



Exhibition Of Stuttering Manners In Bilingual Children With L1 As Urdu And L2 As English

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Abstract

The present study is unique in its essence being one of the rare studies that analyze the significant relationships in its nature and contribute in theory of linguistics and speech patterns. To date, limited research has been reported on stuttering and bilingualism. Existing data reports conflicting results on stuttering characteristics across languages of bilingual children who stutter (CWS). Investigations to date include language acquisition, language proficiency, cultural influence, and linguistic as well as phonetic aspects in bilinguals CWS. Thus, assumptions on causal factors of stuttering are plenty, but research is missing to either support or refute those assumptions.

This study is contributory as an attempt to find an underpinned mechanism of U-E CWS as their native and foreign language. In Pakistan, it has not done earlier, for the languages of Urdu as primary language and English as secondary language. The analysis of severity of stuttering sounds in both the languages is the first aim of the study, then the empirical analysis of stuttering in content and function words in both languages (Urdu and English) give high contribution in the field of Applied linguistics. Thirdly, the research is determining the relation between language proficiency and stuttering behavior in U-E languages. The relationship of language proficiency and stuttering behavior is the first attempt in Applied Linguistics, which gives extensive information to understand the need of language proficiency among CWS and their behaviors. The study also explores whether or not speech aphasia is neurogenic or psychogenic cause. The data for the presented research has been collected through questionnaire and purposive sampling technique was used to collect the data from respondents. Findings show that there is a significant difference among CWS in Urdu as L1 and English as L2, children stutter more in their secondary language rather than in primary language. After analyzing the collected data for the aetiology of stuttering, among the bilingual children the most common stuttering sounds found were /k/, /g/, /b/, /m/, /l/, /s/, /r/, /d/, /t/ /a/ and /o/. While the results also showed that stuttering in function words (Urdu) is less and stuttering in content words (Urdu) is much higher, but the word

type of L2, the stuttering is same. Which means stuttering in English is higher without impact of word types. The data analysis showed if the language proficiency is increased by 1 percent, there is 2.11 % improvement in stuttering behavior is possible. Therefore, there is a positive relationship in language proficiency and stuttering behavior among CWS. Results showed that 40% of the subjects suffered from stuttering because of neurogenic causes while 60% of the subjects suffered from stuttering because of psychogenic causes.

Keywords: Exhibition, Stuttering, Bilingualism, Language Proficiency, Manners

Introduction:

Almost 1% of the population suffers from stuttering, specifically during the early years of life (Yairi & Ambrose, 1992a). Almost, 5% of children suffer from this condition during their pre-school years. In addition, while most recover, 1% persist (Scott, 2012). A major component in determining that whether childhood stuttering is present or absent involves evaluating the frequency of disfluencies during stuttering as well as mentioning the types of speech disfluencies being exhibited (Craig, 2000; Johnson & Leutenegger, 1955; Melnick & Conture, 2000)

Stuttering is a linguistic phenomenon in which articulatory motor and speech organs fail to perform their usual function, as a result of which stuttering occurs. Stuttering Foundation of America's survey (2013) shows that almost 1% of the world population stutters. Occasional incidences of stuttering in an individual's life are 4-5% excluding early childhood episodes of brief duration, however inclusion of these episodes will raise the percentage (Bloodstein & Ratner, 2008: 67). Identification, evaluation and treatment of stuttering have two distinct modes i.e. Physical manifestations and the behavioral patterns of the person who stutters (Tetnowski & Scaler Scott, 2009: 444). With the discovery of some important aspects about stuttering, Anderson, Pellowski and Conture (2005: 224) are of the view that stuttering is disruption in fluency of verbal expression which is characterized by involuntary, audible, or silent repetitions or prolongations in the utterance of short elements namely sounds, syllables, and words of one syllable. These disruptions usually occur frequently or are marked in character and are not readily controllable.

Stuttering occurs when the forward flow of speech is interrupted abnormally by repetitions or prolongations of a sound, syllable, or articulatory posture, or by avoidance and struggle behaviors. There are two types of stuttering (a) Repetition, example of repetition is "where is my book?" (b) Blocking, example of blocking is "my c----- at is black" (Van Riper & Emerick, 1984: 173). Stuttering is a complex phenomenon, and it is difficult to cover its all aspects in one definition. Stuttering cannot be defined easily as a singular event, as it encompasses many levels of breakdown, and these can be both overt and covert. Non fluency and disfluency are two different terminologies described by Tetnowski and Scaler Scott

