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**Speech and Language Therapists' Perspectives about Augmentative
and Alternative Communication (AAC) System for People with
Acquired Communication Disorders in Addis Ababa**

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Speech and Language Therapists' Perspectives about Augmentative and Alternative Communication (AAC) System for People with Acquired Communication Disorders in Addis Ababa

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This is to certify that the thesis is prepared by Biruktawit Massresha, entitled "speech and language therapists' perspectives about augmentative and alternative communication (AAC) system for people with acquired communication disorders in Addis Ababa" in partial fulfillment of the requirements for the award of the degree of Master of science in speech language therapy.

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DECLARATION

I, the author of this thesis, have written the thesis entitled "speech and language therapists' perspectives about augmentative and alternative communication (AAC) system for people with acquired communication disorders in Addis Ababa" in partial fulfillment of the requirements for the award of the degree of Master of science in speech language therapy. I declare that it is my original work prepared under the close supervision of my advisors DR. Tilahun Achaw, DR. Yared Mamushate, SLP. Tracy Shepherd. All sources of materials used for this thesis have been duly acknowledged and I confirm that this thesis has not been previously submitted either partially or fully to any higher learning institute.

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ABSTRACT

Acquired communication disorders, resulting from conditions such as stroke, traumatic brain injury, and neurodegenerative diseases, can severely impact an individual's ability to communicate effectively. AAC systems, which encompass a range of tools from simple picture boards to speech-generating devices, offer vital support for these individuals. This study aimed to explore SLTs perspectives, challenges in adopting and specific strategies to enhance the acceptance of AAC systems among individuals with ACDs in Addis Ababa. A qualitative research design was used with 9 speech therapists working in Addis Ababa with semi-structured interviews and focus group discussions. Interviews and group discussions were transcribed in Amharic and thematically analyzed. The findings reveal that while SLTs recognize the potential of AAC systems to enhance communication and improve the quality of life for individuals with ACDs, these barriers include the limited availability of AAC devices, a lack of training and professional development opportunities for SLTs, and insufficient awareness among patients and their families. Moreover, cultural considerations are crucial in the acceptance and success of AAC interventions. SLTs in Addis Ababa are advocating for increased awareness, enhanced training programs, and better resource allocation for AAC systems to improve communication in individuals with ACDs, while also seeking mentor-ship from other countries. For improving AAC service delivery in Addis Ababa, emphasizing the need for increased investment in resources, collaborating with multidisciplinary, comprehensive training programs for SLTs, and greater community outreach to raise awareness about the benefits of AAC systems.

Keywords: Augmentative and Alternative Communication, acquired communication disorders; speech-language therapy, acceptance

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ACRONYMS/ABBREVIATIONS

AAC-----Augmentative and alternative communication

SLT-----Speech language therapy

ACD-----Acquired communication disorder

TBI-----Traumatic brain injury

SGD-----Speech generating device

PD -----Parkinson disease

MS-----Multiple sclerosis

ALS----- Amyotrophic lateral sclerosis

WHO-----World health organization

CHAPTER ONE

INTRODUCTION

1.1. Background of the Study

Communication is a vital and multifaceted process that enables individuals to convey information, express emotions, and share ideas through various modalities, including verbal, nonverbal, and written forms (Beukelman & Ball, 2002). However, communication disorders can severely hinder this process, affecting individuals of all ages. These disorders encompass a range of challenges related to speech and language, including stuttering, voice disorders, language impairments, and difficulties with non-verbal communication (ASHA, n.d.).

Acquired communication disorders (ACD) specifically refer to difficulties in speech and language that emerge after a period of typical communication development, often due to medical conditions such as strokes, traumatic brain injuries (TBI), or neurodegenerative diseases. These disorders can profoundly impact an individual's ability to communicate effectively, leading to a sudden or gradual loss of speech capabilities. Conditions such as Multiple Sclerosis, Parkinson's disease, and Amyotrophic Lateral Sclerosis are examples of neurological conditions that can result in ACD, significantly affecting individuals' abilities to express their needs, thoughts, and emotions (National Academies of Sciences, Engineering, and Medicine, 2016; David et al., 2010).

In response to these challenges, augmentative and alternative communication (AAC) has emerged as a crucial field within clinical practice. AAC provides support for individuals with impairments in speech-language production and comprehension, encompassing both spoken and written communication modes. This support is part of a broader category of assistive technology, which includes various tools and strategies designed to enhance daily functioning for individuals with disabilities (Elsahar et al., 2019). AAC systems serve as alternatives to or supplements for verbal speech, offering diverse methods of communication such as communication boards, electronic devices, and speech-generating devices. Techniques may include manual signs, gestures, tangible objects, line drawings, and picture communication boards, facilitating the expression of thoughts and emotions (Baxter et al., 2012). AAC can be classified into three categories: augmentative, which supplements existing speech; alternative, which replaces absent

or non-functional speech; and temporary, used during recovery from acquired communication disorders (Elsahar et al., 2019).

Speech-language therapists (SLTs) play a pivotal role in assessing and treating communication disorders. They are trained to evaluate language and communication abilities, set individual goals, and identify support needs (MacDonald, 2017; Togher et al., 2023). SLTs are the primary allied health professionals responsible for AAC assessment, trials, training, and education, making informed recommendations for individuals who may benefit from these communication aids (ASHA, n.d.).

The focus of this study is on aided forms of communication, which refer to individuals who require additional tools, such as technology, to communicate effectively. Aided communication systems are typically categorized into high technology and low technology, with light technology serving as an intermediary. High-tech systems include speech-generating devices (SGDs) and specialized communication software, while low-tech alternatives consist of images and graphic symbols that do not require power (Elsahar et al., 2019).

Research indicates that individuals with acquired communication disorders can significantly benefit from AAC systems (Tombaugh et al., 1999). However, acceptance and continued use of these systems can be influenced by various factors, including individuals' perceptions of their impairments and their social contexts. For instance, those who previously relied on natural speech may face challenges in accepting AAC systems due to their self-perception following an acquired impairment, such as a stroke (Fager et al., 2006). The study titled "Speech and Language Therapists' Views about AAC System Acceptance by People with Acquired Communication Disorders" highlights that the early post-onset period, particularly after a stroke, negatively impacts patients' willingness to engage in speech therapy and adopt AAC systems (Pampoulou, 2019). Additionally, a lack of user feedback in decision-making processes has been identified as a significant barrier to the discontinuation of AAC systems (Pampoulou, 2019).

Understanding the complexities surrounding communication disorders, particularly acquired communication disorders and the role of AAC, is essential for improving therapeutic practices and enhancing the quality of life for affected individuals. Continued research and focus on user perspectives and experiences will be vital in promoting the acceptance and effective use of AAC systems in clinical settings.

1.2. Statement of the Problem

Acquired communication disorders (ACDs) present significant challenges for individuals, manifesting in various forms such as aphasia, dysarthria, apraxia of speech, and cognitive-communication disorders (Dattilo et al., 2008). These disorders can affect an individual's ability to understand, express, or both, leading to difficulties in communicating their needs, ideas, and thoughts. The impact of ACDs on communication can severely hinder social interactions and diminish overall quality of life.

To address the loss of natural speech, individuals with ACDs often turn to augmentative and alternative communication (AAC) systems, which have evolved significantly over the past 60 years. AAC provides individuals with nonverbal or limited speech capabilities the means to communicate through both assisted and unassisted methods, including gestures, signs, and blinking (Cooper et al., 2009). Despite the effectiveness of AAC systems in facilitating communication, the acceptance and utilization of these systems among individuals with ACDs can vary widely.

