

Interdisciplinary Development in Clinical Linguistics Disorders and Impairments in Phonology of English Language Teaching and Learning at Schools

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Abstract

The history of communication disorders has a history that can be traced all the way back to the ancient Greeks. Modern Clinical Linguistics, however, largely has its roots in the twentieth century, with the term 'clinical linguistics' gaining wider currency in the 1970s, with it being used as the title of a book by prominent linguist David Crystal in 1981. Widely credited as the 'father of clinical linguistics,' Crystal's book *Clinical Linguistics* went on to become one of the most influential books in the field, as this new discipline was mapped out in great details. The application of linguistic science to the analysis of speech and language disorders has always been necessary but understudied. Roman Jakobson, a Russian linguist, was one of the first to try to apply linguistic theory to the study of speech – language pathology, published in 1941, his book *Kindersprache*, his observation that deviant word patterns obeyed similar rules to those of regular language systems remains a guiding principles in clinical linguistic even today. The theoretical framework relies upon The Evidence-Based Practice (EBP) is the integration of Clinical expertise / expert opinion. The knowledge, judgment, and critical reasoning acquired through your training and professional experiences. Evidence (external and internal) the best available information gathered from the scientific literature (external evidence) and from data and observations collected on the individual client (internal evidence) client / patient /caregiver perspectives. The unique set of personal and cultural circumstances, values, priorities, and expectations identified by the client and their caregivers. The method is descriptive and quantitative to show the importance of such developments and progresses in clinical linguistics especially the phonology and its importance in teaching and learning. The aim is to show that disorders are not the exclusive responsibility of individuals. The result shows that children with speech articulation disorders have difficulties with the motor production of speech sounds. Phonological disorders affect 10% pre-school and school age children with communicative impairments. Between the age of 3 and 11 years, 50% to 75% children who have a phonological disorder of unknown origin are also reported to show weakness in some other area of language ability (Carol, 2020, P.1).

Keywords: clinical linguistics, phonology, disorders and impairments, learning, descriptive, show, reasoning

Introduction

The increasing momentum of research into clinical linguistics has continued into the current decade. Collections of research articles have been published which attest to the full scope of the discipline (e.g. Fava, 2002; Massen & Groenen, 1999; Windsor, Hewlett, & Kelly, 2002). Clinical linguistics and phonetics now appears monthly with articles covering a range of linguistic areas and disorder types, and dealing with a variety of different languages. Recent books show the expansion of clinical linguistics into new areas: Ball (2007) describes a clinical

sociolinguistics, Perkins (2007) provides a unified theory of pragmatic ability and disability, and Guendouzi and Muller (2006) investigate the nature of discourse in dementia. The discipline has clearly matured to a point where an up – to – date survey in the form of a handbook is warranted, if not overdue (Martin, Michael, Perkins, Nicole, & Sara, 2008, P. XXIV).

The focus on use and context is relatively recent development in clinical linguistics, which has more traditionally concerned with the form and structure of speech and language. Phonetics and phonology are related areas often overlap in the clinical context (Ball and Muller, 2002). Clinical phonetics and phonological analysis have traditionally taken as its focus single words, looking at how individual with impaired speech produce words in sequence in multi-words utterances, and word juncture behaviour, they discuss the interplay between articulation and prosody in longer utterances, and the impact that connected speech difficulties can have on intelligibility (Ibid., XXXII).

There are main disciplines of Clinical Linguistics

Clinical Phonetics

Phonetics is a branch of linguistics that studies the sounds of human speech. Clinical phonetics involve application of phonetics to describe speech differences and disorders, including information about speech sounds and the perceptual skills used in clinical settings.

Clinical Phonology

Phonology is one of the branches of linguistics that is concerned with the systematic organisation of sounds in spoken languages and signs languages. Unlike clinical phonetics, interpretations of speech sounds in a particular language and how it deals with phonemes.