(2009: 243). According to them, Nonfluency refers to any breakdown in fluency whether stuttering or not while disfluency refers to breakdowns in fluency that would not be considered as stuttering (Yairi, 2007: 176). Word repetitions, monosyllabic word repetitions, prolongations, and blocks characterize stuttering like disfluency (Yairi & Ambrose, 2005: 276). Non fluency is the umbrella term for its subsets i.e. disfluency and stuttering and differentiates stuttering from other disfluencies that may be found in many other speech disorders (Van Borsel & Tetnowski, 2007: 287). Incidence of stuttering is usually accompanied with some physical reactions like tension in the face and/or jaw; distortions of the mouth; quivering nostrils; frowning; movements of eyes; head; tongue; hands; arms; legs; feet; torso and respiratory muscles (Bloodstein & Ratner, 2008: 249). Although all persons who stutter may not experience all these physical reactions but their ability to communicate is directly linked with the cognitive component of stuttering (Starkweather, 1987: 261) and their communicative experiences may generate a negative belief system which directly affects listener's perceptions (Bennett, 2006: 278). Generally, it is assumed that the onset is between 2-5 years, and the boys are three times more likely to stutter than girls (Conture, 2001: 176). Although there are a variety of therapies but still there is no 'cure' for people who stutter (Kraaimaat, Vanryckeghem & Van Dam-Baggen, 2002: 321). Typically, a stutter is more episodic at first and a person's stutter is only considered chronic after puberty (Onslow, 2013: 113). A lot has been said on the symptoms of stuttering but its causes are still mysterious in this age of advanced technology (Robb, Sargent & Greg, 2009: 37).

There is lack of consensus among the present day scholars regarding how to define the phenomenon of stuttering, the multifactorial speech disorder (Bloodstein, 1995; Onslow 1996, Perkins, 1997). Consequently agreement on consistent measurement for the assessment of developmental stuttering cannot be developed (Ambrose & Yairi, 2001, Onslow & packman, 2001; Teesson et al., 2003, Yairi et al., 2001). Stuttering implies the developmental condition defined by the World Health Organization as, "disorders in the rhythm of speech in which the individual knows precisely what he wishes to say because of an involuntary repetition, prolongation or cessation of a sound" (World Health Organization, 1977, p.202, as cited in Borsel et al., 2001).

Century long research on stuttering could not dig out any single exclusive cause of stuttering resulting into unavailability of its effective treatment. However, many theories have been proposed on the origin of this disorder (Packman & Attanasio, 2004). As a result, manifold treatment methods have been employed throughout history with varying level of efficacy (Bloodstein, 1995). Currently a number of different treatments for this disorder are available.

Previous research mainly focuses on the monolingual community speaking English as their mother tongue (Van Borsel et al., 2001). Hence it makes sense to investigate

stuttering in non English communities as stuttering has been observed in almost every culture and language of the world. Moreover, little published data is available on stuttering and bilingualism (Van Borsel, Maes, and Foulan, 2001) despite the fact that both clinicians and researchers might obtain valuable information from such studies regarding the aetiology and possible remedies for this highly complex speech disorder.

Bernstein Ratner and Benitez (1985) suggested that bilingual stutterers might be ideal clinical cases for testing the validity of models suggesting that linguistic factors play a role in the precipitation of stuttering moments. Bilingual cases allow the study of whether presumed linguistically governed regularities in stuttering events remain consonant regardless of language spoken. For example inconsistency of phonological loci across languages spoken by the same speaker would seem to weaken purely motoric accounts of stuttering; consistency in syntactic loci would appear to strengthen models that implicate a compromised sentence planning component (Cabrera & Bernstein Ratner, 2000).

The apparent interaction between difficulties in speech motor performance as seen in stuttering and language structures would appear to point out cross- language research as a promising avenue to increase understanding of the dynamics of this disorder and perhaps the role of central planning involved in stuttered speech (Jankilowitz & Bortz, 1996). Uys' (1970) study of South African English and Afrikaans speakers who stutter illustrates the special value of such research in clarifying the linguistic influence on stuttering. From this point of view, studies of bilingual speakers who stutter in both languages hold unique potential. Being multifaceted disorder, it has got psychological, social, physiological, neurological, genetic and linguistic implications. The intended research is concerned with the linguistic aspect of stuttering. Despite the fact that there is considerable variability in stuttering, it is surprisingly predictable in its occurrence (Guitar, 1998). The stuttered events are not randomly scattered in utterances. Their location is determined in part by the linguistic properties of the constituents of the utterances. Variation among types of stuttering events and their position with respect to the linguistic units that precipitate them has been observed across different age groups (Dworzynski & Howell, 2004)..

Significance of the Study

Relative to syntax, there are vast differences between Urdu and English, both having distinct and unique grammatical structures, properties, and rules. Based on the demographics of (C. T. Byrd, Bedore, et al., 2015; Melnick & Conture, 2000), one can safely make assumptions about most speech-language pathologists who have little or no knowledge of the Urdu language nor clinical implications of the language for bilingual children.

Speech-language pathologists require familiarity with the presentation of normal speech disfluencies in bilingual children including bilingual Urdu-English speaking children to properly identify stuttering. As well as this training is the first to regulate the relation of language proficiency and stuttering behaviors between children (Gregory & Hill, 1980). This research is significant and unique in its nature under these three mechanisms

Mechanism 1: the research is premeditated to find an underpinned mechanism of U-E CWS as their native and foreign language.