The concept of "acceptance" of AAC systems is multifaceted, with scholars offering different definitions that emphasize various aspects of this phenomenon. For instance, Scherer (1993) and Deruyter & Kennedy (1991) distinguish between partial or reluctant use where individuals require significant support and optimal use, characterized by a willingness to use the system consistently. The success of AAC usage is often contingent upon the involvement of unfamiliar communication partners, as noted by Murphy et al. (1996), while Dietz (2012) highlights the importance of the frequency and duration of use. Johnson et al. (2006) further define long-term usage as consistent engagement with the AAC system across the majority of communication partners.

In practice, individuals with ACDs may utilize AAC systems during speech and language therapy sessions and in familiar environments, such as their homes, where support from family members and therapists can enhance communication effectiveness (Fried-Oken & Doyle, 1992). However, challenges persist, and various terms have been used to describe the phenomenon of individuals not using AAC systems, including abandonment, avoidance, and rejection. Rejection

and avoidance often occur when individuals refuse to engage in the necessary training to effectively use the recommended AAC system (Fager et al., 2006).

This study aims to investigate the perspectives of speech-language therapists (SLTs) regarding the acceptance of AAC systems among individuals with acquired communication disorders in Addis Ababa, Ethiopia. By exploring the attitudes, beliefs, and challenges faced by SLTs, the research seeks to uncover the factors influencing AAC system acceptance and the overall effectiveness of AAC interventions within the context of ACDs.

Despite the potential benefits of AAC systems, the acceptance and utilization of these tools among individuals with ACDs in Addis Ababa remains uncertain (Fisher & Shogren, 2012). Many individuals in this region encounter significant barriers to effective communication and social participation, yet the perspectives of SLTs on AAC system acceptance are not well understood. This study aims to fill this knowledge gap, providing insights that could inform future interventions and improve the quality of life for individuals with acquired communication disorders.

1.3. The Purpose of the Study

This study aim was to explore speech and language therapists' perspectives about augmentative and Alternative communication (AAC) system acceptance by people with acquired communication disorders in Addis Ababa.

1.4. Research questions

The study aims to answer the following research questions:

1. How do speech and language therapists increase the acceptance of AAC systems among individuals with acquired communication disorders in Addis Ababa?
2. How do speech and language therapists perceive challenges in the adoption and utilization of AAC systems by individuals with acquired communication disorders in Addis Ababa?
3. How do speech and language therapists propose specific strategies to enhance the acceptance of AAC systems among individuals with acquired communication disorders in Addis Ababa?

1.5. The Significance of the Study

The study's significance lies in its potential to contribute valuable insights to both research and clinical practice. Improving Treatment Effectiveness by understanding Speech and Language Therapists' perspectives can enhance the effectiveness of AAC interventions by identifying barriers to acceptance and utilization. This insight can lead to tailored strategies to improve communication outcomes for individuals with acquired communication disorders. Enhancing Patient-Centered Care by comprehensively exploring therapists' viewpoints, the study can promote a patient-centered approach to AAC intervention. Insights gained can inform therapy practices that better align with the needs, preferences, and cultural contexts of individuals with communication disorders in Addis Ababa. Findings from the study can contribute to the development of policies and guidelines that support the integration of AAC systems into clinical practice. This can lead to improved access to AAC services and better quality of care for individuals with acquired communication disorders in Addis Ababa and beyond.

Furthermore, the findings can serve advancing research and education as a basis for further research into AAC acceptance and utilization and fostering future research endeavors and advancements in communication science and therapy in similar contexts. Additionally, it can inform the training and education of Speech and Language Therapists, ensuring they are equipped with the knowledge and skills necessary to effectively support individuals with acquired communication disorders using AAC systems.

In summary, the study holds significant importance as it aims to bridge the gap between theory and practice, ultimately improving the quality of care and support provided to individuals with acquired communication disorders in Addis Ababa.

1.6. The Scope of the Study

The research specifically focuses on speech and language therapists practicing in Addis Ababa, Ethiopia, providing valuable insights into the local context and the unique challenges and opportunities present in this urban setting. It delves into the views and experiences of speech and language therapists, exploring their perspectives on the acceptance of augmentative and alternative communication (AAC) systems for individuals with acquired communication

disorders. The study will concentrate on therapists working within healthcare facilities and organizations in Addis Ababa, Ethiopia, who actively work with individuals having acquired communication disorders such as aphasia, dysarthria, and apraxia resulting from conditions such as stroke, traumatic brain injury, or neurodegenerative disorders. The primary focus is to investigate therapists' attitudes, knowledge, and experiences related to AAC system acceptance, including their views on utilization, effectiveness, challenges, and benefits. The study aims to explore therapists' beliefs, perceived barriers, and facilitators for AAC system acceptance, as well as their practices in promoting AAC use.

1.7. Definitions of Terms

Speech and language therapy: refers to treatment, intervention, support and care for children and adults who have difficulties with communication, or with eating, drinking and swallowing.

Acquired communication disorders: refer to impairments in communication skills that result from damage to the brain after a period of normal development. These disorders can affect various aspects of communication, including speech, language, and related cognitive functions. Acquired communication disorders often occur as a consequence of conditions such as stroke, traumatic brain injury, neurodegenerative diseases or other neurological disorders.

Augmentative and Alternative Communication (AAC): involves using various tools, strategies, and techniques to support or enhance communication for individuals with speech or language impairments. This can include gestures, communication boards, speech-generating devices, or other means to help people express them when traditional forms of communication are challenging.

Aided AAC: refers to the use of external tools or devices to support and enhance communication of individuals with speech or language impairments and these aids can include communication boards, picture symbols, electronic devices, or speech-generating devices.

Unaided AAC: refers to communication methods that do not require external tools or devices. Instead, individuals use their own body to express themselves. Examples of unaided AAC include gestures, facial expressions, body language, and sign language. Unaided AAC relies on

the person's natural abilities and doesn't involve the use of physical objects or devices to support communication.

Neurological conditions: also known as neurological disorders or diseases are medical conditions that affect the structure or function of the nervous system. The nervous system comprises the brain, spinal cord, and peripheral nerves, and it plays a crucial role in controlling various bodily functions and processes.

Thematic analysis: is a qualitative research method used to identify, analyze, and report patterns or themes within a dataset. It allows researchers to uncover rich insights, explore diverse perspectives, and generate nuanced understandings of complex phenomena. It involves systematically organizing and interpreting textual or qualitative data to uncover underlying meanings, concepts, and insights.

Perspective: refers to the viewpoints, attitudes, and beliefs held by individuals, particularly speech-language therapists (SLTs), regarding the acceptance and use of AAC systems by those affected by these disorders. This includes their understanding of how these systems can facilitate communication, the challenges faced by users, and the overall impact on the users' quality of life.

CHAPTER TWO

LITERATURE REVIEW

2.1. Definition of an Acquired Communication Disorders

Acquired Communication Disorders (ACD) affect many people, whose ability to communicate are significantly affected. This happens after surviving a stroke, traumatic brain injury (TBI), multiple sclerosis, Parkinson's disease, amyotrophic lateral sclerosis, or other neurological conditions, people may have abruptly or progressively lost their ability to speak (Beukelman et al., 2010). These people are who earlier vocally communicated their needs, wants, ideas, and thoughts to their communicative partners.

2.2. Definition of Augmentative and alternative communication

Augmentative and alternative communication (AAC) is an area of clinical practice that supplements or compensates for impairments in speech-language production and/or comprehension, including spoken and written modes of communication. AAC falls under the broader umbrella of assistive technology, or the use of any equipment, tool, or strategy to improve functional daily living in individuals with disabilities or limitations (American Speech-Language-Hearing Association, 2021).

