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SLP's PRACTICES REGARDING AAC IN GERIATRIC POPULATION WITH NEUROLOGICAL DEFICITS

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ABSTRACT

Background:

Individuals with spoken or written communication difficulties can use augmentative and Alternative Communication (AAC) devices. These devices are beneficial for people with various conditions. According to SLPs, AAC is more effective for people with significant communication difficulties. Devices are recommended based on the patient's strengths and deficiencies. **Objective:**To determine how speech-language pathologists treat older people with neurological disabilities who use augmentative alternative communication. **Method:**This study was a cross-sectional survey. A purposive sampling technique was used to collect data. After obtaining consent from the institute. Data was collected through a questionnaire from both male and female speech therapists dealing with neurological deficits in the adult population. For this purpose, the sample size taken was 260. The survey included a predesigned questionnaire about how long SLPs were practicing and their comfort levels regarding both AAC implementation and assessment. The data was analyzed by using SPSS which was a statistical software program used for data analysis. **Results:** The present study showed that speech and language pathologists had a better understanding of working with individuals. AAC was widely utilized due to its dependability, availability of technical assistance, and ease of use by the user. **Conclusions:** It was concluded that the majority of SLPs have knowledge about AAC in the geriatric population. AAC techniques should be understood by speech-language professionals. The AAC technique should be implemented as soon as feasible to provide impacted persons with a means of communicating themselves. AAC treatment can be used as long

INTRODUCTION

Dyslexia Adult speech-language pathologists (SLPs) routinely evaluate and treat patients who experience complex communication challenges as a result of a neurological disorder. SLPs start by doing thorough evaluations to spot communication and swallowing difficulties. Standardized tests, interviews, and observations could be used in this(1). To enhance phonological and articulation processes, SLPs work with clients, particularly youngsters. Therapy for people with language impairments, such as problems with expressive and receptive language, is offered by SLPs(2). Stutterers and those with fluency issues might benefit from SLPs' assistance in increasing their communicative fluency(3). To enhance vocal quality and avoid vocal abuse, SLPs work with individuals who have voice issues(4). Dysphagia, a problem of swallowing, is assessed and treated by SLPs in patients of all ages. To use AAC systems and devices, SLPs help people with severe communication problems(5). SLPs must be attentive to the various requirements of their customers and possess cultural competence. The best available research and industry standards should serve as the foundation for SLP treatments(6). For senior patients with neurological deficiencies, SLPs collaborate with other medical specialists including occupational therapists, physical therapists, and neurologists to offer comprehensive treatment(7).

AAC is an acronym for augmentative and alternative communication. The American Speech-Language-Hearing Association (ASHA) defines AAC as "attempts to study and, when necessary, temporarily or permanently compensate for the impairments, activity limitations, and participation restrictions of individuals with severe disorders of speech-language production and or comprehension." The AAC is an Assistive Technology (AT) that consists of techniques, services, and equipment aimed at promoting independence and increased engagement of handicapped people, including those with language impairments, in the environments in which they operate(8). Comprehensive evaluation and prescription of proper augmentative and alternative communication (AAC) systems are essential success factors in treatments for people with complex communication requirements. However, for speech-language pathologists (SLPs) who do not undertake these evaluations on a regular basis, testing children for AAC systems can be burdensome. These may include both spoken and textual communication modalities." AAC is used when an individual's speech, written word, or gesture-system lacks the ability to satisfy all of their interaction expectations, which may be either short- or long-term(9). AAC (Augmentative and Alternative Communication). Devices are intended for use by handicapped children and people

with complicated communication needs. Regarding the potential advantages of AAC technology, there seems to be a significant percentage of lack and abandonment, particularly among those with severe impairments. Adults with severe disabilities have difficulty using traditional AAC technology such as grid matrix interactive displays in staged settings and decontextualized AAC signals(10). When communication skills are not functioning, augmentative and alternative communication (AAC) is a method of communicating using devices/techniques.(11) Persons with serious illnesses who are unable to talk utilize computer-based Augmentative and Alternative Communication (AAC) systems. AAC equipment is intended to enhance communications and every aspect of life(12) Clinicians in AAC confront the challenge of developing message formulation techniques that promote effective communication and raise the AAC user's perceived competence (13). It is believed that between one third and one half of autistic children and adults do not utilize speech productively (14). By optimizing function, supporting with decision making and giving possibilities for personal growth, AAC can enhance quality of life (15)

MATERIAL AND METHODS

It was a cross-sectional survey. It was conducted by using a purposive sampling technique. The sample size was 272 which was calculated by using an online sample size calculator keeping 90% of confidence and 5% of margin error. A predesigned questionnaire “Awareness and use of Augmentative and Alternative Communication” (16) was used. Both participants male and female were included. SLPs with BS, MS, and Ph.D., and SLPs with a minimum of 1 year experience were included. SLPs working in administrative posts and SLPs working in Academic posts were excluded. Conducting this study after the consent form the therapist collected the data from Dimensions Lahore, Rehab Care Lahore, Mayo Hospital, and an online survey. Data was analyzed through SPSS version 23 and EndNote was used for referencing.