Mechanism 2: the research is designed to determine the impacts of language proficiency on stuttering behavior in U-E languages.

Mechanism 3: the research is premeditated to find the association among stuttering content and function words in U-E languages.

Research Questions:

Q1. Does a child stutter more on certain sounds?

Q2. Does language proficiency determine stuttering behavior in L1 and L2?

Q3. Does stuttering equally affect content and function words in L1 and L2?

Q4. Does severity of stuttering differ between L1 and L2?

Q5. Does psychogenic factors cause stuttering or neurogenic factors cause stuttering?

Research Methodology:

Sample:

In biological, economic, engineering, and other social experiments while studying a particular process or processes usually, the researcher has to deal with infinite populations. In such cases “multistage cluster sampling method,” i.e., a probability sampling method is used. The multistage cluster sampling divides the large target population into clusters that are used to collect the data more practically. So in the presented research, the multistage cluster sampling is used to determine the targeted sample among the infinite population.

In the presented research, the population is N (whereas N is the Number of children who stutter) is divided into four area-wise clusters (provinces of Pakistan) i.e.; Punjab, Sindh, Baluchistan, and Khyber Pakhtunkhwa. In stage-2 Punjab is selected for further sampling as it has the highest contribution of language history as per the census of 2017 and having the highest literacy rate up to 63%. After analyzing the population through multi-stage cluster sampling, based on higher literacy rate the top 4 cities have selected to target the concerned sample i.e.; Faisalabad 98%, Lahore 91%, Gujranwala 79%, and Rawalpindi 74%. So the data of CWS has been collected from these four cities.

Table 3.1: GDP contribution in Pakistan

Sr. No	Provinces of Pakistan	Literacy rate
1.	Punjab	63%
2.	Sindh	60%
3.	Khyber Pakhtunkhwa	53%
4.	Baluchistan	44%

Source: Pakistan Social and Living Standards Measurement Survey, 2018

After choosing the areas of the targeted sample from the entire population the 50 respondents have been selected population. These 50 participants have been chosen by the purposive sampling technique. Purposive sampling, also known as judgmental sampling is a form of non-probability sampling in which researchers rely on their judgment when choosing members of the population to participate in their study. As in the presented research the selected sample of children who stutter fulfilling the purpose of research

Setting:

These 50 children who participated in the study were under treatment with Speech therapists for the cure of stuttering, and were consulted at the clinics of different speech therapist in Lahore which included Speech Therapy Centre of Sheikh Zaid Hospital, Hamza Foundation, Johar Town and Gondal Medical Complex. To minimize the source of friction, children were provided with the possible natural environment to get natural response from them.

Procedure:

Questionnaire Development

The questionnaire for interviews is self-administrated in five sections to fulfill the core research objectives.

Section A

Section A illustrates the respondent profile through which demographical information of the respondent is gathered for analysis.

Section B

Section B is based to determine the stuttering in the Urdu language. An interesting story segment has been given to children to read and then the observer has assessed the stuttering and rate it out of 10. For the children who cannot read or write the observer read for them and the CWS repeated after that. The technique has been adapted from Carey, Brian, and Onslow (2010). The story segment contained given below. "The children have to read and the observer is counting the Stuttered words out of 10, in case the children who cannot read has to repeat after observer.

”باتھی کی سائیکل

ننھا باتھی جنگل میں صبح کی سیر کے لیے نکلا تھا لیکن جب اس کی نظر ایک چھوٹی سی خوب صورت دو پہیوں والی سائیکل پر پڑی تو وہ سیر کو بھول کر سائیکل کی طرف لپکا۔ سائیکل بہت صاف اور چمک دار تھی۔ نئی معلوم ہوتی تھی۔ کسی نے اسے درخت کے تنے کے سہارے کھڑا کر رکھا تھا۔

سائیکل کے قریب پہنچ کر ننھا باتھی اسے غور سے دیکھنے لگا، کتنی خوبصورت سائیکل ہے۔ ننھا باتھی دل میں سوچنے لگا۔ بالکل ویسی ہی ہے جیسی اس دن ایک بچے کے پاس دیکھی تھی۔

ننھا باتھی سائیکل کو ہر طرف سے دیکھ رہا تھا اور سوچ رہا تھا کہ کاش! ایسی سائیکل اس کے پاس بھی ہوتی۔

یہ سائیکل کس کی ہے...؟

اس نے اپنے آپ سے پوچھا۔ پھر خود ہی کہنے لگا۔ اگر کوئی دیکھ نہیں رہا تو پھر یہ سائیکل میری ہو گئی۔ یہ سوچ کر اس نے چاروں طرف دیکھا۔

” جنگل سنسان تھا۔ ہاں یہ سائیکل میری ہے یہ کہہ کر ننھا خوشی خوشی اچک کر سائیکل پر بیٹھ گیا۔

3.3.3 Section C

Similarly, Section C is based to determine the stuttering in the English language. An interesting story segment has been given to children to read and then the observer has assessed the stuttering and rate it out of 10. For the children who cannot read or write the observer read for them and the CWS repeated after that. The technique has been adapted from Carey, Brian, and Onslow (2010). The story segment contained given below.