Clinical Prosody

In linguistics, prosody is concerned with elements of speech that are not individual phonetic segments (vowels and consonants) but are properties of syllables and larger units of speech. Prosody is essential in communicative functions such as expressing emotions or affective states.

Clinical Pragmatics

Pragmatics is a subfield of linguistics and semiotics that studies the way in which context contribute to meaning. It refers to the description and classification of pragmatics impairments, their elucidation in terms of various pragmatic, linguistics cognitive and neurological theories, and their assessment and treatment.

Application

Linguistic concepts and theories are applied to assess, diagnose, and administer language disorders. These theories and concepts commonly involve psycholinguistics and sociolinguistics of language and the linguistic disciplines to explain language disorders and find approaches to treat them. Crystal pointed out that applications of linguistics to clinical ends are highly relational. In his book 'Clinical Linguistics,' references many commonly known disorders with linguistics knowledge. The ultimate goal of clinical linguistics is to formulate hypothesis for the remediation of abnormal linguistic behaviour (David, 1981: P. 4-9). Some examples from his book are follows:

- 1) **Voice Orders:** involves sub – and suprasegmental settings involved in dysphonia; syllabic vs. polysyllabic distinction to account for volume and timbre dimensions in

voice; synchronic vs. diachronic distortion should be used for more recognisable voice quality; interaction between non-segmental phonetic and phonological variables (PP. 192-193).

- 2) **Cleft Palate Syndrome:** phonological variables and statement must be interpreted in perceptual and phonological terms; distribution of segments in an utterance (P.193).
 - 3) **Fluency:** segmental phonetic level (taking into consideration prolongations, abnormalities in muscle tension) can affect the production of speech phonologically; transition smoothness at the prosodic level (tempo, pause, etc.); semantic factors including avoidance of particular lexical terms, coupled with grammatical structure between adult and child (P. 194).
 - 4) **Dyspraxia:** requires multiple analysis in terms of segmental, features and processes for phonological realisations; more serious cases would require the analysis of disturbances in non – segmental phonology (P. 195).
 - 5) **Deafness:** systematic analysis of segmental and non – segmental phonological organisations, and phonetic abilities; semantic, the grammatical structure as well as sociolinguistics interaction studies are vital dimensions that cannot be neglected for the oral production and comprehension for the deaf (P. 195).
 - 6) **Aphasia:** speech comprehension and production requires non – segmental organisation of language involving; notions of segmental, feature and process would aid in the analysis of phonological problems (P. 194).
- Linguistics methods are used in the treatment of patients, they are:
- 1) Standardised and norm – referenced tests.
 - 2) Conversation analysis.
 - 3) Discourse analysis.
 - 4) Speech and language assessment.
 - 5) Phoneme – Grapheme.
 - 6) Emergent expression morphology.
 - 7) Bracken basic concept scale.
 - 8) Clinical evaluation of language fundamental.
 - 9) Peabody picture vocabulary.

The utterance of aphasic individuals were first made by neurologists in the late nineteenth century (Ibid: P. 676). By the twentieth century these had been superseded by more systematic transcriptions, especially when a cadre of phonologically trained speech and language professionals came into being. By the 1950s phonetic descriptions were being routinely supplemented by some sort of phonological analysis (in phonemic terms). From the late 1940s, tests of language disability began to take into account basic morphological contrasts such as singular vs. plural, or present vs. past tense. An important aim of clinical linguistics is to provide a classification of patient linguistic behaviour, as part of the process of differential diagnosis. For decades, diagnosis of language disability was carried out on a solely medical basis, with the causes of a problem identified in terms of impaired anatomy, physiology, or neurology – aphasia, cleft palate speech, deafness, dyspraxia, and dysphonia.

Linguistics is concerned with the study of language, including theories of language as discussed in Chapman's *thinking about Language of English* and the ways in which a language is structured and patterned as in Jeffries' *Discovering Language: Describing English*.

