

University of South Dakota

USD RED

Honors Thesis

Theses, Dissertations, and Student Projects

Winter 12-19-2022

Communication Disorders and Mental Health: A Scoping Review

Haven B. Schultze

Follow this and additional works at: <https://red.library.usd.edu/honors-thesis>



Part of the [Speech Pathology and Audiology Commons](#)

Recommended Citation

Schultze, Haven B., "Communication Disorders and Mental Health: A Scoping Review" (2022). *Honors Thesis*. 276.

<https://red.library.usd.edu/honors-thesis/276>

This Honors Thesis is brought to you for free and open access by the Theses, Dissertations, and Student Projects at USD RED. It has been accepted for inclusion in Honors Thesis by an authorized administrator of USD RED. For more information, please contact dloftus@usd.edu.

COMMUNICATION DISORDERS AND MENTAL HEALTH: A SCOPING REVIEW

by

Haven Schultze

A Thesis Submitted in Partial Fulfillment

Of the Requirements for the

University Honors Program

Department of Communication Sciences and Disorders

The University of South Dakota

December 2022

The members of the Honors Thesis Committee appointed
to examine the thesis of Haven Schultze
find it satisfactory and recommend that it be accepted.

DocuSigned by:
Kyle Brouwer
923217A9CA9A401...

Dr. Kyle Brouwer, Ph.D.

Professor of Communication Sciences and Disorders

Director of the Committee

DocuSigned by:
Elizabeth Hanson
70B2A8ED9E674BF...

Dr. Elizabeth Hanson, Ph.D.

Associate Professor of Communication Sciences and Disorders

DocuSigned by:
Mandy Williams
5727A469B26F43E...

Dr. Mandy Williams, Ph.D.

Associate Professor of Communication Sciences and Disorders

DocuSigned by:
Daniel DeCino
7C1FD7F763E4474...

Dr. Daniel DeCino, Ph.D.

Associate Professor of Counseling in

Psychology in Education

Abstract

This scoping review examined current research investigating the relationship between communication disorders and mental health disorders. Depression and anxiety disorders were correlated with communication disorders, but this relationship is complex. Next, potential interventions and clinical implications are discussed. The literature suggests that Speech-Language Pathologists and mental health professionals are most effective when working collaboratively to meet the needs of the whole child.

Keywords: mental health, communication disorders, depression, social anxiety

TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION	1
CHAPTER 2: MENTAL HEALTH DISORDERS	1
CHAPTER 3: FLUENCY DISORDERS	3
CHAPTER 4: APHASIA	9
CHAPTER 5: BEHAVIOR DISORDERS AND COMMUNICATION	14
CHAPTER 6: AUGMENTATIVE AND ALTERNATIVE COMMUNICATION	17
CHAPTER 7: CLINICAL IMPLICATION	21
CHAPTER 8: DISCUSSION	22
REFERENCES	25

Introduction

Communication is a critical component of everyday life, but what happens when natural communication is interrupted? The effects of disordered communication can go far past simply speaking. Communication is ingrained in our lives as human beings, and it is nearly impossible to go through even one day without any form of communication. Communication can occur through more than just spoken words, such as gestures, facial expressions, and body language. While a great deal of communication happens nonverbally, people rely on spoken communication for relaying specific information. When communication is interrupted by communication disorders, it becomes increasingly difficult for individuals to relay important information and build relationships. The adverse social effects of disordered communication can have lasting impacts on people's lives. While several researchers have investigated the relationship between communication disorders and mental health disorders, often, this relationship is overlooked. Speech Language Pathologists (SLPs) and mental health professionals need to be aware of the impact of mental health disorders on communication skills to ensure clients are getting all of their needs met. Focusing on different communication disorders and understanding how they affect mental health can be the first step in building a collaborative relationship between SLPs and the field of mental health to begin intertwining the two services to provide a more inclusive intervention approach.

Mental Health Disorders

Depression

Comer & Comer (2021) define depression as "a low state marked by significant levels of sadness, lack of energy, low self-worth, guilt, or related symptoms" (p. 187). About 20% of

adults will experience severe depression in their lives (Comer & Comer, 2021). Depressive disorders have a variety of symptoms outside of feelings of sadness, including emotional, motivational, behavioral, cognitive, and physical symptoms. Frequently, individuals suffering from depression report experiencing anhedonia, which is the inability to experience any form of pleasure (Comer & Comer, 2021). Individuals feeling depressed often lack the motivation or desire to participate in their everyday activities, leading to social withdrawal and less productivity. Depressed individuals report holding a negative view of themselves, blaming themselves, and pessimism, which lead to low self-esteem (Comer & Comer, 2021). Depression can manifest as physical symptoms such as headaches, indigestion, constipation, dizzy spells, general pain, appetite changes, and sleep disturbances (Comer & Comer, 2021). Considering depression is among the most common mental illnesses impacting people in the United States, it is highly likely to work with a patient suffering from depression.