“The children have to read and the observer is counting the Stuttered words out of 10, in case the children who cannot read has to repeat after observer.

The lion and a rabbit

Once there was a Lion in the jungle who used to kill 2-3 animals daily for his meal. All animals went to him to tell, that daily one of them will come to him for his meal. So, the Lion agreed and this started going for many days. One day, it was Rabbit's turn. When he was on his way he saw a well. Now he plans to kill the lion and save himself. He went to the lion and told him that, there is another lion who claims to be more powerful than him. Then the lion asks the rabbit to take him to that lion. The rabbit takes him to the well and said he

lives here. When the lion looked in the well he saw his reflection and jumped in the well and dies.”

3.3.4 Section D

Section D is based Language Proficiency Assessment which is Adapted from the LEAP-Questionnaire (Marian, Blumenfeld, & Kaushanskaya, 2007). It contained five items including “speaking; understanding of spoken language; reading; interaction with a friend; and interaction with the family.” The items of construct altered according to the cultural and demographical situation of Pakistan. All items are anchored over a 5-point Likert scale ranging from below average to very good. Section E is based on the determination of stuttering behavior. The construct was adapted from Alberta Language and Development Questionnaire (ALDeQ) (Paradis, Emmerzael, & Duncan, 2010). It contained also five items including the items “The child likes to read books or have books read to them; The child read and write (in the mother tongue) perfectly as compared with other children his/her age.; The child is active in several activities; The child quickly / easily learns new things; The child gets frustrated when he/she cannot communicate his/her ideas.” Likewise, the items of construct altered according to the cultural and demographical situation of Pakistan. All items are anchored over 5-point likert scale ranging from strongly disagree to strongly agree.

Validity:

Content validity refers to the representativeness of the instrument contents or the suitability of the sample. Content validity addresses whether the instrument contents represent the content of its property. The method to evaluate the validity of contents includes a thorough search of relevant research on the subject and consultation with experts who are considered knowledgeable in the field of research (Cheah et al., 2018). All the items published in the pre-reviewed journals were adapted from relevant studies to ensure the validity of the research. Besides, experts in the institutions are asked to review the tool and provide feedback to cover the relevant dimensions of whether objects are being properly covered. There were necessary amendments based on their opinion. Construct validity, unlike other validities, focus on the principle, theoretical structure, and scientific empirical investigation involves the examination of the hypothesized relationship (Martini et al., 2015). It refers to the overall degree of correspondence between the composition and the steps used to build the instrument.

The convergent validity of the instrument used in this study is examined by loadings and cross-loading shown in table 4.2. All constructs have significant factor loadings and are included in the analysis.

Table 4.8 Factor loadings of variables

Sr. No.	Construct Variable	Coefficient value
1.	CWS in L1	.817
2.	CWS in L2	.901
3.	CWS in Function word L1	.937
4.	CWS in Content word L1	.752
5.	CWS in Function word L2	.477
6.	CWS in Content word L2	.566
7.	Language Proficiency	.849
8.	Stuttering behavior	.841

Ethical Considerations

As the current study required the participation of human respondents, ethical issues were addressed to ensure the consent as well as privacy of all the participants. The consent of the parents of minor participants was sought by assuring them that the research study was being conducted solely for the academic purpose and the information gathered would not be misused. The confidentiality of the participants was also ensured, as their names and personal information were not disclosed in the research. Only relevant details that assisted in answering the research questions were included.

Results:

Hypothesis 1

H1: There is a significant difference among CWS in Urdu as L1 and English as L2

The paired sample t-test statistics showed the means of CWS in Urdu as L1 and CWS in English as L2. The mean standard deviation among the CWS in L1 stuttering is 5.45 and .925 respectively while CWS in L2 has 8.65 and 1.003.

Table 4.13 children stuttering word count Urdu as L1, children stuttering word count English as L2 Paired Samples Statistics

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	children stuttering word count English as L2	8.65	73	1.003	.117
	children stuttering word count Urdu as L1	5.45	73	.925	.108

The mean of L1 is and the mean of L2 so it can be written as

$$H_1: \mu_{L1} \neq \mu_{L2}$$

$$H_1: 5.45 \neq 8.65$$

The paired sample t-test significance value is less than 0.05 (P-value<0.05) which approved the hypothesis. It means there is a complete significant difference among the stuttering in both languages. While the results also showed that stuttering in L1 (Urdu) is less and stuttering in L2 (English) is much higher. The value of t is 19.25 at the degree of freedom 72.

Table 4.14 children stuttering word count Urdu as L1, children stuttering word count English as L2 significance statistics

Paired Samples Test for pair 1 (L1&L2)									
		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	children stuttering word count English as	3.193	1.417	.166	2.863	3.524	19.2	72	.000

	L2 - children stuttering word count Urdu as L1								
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4.6.1.2 Hypothesis 2

H2: There is a significant difference between the content and function of L1 (Urdu) among CWS.