Studies into linguistic variation of phonology, morphology, and syntax are the focus of traditional dialectology such as the regional based studies undertaken by *The Survey of English Dialects* (1962) and Kortmann and Schneider's two-volume *A Handbook of Varieties of English* (2004).

The term standard English (SE) is the one most commonly used to label the language 'English.' It is the variety of English used in public life in England and other English speaking countries, for example; in education, law, medicine, and government. Nowadays, it has no geographical boundaries, and is used across the whole of England and other English speaking countries (Crystal, 1995, and Trudgill, 1999).

Haugen (1996, p. 97-111) identifies the process of standardisation as a four-stage one:

1. Stage One: Selection – an existing dialect is chosen as the one to be standardised. In the case of English, this was the Middle English dialect of the East Midlands.
2. Stage Two: Elaboration – the chosen dialect is expanded and elaborated so that it can fulfill the variety of different functions it is intended to serve. That is, the dialect is added to by adding vocabulary and / or elaborating grammatical structures. In the case of English, the East Midlands dialect was elaborated by the adoption of Latinate constructions.
3. Stage Three: Codification – the vocabulary and grammar is made explicit and written down. Once codified in writing, then language becomes an object of consciousness in the material world, in that it can be seen as well as heard, and thus 'fixed' or 'pinned down.' Changes to the language are thus more open to regulation and control by its community of users, especially by the more powerful sections of society.
4. Stage Four: Implementation – the chosen variety is implemented throughout a community, usually by becoming the language of instruction in education and being adopted by public institutions such as the law, government, and the media.

American English now dominated the world. It is standard American English which is taught to foreign learners around the globe, and it is not unusual to find people from the Pacific, the East and even Europe speaking English with an American accent and using American idioms. Since the Second World War and from the 1940s onwards, American English has consolidated its position through its dominance of the entertainment industry and in recent decades, through its dominance of information technology and the internet American English like that of British standard English, owes a great deal to its social and cultural history.

The main feature of American English in contrast with standard British English is in Lexical variation and variation in pronunciation.

Development theories are about understanding how the process of change in societies take place. Scholar contributed to the construction of modern theories of development in the 1940s, stressing the role of the state. In contrast, left – wing and liberal perspectives gave priorities to the role of market by the 1980s.

Yet the apparent of Newly Industrialised Countries supported neither of these two orthodoxies! Instead the East Asian story inspired a renewed of development theories, recognizing the need for institutional diversity.

The history of development theories suggests that specialists should resist pressure to embrace consensus, as no theory is immune to changes in social values or current policy problems (Harris, 2001, P.1). The word "development" means growth, unfolding, fuller working, and potential that is latent is something. Development in societies means changes and advances. 1945 international development increases wealth and economy growth, but theories about development begin in the middle of the twentieth century that means national prosperity, economic development, social domestic and economic stability as the philosophers of Enlightenment have submitted ideas and views of principles of self-regulation market and

economic liberalism, but it is not reflected upon the peer-accurate branches to get such devices and tools to solve such issues like disorder and impairment. Development goal was growth, its agent was state, but its means were national economic planning (Colinleys, 1995, P.5).

Phonetic variation does exist across the USA as well, but given its relative youth as a country, this is shown not so much by regional variation of the kind that exists in England. Rather, phonological variation exists on divisions between urban and rural areas and between different ethnic groups.

The origins of American English date back to Seventeenth Century and the colonization by several disparate European nations of the 'new world.' (Dillard, 1978).

Many children with development language disorder (DLD) exhibit difficulties with phonology, i.e., the sounds of language. Children with any degree of hearing impairment (HI) are at an increased risk of problems with spoken language, including phonology.

Performance in non-word repetition tasks is a potential indicator of language ability in both children with DLD and children with HI (P. 7).