Anxiety

Anxiety is "the central nervous system's physiological and emotional response to a vague sense of threat or danger" (Comer & Comer, 2021, p. 111). It is common for individuals to experience some levels of anxiety occasionally, but it becomes a disorder when it interferes with daily living. The most common mental disorder in the United States is anxiety disorders, with about 31% of all people developing an anxiety disorder at some point in their life (Comer & Comer, 2021). There are several types of anxiety disorders, one being social anxiety, which is "a psychological disorder in which people fear social situations" (Comer & Comer, 2021, p. 131). People with social anxiety disorder are terrified of social situations in which they may embarrass themselves (Comer & Comer, 2021). Social anxiety can be related only to specific situations, or be more broad, feeling anxious about social situations in general. There are several causes of

social anxiety disorder, including holding high social standards, believing they are unattractive socially, thinking they are socially unskilled, assuming they are in danger of performing incompetently, believing that inadequate social behaviors will lead to terrible consequences, and believing they have no control over their feelings of anxiety (Comer & Comer, 2021).

Fluency Disorders

Stuttering is a fluency disorder defined as "...involuntary disruption to speech which impede the capacity to communicate effectively," (Iverach & Rapee, 2013, p. 70). When an individual has a fluency disorder, it interferes with their ability to communicate on a daily basis by making communication more difficult. An individual with a fluency disorder may take longer to express themselves through spoken communication by becoming stuck on a word or sound, which can lead to that individual becoming self-conscious about their ability to communicate effectively. This may negatively impact an individual's communication confidence and social interactions, which can potentially lead to mental health difficulties or disorders. Several researchers have investigated the relationship between stuttering and anxiety disorders, specifically social anxiety disorder. Many individuals with fluency disorders claim to experience some form of anxiety associated with their stuttering. Anxiety is among the most widely observed psychological disorders associated with stuttering (Iverach & Rapee, 2013). Researchers have concluded that social anxiety is often found in individuals with a fluency disorder.

Social anxiety is the fear of being judged in social situations and typically develops in childhood, when social and peer relationship importance becomes increasingly important (Comer & Comer, 2021). Having a stutter can interfere with an individual's ability to form and maintain

relationships because there could be a lack of confidence in communication abilities, which can lead to having a negative attitude towards communication. If someone is not confident in their ability to speak, they are less likely to speak to others and form new relationships because they feel as though they are an incompetent communicator. Being an effective communicator is extremely important when developing and maintaining relationships. Research has shown that some children that stutter have a more negative attitude toward speech than their non-stuttering peers (Smith et al., 2014). Stuttering is often associated with a social anxiety disorder because individuals with fluency disorders often fear negative social consequences from peers, such as social harm, rejection, and embarrassment. Children with fluency disorders can experience bullying, teasing, exclusion, and adverse peer reactions from a young age. As they age, children with a fluency disorder continue to experience bullying, social isolation, and rejection, which can lead to embarrassment, low self-esteem, withdrawal, and lowered school performance (Iverach & Rapee, 2013). These outcomes are similar to those who have a social anxiety disorder.

Bernard, Hofslundsengen, and Norbury (2022) completed a systematic review to investigate anxiety and depression levels in children and adolescents who stutter. The researchers investigated several studies to determine if children and adolescents who stutter have higher levels of anxiety and depression levels than their non stuttering peers. The meta-analysis found that there is a difference in increased anxiety symptoms in children and adolescents who stutter (Bernard et al., 2022). Only three of the eleven studies found symptoms of depression, meaning the results were not significant enough to estimate the overall effect on the population (Bernard et al., 2022). The study found that there are differences in anxiety symptoms in individuals who stutter and highlights the need for future research into depression within this population.

There are several studies investigating stuttering and anxiety disorders in adults, but frequently these disorders can be traced back to childhood; therefore, it is necessary to understand the relationships between anxiety and stuttering in children. Smith and colleagues (2014) reviewed thirteen publications investigating the relationship between anxiety and stuttering in children. These studies have conflicting results, with most not finding any significant differences in anxiety levels between children with a fluency disorder and children that do not. Smith and colleagues (2014) claim these results could stem from the fact that some of the tests measured general, or trait, anxiety and not state anxiety. Trait anxiety is when an individual is generally anxious, meaning anxiety is a trait they have that makes them anxious most of the time (Smith et al., 2014). State anxiety is when an individual has anxiety only in specific situations (Smith et al., 2014). Researchers argue that individuals with a fluency disorder do not suffer from trait anxiety but state anxiety. Individuals with a fluency disorder are not inherently anxious but become anxious when put in anxiety-inducing situations. For example, an individual with a fluency disorder may not be anxious when just sitting in the library studying but may become anxious if a stranger approaches them and starts a conversation. At first, the individual was content, but the stranger approaching and starting a conversation put them in an anxiety-inducing situation because of a lack of confidence in their communication abilities.

Producing speech is a challenging motor task requiring rapid articulators' movement to produce the proper sounds needed to produce words (van Lieshout et al., 2014). One theory suggests that cognitive stress of the anticipation of having to pronounce a difficult word can affect the motor preparation and execution of speech (van Lieshout et al., 2014). While there is no evidence that anxiety can develop into chronic stuttering, it has been shown that individuals

with a fluency disorder have higher levels of anxiety than individuals that do not have a fluency disorder. Even though anxiety does not develop into a fluency disorder, does it still affect stuttering? One study by van Lieshout and colleagues (2014) investigated whether cognitive stress, such as anxiety, can affect motor preparation and execution speech processes. The Speech Motor Theory (van Lieshout et al., 2014) is that some individuals are inherently better at motor skills than others and that individuals with a fluency disorder are on the lower end of the motor skill range. "The SMS theory proposes that for PWS (people who stutter), the mere presence of threat-evoking stimuli could impact their ability to control their speech motor system" (van Lieshout et al., 2014, p. 95).