RESULTS

Table# 1: Demographic of the participants

Demographics		Frequency (%)
Age	22-25 years	46.2%
	25-35 years	31.1%
	35-45 years	12.3%

	45-50 years	10.4%
Gender	Male	14.6%
	Female	85.0%
Highest Degree Completed	PhD	18.1%
	MS(SLP)	56.2%
	BS(SLP)	38.1%
Currently Working	Yes	51.2%
	No	42.8%
Working in which sector	Private Hospital	13.6%
	Govt. Hospital	37.6%
	Rehabilitation Center	48.8%
Work Experience	1-2 years	42.1%
	3-5 years	29.2%
	5-9 years	12.2%
	More than 10 years	16.5%

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Table # 2: Frequency and Percentage of the Questionnaire

Questions	Strongly Agree	Agree	I Don't Know	Disagree	Strongly Disagree
Augmentative and alternative communication is used to find a suitable	100 (38.5)	156 (60.0)	-	4	-

system of communication for clients who are unable to speak.				(1.5)	
Augmentative and alternative communication is used for social interaction	106 (40.8)	142 (54.6)	-	12 (4.6)	-
Augmentative and alternative communication is used for complex communication needs, when individuals cannot meet their daily communication needs through their current method of communication	100 (38.5)	133 (51.2)	4 (1.5)	23 (8.8)	-
Augmentative and alternative communication is the use of symbols to enhance effectiveness of communication.	97 (37.3)	141 (54.2)	6 (2.3)	16 (6.2)	-
Augmentative and alternative communication can also be used with a client who is able to speak but may not be clear in terms of understanding	76 (29.2)	165 (63.5)	11 (4.2)	8 (3.1)	-
General communication is not considered part of augmentative and alternative communication	56 (21.5)	107 (41.2)	72 (27.7)	25 (9.6)	-
An augmentative and alternative communication device should be introduced only when the adult can understand pictures.	30 (11.5)	176 (67.7)	20 (7.7)	34 (13.1)	-

Augmentative and alternative communication (augmentative and alternative communication) is any strategy that helps an adult participate and communicate better with the speaker/listener	70 (26.9)	173 (66.5)	17 (6.5)	-	-
Augmentative and Alternative communication uses augments and can enhance speech production	81 (31.2)	145 (55.8)	23 (8.8)	11 (4.2)	-

DISCUSSION

The current study's findings indicate that while SLPs seemed aware of certain aspects of AAC, others remained unfamiliar. According to the present study, AAC is beneficial in social interactions, and 99.99% of SLPs agreed. Similar research was conducted in the USA. To learn more about the knowledge of SLPs and experience using alternative and augmentative communication (AAC), More than 50% of the SLPs who responded to the poll said they frequently promote AAC systems. The poll findings revealed a need for better and more efficient educational preparation in this specialist field, although additional study is required to fully understand the complexities of the clinical usage of assistive devices.(17) Whereas the present study showed that speech and language pathologists had better understand of working with individuals. AAC is widely utilized due to its dependability, availability of technical assistance, and ease of use by the user. AAC is also utilized by those who can talk but are not clear. Another title of research was Augmentative and Alternative Communication Technology by Persons with ALS. Only 4% (n = 2) of the participants in this research refused the AAC technology, whereas 96% accepted it either right away (90%) or after some delay (6%). None of the participants stopped utilizing their AAC equipment.(18) A high degree of acceptance was often seen. As compared to present study, the usage of communication aids was well received by participants overall. One more research was conducted to assess Pakistani speech pathologists' knowledge of and proficiency in the use of

augmentative and alternative communication methods. The overall computed mean and standard error of mean from participants who agreed and strongly agreed on comprehension, opinion-assessment, and interventions for augmentative and alternative communication were 15336.373 and 12.124, respectively (16). As compared to the present study General interaction is not included in augmentative or alternative communication, few SLP's selected agree but few of them answered don't know, indicates that few respondents doesn't know that general communication is not considered part of AAC.

The research was conducted in Scotland by Linda Armstrong. Therefore, one of the primary goals of this exploratory study was to collect the experiences and viewpoints of speech and language therapists working in this sector. Future studies on effectiveness and clinical applications will be built on the information provided here. About their experiences introducing low- and high-tech AAC devices to this clientele. This research concluded that Early referral is essential for early intervention, and both the SLTs included in this study and the participants with PD and their carers identified this as an ongoing issue. Perhaps one approach is to use data from well planned and controlled studies to establish the communicative efficacy of assisted AAC for persons with PD (19). According to present study an augmentative and alternative communication is used for complex communication needs, when individuals cannot meet their daily communication needs through their current method of communication.

Nada A.M. Alsari conducted research in Saudi Arabia in 2020 to create and disseminate a survey to get greater insight into the Kingdom of Saudi Arabia's (KSA) perspectives on funding, accessibility, and augmentative and alternative communication (AAC) devices and services. In order to reach a wide range of respondents throughout KSA, the survey was prepared and carried out online via a survey website. The three groups of people the survey was designed to reach out to were: people with disabilities and their families; those who work in the healthcare field, such as doctors and nurses; and thirdly, people in the community. The results demonstrated that there were variations in the levels of awareness for AAC across the three groups ($\chi^2 = 14.45$, $p = 0.001$), with healthcare practitioners displaying a higher degree of awareness than the other two categories (20). Therefore the current study indicates that General communication is not considered part of augmentative and alternative communication. Half of the SLP's agreed with the use of symbols in augmentative and alternative communication to improve effectiveness of communication. 63% of respondents answered agreed and 29% were strongly agreed about the statement that is

augmentative and alternative communication may also be utilized with a person who can talk but may not comprehend what they are saying.

Conclusion: It was concluded that majority of SLP's have knowledge about AAC in geriatric population. AAC techniques understood by speech-language professionals. The AAC technique should be implemented as soon as feasible to provide impacted persons with a means of communicating themselves. This can assist in lessening irritation and improving understanding. AAC treatment can be used as long as it is needed. AAC should be administered as soon as feasible, depending on the client's strength.

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