AAC uses a variety of techniques and tools to help the individual express thoughts, wants and needs, feelings, and ideas, including the following: manual signs, gestures, finger spelling, tangible objects, line drawings, picture communication boards and letter boards, speech-generating devices (American Speech-Language-Hearing Association, 2021).

2.3. Acceptance, Rejection and Abandonment

Multiple terms exist when describing the phenomenon of a person avoiding using an AAC system, including rejection, avoidance and abandonment. The terms rejection and avoidance are often used as synonyms, referring to a person's unwillingness to accept the recommended AAC system and refusing to participate in the training that is required in order to learn to use it (Tombaugh et al., 1999). Abandonment implies that the person has obtained an AAC system, but they have chosen to stop using it (Tombaugh et al., 1999). However, as Fried-

Oken et al. (1992), argues, this term is still problematic, because it fails to capture some vital aspects related to abandonment.

The literature surrounding AAC system's acceptance, rejection and abandonment highlights its multi-layered nature. The AAC Acceptance Model (Lasker & Bedrosian, 2001) categorizes the factors relating to acceptance of AAC into three broad areas: milieu, person and technology. Milieu focuses on the partner, environment as well as the funding options. The category of person includes the individual's attitude, personality/ emotional stage, skills and needs and the time since the onset of the disability, amongst other things. Lastly, the category of technology focuses on areas such as the durability and reliability of the system, the ease of use, the voice quality and cost. Several of these factors mentioned in the AAC acceptance model are also found in a number of research projects that took into account the perspectives of different stakeholders (e.g. SLTs, users and their communication partners) regarding AAC system acceptance.

One factor that is widely discussed in the literature about AAC acceptance/abandonment is the attitudes that individuals and their communication partners hold about the person's acquired disability. People with acquired communication disorders are those who formerly communicated through natural speech and had their own social circle of family, friends and colleagues. The attitudes they hold towards their disability, for instance, how they think about themselves after a stroke, can negatively or positively influence their choice to accept or abandon an AAC system (Lasker & Bedrosian, 2001). Brumfitt & Barton (2006) discussed several emotions that people with aphasia might experience after the loss of their communication abilities. Initially, they experience denial, thinking that the loss is temporary or maybe even not important, whereas others might think that by working hard and following the recommended treatment their communication impairment will disappear. Later, people with aphasia might experience frustration for their loss and for their inability to change what happened to them (i.e., stroke).

It is useful to consider AAC within the World Health Organization (WHO) people-centered assistive technology model, which looks beyond the assistive product alone (WHO, n.d.; WHO/ UNICEF, 2022). The WHO proposes five components of assistive technology that intersect as part of an assistive technology (AT) ecosystem and should be considered in relation to the UN Convention on the Rights of Persons with Disabilities and universal health coverage. These include consideration of the person, the AAC and other assistive products they may use,

provision of these products, personnel required to learn and maintain their use over time, and the policy environment that enables (or may limit) access to, and funding of, AAC (WHO, n.d.).

Specific to the person, it is well recognized that individual preferences must be closely considered in relation to the use of augmentative or alternative communication options (WHO/UNICEF, 2022; Togher et al., 2023). Research highlights the importance of matching an AAC system with the goals and preferences of the individual using the product, and including the person with a TBI throughout the entire assessment, recommendation and implementation phases.

The setting in which individuals with acquired communication difficulties want to communicate can also have an impact on their views regarding disability and their usage of an AAC system. People with aphasia may reject AAC systems, because they are hesitant to utilize them in public settings for fear of calling attention to their impairment (Lasker & Bedrosian, 2001). This may have a detrimental impact on their engagement in previously enjoyed activities and their social interactions with others. Additionally, users may switch their AAC systems until they discover one that makes them feel socially comfortable (Phillips & Zhao, 1993). It is a common belief among users and their families that using an AAC system may delay the return of natural speech. That is, it may be rejected or abandoned out of concern that it could impede the process of regaining natural speech or indicate that the individual is "giving up" on ever being able to talk again. But AAC will not impede or delay the return of natural speech. The literature also demonstrates that a potential user's acceptance of technology may be limited by the family's opinions toward it. To better understand the function of communication partners in AAC acceptability, more study in this area is required.

Often, people with acquired communication disorders must deal with multiple losses, in terms of language, speech, communication and/or cognition. For example, Fried-Oken & Doyle, (1992) commented that people with TBI regularly deal with challenges to their cognition (such as attention and memory), which inevitably impacts on the effective use of an AAC communication system. Consequently, these authors recommend that AAC systems for individuals with TBI should include iconic or highly concrete symbols to support these people in compensating for their loss; otherwise, they might reject the recommended system.

Moreover, the skills and needs profile of individuals with acquired communication problems is dynamic. For instance, the sensory, cognitive, and/or motor capacities of people with degenerative diseases (such Amyotrophic lateral sclerosis (ALS), Multiple sclerosis (MS), or Parkinson's disease (PD)) gradually deteriorate. Individuals suffering from stable or recuperating conditions (such traumatic brain injury, stroke) may partially or even fully regain their ability to speak naturally. When providing these people with AAC systems, these continuing adjustments must be often addressed because what was suggested in one stage may not work in another, which may lead to the AAC system being abandoned.

A survey was carried out by McCall et al. (1997).to determine the benefits and drawbacks of AAC systems. The 89 AAC users who participated in the study noted a variety of drawbacks that seemed to be connected to the abandoning of AAC systems, such as the systems' complexity, poor voice output quality, and difficulty communicating. It also became clear that they frequently had to rely solely on their communication partners due to technical malfunctions and/or physical limitations that prevented them from accessing the system on their own. Similarly, people prefer to give up on devices if they don't improve "the user's performance, and its reliability, comfort, ease of use, safety, and durability" (Phillips & Zhao 1993 p0.43). AAC acceptability may also be hampered by the length of time it takes to generate a message (Dattilo et al., 2008 & Cooper et al., 2009). It has also been found that the long time that it takes to generate a message can act as a barrier to AAC acceptance. McCord and Soto (2004) discovered that family members choose to use other methods of communication to avoid the long time that it can take to generate a message.

2.4. Challenges are perceived by SLTs in the adoption and utilization of AAC

SLTs often face constraints related to limit funding for AAC devices and services, which can hinder their ability to provide optimal AAC solutions to clients (Beukelman and Mirenda, 2013). Inadequate financial resources may limit the availability of AAC options and hinder the adoption of suitable communication solutions. Access to advanced AAC technology is essential for providing individuals with acquired communication disorders with effective communication solutions (Beukelman and Mirenda, 2013). However, SLTs may encounter challenges in accessing and obtaining appropriate AAC technology due to financial barriers, limited availability, or lack of infrastructure.

Time constraints within clinical settings can pose significant challenges for SLTs in adequately assessing, selecting, and implementing AAC systems for individuals with acquired communication disorders (Beukelman and Mirenda, 2013). Limited time for assessment, training, and follow-up may impact the thoroughness and effectiveness of AAC interventions. Cultural and societal factors can influence the acceptance and utilization of AAC systems among individuals with acquired communication disorders (Hemsley et al., 2018). Factors such as cultural beliefs, attitudes toward disability, and social stigma may affect individuals' willingness to engage with AAC solutions.

Promoting the acceptance and adoption of augmentative and alternative communication (AAC) technologies among people with acquired communication problems presents substantial challenges for speech-language therapists. Time limits, technological access issues, and limited funds in healthcare settings might make it difficult to provide the best AAC solutions. Furthermore, sociological and cultural variables have a big impact on how clients embrace AAC (Beukelman and Mirenda, 2013). SLTs, legislators, healthcare professionals, and communities must work together to address these issues in order to guarantee fair access to AAC services and foster an atmosphere that is conducive to AAC adoption and inclusion.

