created to facilitate client/therapist communicative interaction. Generally therapists recognize the importance

of listening to and discussing relevant issues with clients, in order to enhance the client-therapist relationship and thereby the efficacy of intervention. However, when the individual is unable to speak, therapists tend to dominate the conversational interaction and will often even "speak for" the client.

- Secondly, the client needs to communicate effectively, which becomes very difficult when the natural ability to speak has been lost. Traditionally the domain of "speech" has been designated to the speech therapist. However, as communication is such an integral part of daily living, other interaction partners become vitally important in facilitating this process. The challenge to physiotherapists is to acquire the relevant knowledge and skills to facilitate communicative interaction with clients who are unable to use speech as their primary means of communication. The field of augmentative and alternative communication (AAC) provides the

CORRESPONDENCE TO:

J Rose
CAAC
University of Pretoria,
Pretoria 0002
26 Sandhurst Village,
Sandhurst 2196
Tel: (012) 783-0163 (W)
(012) 420-2001 (H)

¹ LNFS refers to a person who has less than 15 intelligible words

broad framework within which functional communication strategies can be learned and implemented.

DEFINING AUGMENTATIVE AND ALTERNATIVE COMMUNICATION (AAC)

AAC refers to 'the transdisciplinary field that uses a variety symbols, strategies and techniques to assist people who are unable to meet their communication needs through natural speech and/or writing' (Lloyd et al, 1997:1). AAC systems can be used to supplement existing communication efforts thereby enabling users to:

- express basic needs and desires
- transfer information
- establish social closeness, and
- demonstrate social etiquette

Unless communication embraces all four these purposes of communication (Light, 1988) quality of interaction will be compromised. Functional communication skills reduce learned helplessness and enhance independence.

AAC services have been offered by members of transdisciplinary teams at home, at school, in the workplace, in medical settings, and in extended care facilities since the early eighties in the USA (Lloyd et al, 1997). In South Africa the challenge is for all those involved with clients with communication deficits to build the knowledge and skills necessary to facilitate functional communication so as to improve quality of life.

USERS OF AUGMENTATIVE AND ALTERNATIVE COMMUNICATION

Conditions, which commonly affect speech, include cerebral palsy, autism, mental disability, traumatic brain injury, spinal chord injury, stroke, amyotrophic lateral sclerosis and Guillan Barré. In addition patients in ICU are often unable to communicate as a consequence of surgery, trauma and life threatening medical conditions.

Figures published by Beukelman and Ansel (1995) indicate that in the United States 0.8%-1.2% of the population experience severe communication impairments that would benefit from AAC intervention. A study done by Enderby and Philipp (cited in Beukelman & Mirenda 1998) concluded that 1.4% of the total population in the United

Kingdom have a severe communication disorder that makes it difficult for them to be understood by anyone outside their immediate family. In South Africa there have been no comprehensive surveys identifying severe communication disorders amongst the total population but a survey by Alant and Emmett (1995) indicated that 39% of learners in schools for children with severe disabilities have little or no functional speech. This is significantly higher than the 6% reported in First World countries. The high incidence in South Africa is could be due to inadequate rehabilitation facilities and services, exacerbated by the lack of transdisciplinary teamwork.

AAC: ASSESSMENT AND INTERVENTION

The choice of AAC intervention strategies and techniques is dependent on an in-depth assessment, which identifies the specific client's strengths and needs. The AAC assessment, which should always be carried out by a transdisciplinary team, focuses on what the client can do so as to affect a communication system as quickly as possible. Transdisciplinary teamwork, which promotes role release, is central to the effective functioning of the physiotherapist within the field of AAC. In addition, the involvement of the client, his family and significant others, as core team members, is central to the positive outcome not only of AAC implementation, but also of the rehabilitation programme as a whole.

