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Neurodivergent Non-verbal Communication Techniques: A Pedagogical Study

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ABSTRACT

Non-verbal communication governs relationships and can enhance or even supplant verbal communication in numerous contexts. Diverse genders and cultures employ non-verbal communication distinctively, and these variations can influence the dynamics of interpersonal communication. Nonverbal communication can either hinder or facilitate efficient communication. Researchers indicate that non-verbal norms may vary depending on the context, with each context establishing its own rules. Neurodivergent individuals exhibit markedly different and distinct nonverbal communication behaviors. This pedagogical study explores various ways of nonverbal communication discussed by researchers in the past scientific literature that are beneficial to neurodivergent people who cannot speak.

Keywords: Neurodivergent, Non-verbal Communication, Autism, ADHD, Dyslexia, Mental Health

1. INTRODUCTION

Communication is an essential aspect of human existence, functioning as the foundation of connection and comprehension with others. It encompasses several nonverbal modalities of communication that exclude spoken language, such as facial expressions, body language, gestures, and vocal tone, which are equally potent in expressing emotions, intentions, and information. This nonverbal communication frequently conveys more meaning than spoken expression, adding depth and complexity to human relationship. Nonetheless, mastering the skill of nonverbal communication is not effortless for many individuals. Many Neurodivergent individuals find it difficult to perceive and convey nonverbal clues, which frequently results in misunderstandings and a sense of isolation in social contexts.
Neurodivergent persons typically possess an innate ability to comprehend delicate nonverbal cues, however, neurodivergent individuals may find this recognition challenging. This difficulty impedes their capacity to respond effectively during conversations and adversely impacts their ability to establish and sustain relationships with peers. Furthermore, they may encounter difficulties in utilizing body language and facial expressions to convey messages, which is crucial for creating a favorable image and establishing connections with others. Due to these considerations, autistic individuals seeking social connections may desire to surmount their challenges with nonverbal communication. Mastering these nonverbal signals can improve social interactions and relationships while establishing a basis for increased self-confidence and self-expression. Moreover, refining nonverbal communication abilities can serve as a significant advantage in professional settings, facilitating successful job interviews and enhancing collaborative workplace interactions. There are numerous difficulties for people with Neurodivergent disorder to communicate in general and if the individual cannot speak it's a persistent problem. Individuals with neurodivergent disorder frequently encounter difficulties in both the interpretation and expression of nonverbal signals. This may occur in various manners:

- Difficulty in Recognizing Facial Expressions: Subtle expressions may be challenging to interpret, leading to potential misunderstandings.

- Misinterpreting Nonverbal Communication: Gestures and postures that are evident to neurotypical individuals may be perplexing or devoid of significance to autistic individuals.

- Experiencing Challenges with Eye Contact: Establishing or sustaining eye contact may be uncomfortable or difficult for individuals with autism, resulting in the omission of crucial communicative cues.

In this study, we will discuss how nonverbal communication can be an effective tool for expression in the case of people who are neurodivergent and cannot speak. Enhancing nonverbal communication abilities can improve the quality of social interactions for neurodivergent individuals with various others they may encounter.

2. LITERATURE REVIEW

Individuals engaged in the fields of disability and special education are well-acquainted with their adverse historical context. In the medieval era, with the emergence of biblical faiths in Europe, individuals with mental disorders were perceived as being demonically possessed. They underwent exorcisms and frequently faced execution if those were ineffective, which was typically the case. With the advancement of technology and the expansion of psychiatric study, individuals gained a deeper understanding of disabilities and their nature. Nevertheless, they remained unable to achieve accuracy. Mental infirmities were regarded as illnesses rather than possessions, necessitating containment and treatment for affected individuals. This initiated the emergence of psychiatric institutions that confined the mentally impaired in prison-like healthcare facilities to "treat" their conditions. To understand the rationale for utilizing the term neurodivergent, one must first comprehend its definition. Is it exclusively autism spectrum disorder and analogous diagnoses? Or is it primarily mental disabilities?

Does it encompass mental illnesses as well?

Neurodivergent is a nonclinical term that characterizes individuals whose neurological development or functioning deviates from the norm for various reasons. This indicates that the individual has distinct strengths and challenges compared to those whose cognitive development is more conventional. Some neurodivergent individuals possess medical conditions, while others may not have an identifiable medical condition or diagnosis. The word "neurodivergent" refers to individuals whose neurological variations influence cognitive functioning. This indicates that they possess distinct capabilities and problems compared to individuals without such neurological peculiarities. Potential differences encompass medical problems, learning difficulties, and various other issues. Potential abilities encompass enhanced memory, the capacity to effortlessly visualize three-dimensional (3D) objects, and the proficiency to perform intricate mathematical computations mentally, among others.