In spoken language, we communicate through speech. Most things we find interesting, beautiful or indeed necessary for survival, can be formulated in words (P. 13). By means of articulatory gestures, the words are given the shape of sound – sound that can then be heard and interpreted by others. An important property of human speech and language is the ability to pattern a finite number of meaningless speech sounds together into a theoretically infinite number of words that have meaning. The sounds we have at our disposal, and the rules for how to combine them in meaningful ways, are studied within the linguistic field of phonology.

In spoken language, speech is used to communicate. The human vocal tract enables articulation of a great number of different speech sounds, but only a subset is utilized in any given language. The field of phonology is concerned with how units of speech are organised and used contrastively to convey meaning (Ball, Ruther, & Muller, 2010).

The elements of speech can be described as segmental and suprasegmental. The segmental aspects of speech include the individual speech sounds (segments). A main division is made into vowels and consonants, based on acoustic – phonetic and functional properties. Vowels are produced with free airflow through the vocal track and are typically voiced. They contain more energy than consonants, making them more perceptually prominent. Consonants are articulated with a higher degree of structure voice, and are generally of shorter duration than vowels. They can be produced with or without phonologically, the separation of vowels and consonants is made based on how these speech sounds are used in the structure of language. Vowels are normally syllabic, occurring at the centre of the syllable, while consonants are around the vowels in the syllable onset or coda (P. 28). The sound system of a language entails a number of consonant and vowel phonemes that can be put together to form words. The typical natural language has about (24-31) contrastive speech sounds (Velupillai, 2012).

Children with speech disorder are a heterogeneous group. Children who received therapy for early developing phonemes which they had production phonological knowledge made more progress than children who received therapy for late developing phonemes of which they had little production knowledge (Rvachew and Nowak, 2001, P. 469).

- **Articulation Impairment:** inability to produce a perceptually acceptable version of particular phonemes, either in isolation or in any phonetic context. Children may consistently produce a specific distortion (e.g. lateral lisp) or substitute another phoneme (e.g. [w] for [r]) (Grundy, 1989). Articulation programme for the production of speech sounds has been learned (Fey, 1992).
- **Delayed Phonological Skills:** speech characterized by the use of regular error patterns that occur in normal development but at a chronological age when the patterns should not be evident. Little is known about the case of phonological delay. Children with phonological delay have not been found to have a specific deficit (Dodd and McCormack, 1995). However, studies of the natural history of delay suggest that some delayed children remain delayed, others achieve age – appropriate speech, and some typically developing children become delayed (Dodd et al., 2000). Children with (CAS) are unlike children with inconsistent disorder in a number of important ways:
 - 1) They are worse in imitation than in spontaneous production (whereas children in consistent disorder are better in imitation than in spontaneous production).
 - 2) Cues to elicit production of words differ.
 - 3) They have oro-motor difficulties.

Broomfield and Dodd (2004) report the following prevalence rates for subgroups: 12.5 % articulation impairment, 57.5 % delayed phonological skills, 20.6 % consistent deviant phonological disorder and 4.4 % inconsistent phonological disorder. Researchers broadly agree on the prevalence rates cross – linguistically for Dodd's classification of functional speech disorder subgroups.

Child speech disorder is a complex field, comprising a range of clinical subtypes with different prescribing characteristics and underlying aetiology, including those with a known cause as cleft palate or hearing impairment, as well as those with delayed or disordered phonological or motor development. 25 % will have an articulation disorder, 25 % inconsistent phonological disorder, and 50 % consistent phonological disorder fewer than 1 % developmental verbal dyspraxia (DVD) (Broomfield and Dodd, 2004).

It is thought that approximately 6 % of children have speech and language difficulties of which the majority will not have any other significant development difficulties (Boyle & et al., 1996, P. 5).

Teachers play a major role in supporting children's educational, social, and emotional development although may be unprepared for supporting children with speech sound disorders (p. 81).