2.5. Strategies used by SLTs and recommendations for fostering the acceptance of AAC

In order to comprehend each person with an acquired communication disorder's particular communication needs, preferences, and abilities, SLTs perform thorough assessments (Beukelman & Mirenda, 2013). Adapting AAC solutions to each person's unique profile increases engagement and acceptance. Acceptance and usability are increased when the AAC system is tailored to the demands of the individual. To create goals and objectives for effective communication, SLTs work in conjunction with clients, caregivers, and other healthcare professionals (Light et al., 2004). Involving stakeholders promotes commitment and buy-in to the implementation of AAC systems.

Based on client-specific characteristics including motor abilities, cognitive capacities, and communication preferences, SLTs direct the choice of AAC systems (Ball et al., 2010). SLTs

offer clients, caregivers, and support networks thorough instruction and training on how to operate, maintain, and troubleshoot AAC systems (Beukelman & Mirenda, 2013). Long-term engagement and acceptability are improved by developing proficiency and confidence in the usage of AAC. Long-term success and acceptance of the AAC system are enhanced by consistent assistance. By putting these crucial tactics into practice, SLTs help people with acquired communication disorders live better lives overall and achieve better communication outcomes Hemsley et al., (2018).

To enhance the accessibility and usability of AAC systems in many contexts and settings, SLTs evaluate and adjust environmental parameters (Hemsley et al., 2018). Establishing encouraging surroundings makes it easier for AAC to be accepted and integrated into everyday activities.

In order to facilitate successful communication exchanges with AAC users, SLTs provide direction and training to communication partners light et al., (2004). Social interaction results and AAC acceptance are improved when communication partners are empowered.

SLTs offer continuing assistance, observation, and follow-up to handle new requirements, difficulties, and modifications pertaining to the use of AAC systems Ball et al., (2010).

To help people with acquired communication impairments accept and use augmentative and alternative communication (AAC) technologies, speech therapists use a range of techniques. Enhancing AAC acceptance and integration into clients' daily lives and improving communication outcomes is the goal of SLTs through individualized evaluation, collaborative goal formulation, training and education, AAC system selection, environmental change, communication partner training, and ongoing support.

Speech and language therapists play a critical role in facilitating the acceptance of Augmentative and Alternative Communication (AAC) systems by individuals with acquired communication disorders. Their perspectives highlight the importance of client-centered approaches, comprehensive training and support, interdisciplinary collaboration, and evidence-based practice in optimizing AAC acceptance and utilization.

2.6. The perceptions of Speech and Language Therapists regarding Augmentative and Alternative Communication

The perceptions of Speech and Language Therapists (SLTs) regarding Augmentative and Alternative Communication (AAC) systems reveal a complex landscape shaped by various factors. Many SLTs express strong belief in the potential benefits of AAC for individuals with communication disorders. However, they often report a lack of confidence in their skills related to AAC implementation, indicating a need for further training and support from professional bodies and employers (Yaşa & Tokalak, 2023).

SLTs identify several barriers to the effective use of AAC, including inadequate training, limited resources, and systemic issues within healthcare settings. These challenges hinder the adoption and integration of AAC systems into therapeutic practices (Kamonsitichai & Goldstein, 2023). Research indicates that SLTs' perceptions can vary significantly based on their experiences and the specific AAC modalities being considered. For instance, in Thailand, SLTs rated iPad-based speech-output technologies as the most effective and preferred AAC mode, while gestural communication was seen as the easiest to learn and use. This highlights the importance of context in shaping perceptions (Pampoulou, 2019).

The acceptance of AAC systems is influenced not only by the therapists' views but also by the perceptions of the wider community, including family members and peers. Engaging these stakeholders is crucial for promoting the use of AAC and ensuring its effectiveness. There is a consensus among SLTs that comprehensive training programs are essential for enhancing their competence in AAC. This training should address both the technical aspects of AAC systems and the broader context of communication disorders (Kamonsitichai, 2021). SLTs emphasize the importance of reflexivity in their practice, encouraging on-going reflection on their biases and assumptions regarding AAC. This self-awareness can lead to improved practices and better outcomes for clients (Yaşa & Tokalak, 2023).

Negative attitudes can severely limit the communication opportunities for AAC users. For instance, family members' negative perceptions have been identified as barriers to AAC implementation, leading to reduced expectations for users and limiting their engagement in communication situations (Iacono & Cameron, 2009; Johnson et al., 2006). Conversely, positive attitudes can enhance communication partners' willingness to engage, thereby facilitating better communication outcomes for AAC users (McCarthy & Light, 2005).

The level of knowledge that communication partners possess about AAC systems can either enhance or hinder their effectiveness in supporting AAC users. Studies have shown that a lack of understanding regarding AAC can lead to unmet communication needs for individuals with severe or profound intellectual disabilities (Rombouts et al., 2016; Wilder et al., 2015). Training and education for communication partners are essential to improve their skills and confidence in using AAC, which in turn positively influences AAC usage (Wilder et al., 2015).

The broader environment, including policies, practices, and societal attitudes, plays a significant role in shaping communication partners' attitudes toward AAC. Factors such as the setting, time of day, and the characteristics of both the AAC user and communication partners can influence perceptions and interactions. For example, individuals with prior experience with disabilities tend to have more positive attitudes toward AAC than those without such experiences (McCarthy & Light, 2005). Effective communication strategies employed by partners are crucial for successful AAC usage. Communication partners are encouraged to take the initiative in conversations, repair breakdowns, and invest time in understanding the AAC user's intentions (Hayhoe, 2012).

CHAPTER THREE

RESEARCH METHODDD

3.1. Research Approach and Design

The study examining speech and language therapists' (SLTs) perspectives on the acceptance of augmentative and alternative communication (AAC) systems by individuals with acquired communication disorders in Addis Ababa, Ethiopia, utilized a qualitative research approach. This approach enabled an in-depth exploration of the therapists' perspectives, experiences, and attitudes toward AAC system acceptance, facilitating a comprehensive understanding of the barriers, facilitators, and challenges associated with AAC in the specific context of Addis Ababa. In addition it allowed researcher to gather rich, detailed insights into the complexities surrounding AAC system acceptance.

A case study research design was applied to provide a comprehensive understanding of the complex issues related to AAC system acceptance. Case studies are widely utilized in social, educational, and clinical research, making them particularly suitable for describing, comparing, evaluating, and understanding different aspects of the research problem. This design allowed for the exploration of specific instances related to AAC system acceptance over time, involving detailed data collection from multiple sources (McCombes, 2023). By selecting SLTs as case studies, the researchers aimed to examine their unique perspectives, experiences, and practices regarding AAC system acceptance. This design not only offered practical insights and recommendations for improving AAC intervention practices but also promoted system acceptance among users.

The qualitative case study design allowed for a deep understanding of the subject and its context, revealing key characteristics, meanings, and implications within its natural setting. Insights gained from this research are expected to contribute to enhancing AAC intervention strategies, ensuring that they are tailored to meet the needs of individuals with acquired communication disorders effectively. Furthermore, the findings will inform training programs for SLTs,

equipping them with the necessary skills and knowledge to support AAC system adoption and utilization among their clients, thereby improving overall communication outcomes.

3.2. Research Site

The study was conducted in Addis Ababa, the capital city of Ethiopia. Addis Ababa is located in the central part of the country and serves as the political, economic, and cultural hub of Ethiopia. As the largest city in Ethiopia, Addis Ababa is home to various educational and healthcare institutions, making it an ideal location for research in the field of speech and language therapy. The city's diverse population provides researchers with the opportunity to explore a range of perspectives on augmentative and alternative communication (AAC) system acceptance among people with acquired communication disorders. By conducting the study in Addis Ababa, researcher can gain insights that are specific to this particular context, contributing to a more comprehensive understanding acceptance of AAC in terms of speech and language therapists' perspective in this region. The findings from this study may have implications for the broader field of AAC research and could inform the development of effective interventions and support services in similar settings.