Neurodivergent is not a clinical term. Rather, it serves as a means to characterize individuals employing terminology beyond "normal" and "abnormal." This is significant due to the absence of a singular definition of "normal" for human brain function. The term for those who are not neurodivergent is "neurotypical." Their strengths and problems are unaffected by any differences that alter brain function. The term "neurodivergent" originated from the concept of "neurodiversity." In 1998, Australian sociologist Judy Singer introduced the term "neurodiversity" to acknowledge the distinct developmental patterns of individual brains.

Similar to an individual's fingerprints, no two brains—regardless of whether they belong to identical twins—are precisely alike. Consequently, there is no definitive characterization of "normal" cognitive capacities for the human brain. "Neurodivergent" is not a medical term, ailment, or diagnosis. Individuals who are neurodivergent have variations in cognitive functioning. This remains accurate even for individuals with identical medical diagnoses. This indicates that individuals exhibiting markedly diverse signs and symptoms may nonetheless receive an identical diagnosis. Individuals who identify as neurodivergent generally possess one or more of the diseases or disorders described below. However, this term may potentially cover additional disorders in the absence of established medical criteria or definitions for neurodivergence. Individuals with these illnesses may opt not to identify as neurodivergent.

Common conditions among individuals identifying as neurodivergent include:

- Autism spectrum disorder, which encompasses what was formerly referred to as Asperger’s syndrome.
- Attention-Deficit Hyperactivity Disorder (ADHD).
- DiGeorge syndrome.
- Trisomy 21.
- Dyscalculia (mathematical learning disability).

- Dysgraphia (writing impairment).
- Dyslexia (a reading impairment).
- Dyspraxia (impaired coordination).
- Intellectual impairments.
- Mental health disorders such as bipolar disorder and obsessive-compulsive disorder, among others.
- Prader-Willi syndrome.
- Disorders of sensory processing.
- Social anxiety, a particular form of anxiety condition.
- Tourette syndrome.
- Williams syndrome

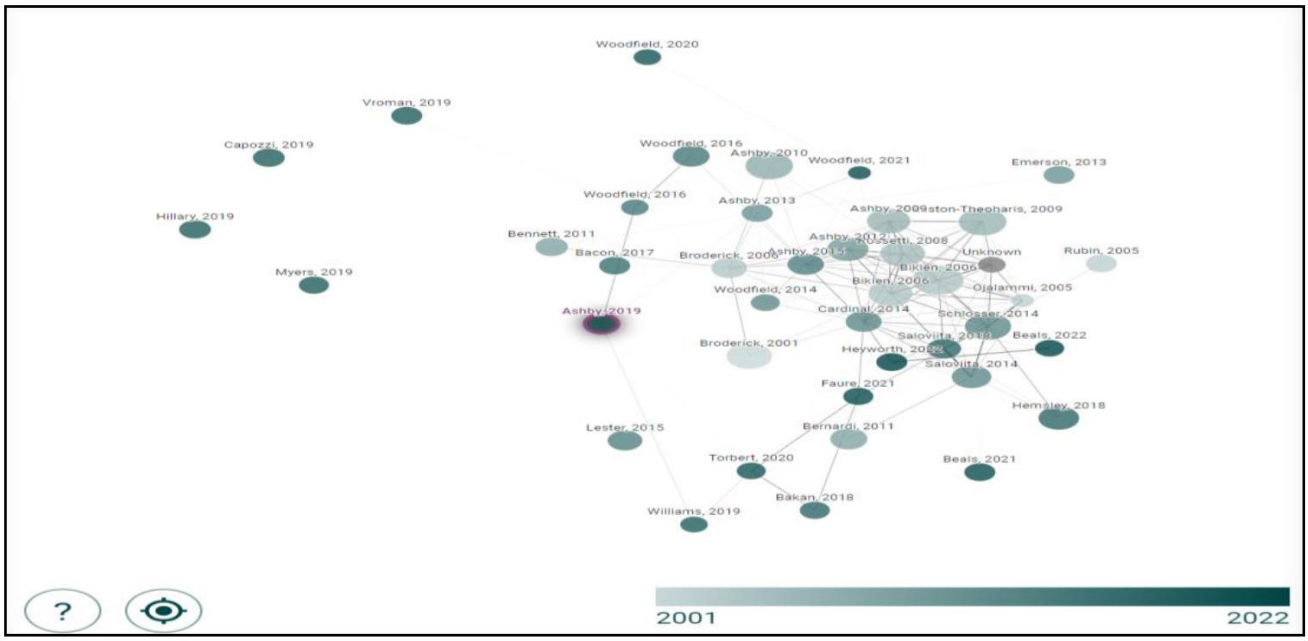
These neurodivergent individuals may be non-verbal. Neurodivergent individuals may not utilize spoken language for communication. This may be attributable to several factors, including: first, autism spectrum disorder (ASD), which means the person is on the autism spectrum and may be non-verbal or possess restricted verbal communication abilities, and second, cognitive or developmental disabilities. This is a Conditions that impair cognitive functioning may also result in non-verbal communication. Third is Physical Limitations. Certain persons may possess physical limitations that impede their capacity to articulate speech. In the past literature, the term Neurodivergent has been studied many times with different terminologies. The previous literature on Neurodivergent has been collected and compiled by the researcher in the Table below:

Table I Past Literature on Neurodivergent

Title	Author	Year	Citation	References
Honouring, Constructing, and Supporting Neurodivergent Communicators in Inclusive Classrooms	Christine Ashby, Casey L. Woodfield	2019	2	18
Blazing Trails, Being Us: A Narrative Inquiry with five high school students with autism who type to communicate	Casey L. Woodfield	2016	1	300
Pointing Forward: Typing for Academic Access	Christine Ashby, Christi Kasa	2013	4	28
'The right path of equality': supporting high school students with autism who type to communicate	Casey L. Woodfield, Christine Ashby	2016	15	66
"Friends Give Meaning to Life:" Reframing Friendship for Individuals with Autism that Type to Communicate	Jessica K. Bacon, F. Orsati, Scott Floyd, Hesham Khater	2017	4	20
New Social Science Paradigms for the 21st Century	W. Torbert	2020	2	0
Barriers to Knowing and Being Known: Constructions of (In) Competence in Research	Casey L. Woodfield, Justin E. Freedman	2021	0	45

Evidence of Authorship on Messages in Facilitated Communication: A Case Report Using Accelerometry	Patrick Faure, T. Legou, B. Gepner	2021	3	28
"And then you can prove them wrong": The college experiences of students with intellectual and developmental disability labels.	K. Vroman	2019	4	307
Autobiography on the Spectrum: Disrupting the Autism Narrative (Practitioner Inquiry Series)	B. Myers	2019	3	0
Perspective: Presuming Autistic Communication Competence and Reframing Facilitated Communication	M. Heyworth, T. Chan, Wenn B Lawson	2022	4	76
"I am thinking that speech is asinine": Narrating Complexities and Rethinking the Notion of "Independence" in Communication.	A. Broderick, C. Kasa-Hendrickson	2006	12	28