The early years of schooling are a significant time in children's development, with implications for their educational achievement, future lives, and society (Grunewald & Rolnick, 2007). While most children are competent communicators by school – age, some do not have speech and language skills that are equivalent to their peers (McLeod & McKinnon, 2007).

Article 29 of the United Nations (UN) statement on the Aims of Education, originally adopted in 2001, identifies that the goal of schooling is to "empower the child by developing his or her skills, learning and other capacities, human dignity, self – esteem, and self – confidence." (UN, 2001).

The provision of high quality education that promotes the holistic development of the individual, then, is an important function of schools. In achieving the goals of these conventions, the UN identifies that educational programmes need to "... ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." (UNESCO, 2015, n.p.). That is, teachers need to be prepared with the understandings and skills required to provide learners with relevant learning experiences, in an educational environment that supports the development of all children's "... personality, talents, and mental, and physical abilities to their fullest potential." (UN, 2001, n.p.).

School systems need to ensure the availability of resources required to support children's leaning needs, and teachers need to be aware of the educational needs of students. Teachers have indicated that they require additional professional development to close gaps in their knowledge, and additional support to meet the needs children of children with speech and language disorders (Dockrell & Lindsay, 2001).

Learning in contemporary western education systems emphasises construction learning principles which student interaction, predominately through spoken communication, a central tool for learning. Based on the work of Lev Vygotsky (1934 / 1986), constructivist learning is described as "... being embedded within social events, and occurring as a child interacts with people, objects, and events in the environment." (P. 287).

Children make speech errors with developmental speech delay that are diagnostic and categorised as Developmental Apraxia of Speech (DAS) which indicates differences from Speech Delay (SD) errors profiles as new and recent studies have shown (Shriberg, 1994). The importance of indicating diagnostic markers for DAS requires clinical practices. Developmental Apraxia may be a genetic transmitted disorder in which description and theoretical perspective support clinical functionality. Children speech disorder is one of the most controversial nosological issues in clinical speech pathology. Apraxia of speech is dating back to 19th century. The diagnosis of developmental apraxia of speech is neither appropriate nor useful. For clinical needs, DAS appears to provide a tentative explanatory label for children who have severe, irregular, and persistent speech disorders. The development period of speech acquisition extends from birth through the onset of adolescence. Approximately 8.5 years has been suggested as the terminus point for both normal speech acquisition (Locke, 1994) and normalisation of speech delay.

Yoss (1975) mentions a 1% prevalence rate, based on a finding of 10 of 1,000 available children in Rochester, and Minnesota in England cited creation for suspected DAS. Shriberg (1994) estimated the prevalance of suspected DAS at 1-2 children (Edwards & Shriberg, 1982). Robin, Hall, and Jordan (1986) found that 5 children with suspected DAS showed markedly poorer performance than controls in analysing auditory temporal patterns as stimuli increased in rate. It means to gain temporal perception could impact on their ability about durational aspects of prosody and add to the observed prosodic difficulties (Ibid: P.11).

Results

The prevalence of Special Language Impairment (SLI) has been estimated 7 % of the general population, and is more commonly seen in males and females (P.6). Many children with (SLI) have difficulties with phonological awareness. Phonological awareness refers to an individual's awareness that spoken words consist of sound segments smaller than the syllable (Ball, 1997, P. 15). Many researchers have viewed phonological awareness as the foundation for literacy (reading and writing). In other words, children who have difficulties with

phonological awareness appear to be those children who are at risk for reading and writing disorders (Catt, 1999). Additionally, their children who had reading and writing problems continue to have deficits later in the school – age years (P. 12).

Most speech and language disorders exhibited by school children are developmental, that is roots of the problem exist from birth and manifestations of the problem emerge as the child develops and it becomes obvious that is slower or atypical compared to peers (p. 143). In minority of cases, speech and language disorders are acquired when a child suffers from an illness or accident that affects brain function. This type of speech disorder is known as aphasia (American Speech – Language Hearing Association (ASHA), 2000).