This specific theory lacks evidence that these stimuli have a significant effect on motor movement, but researchers suggest that the impact of a threatening social situation happens in the brain when preparing for speech motor movements. In this study, the investigators took a group of ten individuals who stuttered and had them take the Emotional Stroop Test. They then compared their results to another group of ten people that did not stutter. The researchers found that the group of individuals that stutter showed different motor response patterns than those without a stutter. They argue that this proves that preparing and executing motor patterns can be affected by cognitive stress. The stress of having to produce words an individual deems threatening can influence how well the individual can produce the appropriate planning and motor execution of the word.

Therapy Approaches

Cognitive-behavioral therapy (CBT) has been shown to help decrease social anxiety disorder within individuals with a fluency disorder (Scheurich et al., 2018). This type of therapy

focuses on changing the way an individual thinks in order to help transform an individual's behavioral patterns. An essential part of cognitive-behavioral therapy is exposure. Many children with a fluency disorder develop more natural fluency, but sometimes stuttering behaviors will be persistent. As discussed above, children with a fluency disorder often have behavioral, emotional, and social difficulties and are likely to develop an anxiety disorder before adulthood (Scheurich et al., 2018).

Children with a fluency disorder need to be educated on how to be aware of negative thoughts and the use of safety behaviors to challenge them. Children must learn how to manage negative thoughts and behaviors to minimize the negative impacts associated with stuttering later in life. Another critical factor in the resiliency of children with fluency disorders is feeling supported. Caughter and Dunsmuir (2017) investigated how integrated group intervention affected children with a fluency disorder. They took seven children and placed them in a year-long therapy program. The children and their parents attended a two-week therapy course daily and then attended four follow-up group sessions over twelve months. Caughter and Dunsmuir found that having a positive support network positively affected the change in behavior and the children's ability to cope with complex problems.

Currently, the treatment of stuttering consists of fluency shaping and stuttering modification. While both of these treatments effectively reduce the severity of stuttering, they do not consider the social anxiety aspect that often comes with having a fluency disorder. Cognitive-behavioral therapy is one of the best options for treating social anxiety disorder (Scheruich et al., 2018). Part of cognitive-behavioral therapy is exposure therapy, a "...behaviorally-oriented technique in which individuals confront feared situations in a controlled manner" (Scheruich et al., 2018, p. 22). For example, someone with social anxiety

disorder fears social situations, so in exposure therapy, the individual would be exposed to the social situations they fear to learn how to cope with their anxiety levels. A study by Scheurich and colleagues (2018) focused on the isolated effects of only the exposure aspect of cognitive-based therapy in individuals with a fluency disorder and social anxiety disorder. The study took six individuals who met the criteria for social anxiety disorder and a fluency disorder with an onset age in early development. Each participant received ten sessions of exposure therapy. All participants recorded their anxiety levels daily and were assessed at major points in the study. The study found evidence that exposure therapy can potentially reduce social anxiety and some of the adverse effects of stuttering.

Another study by Menzies and colleagues (2008) investigated the effect of cognitive-based therapy in individuals with chronic stuttering. Thirty participants with chronic stuttering were randomly assigned to two groups: speech restructuring only, speech restructuring, and cognitive-based therapy. One group underwent a ten-week cognitive-based therapy followed by fourteen hours of speech restructuring. The control group received no therapy for ten weeks but received the same speech restructuring as the experimental group. The study found that speech restructuring alone had no effect on the participants' social anxiety levels but did see improvements in stuttering severity. It was hypothesized that cognitive-based therapy could help reduce stuttering severity by lowering anxiety; however, it was found that while cognitive-based therapy did reduce anxiety, it did not affect stuttering severity. Although cognitive-based therapy did not impact stuttering severity, it is essential to note that the participants that received cognitive-based therapy had an increased ability to participate in speech activities with less anxiety. This means that the combination of cognitive-based therapy along with therapies used to reduce stuttering could have an overall higher impact on the individual as a whole.

Aphasia

Aphasia is a type of communication disorder that affects how an individual communicates by producing speech and understanding language (Sandberg et al., 2021). Aphasia is an acquired disorder with the most common causes being a stroke or traumatic brain injury causing damage to the brain's language areas. Different types of aphasia have unique effects on an individual depending on where the damage has occurred. For example, Broca's aphasia occurs when damage has happened to Broca's area, which is located in the frontal lobe of the left hemisphere. Broca's aphasia affects an individual's ability to produce language, resulting in a non-fluent stream of speech. Other types of aphasias include Wernicke aphasia, transcortical aphasia, conduction aphasia, mixed aphasia, and global aphasia, each affecting speech and language differently. Since aphasia is an acquired disorder, individuals with this disorder did have speech and language abilities before the brain damage that caused aphasia. This loss of speech and language abilities can have a substantial negative impact on an individual.