3.3. The Study Population

The target population for this study includes speech and language therapists working in Addis Ababa, the capital city of Ethiopia. These therapists are specialized professionals who provide assessment, diagnosis, and intervention for individuals with communication disorders, including those with acquired communication disorders. The target population included therapists working in various settings such as hospitals, rehabilitation centers, special education institutions, and community-based organizations in Addis Ababa.

3.4. Sampling Method and Sample Size

3.4.1. Sampling Techniques

The study was used purposive sampling, a non-probability sampling technique, to select participants for the research. Purposive sampling allowed for the intentional selection of participants who possess the desired characteristics and can provide rich and relevant information for the study. Speech and language therapists who were actively working with individuals with acquired communication disorders in Addis Ababa were purposefully chosen to

participate in the study. This sampling technique ensures that the participants had the expertise and experience relevant to the research topic.

3.4.2. Sample Size

The sample size for this study was determined based on the principles of qualitative research. The participants of this study were identified through purposive sampling and the criteria were that they were SLTs having three years working experience and who were working with adults with acquired communication disorders with complex communication needs by using AAC. The number of participants was intended to be small in order to investigate in-depth understanding of the research topic, ensuring that the sample size is sufficient to capture the range of perspectives and experiences of speech and language therapists regarding AAC system acceptance. The sample size for the key informant interview was 6 participants and they were interviewed to gather information and for focus group discussion, 3 who had not participate in the study and 3 who had been interviewed were brought up for discussion. The total participants were 9 from the available 13 SLTs working in Addis Ababa.

3.5. Data Sources

The primary data source for this study was speech and language therapists working in Addis Ababa. The data was gathered directly from these therapists through various methods such as interviews and focus group discussions. These data collection methods allowed for the exploration of therapists' perspectives, experiences, and attitudes towards AAC system acceptance for individuals with acquired communication disorders.

3.6. Data Collection Tools

The methods and tools selected were based on research objectives, feasibility, and participant preferences to ensure the collection of meaningful data aligned with the study's research questions and objectives. The data collection process involved various methods to gather comprehensive insights on speech and language therapists' perspectives regarding AAC system acceptance. These included semi-structured interviews and focus group discussions.

3.6.1. Interviews

The researcher used semi-Structured Interviews to collect data. Conducting semi-structured interviews with SLTs allows for in-depth exploration of the challenges they perceive in the adoption and utilization of AAC systems. Interview questions can inquire about specific barriers, obstacles, and difficulties encountered in their practice. Key informants Speech-Language Therapists (SLTs) are interviewed to gather expert insights based on their professional experiences and knowledge, which are crucial for several reasons. Firstly, SLTs possess direct experience working with Augmentative and Alternative Communication (AAC) systems and clients who utilize them, allowing them to reveal nuanced challenges that may not be apparent through quantitative methods or from the perspective of users alone. Engaging SLTs enables researchers to identify specific barriers to AAC implementation, such as training inadequacies, resource limitations, or systemic issues within healthcare settings, which is essential for developing targeted interventions to improve AAC adoption. Additionally, SLTs provide valuable context regarding the practical application of AAC systems in various environments, including schools, clinics, and homes, helping to understand how these systems are integrated into therapeutic practices and the factors influencing their effectiveness.

3.6.2. Focus group discussions

A focus group discussion was employed as data collection tool in this study, involving homogeneous participants who share similar characteristics or traits. This homogeneity, based on factors such as educational background, working experience, and other relevant variables, was instrumental in fostering a rich and diverse dialogue. By ensuring that participants had commonalities, the discussions were able to capture varied viewpoints, which enriched the conversation and provided a more comprehensive understanding of the topic at hand.

The focus group served as a platform for Speech-Language Therapists (SLTs) to engage in interactive conversations, generating collective insights on the acceptance and utilization of Augmentative and Alternative Communication (AAC) systems. These discussions enabled therapists to share their perspectives, exchange ideas, and deepen their understanding of the subject by building upon and challenging each other's viewpoints. This collaborative approach not only facilitated a more dynamic exploration of the issues but also contributed to the development of more effective strategies for collecting rich data on the challenges

and opportunities associated with AAC systems. Ultimately, the focus group discussions created an environment that encouraged open dialogue and collective problem-solving, enhancing the overall quality of the research findings.

3.7. Procedures of Data Collection

In qualitative research, the researchers employ various philosophical assumptions, strategies, data collection methods to gather data from participants in their natural environment. These processes involved emerging questions and procedures to gather data from the participants and then inductively analyze the data from specifics to broad themes and interpret the meaning of the findings (Creswell, 2007).

Before conducting the research, the researcher obtained approval from Addis Ababa University and prepared consent forms for participants. Data was collected using semi-structured interviews and focus group discussions, with the interviews conducted in the respondents' native language. The researcher prepared a suitable place for the discussions and guided the process. The data collection tools, including interview questions and group discussion guides, were initially prepared in English and then translated into Amharic. While the questions were set based on the research questions before gathering data, there were some revisions made during the process to accommodate respondents' situations and the extent to which they answered the questions.

5.1 Data Analysis Approach

Data analysis is a procedure utilized to inspect, model, or transform information to determine helpful information to provide resolutions and make informed decisions (Billups, 2019). Even though there are several methods of qualitative data analysis, the researchers conducted thematic analysis by categorizing the collected data into thematic areas. The researcher first documented and cataloged all pertinent quotes related to the study topic to give them equal weight in relation to the participants' viewpoints. Subsequently, the researcher identified the central elements of the phenomenon under the study. In addition, the data analysis process involved coding or categorizing the data into themes, allowing the research to distil extensive raw data into meaningful patterns and identify significant trends. Ultimately, the researcher derived inferences from the data and constructed a coherent chain of evidence.

5.2 Trustworthy of the data

In order to guarantee the truthfulness of the research outcomes, this qualitative research study utilized multiple strategies:

Methodological Triangulation

Data was collected through multiple methods, including in-depth semi-structured interviews and focus group discussions. This methodological triangulation provided a comprehensive perspective and allowed for cross-verification of information, enhancing the credibility of the findings. By using different data collection techniques, the researcher was able to gain a more holistic understanding of the challenges and opportunities related to AAC system adoption, as perceived by Speech-Language Therapists (SLTs).

Audit Trail

A detailed audit trail was maintained throughout the research process, which included thorough documentation of data collection methods, coding decisions, analytical processes, and any methodological changes. This transparency enables others to trace the steps taken and understand how conclusions were reached, thereby ensuring the dependability and conform ability of the study. The audit trail serves as a record of the research process, allowing for external audits and enhancing the overall rigor of the study.

Member Checking

Preliminary findings were shared with the participants to validate the accuracy of the interpretations and ensure that their perspectives were accurately represented. Participants were given the opportunity to provide feedback on the findings, which was then incorporated into the final analysis. This member checking process helped to minimize the risk of misinterpretation and ensured that the final themes and conclusions accurately reflected the experiences and viewpoints of the SLTs who participated in the study. By incorporating participant feedback, the researcher was able to enhance the credibility and trustworthiness of the research findings.

Credibility

The researcher dedicated significant time in the field, actively engaging with participants and observing their behaviors and interactions. This prolonged engagement fostered trust and rapport, enabling the researcher to gather detailed, in-depth data that reflects the participants' true experiences and perspectives.

Transferability

The study provided rich, detailed descriptions of the research context, participants, and settings. This thick description allows readers to assess the applicability of the findings to other contexts or settings, thereby enhancing the transferability of the research outcomes. By offering a comprehensive view of the environment in which the study was conducted, the findings can be better understood and contextualized.