Speech – language disorders are the most common of children disabilities that affect about 1 in 12 children or 5 % to 8 % of pre – school children (disability info.: speech and language disorders factsheet (FS11), 2008). A speech and language disorder refers to an impairment of speech or sound production, fluency, voice, or language which significantly affects children's educational performance or their social, emotional, or vocational development. Children any have a lisp or voice disorder. Children who have a hearing loss commonly experience difficulties with speech as well.

The inability to articulate speech sounds correctly could be caused by biological factors, such as brain damage, damage to the nerves controlling the muscles used in speech or gross abnormalities of the oral structures like a cleft palate (Hardman, Drew, and Egan, 2002). Other possible conditions that might contribute to speech and language disorders are environmental factors such as the quality of parent – child communication, emotional disturbances, and hearing loss. Speech and language disorders are characterized by fluency disorder, articulation disorder, and voice disorder.

Blood, Boyle, Blood, and Nolesnik (2010) also stated that children with speech and language disorders could easily be bullied and was more common in childhood. Bullying involves the consistent and intentional harassment of individual, and may be physical or verbal in nature. This trend has a great effect on the socialisation of children with speech and language disorders.

Blood, Blood, Tellis, and Gabel (2003) equally indicated that the stigmatization associated with speech disorders influenced self – esteem, as children with speech disorders often experienced depression, social isolation, and poorer performance on academics, and standardised tests. Social acceptance, confidence, and overall life satisfaction could be at stake without the ability to hold fluent and successful conversations, many huge milestones such as maintaining friendships could be unsuccessful. Individuals with speech impediments could become a target for exclusion and bullying (PP. 144-145).

Shared phonological processes: healthy children, children with phonological disorders include cluster reduction, weak syllable deletion, final consonant deletion, stopping, velar, and palatal fronting, voicing processes, labial, nasal, and velar assimilation, and liquid simplification (a combination of phonological problems are mixed receptive, expressive language and phonological delay (3 yrs; 4 mo). Idiosyncratic processes of children with PD.

- 1) Glottal Replacement – the substitution of a glottal stop for another consonant pink /pi?/; butter /b^?v/ (with vocalisation); lip /?ip/.
- 2) Backing – the substitution of a velar stop consonant for consonant usually produced more anterior in the oral cavity. Backing usually involves alveolars and palatals;

- however, labial sounds may be affected time /kaim/; zoom /gum/, push /puk/.
- 3) Initial consonant deletion – the omission of a single consonant at the beginning of a word cut /ʌt/; game /eim/.
 - 4) Stops replacing a glide – the substitution of a stop for a glide. yes /d4s/; wait /beit/.
 - 5) Fricatives replacing a stop – the substitution of a fricative for a stop. sit /sis/; doll /zol/ (Katz, 2019).

Discussions

Clinical linguistics is the application of linguistic concepts, theories, and methods to the study of language disorders. These disorders can result from impairment of, or breakdown in, one or more of the following language: prosody, morphology, syntax, semiotics, pragmatics, and discourse. Some language disorders have their onset of the developmental period (developmental language disorders), while others occur for the first time in late disorders can compromise the reception or understanding of language and / or its expression or production, with impairments possible across a range of modalities (spoken / written, and signed language). This branch of linguistics is inextricably linked to speech – language pathology (also known as speech and language therapy in the United Kingdom). The clinical discipline responsible for the assessment, diagnosis, and treatment of the clients with a range of communication disorders (and not just language disorders). However, clinical linguistics is nonetheless a distinct linguistic discipline that is not in any way subsumed by speech – language pathology. In addition to having a detailed knowledge of linguistic disciplines, the speech – language pathologist must understand a range of medical conditions and their likely impact on language skills in children and adults (Duchan, 2011, P. 11). The detailed history of speech – language pathology is compiled by Judith Felson Duchan, an emeritus professor in the Department of Communicative Disorders and Sciences at the University of Buffalo.