Sandberg and colleagues (2021) claim that the psychological needs of people with aphasia (PWAs) are not being met due to the lack of training in counseling for SLPs. The diagnosis of aphasia can be tough on an individual and their families as it is a sudden and drastic change within one's life. Not only does an individual have to deal with the physical consequences of an acquired brain injury, but they must also deal with the psychological toll of knowing their life may never be the same. Strokes can affect an individual's ability to walk, drive, help around the house, and their ability to communicate. As stated before, communication is vital to the mental health of humans, and taking away an individual's ability to communicate can have severe negative consequences on one's self-image. These drastic changes in an

individual's life can be "... particularly challenging and evoke depressive symptoms among PWAs (Sandberg et al., 2021, p. 2340).

Frequently, individuals with aphasia experience a loss of identity due to the inability to fulfill their previous roles. "Adapting to new ways to fulfill previous roles can be distressing and lead PWAs to experience isolation, rejection, and infantilization" (Sandberg et al., 2021, p. 2340). The difference in how an individual is treated after being diagnosed with aphasia can make an individual feel "... reduced independence, loss of privacy, and feeling burdensome to others, (Sandberg et al., 2021, p. 2340). This loss of identity and autonomy can lead to depressive episodes, affecting an individual's recovery. Strong and Randolph (2021) explored several studies that investigated depression levels in individuals diagnosed with aphasia. The researchers found that 70% of people with aphasia show depression symptoms within three months poststroke and having aphasia can increase the risk of developing depression by 50% (Strong & Randolph, 2021).

Anxiety is another condition that can accompany aphasia. Often, PWAs report anxiety when communicating due to aphasia's effects on communicating, making even the smallest exchanges difficult (Sandberg et al., 2021). Individuals with anxiety may shy away from communicating with others and situations where speaking may be involved, leading to further social isolation. High anxiety levels and a weak support system due to social isolation can have massive effects on recovery rates, leading to overall poor quality of life. It is vital to address the depression and anxiety symptoms that often accompany aphasia patients to improve recovery rates. It is clear that the mental health needs of individuals with aphasia are not being met. This may be due to the lack of training for SLPs and mental health professionals. Many SLPs report never having access to specialized training to deal with mental health issues such as depression

and anxiety, while mental health professionals report never being trained to properly communicate with individuals with communication disorders (Strong & Randolph, 2021).

Therapy Approaches

There are several ways that SLPs can help individuals with aphasia work on their mental health. One way is positive psychology, which focuses on an individual's strengths and achievements (Sandberg et al., 2021). Most SLPs already incorporate positive psychology into their treatment because they focus on maximizing communicative strengths and compensating for communicative weaknesses (Sandberg et al., 2021). Focusing on resiliency skills can be extremely helpful for PWAs. Resiliency is a considerable factor in an individual's ability to recover and focusing on resiliency skills helps individuals with aphasia feel accomplished. Therapy goals that decrease an individual's isolation are also extremely helpful in resiliency. Educating the individual with aphasia and those close to them can help with self-advocacy and a caregiver's ability to make informed decisions. When everyone feels more educated and comfortable about the diagnosis, everyone feels much more able to deal with this life-changing diagnosis. Another way SLPs can help individuals with aphasia is by encouraging social connections. Maintaining social relationships helps PWAs by reducing the feeling of isolation. SLPs can do this by meeting with families to promote discussion or setting goals for the patient to attend gatherings outside the clinic.

The most important way an SLP can ensure a client with aphasia is getting the necessary mental health needs is by knowing when to refer. SLPs are trained to treat communication disorders and the difficulties of these disorders; however, SLPs are not trained counselors. While SLPs do some counseling within their scope of practice, it is crucial to know when the

patient requires more services. Managing mental health is crucial when it comes to the recovery of PWAs. SLPs should work closely with mental health professionals to ensure that patients get the help they need. SLPs must be aware of any prior mental health diagnoses to work with mental health professionals on communication barriers (Sandberg et al., 2021). After referral, SLPs should work closely with the mental health professional to educate and train them on what aphasia is and how to communicate with an individual diagnosed with aphasia.

Sandberg et al. (2021) argue that mental health screenings should be part of routine assessments to ensure mental health disorders do not go untreated. These screenings would also allow SLPs to keep an eye on at-risk patients to make sure all of their needs are met. The role of counseling for SLPs includes education and self-advocacy, allowing SLPs to encourage their patients to seek professional health by breaking the stigma around mental health disorders and encouraging the patient to do what is best for them (Sandberg et al. 2021). Ensuring SLPs know what signs to look for when dealing with mental health and strengthening the connection between SLPs and mental health professionals can be a huge part of ensuring PWAs get the best possible treatment.

Hope is a huge factor in an individual's ability to respond to treatment. According to Jagoe and colleagues, "The role of the Speech Language Therapist is to optimize communications and thereby maximize participation, wellbeing, and quality of life" (Jagoe, 2020, p. 182). It has been shown that resiliency has a significant impact when it comes to a client's ability to improve with treatment. By incorporating hope into intervention approaches, SLPs can target both goal and mental health while increasing the effectiveness of treatment. While hope itself is not going to be the main focus of treatment, SLPs and other professionals can utilize hope to enhance treatment.

There are several definitions of hope, most agreeing that hope is focused on the future. Menninger argued that medical professionals should utilize the concept of hope in healthcare to improve patient recovery and survival (Jago et al., 2020). In the context of rehabilitation, hope is seen as a way to help prevent poor wellbeing and to increase goal achievement. Hope increases positive wellbeing, which improves attention, problem solving, and focus on goals (Jago et al., 2020). Professionals can utilize hope enhancement by being aware of how to incorporate hope into what is already being done.