3.10. Ethical Consideration

In conducting this research, certain ethical considerations were prioritized to ensure the protection and well-being of all participants. Voluntary participation was guaranteed, and all respondents were required to provide informed consent prior to their involvement. Additionally, the privacy and anonymity of all respondents was of utmost importance, and measures were taken to ensure the adequate confidentiality of all research data. Furthermore, the research was conducted independently and impartially, with the intention of upholding the highest ethical standards throughout the process.

CHAPTER FOUR

THE STUDY FINDINGS

4.1. Introduction

This chapter presents the findings derived from semi-structured interviews conducted with 6 participants and focus group discussion conducted with 3 participants with a total of 9 participants to explore Speech and Language Therapists' Perspectives about Augmentative and Alternative Communication (AAC) System for People with Acquired Communication Disorders

in Addis Ababa. Each participant was asked a series of 20 questions (Appendix 2) designed to elicit in-depth insights into their perspective about AAC. The chapter synthesized these personal narratives and viewpoints into a coherent understanding of Speech and Language Therapists' Perspectives about Augmentative and Alternative Communication (AAC) System for People with Acquired Communication Disorders providing insights that contribute to the existing body of knowledge on the subject. Through direct quotations and analytical commentary, we explore how the themes interconnect and what they reveal.

4.2. Demographic Characteristics of Key Informants

The key informants in this study were speech and language therapists (SLTs) with extensive experience working with individuals who have communication disorders in Addis Ababa. These professionals possess a deep understanding of Augmentative and Alternative Communication (AAC) systems and have firsthand knowledge of the challenges and successes associated with their implementation. Their insights are crucial for understanding the current state and future directions of AAC system adoption in this context.

Table 1
Demographic Characteristics of Key Informants

Demographic Summary	
No of Participants	9
Background of Participants	SLT
Qualification	BSc.
Gender	F
Age Range	25-30
Experience (Years)	>3 years
Expertise	Working with ACD
Location	Addis Ababa, Ethiopia

4.3. Speech and Language Therapists' Perceptions of AAC

Acceptance of AAC (Augmentative and Alternative Communication) systems in Addis Ababa is gradually increasing, although it remains limited. Speech and language therapists (SLTs) play a crucial role in this process, providing insights into the factors influencing the adoption and

acceptance of AAC systems. Their perceptions are essential for understanding the current state and future potential of AAC in this region.

SLTs have observed that key factors influencing acceptance include the level of awareness and understanding of AAC among professionals and the community, the availability of resources, and the perceived effectiveness of these systems. One therapist noted, "There's a growing awareness about AAC, but many still don't fully understand its benefits." This statement reflects a positive trend in awareness, yet highlights the need for deeper understanding and appreciation of AAC's benefits.

Despite the increasing awareness, SLTs emphasize that many professionals and community members still lack a comprehensive understanding of AAC. This gap in knowledge can hinder the effective implementation and acceptance of these systems. The perceived effectiveness of AAC systems also plays a significant role; if these systems are seen as beneficial and effective, their acceptance is more likely to increase. Thus, SLTs are in a unique position to advocate for AAC by demonstrating its effectiveness and educating both peers and the public.

4.4. Challenges in Adoption and Utilization in Acceptance of AAC

Participants discussed several challenges faced in the adoption of AAC systems. These challenges can be categorized into cultural and societal challenges, resource constraints, infrastructure and support issues, access issues, limited professionals, and lack of awareness. Cultural beliefs and societal attitudes significantly impact the acceptance of AAC systems. In some cases, there is a stigma associated with using such aids, which can hinder their adoption. One SLP mentioned, "In some communities, there's a belief that communication disorders are a result of spiritual issues, which leads to resistance against using technological aids." This highlights the deep-rooted cultural and societal barriers that must be addressed to enhance AAC acceptance. Efforts to educate communities and shift these perceptions are essential for broader acceptance.

Limited access to AAC devices and financial constraints pose significant barriers to widespread adoption. The high cost of high-tech AAC devices makes them prohibitive for many families, and there is a lack of funding to support these needs. A participant highlighted, "The cost of high-tech AAC devices is prohibitive for many families, and there's a lack of funding to support these needs." This statement underscores the need for financial solutions and funding programs to make AAC more accessible. Inadequate infrastructure and lack of professional support for both

users and therapists are critical challenges. SLTs expressed the need for more training programs and support systems to effectively implement AAC. Another SLP stated, "We need more training programs and support systems to effectively implement AAC." This indicates a significant gap in the necessary infrastructure and support that needs to be filled to ensure successful AAC implementation.

Limited availability of AAC devices and support services further complicates the adoption process. An SLP noted, "Many families can't access the devices they need due to cost and availability issues." Addressing these access issues requires concerted efforts to improve the supply and distribution of AAC devices, ensuring that those in need can obtain them without prohibitive barriers. The shortage of trained professionals proficient in AAC implementation and support exacerbates the issue. One participant stated, "We need more trained therapists to support the growing demand for AAC services." This shortage limits the reach and effectiveness of AAC programs, highlighting the need for more professionals in the field.

Both professionals and society at large are not sufficiently aware of AAC. Another SLP commented, "There's a significant lack of awareness about AAC among healthcare providers and the general public." This lack of awareness is a fundamental barrier that impedes the acceptance and utilization of AAC systems. Raising awareness through education and advocacy is critical to overcoming this challenge. Despite these challenges, there are evident benefits to AAC systems. Several participants shared how AAC has helped individuals with communication disorders to express themselves better and participate more actively in social and educational activities. One participant highlighted, "With the right support, AAC can significantly improve the quality of life for users." These success stories underscore the transformative potential of AAC when effectively implemented and supported.

4.5. Strategies Proposed by Speech and Language Therapists to Enhance AAC Acceptance

The Professionals who participated in this study proposed various strategies to promote AAC acceptance, addressing the challenges and leveraging the benefits observed. These strategies included educational workshops, demonstrations and trials, community engagement, increasing funding, enhancing training, supporting infrastructure, collaborative efforts, and effectiveness assessment. Conducting workshops for families and caregivers is a critical strategy to increase awareness and understanding of AAC. An SLP explained, "Workshops have been crucial in

educating families about the benefits of AAC and how to use these tools effectively." These workshops provide valuable information and hands-on experience, helping to demystify AAC systems and demonstrate their practical benefits.

Allowing potential users to trial AAC systems to experience their benefits firsthand is another effective strategy. One participant noted, "When families see the positive impact of AAC through trials, they are more likely to adopt it." Demonstrations and trials provide tangible evidence of AAC's effectiveness, helping to overcome skepticism and resistance. Involving community leaders to address cultural beliefs and advocate for the acceptance of AAC is essential. Another SLP shared, "Engaging with community leaders helps in overcoming cultural barriers and promoting broader acceptance." Community leaders can influence public opinion and help shift cultural attitudes towards greater acceptance of AAC.

Advocating for more financial support from government and non-governmental organizations is crucial to making AAC systems accessible to all who need them. An SLP suggested, "We need more funding to make AAC systems accessible to all who need them." Increased funding can help reduce the cost barriers and expand access to AAC devices and services. Providing comprehensive training programs for SLPs and caregivers is vital. Another participant mentioned, "Training is crucial to equip professionals and caregivers with the skills needed for effective AAC implementation." Ongoing training ensures that professionals are well-equipped to support AAC users and adapt to new developments in the field.