The label "disability" should not to be too narrowly interpreted. It refers to anyone whose ability to use language is sufficiently undeveloped or impaired as to require special treatment or teaching – whether or not they attend a "clinic" in a surgery or hospital. It is one of several which have been used to characterise the difficulties involved: others include disorder, dysfunction, disturbance, disadvantage, deficit, deprivation, and handicap. These labels differ in their nuances and expectations, and vary in their standing as terms with professional status; some, indeed, are emotionally loaded and politically sensitive. The way they indicate the existence of a domain of abnormal language use which, in its range and complexity, warrants specialist investigation. Clinical linguistics can provide insight into the nature of these conditions (David, 1981, P. 673).

Identifying linguistic symptoms refer to the earliest references to difficulties with spoken or written language can be found in ancient texts: stuttering, loss of speech, and pronunciation disturbance are noticeable and dramatic effects, and have for centuries generated interpretations which have ranged from the medical to the demonic. It is an easy matter to spot a child is mispronouncing a sound, as in the various kinds of lisp; it is a much more difficult matter to determine what is wrong when a child is replacing sounds in an apparently random way, such as saying ['viwi:], or ['movi:] for "window." Establishing that there is an underlying pattern in such substitutions requires a phonological perspective. The consonant within the stressed syllable, and the influence which this syllable is exercising on the shape of the unstressed syllable, a kind of consonant harmony. They happen during the second year. If, then, they were encountered in a much older child, they would support a diagnosis of delayed phonological development. The use of a clinical linguistic frame of reference has also enabled

people to make progress in identifying disorders of language comprehension, which are far more difficult to spot by comparison with language production. It is not difficult to hear from a taped sample of speech that a child has made an error in pronunciation or word order – a production error. a child has failed to perceive a distinction between sounds or understand a grammatical structure or a particular choice of words. Disorders of a pragmatic kind, likewise, have often remained undiagnosed, or have been misdiagnosed as problems of a psychological or social behavioural type. The history of ideas in linguistics reflects the history of language pathology. Impressionistic phonetic observations.

Most children develop speech and language skills within a specific age range. A child who takes longer to learn a skill may have a problem. Speech disorders include childhood apraxia of speech, dysarthria, or facial myofunctional disorders, speech sound disorders, stuttering, and voice. Language disorders show preschool language disorders, learning disabilities (reading, spelling, and writing), and selective mutism. Medical and developmental conditions deal with attention deficit / hyperactivity disorder, autism (autism spectrum disorders), cleft lip and palate, right hemisphere brain injury, traumatic brain injury augmentative and alternative communication, and speech for people with tracheostomies or ventilators (ASHA, 2021).

Language and speech disorders can exist together or by themselves. Examples of problems with language and speech development include the following:

- 1) Speech disorders show difficulty with forming specific words or sounds correctly and difficulty with making words or sentences flow smoothly, like stuttering or stammering.
- 2) Language delay – the ability to understand and speak develops more slowly than is typical.
- 3) Language disorders include aphasia (difficulty understanding or speaking parts of language because of a brain injury or how the brain works) and auditory processing disorder (difficulty with the meaning of the sounds that the ear sends to the brain).

Language or speech disorders can occur with other learning disorders that affect reading and writing. Children with language disorders may feel frustrated that they cannot understand others or make themselves understood, and they may act out, act helpless, or withdraw. Language or speech disorders can also be present with emotional or behavioural disorders, such as attention – deficit / hyperactivity disorder or anxiety. Children with developmental disabilities including autism spectrum disorder may also have difficulties with speech and language.

Studies have shown that children diagnosed with speech delay are more likely to present with behavioural and social emotional problems both in childhood and as adults. Speech delays are more likely to have a difficult time communicating and bonding with peers, which could have negative effects on their psychosocial health later in life.