As mentioned above, it is the job of SLPs to increase overall wellbeing and quality of life through communication. Since hope plays a vital role in wellbeing, SLPs should consider its effects. It has been found that relationships play a role in hope. If an individual cannot create and maintain positive relationships with others due to a communication disorder, it is likely they will have difficulty maintaining hope. It is the role of SLPs to help individuals with communication disorders facilitate and maintain interpersonal relationships, which will increase overall hope. With an increase in hope, the individual will likely begin to improve in other areas. Therefore, it is important for SLPs to support individuals with communication disorders by helping them communicate their goals with others. It is also essential for individuals to advocate for themselves and be able to articulate their own goals.

The concept of hope is already a widely important concept used within the mental health field. Since SLPs work so closely with populations at higher risk for mental health difficulties, SLPs need to understand how hope can be incorporated into their services. There are five ways in which SLPs can incorporate hope into their treatment services: collaborative strategies for illness management, fostering relationships, peer support, helping clients pursue realistic goals, and increasing self-esteem, self-efficacy, and wellbeing (Jago et al., 2020). All five of these

strategies rely on successful communication; therefore, SLPs play a vital role in enhancing an individual's ability to increase and maintain hope through communication.

Behavior Disorders and Communication

Adolescence is a critical time for development. At this point in life, peer influence is extremely strong, and risk-taking behaviors are common. This is due to neural pruning, when synapses are eliminated due to low or no use, leaving the adolescent brain susceptible to poor decisions (Bryan and Snow, 2020). During this time, adolescents need to continue developing both expressive and receptive language, as these are essential skills for school and social life. Adolescents with a communication impairment and emotional/behavioral problems struggle with regulating behavior, social skills, and school (Sanger et al., 2019). Having poor communication skills impacts all aspects of life. Individuals without solid communication skills tend to struggle in school regarding reading, writing, and participation in class. Poor communication skills also impact social development, which is vital for developing and maintaining relationships. Loneliness and peer rejection can lead to negative mental health concerns for individuals with compromised language skills (Brayn and Snow, 2020). Some research suggests that individuals with behavioral issues in the classroom should undergo a language assessment to determine if an unidentified language impairment could contribute to the behavior issues. It is also suggested that adolescents with academic and social difficulties should also undergo a language assessment considering language is such a huge aspect of school and social development.

A study by Sanger, Moore-Brown, and Alt (2000) focuses on the communication patterns of adolescent girls with behavior issues and the importance of speech-language pathologists in addressing these issues. There are three areas of communication that are of concern when it

comes to incarcerated adolescent girls: structural and pragmatic language skills, awareness, and communication patterns (Sanger et al., 2000). These issues are frequently overlooked, leaving SLPs with little chance for intervention. Research suggests that incarcerated adolescent girls require services at three times the rate of non-incarcerated girls (Sanger et al., 2000). Due to other issues incarcerated girls may have, such as discipline and behavior issues, language issues fall low on the list of priorities (Sanger et al., 2000). Some professions do not know the relationship between behavior and communication issues, which results in communication issues not being identified. It was found that incarcerated adolescent girls had difficulties with pragmatic practice. They could correctly identify acceptable pragmatic practices, such as eye contact and being a good listener, but often proper pragmatic skills were not demonstrated in conversation (Sanger et al., 2000). Incarcerated adolescent girls could adequately communicate during a conversation, but a small percentage with language disorders were unable to use proper pragmatic skills (Sanger et al., 2000).

Therapy Approaches

There are ways to incorporate both language and behavioral management strategies to target both issues. The first strategy is catching students being good. This strategy focuses on teaching students skills by planning activities encouraging the client to learn new skills and praising them for using them (Sanger et al., 2019). Clinicians should encourage clients to ask questions when they do not understand what is being taught. Clients should also be encouraged to actively engage in the information being taught and pick one or more difficult topics to learn more about. Then, the clinician and the client can go over the confusing information and discuss strategies to figure out how to understand the topic. For example, if a client does not understand a specific word, it is beneficial to place it in a sentence and use context clues to figure out the

meaning. By providing strategies and not answers, the client will have the most success in the classroom because they understand how to figure out what a word means on their own. Once clients ask for help or develop a strategy, they should be rewarded with positive reinforcement. The idea behind this strategy for increasing language skills is the same as using positive reinforcement for behavior. When dealing with behavior issues, it is important to reward good behavior to improve said behavior. By rewarding positive attempts at learning, the client is more likely to be engaged and want to learn the information.

The second strategy is thinking small. This strategy focuses on splitting tasks into smaller, more manageable tasks so that the client learns the most relevant information at that point in time (Sanger et al., 2019). When individuals are overwhelmed, the brain has a hard time focusing. To avoid this, clinicians should focus on teaching language skills in small steps. By doing this, clinicians ensure that the client has the base information down before moving on to the second step. For example, before a child can read, they must learn the letters and their sounds. When learning to read, children break down the word into individual sounds to sound out the entire word. Thinking small makes the task much more manageable and easier to learn.