There are two major categories of AAC strategies, namely aided and unaided. Unaided systems refer to those symbol systems which 'do not require any aids or devices for production' (Lloyd et al, 1986:168). These systems would include gestures, finger spelling, eye-blink and facial expressions. Aided symbol systems refer to those symbol systems 'that require some type of external assistance, or an aid or device (e.g. paper, pencil, pictures, charts, communication boards, and in some cases electronic devices)' (Lloyd et al, 1986:168). Advances in technology have made available a range computers and assistive communication devices with features that are able to impact the competence of some users markedly. AAC

users will never have only one means of communication. Their communication will, in common with regular human communication, be multimodal in nature. This involves using combinations of speaking, gesturing, facial expressions and body language, writing, typing etc. Users of AAC systems should therefore include both the communication means they have developed naturally, without formal intervention, and those means, strategies, and techniques that can be facilitated or taught by clinicians/educators. One of the tenets of AAC is '*that a person communicates is more important than how he communicates*'. In essence this describes a functional approach in which the user is encouraged to use whatever means he is has to convey his message. It must be stressed that, as speech is the most normal and most efficient means of communicating, AAC intervention always encourages and facilitates verbal output. The myth that the introduction of augmentative or alternative means of communication inhibits the development of speech has been allayed as these strategies have been shown to facilitate verbal output, as a result of decreasing the stress and frustration caused by the inability to communicate (Silverman 1995).

AAC AND THE PHYSIOTHERAPIST

Lloyd et al (1997) details some of the specific skills the physiotherapist brings to AAC assessment and intervention. These include determining whether the person has adequate motor control for unaided means of communication such as manual signs or communication displays; identifying body site(s) and movement patterns that can be used to control AAC devices; determining the optimal position of both the client and the device; designing the AAC system that best matches the person's motor abilities and formulating strategies to promote components of movement to enhance motor control of the AAC system. Beukelman and Mirenda (1998) also detail the significant role of the physiotherapist in the AAC team referring to their expertise in areas of mobility aids, motor control and learning, positioning, maintenance of muscle

strength and range of motion as well as training of balance and coordination.

When faced with a client with LNFS it is essential for the physiotherapist to have the knowledge and skills to be able to use AAC strategies functionally to optimise her effectiveness as a therapist. As the AAC user communicates with the physiotherapist she will become more proficient in the use of the communication system which will facilitate further interactions. The importance of this role modeling should not be underestimated. Significant others are often motivated to use the AAC systems having seen them being used functionally by various members of the collaborative team. This is highlighted by Alant and Bornman (1994:24) 'The success of any communication system depends on the consistent and spontaneous implementation of this system across all situations, functions and partners'.

Knowledge of AAC systems will enable physiotherapists to make timely referrals. An example might be a client with amyotrophic lateral sclerosis (ALS). Often the client may consult physiotherapist long before he loses his ability to communicate. Early exposure to the field of AAC will enable the client to make informed decisions about the techniques and strategies he would like to use when he is no longer able to speak. Strategies such as 'voice banking' (where a client makes voice recordings which may later be used as part of an AAC system) should be investigated. In addition becoming familiar with the features of assistive speech devices and adapted computers may well enhance quality of life during the terminal stages of the disease. The implementation of an AAC system should therefore not be regarded as a 'last resort' but rather become an integral part of the client's rehabilitation process.

The main body of AAC literature clearly reflects that physiotherapists have a critical role to play in the provision of AAC services. "The profession of physiotherapy has a significant role to play in the intervention of people with little or no functional speech as a significant percentage of these people are physically severely challenged" (Alant 2000:27). In South Africa there are at

present only four physiotherapists with recognised qualifications in the field of AAC. For physiotherapists there is no formal training available at undergraduate level. Academic institutions need to seriously consider the exposure of physiotherapy students to the practice of AAC to equip them to interact with clients with severe communication difficulties. As we move towards transdisciplinary teamwork, training programmes need to be adapted to address changing needs in service delivery.

Those tempted to leave communication intervention to the speech language pathologist should heed the words of Jean-Dominique Bauby, the 42-year-old editor-in-chief of *Elle* magazine, who suffered a brainstem stroke, which resulted in 'locked in syndrome'. In his book, 'The Diving-Bell and the Butterfly', which he 'dictated' making use of an alphabet board and indicating his choice of each individual letter by means of an eye blink (the only voluntary movement at his disposal) he describes his feelings:

'The identity badge pinned to Sandrine's white tunic says 'Speech Therapist' but it should read 'Guardian Angel'. She is the one who set up the communication code without which I would be cut off from the world. But alas! While most of my friends have adopted the system, here at the hospital only Sandrine and one lady psychologist use it. So I usually have the skimpiest arsenal of facial expressions, winks and nods to ask people to shut the door, turn on the tap, lower the volume on the TV, or fluff up a pillow' (Bauby, 1997:47).

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