A speech disorder is a condition in which a person has problems creating or forming the speech sounds needed to communicate with others. Speech disorders are articulation disorders, phonological disorders, disfluency disorders, and voice disorders or resonance disorders. Speech disorders are different from language disorders in children. Language disorders refer to someone having difficulty with: getting their meaning or message across to others (expressive language) and understanding the message coming from others (receptive language).

Conclusions

Clinical linguistics reflects the status of sub-discipline of linguistics rather than of speech and language pathology (Kent, 2003). Language production and comprehension are influenced by underlying linguistic and cognitive abilities, and also by communicable context, including factors such as the age, sex, and socio-cultural background of the interlocutors, their relationship, relative status, and degree of shared knowledge.

While English remains the best – researched language in the field of communication impairment in children and adults, cross-linguistic and multilingual studies have been expanded rapidly in the last two decades. In clinical linguistics, as in second language acquisition research, identifying formulaic sequences is assisted by the contrast between normal language and abnormal language (Wray, 2002b, P.2).

Effective clinical assessment requires knowledge of typical phonological development. Clinicians learned how sounds fall into natural classes and that phonological problems may relate to the entire sound classes or levels above the segment (Gierut, 2001, P. 241). Acquired neurogenic disorders of speech production are conventionally classified into three categories: dysarthria, apraxia of speech, apraxia of phonological impairment. These categories correspond with three different levels distinguished in most theories of spoken language generation, namely speech motor execution, phonetic encoding, and phonological encoding (Shriberg, Aram, & Kwiatkowski, 1997).

Clinical linguistics thus involves collaborative work, teachers and clinicians, with interdisciplinary interactions studying language development and phonology and disorders in a clinical and schooling settings. Communication problems may affect a child's ability to speak (speech disorders / impairments) and / or the ability to understand and use spoken language (language disorders / impairments). These are the few symptoms to identify communication difficulties with children, they are:

1. Speech sounds (saying the words clearly and correctly).
2. Speaking fluently (without hesitating too much or stuttering).
3. Using words and grammar rules about word order and usage of appropriate.
4. Putting words together to let others know what they think or want.
5. Understanding what others say.
6. Types of communication difficulties include: speech delay / disorder / impairment and expressive language disorder as well as receptive language disorder with indicative references to stuttering and disfluency.
7. There is verbal dyspraxia (difficulty in making muscle movements that are needed for speaking clearly and quickly).
8. Semantic / pragmatic disorder (this affects a child's use of language for social purposes).
9. Central auditory processing disorder (this affects a child's listening and understanding of language).
10. Dyslexia.
Eventually, children with phonological disorders have difficulty with development of the speech sound system. This difficulty results in errors affecting entire classes of sounds, in identifiable patterns. Children with phonological disorders are also at risk for reading and writing difficulties.
1. Disturbance in neuromuscular control causes difficulty learning to produce sounds appropriately.

2. Disturbance in programming, positioning, and sequencing of muscular movements (e.g., "dog" "tog").
3. Disturbance in performing voluntary movements with mouth and vocal mechanics.
4. Deafness / severe hearing loss causes severe prosodic disturbance in intonation, duration, and rhythm in addition to sound errors.
5. Autism, emotional disturbance, and / or mental retardation may cause very unusual prosodic variations.
6. Deviation in structure of speech mechanism.
7. Exhibits decrease in speech intelligibility.
8. Exhibits decline in ability to be understood by family, and / or caregivers in the expression of basic needs, preferences, and feelings (Sharynne & Ken, 2004).

It was therefore recommended that teachers make early identification of pupils with speech and language disorders upon enrolling in schools for early educational interventions with speech and language disorders (Awaniyi & Malikana, 2014, P. 151). Developmental language disorders affects approximately 7.6% of all children in primary school (Norbury et al., 2016), which equates to roughly two children in every average class of 30 in the UK.

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