Developing infrastructure to support AAC users, including access to devices and professional services, is necessary. One therapist emphasized, "We need better infrastructure to support AAC implementation and usage." Improved infrastructure can facilitate the effective use of AAC systems and ensure sustained support for users. Successful AAC implementation often involves collaboration with various stakeholders, including educators, healthcare providers, and community organizations. These partnerships help in pooling resources, sharing knowledge, and promoting acceptance. An SLP shared, "Collaboration with universities and healthcare providers has been key in supporting AAC users effectively." Collaborative efforts can create a more supportive environment for AAC users.

Participants agreed that the methods used to assess the effectiveness of AAC involve regular evaluations and feedback from users, families, and therapists. Monitoring progress and making necessary adjustments to the AAC systems ensures they continue to meet the users' needs

effectively. One therapist noted, "We regularly assess the user's progress and adapt the system as needed to ensure it remains effective." Regular assessments help ensure that AAC systems are meeting their intended goals and can be adjusted as needed.

Looking to the future, there is optimism for increased AAC system acceptance and utilization in Addis Ababa. Efforts to raise awareness and integrate AAC systems into mainstream communication practices are crucial steps forward. Continued professional development for speech therapists and healthcare providers will ensure they remain equipped to support individuals with communication disorders effectively. By addressing the identified challenges and implementing the proposed strategies, the potential for AAC systems to improve the quality of life for individuals with communication disorders in Addis Ababa can be realized.

CHAPTER FIVE

DISCUSSION

This part of the paper discusses the findings of the study in relation to the research questions, providing an in-depth analysis of how speech and language therapists (SLTs) in Addis Ababa address the acceptance, challenges, and strategies associated with Augmentative and Alternative Communication (AAC) systems for individuals with acquired communication disorders (ACDs).

5.1 Perceptions of Speech and Language Therapists of AAC

The perceptions of Speech and Language Therapists (SLTs) regarding Augmentative and Alternative Communication (AAC) systems reflect a complex interplay of factors that influence both the acceptance and implementation of these systems across different contexts, including in Addis Ababa. SLTs recognize the potential benefits of AAC for individuals with communication disorders but often express a lack of confidence in their skills related to AAC implementation, highlighting a critical need for further training and support from professional bodies and employers (Yaşa & Tokalak, 2023).

Several barriers to effective AAC use have been identified by SLTs, including inadequate training, limited resources, and systemic issues within healthcare settings (Kamonsitichai

&Goldstein, 2023). These challenges resonate with findings from other regions, such as South Africa, where SLTs reported using a limited variety of assessment and intervention approaches due to similar constraints (ASHA, 2023). The lack of comprehensive training programs for SLTs is a recurring theme; research indicates that without sufficient training and struggle to implement AAC effectively, which can lead to abandonment of AAC systems by users (Fallon, 2008).

SLTs' perceptions of AAC can vary significantly based on their experiences and the specific AAC modalities being considered. SLTs rated iPad-based speech-output technologies as the most effective and preferred AAC mode, while gestural communication was seen as the easiest to learn and use (Pampoulou, 2019). This highlights the importance of context in shaping perceptions and suggests that SLTs in Addis Ababa may similarly benefit from exposure to various AAC technologies and training tailored to their specific environments.

The acceptance of AAC systems is not solely dependent on SLTs' views; it is also heavily influenced by the perceptions of communication partners, including family members and peers. Negative attitudes from family members can create barriers to AAC implementation, leading to reduced expectations for users and limiting their engagement in communication situations (Iacono & Cameron, 2009; Johnson et al., 2006). Conversely, positive attitudes can enhance communication partners' willingness to engage, thereby facilitating better communication outcomes for AAC users (McCarthy & Light, 2005). This underscores the need for training and education for communication partners to improve their understanding and support of AAC users, which can ultimately enhance AAC acceptance and usage (Wilder et al., 2015).

In Addis Ababa, SLTs have observed that awareness and understanding of AAC among professionals and the community are critical factors influencing acceptance. While there is a growing awareness about AAC, many still do not fully understand its benefits, indicating a need for deeper education and advocacy efforts (Yaşa & Tokalak, 2023). This aligns with findings from broader literature, which emphasize the necessity of involving family members and caregivers in the AAC process to mitigate abandonment rates and enhance communication effectiveness (Bailey et al., 2006; Moorcroft et al., 2019).

5.2 Challenges in Adoption and Utilization in Acceptance of AAC

The findings from this study underscore the multifaceted challenges perceived by speech and language therapists (SLTs) regarding the adoption and utilization of Augmentative and Alternative Communication (AAC) systems among individuals with acquired communication

disorders in Addis Ababa. A significant barrier identified by SLTs is the pervasive influence of cultural beliefs and stigma surrounding communication disorders. This study aligns with previous research indicating that societal perceptions often view communication disorders through a lens of spiritual or mystical origins rather than as medical conditions amenable to technological solutions (McCall et al. 1997). As articulated by one participant, "In some communities, there's a belief that communication disorders are a result of spiritual issues, which leads to resistance against using technological aids."

Moreover, resource constraints emerged as a critical impediment to AAC adoption. The high cost of AAC devices, particularly advanced technologies, presents a substantial financial barrier for families and healthcare systems alike. This finding resonates with existing literature highlighting financial barriers as a significant challenge in AAC implementation (Light et al., 2004). Participants emphasized the urgent need for increased funding and improved resource allocation to enhance accessibility and affordability of AAC technologies. As noted by one SLT, "The cost of high-tech AAC devices is prohibitive for many families, and there's a lack of funding to support these needs."

Furthermore, the shortage of trained professionals proficient in AAC implementation and support was identified as a pervasive challenge. Inadequate training programs and limited professional development opportunities hinder the effective delivery of AAC services, thereby limiting overall adoption rates. This finding is consistent with previous studies underscoring the critical need for enhanced professional training to address skill gaps and ensure competent AAC support (Ball et al., 2010; McCall et al., 1997).

5.3 Strategies Proposed by Speech and Language Therapists to Enhance AAC Acceptance

In response to the identified challenges, SLTs proposed several strategic interventions aimed at enhancing AAC acceptance among individuals with acquired communication disorders in Addis Ababa. Personalization of AAC systems emerged as a cornerstone strategy, emphasizing the customization of AAC solutions to align with individual communication needs and preferences. This approach not only enhances user comfort and engagement but also addresses specific

communication challenges effectively, as supported by the literature advocating for tailored interventions in AAC implementation (Beukelman & Mirenda, 2013).

Education and training were also highlighted as pivotal strategies to foster AAC acceptance. Comprehensive education initiatives aimed at users, caregivers, and community stakeholders play a crucial role in dispelling myths and increasing awareness about AAC benefits. Practical training sessions were identified as instrumental in equipping caregivers and professionals with the necessary skills to support AAC use effectively. This aligns with previous research emphasizing the importance of ongoing education and training in AAC implementation (Light et al., 2004).

Incremental introduction of AAC tools was recommended to facilitate gradual adaptation and acceptance. By allowing users to familiarize themselves with AAC systems at their own pace, this approach minimizes initial resistance and enhances long-term engagement. Such strategies are consistent with literature suggesting that gradual introduction promotes user confidence and integration of AAC into daily routines (Beukelman & Mirenda, 2013).

Environmental adjustments and community engagement were identified as essential strategies to address cultural barriers and promote broader acceptance of AAC. Optimizing environmental settings to enhance AAC usability and conducting educational workshops for community leaders were highlighted as effective approaches to combat stigma and misconceptions surrounding communication disorders. These efforts are crucial for fostering a supportive societal environment conducive to AAC adoption, as supported by prior studies advocating for community-based interventions in AAC promotion (Light et al., 2004).