The third strategy is called encouraging learning momentum. This strategy is used to build on already pre-existing knowledge and skills to continue learning (Sanger et al., 2019). Encouraging learning momentum ensures that the individual has all the necessary skills learned before moving to the next step. By building off the base knowledge the individual already has, learning can snowball into building new skills and furthering education. For example, before a student can learn algebra they must first master addition, subtraction, multiplication, and division. Students learn addition and subtraction first as a base for future math lessons. Multiplication and division are the next steps students are taught. Without this base knowledge,

solving an algebraic equation would be incredibly difficult. To set up the student for the best possible outcome, it is important to ensure they have the base knowledge to expand on said knowledge.

The three strategies mentioned above achieve the best results when integrated to make a personalized learning plan that focuses on the client's needs and goals. Combining the three strategies above and customizing them to fit the student's language and literacy needs while focusing on behavior issues will help improve both areas. While behavior modification is not in a SLP's scope of practice, behavior issues are common in clients with communication disorders. By encouraging communication and using techniques that can target communication and behavior issues, SLPs can significantly impact an individual.

Augmentative and Alternative Communication

When an individual is unable to communicate through spoken language, augmentative and alternative communication (AAC) is used to help the individual communicate and interact with the rest of the world. There are two types of AAC: aided and unaided. Unaided systems do not require an external device, while aided systems do. Examples of unaided systems would be signs, gestures, or facial expressions. Some aided systems included eye gaze boards, picture books, or speech generating devices. These AAC devices are used to compensate for an individual's difficulty in producing natural speech. Frequently, AAC is viewed as a last resort, but that is not the case. A stigma around AAC places a negative view on it and the individuals who use it (Beukelman & Light, 2020). It is important to understand that an individual's ability to communicate is essential; otherwise it may seem as though they have no control over their own life. AAC is highly beneficial for restoring an individual's ability to communicate and

interact with others. Instead of being seen as a last resort, AAC should be seen as a beneficial tool from which a wide group of people can utilize and benefit.

Some parents of children with communication needs worry that AAC will cause the child to rely on just the AAC system for their communication needs instead of being motivated to learn how to produce spoken language. However, it has been found that allowing a child to use an AAC device can stimulate natural speech because the child can get satisfaction from communicating (Dressler et al., 2016). Natural speech is also much quicker than AAC, meaning children will naturally gravitate toward natural speech. A significant benefit to using AAC is that it can improve the quality of life in individuals who have difficulty producing speech. "Researchers state that the ultimate measure of the success of AAC intervention is the degree to which it improves access and participation in valued activities and experiences of everyday life" (Dressler et al., 2016, p. 3). It has already been established that communication is an essential part of life, and without it comes various negative consequences. AAC can provide communication and a sense of power over one's life in individuals who may not be able to express their wants and needs through spoken communication. AAC also gives an individual the ability to form and maintain relationships, which is essential to an individual's overall wellbeing.

Another issue facing the AAC community is access to mental health services (Noyes & Wilkinson, 2022). Most therapy approaches and mental health services rely on spoken communication; therefore, individuals with communication difficulties may have difficulty obtaining mental health services. Most mental health services rely heavily on the ability to communicate complex emotions and thoughts, allowing the therapist to understand the client's feelings. Without this understanding, the therapist cannot address the issues; therefore, the client's mental health needs are unmet. Another issue facing therapy in the AAC community is

that therapeutic and day-to-day conversations are different. Therapeutic conversation is asymmetrical, meaning the conversation is more client-focused, allowing the client more time to communicate while guided by the therapist (Noyes & Wilkinson, 2022). Counseling involves various communication techniques, such as open-ended questions, eliciting responses, probing for further information, and clarifying information (Noyes & Wilkinson, 2022). These therapeutic strategies often involve complex and lengthy answers from the client, which may be difficult for AAC communicators. The ability of an individual to provide complex answers may be limited due to the type of messages available to the AAC user. If an individual can produce answers through spelling, they have access to unlimited messages, but these messages may be slow to produce. If an individual's AAC device is programmed with pre-programmed messages, the individual only has access to a limited number of responses. These are only a few barriers that AAC produces that can affect access to adequate mental health services.

SLPs need to be aware of such barriers to ensure their patients can effectively communicate their thoughts, emotions, and needs. To help facilitate therapeutic conversation, SLPs should ensure that AAC users have access to the proper vocabulary and pre-programmed messages. SLPs can also help clients work on strategic competence and coping skills specific to therapy sessions to help increase communication effectiveness (Noyes & Wilkinson, 2022). It is common for many other health field professionals to have little to no understanding of AAC and how to communicate properly with someone that uses AAC to communicate (Noyes & Wilkinson, 2022). Therefore, it is essential for the SLP and the mental health professional to work closely and educate each other on appropriate strategies. Providing information on what AAC is and how the patient communicates via AAC devices allows the therapist to better understand how to best alter the therapeutic conversation. By collaborating with the SLP,

therapists can send questions before a therapy session, allowing the SLP and AAC user to program messages to answer those questions. SLPs can also educate the mental health professional on communication breakdowns that often occur with AAC users and teach them strategies to deal with them. SLPs and mental health professionals need to work closely for the client to access adequate mental health services and the proper vocabulary and messages required for therapeutic conversation.