The paired sample t-test statistics showed the means of content and function of L1 (Urdu) among CWS. The mean and standard deviation among the CWS in function words of Urdu is 6.43 and 1.142 respectively while content words in Urdu are 4.29 and 1.038.

Table 4.15 Content and function of L1 (Urdu) among CWS Paired Sample Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 2	FWU	6.43	73	1.412	.165
	CWU	4.29	73	1.038	.121

The mean of CWU is and the mean of FWU can be written as

H₂: $\mu_{CWU} \neq \mu_{FWU}$

H₂: 4.29 \neq 6.43

The paired sample t-test significance value is less than 0.05 (P-value<0.05) which approved the hypothesis. It means there is a complete significant difference among the stuttering in both types of words. While the results also showed that stuttering in function words (Urdu) is less and stuttering in content words (Urdu) is much higher. The value of t is 10.326 at the degree of freedom 72.

Table 4.16 Content and function of L1 (Urdu) among CWS significance statistics

Paired Samples Test for pair 2 (CEW&FWU)									
		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
Paired Samples Test for pair 2 (CEW&FWU)									
		Paired Differences					T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 2	FWU - CWU	2.147	1.776	.208	1.732	2.561	10.326	72	.000

Hypothesis 3

H3: There is a significant difference between the content and function of L2 (English) among CWS.

The paired sample t-test statistics showed the means of content and function of L2 (English) among CWS. The mean and standard deviation among the CWS in content words of English is 4.34 and 1.101 respectively while function words in English are 4.26 and 1.257.

Table 4.17 Content and function of L2 (English) among CWS Paired Sample Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CWE	4.34	73	1.101	.129

	FWE	4.26	73	1.257	.147
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The mean of CWU is and the mean of FWU can be written as

H₃: $\mu_{CWE} \neq \mu_{FWE}$

H₃: 4.34 \approx 4.26 (both means are nearly equal)

The paired sample t-test significance value is greater than 0.05 (P-value=.682>0.05) which disapproved the hypothesis. It means there is a completely insignificant difference among the stuttering in both types of words. So that results also showed that stuttering in function and content words (English) is almost equal, therefore H₃ is rejected. The value of t is .411 at the degree of freedom 72.

Table 4.18 Content and function of L2 (English) among CWS significance statistics

Paired Samples Test for Pair-3 (CWE and FWE)									
		Paired Differences					T	d f	Sig. (2- taile d)
		Mea n	Std. Deviati on	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	CWE - FWE	.073	1.525	.179	-.282	.429	.41 1	7 2	.682

Stage-2 Analysis of the relationship of language proficiency and stuttering behavior

H₄: Language proficiency hasan impact on stuttering behavior.

Model Summary

Table 4.19 showed the model Summary which provided information about the linear regression statistics. The value of R explained the interdependency between language proficiency assessment and stuttering behavior among CWS. The value of R is .687 which showed 68.7% interdependency between both variables. The value of R² is showing the regression coefficient, which means 47.2% of total variations can generate stuttering

behavior because of language proficiency as the value of R^2 is .472. The value of Durbin-Watson is 1.644 which explained that there is no autoregression in the model as the value is less than 2 as per criteria of regression model fitness.

Table 4.19 Model Summary

Model Summary					
Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	Durbin-Watson
1	.687 ^a	.472	.465	.62875	1.644
a. Predictors: (Constant), LPA					
b. Dependent Variable: SB					

Discussion:

The first and foremost objective of the presented research was to identify the severity of CWS in Urdu as their inborn language and English as their foreign language. Finding in the above chapters has shown that the paired-sample t-test significance value is less than 0.05 (P-value < 0.05) which means there is a complete significant difference among the stuttering in both languages. The results also showed that stuttering in L1 (Urdu) is less and stuttering in L2 (English) is much higher. So the research showed the stuttering severity in the second language is much higher as compared to the primary language.

According to a study conducted by (An Investigation of Speech Disfluencies of Bilingual Urdu-English (Doctoral dissertation), 2020) to diagnose frequency and kinds of speech and communication disorders in the Urdu-English language spoken by participants (kindergarten children). This research, quite similar to previously utilized methods according to which the participating subjects provided conversation based on narrative and play-based in the two languages i.e. Urdu and English. Results of this study proposed that kids who do not stutter in either language were inclined towards demonstration of the frequency of speech disfluencies. Such disfluencies included stuttering and non-stuttering disfluencies as well. While disfluencies more prevalent in stuttering conditions will elevate the criterion for diagnosis, which is generally utilized for assessing stuttering in children. For instance, almost 10% of overall dysfluencies for spoken words and about 3% for dysfluencies in stuttering of total words during the whole conversation. Thus, these conclusions are

devised without considering the types of speech sample i.e. either (narrative and conversational) or language (Urdu and English). Thus, it was proposed that dysfluencies demonstrated during stuttering exhibited in the Urdu-English language by children who do not stutter have repetitions either of whole words or only of sound/syllable.