Figure I Past Literature on Neurodivergent



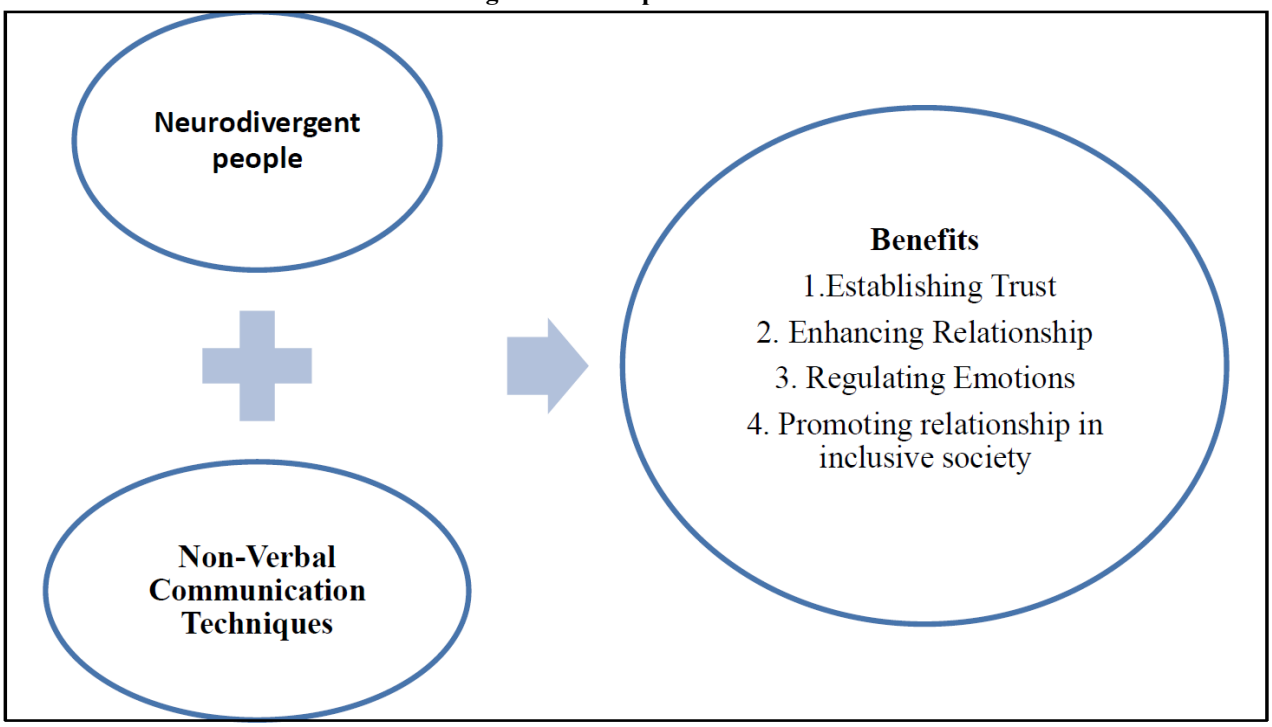
Source: Author Compilation

3. CONCEPTUAL FRAMEWORK

In this study, we will discuss how nonverbal communication can be an effective tool for expression in the case of people who are neurodivergent and cannot speak. This paper is a Pedagogical paper. Pedagogical papers explore the theories and practices of teaching and learning and present innovative approaches to education. Similarly, in this study, we will

explore different ways of nonverbal communication discussed by researchers in the past scientific literature and how it is relevant to the present time.

Figure II Conceptual Framework



Source: Author Compilation

4. DISCUSSION

Non-verbal communication governs relationships and can enhance or even substitute verbal communication in numerous contexts. Diverse genders and cultures employ non-verbal communication distinctively, and these variations can influence the dynamics of interpersonal communication. Nonverbal communication can either hinder or facilitate efficient communication. Researchers indicate that non-verbal norms may vary depending on the context, with each context establishing its own set of rules. Different types of nonverbal communication techniques can be used by people who are neurodivergent:

- **Augmentative and alternative communication (AAC)** is a clinical approach that enhances or compensates for deficits in speech-language production and/or understanding, encompassing both spoken and written communication modalities. AAC is categorized within the wider domain of assistive technology, which encompasses any device, instrument, or method aimed at enhancing daily life functions for those with disabilities or restrictions. AAC employs several approaches and instruments to facilitate the individual's expression of thoughts, desires, needs, emotions, and concepts, including the following:

    - manual signals, gestures
    - manual alphabet physical items
    - contour illustrations
    - Visual communication boards and alphabet boards
    - speech-generating apparatus

According to Elsahar et al. (2019), AAC is augmentative when it improves current speech, alternative when it replaces absent or dysfunctional speech, and transitory when used postoperatively in intensive care by patients.

- **Communication through Visuals**: A visual elicitation method intended to investigate participants' views of emotion recognition and expression. Visual elicitation research approaches enhance the verbal component of conventional interviews by incorporating visual stimuli or alternative response mechanisms to inquiries. Visual elicitation approaches frequently assist participants in expressing mental models related to sensitive topics, such as the management of severe mental illness. This technique uses graphics in the educational and therapeutic experiences of individuals with neurodivergent people.

- **Communication through facial expression and body language**: Body language denotes the nonverbal signals that convey individuals' emotions. Body language is frequently exhibited unconsciously; the facial expressions you display, or your posture can convey a message to others, regardless of whether you have articulated it verbally—and if you lack self-awareness, this occurs irrespective of your intentions. Communication through facial expression and body language is very helpful in the case of neurodivergent individuals. For instance, Autistic empathy may function differently than non-autistic empathy. This may be due to the distinct sensory processing systems of most autistic individuals compared to the non-autistic majority. The variations in our sensory perceptions—such as hearing, sight, and taste—are being increasingly recognized and comprehended. However, we also experience emotions. Individuals with autism are likely to have experienced markedly different living circumstances compared to those without autism.

These nonverbal communication techniques are also helpful to include neurodivergent people in the workplace, which can uplift a whole society. Effective communication in the workplace can enhance performance and yield the intended outcomes. Numerous non-verbal cues are employed daily in the workplace, many of which are more potent than spoken communication. A handshake can provide a significant first impression in a professional context, whether favorable or not. Non-verbal communication influences gender and cultural disparities. Society perceives males and females distinctively. Men are depicted as aggressive, domineering, and possessing a proactive demeanor. Women are perceived as sensitive, emotional, and passive.

5. CONCLUSION

Non-verbal communication is crucial in all forms of communication. Effective communication is unattainable without the transmission of non-verbal cues. These indications assist others in discerning the attitudes and traits that may remain unarticulated by the spoken words. A significant aspect of non-verbal communication is to body posture and movement. Non-verbal communication is essential in everyday interactions and equally significant for the interpreter. Non-verbal communication manifests in diverse forms, each illustrating or substituting specific aspects of verbal communication. It encompasses far more elements than one might initially assume. To function effectively, translators must comprehend non-verbal clues. This is feasible solely due to a certain region of our brain that processes the emotional aspect of the information. Both cognitive intelligence and emotional intelligence are essential for interpreting non-verbal cues, which is crucial for neurodivergent individuals. Understanding and assisting non-verbal neurodivergent individuals is essential for cultivating an inclusive culture. We can establish settings that support their success by acknowledging their distinct communication styles and difficulties.

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