Therapy Approaches

Without a way to communicate with the people around, it is tough to build and maintain social relationships. Unfortunately, individuals using AAC devices often report a lack of friends (Beukelman & Light, 2020). When an individual does not have healthy social relationships, it can cause an increased risk for loneliness, isolation, mental health disorders, and risky behaviors, especially in adolescence (Herbert et al., 2020). Often, children utilizing AAC devices have few opportunities to engage in conversation at school, decreasing the chance to make lasting friendships (Beukelman & Light, 2020). With individuals with complex communication needs requiring AAC devices, it becomes even more difficult for them to build and maintain healthy social relationships, which can put them at even higher risk for the negative consequences mentioned above.

One study by Herbert and colleagues (2020) investigated the effects of peer networks on high school students with severe disabilities and AAC devices. Peer networking is when students without disabilities are recruited to meet and interact with students with severe disabilities to support and encourage building friendships and connections (Herbert et al., 2020). In the study, three high school students had severe disabilities and complex communication

needs. Two participants were diagnosed with autism spectrum disorder and used AAC devices to communicate. The third participant was diagnosed with deaf-blindness and multiple disabilities and primarily used sign language along with the help of a high-tech AAC device to communicate. The study then recruited thirteen individuals without disabilities to be in the peer network for the three individuals with severe disabilities and complex communication needs. Each peer network group consisted of three to five peers and met during their shared lunch period. The study found that introducing peer-network groups increased social interaction, social engagement, the use of AAC devices, vocal speech, and gestures (Herbert et al., 2020). Introducing peer-network groups can be an essential part of increasing the overall well-being and confidence in an individual with complex communication needs through engaging them in social interactions and encouraging them to build social connections with peers.

Clinical Implications

SLPs need to understand the relationship between communication disorders and mental illness. As discussed above, communication disorders can lead to a variety of other issues that frequently go unaddressed. Leaving issues untreated not only hinders the client's progress, but can lead to other emotional and behavioral issues. Communication disorders can affect anybody at any age, and with that comes a variety of other needs that individuals need to have met. Ensuring that a client is having all needs addressed gives the best possible outcome. Ensuring SLPs are well-educated and trained on mental health disorders can ensure clients receive the best possible treatment.

Considering SLPs work with individuals with behavior issues, it is essential to know different strategies focusing on both language impairments and behavioral problems. There are nine

aspects of language-based literacy that Sanger et al. (2019) believe should be targeted when it comes to individuals with behavior and communication issues: vocabulary development, figurative language, characters and settings in books, inference, visual strategies, written language, test modifications, paragraph organizers, and self-rating scales (Sanger et al., 2019). By incorporating these skills into behavioral management plans, clients will be set up for success academically and socially.

Discussion

Depression and anxiety are highly prevalent in a variety of communication disorders. While communication disorders do not cause mental health disorders, there is a positive correlation between the two. Many communication disorders lead to low self-esteem, social withdrawal, and low self-efficacy. No matter the type of communication disorder, the ability to form and maintain relationships is affected when the communication stream is interrupted. Human interaction is vital to the overall wellbeing of an individual, so it is essential to investigate how communication disorders can help lead to the development of mental health disorders. SLPs work with individuals with communication disorders, which have a high prevalence rate of depression and anxiety. Educating SLPs on the warning signs and symptoms of these mental health disorders can help SLPs know when to refer or provide extra support and counseling. Mental health professionals are well-trained in treating mental health disorders, but many do not have the education to communicate appropriately with individuals with communication disorders. A lack of ability to communicate affects access to mental health services. Therefore, SLPs should work closely with mental health professionals to educate them on communication disorders and how to communicate effectively. Building a relationship

between the SLP and the mental health professional provides the client with the best overall treatment plan and best outcome.

Limitations

The conclusions of this scoping review are limited due to small sample sizes and a lack of comprehensive studies done. Many of the studies investigated had small sample sizes that may not reflect the overall population, therefore, the results may not apply to the vast majority of the population. There was a lack of studies done on a variety of age groups because most studies focused on adults with communication disorders. For example, there were studies done to investigate the effects of CBT on individuals who stutter, but not many studies investigated the effects of CBT on children who stutter. It is important to study the effects of communication disorders on a wide variety of age groups to ensure the most comprehensive results. There are a variety of different ways to measure anxiety, which can lead to conflicting results as found in many studies. Overall, there was a lack of comprehensive studies done to investigate the relationship between communication disorders and mental health disorders.

Future Directions

Further research is needed to investigate potential solutions to ensure the mental health disorders in people with communication disorders are being addressed. While many studies emphasize the importance of a collaborative relationship between SLPs and mental health professionals, there are few studies that truly investigate the effectiveness of this relationship. There are many studies investigating how CBT can help decrease social anxiety levels in adults, but oftentimes children are overlooked. If CBT is a potential solution to addressing social anxiety levels in people who stutter, it is important to see if these results carry over to children

receiving the same treatment. Studies that continue to investigate the relationship between communication disorders and mental health disorders should use larger sample sizes in the future. Many studies discussed in this scoping review had relatively small sample sizes which means the results may not be representative of the overall population. It is important for future studies to use a larger sample size to create more comprehensive results.

References

Beukelman D. R. & Light J. C. (2020). *Augmentative & Alternative Communication: Supporting Children and Adults with Complex Communication Needs* [eBook edition] (5th ed.). Paul H. Brookes Publishing Co.