Moreover, the presented research is focused to find the relationship between stuttering content and function words in U-E languages. Etymological effects on the stuttering occasion have been assessed for more than 70 years, tracing back to Brown (1937, 1945) who distinguished a few semantic factors that were found to improve the probability of disfluency in adults who stutter (AWS). Underlying distinguishing pieces of proof, there have been a large group of studies assessing the scope of etymological factors to confirm these perceptions (Anderson, 2007; Jayaram, 1983; One focal point of this exploration has been an assessment of stuttering recurrence identified with the creation of content and capacity words.

While examining the youngster's informal speech for dysfluencies it could be useful to progressively increment phonetic intricacy to decide at which level (e.g., word, state, and so forth) dysfluencies occur. To compute recurrence and span of disfluencies, word-based (versus syllable-based) checks of stuttering recurrence will be more precise across languages.

At last throughout the evaluation, it is likewise vital to decide the family's social convictions toward stuttering since stuttering insights change enormously among various societies (Tellis and Tellis, 2003) and may not generally be positive. For instance, Middle Eastern guardians endeavored to manage their children' stuttering in the accompanying manners: appealed to God for change, requested that they "talk appropriately", finished their sentences, changed their setting by transferring them to live with a relative just as asked them not to talk in broad daylight. Checking familial convictions toward stuttering will permit clinicians to comprehend parental inclusion and acknowledgment of treatment administrations, select best treatment models for specific customers just as gain information on what social perspectives may mean for treatment results (Schenker, 2013).

After analyzing the collected data for the aetiology of stuttering, among the bilingual children the most common stuttering sounds found were /k/, /g/, /b/, /m/, /l/, /s/, /r/, , /d/, /\$t/ /a/ and /o/. Talking about the ratio of occurrence of these problematic sounds we can categorize that, “/m/ and /b/” are the sounds most commonly occurring in the collected data followed with /\$t/, /g/, /r/, /d/, /l/, /s/, /a/ second most commonly occurring problematic sounds and /k/, /o/, are the third most problematic sounds.

One of the most important aspects of this study was to find out causes of stuttering. Results showed that 40% of the subjects suffered from stuttering because of neurogenic causes while 60% of the subjects suffered from stuttering because of psychogenic causes. Among 40% participants, fever, head injury or typhoid caused stuttering. For example, one of the children suffered head injury at the age of 4 years which caused onset of stuttering. Two of the participants suffered typhoid which caused stuttering. These results were collected by asking questions to the parents with the help of evaluation sheets and interviews.

Conclusion and Recommendations

Language proficiency seemed to affect the seriousness yet not the sorts of stuttering practices in CWS. Clinicians working with CWS need to evaluate language proficiency when diagnosing stuttering seriousness in bilingual customers.

Languages and has been found to exist in the two bilinguals and monolinguals and stuttering happen across societies. Even though interest in bilinguals who stutter (BWS) has expanded lately research has principally centered around speakers of Indo-European languages. There are fewer investigations of BWS who use languages of non-Indo-European birthplace and to date, no examinations have tended to stutter in bilinguals who communicate in languages like Urdu-English. In this article, we report an examination of stuttering in English-Urdu bilinguals.

The test plan in the current investigation endeavored to change the oral speech plan during progressive readings without changing the significance of the section read. Notwithstanding, the importance of the section read could stay consistent after an adjustment in the language if the peruse was similarly capable in the two languages utilized. At the end of the day, the more intently a member has adjusted capability in every language, the more grounded an affiliation might be made between expanded stuttering and an adjustment in the speech plan. A perceived restriction of this investigation was no target estimation of the capability of the two languages utilized. Future Research looking at bilingual populaces ought to consider acquiring precise estimations of capability in every language inspected, explicitly for individuals who are multilingual and individuals who may be less capable in their first language, as was found in the current examination. Bilingual individuals who stutter frequently present as an extremely heterogeneous populace, hence restricting the capacity to make determinations from information detailed in the writing. Considering this, the future examination should put extraordinary significance on acquiring a careful history of stuttering and language utilize and think about conceivable intuitive effects among stuttering and the languages expressed. In doing as such, future Research might have the option to look at more homogenous populaces of bilingual individuals who stutter. For instance, the future examination ought to consider:

- a) Distinctions that may exist between bilinguals who learn one language followed by another language (continuous bilingualism) and bilinguals who learned the two languages from birth (concurrent bilingualism),
- b) The conceivable compelling job of culture and a member's set of experiences of stuttering inside a culture or language, and
- c) Contrasts that may exist between bilingual people and people who are multilingual. In looking at these factors in subgroups of bilingual individuals who stutter, we may acquire an understanding of what these factors mean for the execution of clinical undertakings.