The strategies proposed by SLTs in this study align closely with existing literature on AAC adoption and acceptance. Previous research emphasizes the importance of personalized assessment, comprehensive training, and community engagement in overcoming barriers to AAC implementation (Beukelman & Mirenda, 2013; Light et al., 2004). Success stories shared by participants further underscored the transformative impact of AAC systems on improving communication and social participation among individuals with acquired communication disorders, consistent with documented cases in the literature (Fried-Oken & Doyle, 1992).

The study's findings carry significant implications for both practice and policy in Addis Ababa. Enhanced training programs for SLTs and healthcare professionals are critical to build capacity and ensure effective AAC implementation. Community engagement initiatives, including awareness campaigns and educational workshops, play a pivotal role in dispelling myths and reducing stigma associated with communication disorders, thereby fostering AAC acceptance.

Advocacy efforts for policy changes are essential to secure funding and improve access to AAC technology. Policies aimed at enhancing resource allocation and supporting AAC programs are critical for expanding availability and affordability, benefiting a broader spectrum of individuals with communication disorders in Addis Ababa.

Despite its contributions, the study has limitations that warrant consideration. The relatively limited sample size and geographic scope of Addis Ababa may constrain the generalizability of findings to other regions with different cultural and socio-economic contexts within Ethiopia. Future research could address these limitations by expanding the study's scope and sample size, as well as conducting longitudinal studies to assess the long-term effectiveness and sustainability of AAC interventions.

In conclusion, while challenges persist, the strategies proposed by SLTs offer promising avenues for enhancing AAC acceptance in Addis Ababa. By addressing cultural barriers, improving access to resources, and strengthening professional capacity, stakeholders can collectively advance efforts to integrate AAC systems effectively into clinical practice and community settings.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1. Conclusion

In conclusion the study highlights the critical role of AAC systems in improving communication for individuals with acquired communication disorders (ACDs) in Addis Ababa. Despite significant challenges, including cultural beliefs, financial barriers, and a lack of trained professionals, there are considerable opportunities to enhance acceptance and implementation through targeted strategies, education, and policy support. Addressing cultural misconceptions, increasing resources, and fostering collaboration among stakeholders are essential steps toward broader acceptance and effective use of AAC systems.

Insights from Speech and Language Therapists (SLTs) reveal that while societal attitudes and limited understanding pose substantial hurdles, these can be mitigated through comprehensive education and training. SLTs emphasize the need for personalized AAC systems, extensive user and caregiver training, environmental modifications, and community engagement to foster acceptance. Additionally, continuous support, regular follow-ups, and interdisciplinary collaboration are vital for long-term success.

Promising strategies for enhancing AAC acceptance include tailored assessments, creating supportive environments, and conducting educational workshops to involve community leaders.

Advocacy for policy changes to improve funding and access to AAC technology is also crucial. Enhanced training programs for SLTs and healthcare providers, along with community engagement initiatives, can help dispel myths and reduce stigma associated with communication disorders.

Overall, the study underscores the transformative potential of AAC systems and the importance of addressing existing challenges through coordinated efforts. By enhancing training, improving resource availability, fostering professional collaboration, and developing supportive policies, the adoption and utilization of AAC systems can be significantly improved, ultimately enhancing communication and quality of life for individuals with ACDs in Addis Ababa.

6.2. Recommendations

The study provides several recommendations aimed at enhancing the acceptance and implementation of AAC (Augmentative and Alternative Communication) systems in Addis Ababa. These recommendations target various stakeholders, including policymakers, professionals, and the community, to address identified challenges and leverage opportunities for improvement.

➤ Government Officials and Policy Makers should:

- ✓ Advocate for policies supporting AAC integration, funding, and infrastructure development.
- ✓ Push for policies ensuring sustainable access to both high-tech and low-tech AAC devices.

➤ Healthcare Providers and Speech and Language Therapists should:

- ✓ Participate in training programs to enhance AAC implementation skills.
- ✓ Conduct personalized assessments for AAC users to determine specific communication needs and abilities.
- ✓ Provide ongoing support and follow-up to maximize effectiveness of AAC interventions.

➤ Educators should:

- ✓ To engage in training programs to enhance AAC implementation skills.
- ✓ To foster interdisciplinary collaboration to support AAC users in educational settings.
- ✓ To implement AAC strategies tailored to meet individual student needs.

➤ Families, Caregivers, and Community Leaders and Religious Figures should:

- ✓ Engage in advocacy efforts to address cultural beliefs and reduce stigma associated with AAC use.
- ✓ Support community-based initiatives to increase awareness and understanding of AAC systems.

- ✓ Participate in workshops and educational campaigns to increase awareness and understanding of AAC systems.
- ✓ Provide support and encouragement to AAC users in daily interactions.
 - Researchers should:
 - ✓ Conduct further studies to expand knowledge on AAC systems in diverse cultural and socio-economic contexts.
 - ✓ Include larger sample sizes in research studies to enhance the generalizability and robustness of findings.

These recommendations aim to address the multifaceted challenges of AAC adoption and leverage opportunities for enhancing the lives of individuals with communication disorders in Addis Ababa. By implementing these strategies, stakeholders can work together to promote broader acceptance and effective use of AAC system.

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APPENDIX 1

Focus group discussion questions

1. Based on your observations, what are the main variables affecting the adoption of augmentative and alternative communication (AAC) systems in Addis Ababa among individuals with acquired communication disorders?
2. How do you perceive the role of cultural beliefs and attitudes towards communication disorders in shaping AAC system acceptance among individuals in Addis Ababa?
3. Can you share any challenges or barriers you have encountered in implementing AAC systems with individuals who have acquired communication disorders in this context?
4. From your perspective, what strategies or approaches have been effective in promoting the acceptance and uptake of AAC systems among people with acquired communication disorders in Addis Ababa?
5. How do you envision the future of AAC system acceptance and utilization among individuals with acquired communication disorders in Addis Ababa, and what steps do you believe are necessary to further enhance acceptance and access to these systems?

APPENDIX 2

Key informant interview questions

1. Can you describe your experience and background in working with individuals with acquired communication disorders?
2. What are your thoughts on the current state of AAC system acceptance among people with acquired communication disorders in Addis Ababa?
3. In your opinion, what factors contribute to the acceptance or reluctance of individuals with acquired communication disorders to use AAC systems?
4. How do you assess the readiness of a person with an acquired communication disorder to adopt AAC systems?
5. What challenges do you encounter when introducing AAC systems to individuals with acquired communication disorders?
6. Can you discuss any success stories or positive experiences you've had with AAC system implementation among individuals with acquired communication disorders?
7. What strategies do you use to promote AAC system acceptance and usage among your clients?
8. How do cultural beliefs and attitudes influence the acceptance of AAC systems in Addis Ababa?
9. From your perspective, what are the most relevant types of AAC systems for individuals with acquired communication disorders in this context?

10. How do you tailor AAC interventions to meet the specific needs and preferences of each individual client?
11. What role do family members and caregivers play in facilitating AAC system acceptance and usage?
12. Have you encountered any barriers or limitations in accessing or implementing AAC systems in Addis Ababa? If so, what are they?
13. How do you address concerns or resistance from individuals with acquired communication disorders or their families regarding AAC system adoption?
14. In your experience, what training and support do speech and language therapists need to effectively implement AAC interventions?
15. Can you discuss any collaborative efforts or partnerships with other professionals or organizations to promote AAC system acceptance?
16. How do you assess whether AAC interventions are helping people with acquired communication disorder communicate better?
17. What are your thoughts on the future of AAC system acceptance and usage in Addis Ababa?
18. Are there any specific cultural considerations or practices that influence AAC system implementation in this context?
19. How do you stay updated on advancements and best practices in AAC interventions and technologies?
20. What recommendations would you make to policymakers or stakeholders to enhance AAC system acceptance and accessibility for individuals with acquired communication disorders in Addis Ababa?