<https://bookshelf.vitalsource.com/reader/books/9781681253046/pages/recent>

Bernard R., Hofslundsengen H., & Norbury C. F. (2022). Anxiety and depression symptoms in children and adolescents who stutter: A systematic review and meta-analysis. *Journal of Speech, Language, and Hearing Research*, 65, 624-644.

https://doi.org/10.1044/2021_JSLHR-21-00236

Bryan K. & Snow P. (2020). Language and communication needs of young offenders. In C. Jagoe & I. Walsh (Eds.), *Communication and mental health disorders: Developing theory, growing practice* (pp. 219-242). J & R Press.

Caughter S., & Dunsmuir S. (2017). An exploration of the mechanisms of change following an integrated group intervention for stuttering, as perceived by school-aged children who stutter (CWS). *Journal of Fluency Disorders*, 51, 8-23.

<http://dx.doi.org/10.1016/j.jfludis.2016.10.003>

Comer R. J & Comer J. S. (2021). *Abnormal Psychology* [eBook edition] (11th ed.) Worth Publishers. [Fall 2022: USD: Psychology of Abnormal Behavior \(macmillanhighered.com\)](https://www.macmillanhighered.com)

Dressler R., Bland L., & Baumgartner M. (2016). The benefits of alternative and augmentative communication: A quality of life issue. *Internet Journal of Allied Health Sciences and*

Practice, 14(4), 1-5. ["The Benefits of Alternative and Augmentative Communication: A Quality " by Richard Dressler, Lauren Bland et al. \(nova.edu\)](#)

Herbert M. E., Brock M., Barczak M. A., & Anderson E. J. (2020). Efficacy of peer-network interventions for high School students with severe disabilities and complex communication needs. *Research and Practice for Persons with Severe Disabilities*, 1-17. DOI: 10.1177/1540796920904179

Iverach L. & Rapee R. M. (2014). Social anxiety disorder and stuttering: Current status and future directions. *Journal of Fluency Disorders*, 40, 69-82. <http://dx.doi.org/10.1016/j.jfludis.2013.08.003>

Jago C., Delmar P., Sheehy A., & Walsh I. P. (2020). Reflecting on hope: Communication and mental health. In C. Jago & I. Walsh (Eds.), *Communication and mental health disorders: Developing theory, growing practice* (pp. 177-189). J & R Press.

Lowe R., Menzies R., Onslow M., Packman A., & O'Brian S. (2021). Speech and anxiety management with persistent stuttering: Current status and essential research. *Journal of Speech, Language, and Hearing Research*, 64, 59-74. https://doi.org/10.1044/2020_JSLHR-20-00144

Menzies R. G., O'Brian S., Onslow M., Packman A., St Clare T., & Block S. (2008). An experimental clinical trial of a cognitive-behavior therapy package for chronic stuttering. *Journal of Speech, Language, and Hearing Research*, 51, 1451-1464. An Experimental Clinical Trial of a CognitiveBehavior Therapy Package for Chronic Stuttering (1).pdf

Sandberg C. W., Nadermann K., Parker L., Kubat A. M., & Conyers L. M. (2021). Counseling in aphasia: Information and strategies for speech-language pathologists. *American Journal of Speech-Language Pathology*, *30*, 2337-2349. https://doi.org/10.1044/2021_AJSLP-20-00312

Sanger D. D., Johnson A. A., TenHulzen P. N., Ritzman M. J., & Lambert M. C. (2019). Juvenile offenders with co-occurring language and behavior problems: language suggestions. *The Journal of Correctional Education*, *70* (1), 20-35. Sanger 2019.pdf

Sanger D., Moore-Brown B., & Alt E. (2000). Advancing the discussion on communication and violence. *Communication Disorders Quarterly*, *21* (1), 43-48. Sanger 2000.pdf

Scheurich J. A., Beidel D. C., & Vanryckeghem M. (2019). Exposure therapy for social anxiety disorder in people who stutter: An exploratory multiple baseline design. *Journal of Fluency Disorders*, *59*, 21-32. <https://doi.org/10.1016/j.jfludis.2018.12.001>

Smith K. A., Iverach L., O'Brian S., Kefalianos E., & Reilly S. (2014). Anxiety of children and adolescents who stutter: A review. *Journal of Fluency Disorders*, *40*, 22-34. <http://dx.doi.org/10.1016/j.jfludis.2014.01.003>

Strong K. A. & Randolph J. (2021). How do you do talk therapy with someone who can't talk? Perspectives from mental health providers on delivering services to individuals with aphasia. *American Journal of Speech-Language Pathology*, *30*, 2681-2692. https://doi.org/10.1044/2021_AJSLP-21-00040

Noyes A. M. & Wilkinson K. M. (2022). Supporting access to mental health services for patients who use augmentative and alternative communication: A proposed framework and

suggestions for future directions. *American Journal of Speech-Language Pathology*, 31, 2268-2282. https://doi.org/10.1044/2022_AJSLP-22-00089

van Lieshout P., Ben-David B., Lipski M., & Namasivayam A. (2014). The impact of threat and cognitive stress on speech motor control in people who stutter. *Journal of Fluency Disorders*, 40, 93-109. <http://dx.doi.org/10.1016/j.jfludis.2014.02.003>