This investigation introduced information from just two bilingual individuals who stutter and speculation of these outcomes have forewarned. Albeit between judge dependability between the principal judge and a local speaker of English was high during an understanding undertaking, future examination inspecting the unwavering quality of clinicians surveying stuttering in languages other than their own is justified.

Following are the suggested practices for L2 learners who stutter, devised by the consent of Speech Therapist.

- **Breathing Exercise:**

Stuttering is very much linked with the respiration and the process and rate of respiration. Usually stutterers forget to take breath while speaking which cause an air blockage, consequently they stutter. To make the learner aware of this problem he is prescribed "To be fair with the Air". The learner is asked to inhale air, and to take deep breath, and to hold it inside for maximum time, then release it and exhale it slowly. Repetition of this same exercise increase the length of breath which gradually increases the stamina of taking long breath due to which they utter words and sounds smoothly and fluently without repetition or blocking. In the beginning, if a learner is holding breath for 15 seconds, in the next session he must have hold it for at least 18 seconds which is possible only with practice of the same exercise. Repetition of this exercise increases the stamina and length of breath due to which learner feels convenient to speak fluently and makes it easier for him to start learning the lesson.

- **Contact Speech:**

To maintain a regular flow of speech, the learner is asked to utter one or two words in a single breath, by encouraging the regular breath with pauses in a single sentence.

For this purpose, he is asked to tell a story, or to tell the whole routine activities, and then he is guided to exercise the suggested practice.

- **Self-Assessment:**

It focuses on the self-evaluation of the learner based on the speech disfluency, and frequency of stuttering. He is also advised to monitor his effort and progress during L2 learning process.

References

- Ardila, A., Ramos, E., & Barrocas, R. (2011). Patterns of stuttering in a Spanish/English bilingual: A case report. *Clinical linguistics & phonetics*, 25(1), 23-36.
- Armson, J., & Kiefte, M. (2008). The effect of SpeechEasy on stuttering frequency, speech rate, and speech naturalness. *Journal of Fluency Disorders*, 33(2), 120-134.
- Ashurst, J. V., & Wasson, M. N. (2011). Developmental and persistent developmental stuttering: An overview for primary care physicians. *The Journal of the American Osteopathic Association*, 111(10), 576-580.
- Bakhtiar, M., & Packman, A. (2009). Intervention with the Lidcombe Program for a bilingual school-age child who stutters in Iran. *Folia Phoniatica et Logopaedica*, 61(5), 300-304.
- Bell, A., Brenier, J. M., Gregory, M., Girand, C., & Jurafsky, D. (2009). Predictability effects on durations of content and function words in conversational English. *Journal of Memory and Language*, 60(1), 92-111.
- Bird, E. K.-R., Genesee, F., & Verhoeven, L. (2016). Bilingualism in children with developmental disorders: A narrative review. *Journal of communication disorders*, 63, 1-14.
- Block, S., Onslow, M., Packman, A., & Dacakis, G. (2006). Connecting stuttering management and measurement: IV. Predictors of outcome for a behavioural treatment for stuttering. *International Journal of Language & Communication Disorders*, 41(4), 395-406.
- Blomgren, M., Roy, N., Callister, T., & Merrill, R. M. (2005). Intensive stuttering modification therapy.
- Bloodstein, O. (2001). Incipient and developed stuttering as two distinct disorders: Resolving a dilemma. *Journal of fluency disorders*, 26(1), 67-73.
- Boyle, M. P. (2014). Understanding perceptions of stuttering among school-based speech-language pathologists: An application of attribution theory. *Journal of communication disorders*, 52, 143-155.

- Brundage, S. B., Corcoran, T., Wu, C., & Sturgill, C. (2016). Developing and using big data archives to quantify disfluency and stuttering in bilingual children. Paper presented at the Seminars in speech and language.
- Buck, S. M., Lees, R., & Cook, F. (2002). The influence of family history of stuttering on the onset of stuttering in young children. *Folia Phoniatica et Logopaedica*, 54(3), 117-124.
- Byrd, C. T., Hoffman, D., & Gunderson, E. (2015). Identification of stuttering in bilingual spanish-english-speaking children. *Contemporary Issues in Communication Science and Disorders*, 42(Spring), 72-87.
- Coalson, G. A., Peña, E. D., & Byrd, C. T. (2013). Description of multilingual participants who stutter. *Journal of fluency disorders*, 38(2), 141-156.
- Journal of speech, language, and hearing research*, 34(5), 1041-1056.
- Craig, A. (2000). The developmental nature and effective treatment of stuttering in children and adolescents. *Journal of Developmental and Physical Disabilities*, 12(3), 173-186.
- De Bruin, A., Carreiras, M., & Duñabeitia, J. A. (2017). The BEST dataset of language proficiency. *Frontiers in psychology*, 8, 522.
- Firozjaei, A. K. (2013). Prevalence of stuttering in bilingual and monolingual primary schools. *International Research Journal of Applied and Basic Sciences*, 4(6), 1328-1331.
- Gkalitsiou, Z., Byrd, C. T., Bedore, L. M., & Taliancich-Klinger, C. L. (2017). Stuttering on function words in bilingual children who stutter: A preliminary study. *Clinical linguistics & phonetics*, 31(10), 791-805.
- Goldstein, B. A. (2004). *Bilingual Language Development and Disorders in Spanish-English Speakers*: ERIC.
- Gordon, P. A., & Luper, H. L. (1989). Speech disfluencies in nonstutterers: Syntactic complexity and production task effects. *Journal of fluency disorders*, 14(6), 429-445.
- Jankelowitz, D. L., & Bortz, M. A. (1996). The interaction of bilingualism and stuttering in an adult. *Journal of communication disorders*, 29(3), 223-234.
- Kabani, A. (2020). *An Investigation of Speech Disfluencies of Bilingual Urdu-English*.
- Kleinow, J., & Smith, A. (2000). Influences of length and syntactic complexity on the speech motor stability of the fluent speech of adults who stutter. *Journal of speech, language, and hearing research*, 43(2), 548-559.
- Laiho, A., & Klippi, A. (2007). Long-and short-term results of children's and adolescents' therapy courses for stuttering. *International journal of language & communication disorders*, 42(3), 367-382.
- stuttering: A review. *Journal of Fluency Disorders*, 31(2), 71-89.
- stuttering. *Journal of Experimental & Clinical Medicine*, 4(2), 92-97.
- Mamdoh, H., & Gomaa, M. A. (2015). Assessment of severity of stuttering in native versus foreign language in secondary (late) bilingual children. *Indian Journal of Otolaryngology and Head & Neck Surgery*, 67(2), 132-134.

- Mansoor, S. (2004). The status and role of regional languages in higher education in Pakistan. *Journal of Multilingual and Multicultural Development*, 25(4), 333-353.
- Månsson, H. (2000). Childhood stuttering: Incidence and development. *Journal of Fluency Disorders*, 25(1), 47-57.
- Marian, V., Blumenfeld, H. K., & Kaushanskaya, M. (2007). The Language Experience and Proficiency Questionnaire (LEAP-Q): Assessing language profiles in bilinguals and multilinguals. *Journal of speech, language, and hearing research*.
- Mohamadi, H., Nilipour, R., & Yadegari, F. (2008). Stuttering prevalence among Kurdish-Farsi students effects of the two languages similarities. *Iranian Rehabilitation Journal*, 6(1), 83-88.
- Mohammadi, H., Bakhtiar, M., Rezaei, M., & Sadeghi, K. (2012). Stuttering behavior in Kurdish-Persian bilingual speakers. *Procedia-Social and Behavioral Sciences*, 32, 283-287.
- Naqvi, S. (2019). A Preliminary Investigation of Speech Disfluencies in Bilingual Urdu-English Children. Senior Honors Thesis.
- Nippold, M. A. (2012). Stuttering and language ability in children: Questioning the connection. *American Journal of Speech-Language Pathology*.
- Nwokah, E. E. (1988). The imbalance of stuttering behavior in bilingual speakers. *Journal of Fluency Disorders*, 13(5), 357-373.
- O'Brian, S., & Onslow, M. (2011). Clinical management of stuttering in children and adults. *Bmj*, 342.
- Packman, A. (2012). Theory and therapy in stuttering: A complex relationship. *Journal of fluency disorders*, 37(4), 225-233.
- Prasse, J. E., & Kikano, G. E. (2008). Stuttering: an overview. *American family physician*, 77(9), 1271-1276.
- Rahman, T. (2008). Language policy and education in Pakistan. *Encyclopedia of language and education*, 1, 383-392.
- Reardon, V. S. (2001). Stuttering in the context of bilingualism: The relationship between language proficiency and degree of stuttering.
- Siegal, M., Iozzi, L., & Surian, L. (2009). Bilingualism and conversational understanding in young children. *Cognition*, 110(1), 115-122.
- Singh, U., & Kumar, S. S. (2021). Perception of Stuttering in Individuals With Stuttering. *Indian Journal of Otolaryngology and Head & Neck Surgery*, 1-11.
- Spencer, E., Packman, A., Onslow, M., & Ferguson, A. (2005). A preliminary investigation of the impact of stuttering on language use. *Clinical Linguistics & Phonetics*, 19(3), 191-201.
- Stuart, A., Frazier, C. L., Kalinowski, J., & Vos, P. W. (2008). The effect of frequency altered feedback on stuttering duration and type.

- Sugathan, N., & Maruthy, S. (2020). Predictive factors for persistence and recovery of stuttering in children: A systematic review. *International Journal of Speech-Language Pathology*, 1-13.
- Tellis, G. M., Bressler, L., & Emerick, K. (2008). An exploration of clinicians views about assessment and treatment of stuttering. *Perspectives on Fluency and Fluency Disorders*, 18(1), 16-23.
- Van Borsel, J., Maes, E., & Foulon, S. (2001). Stuttering and bilingualism: A review. *Journal of Fluency Disorders*, 26(3), 179-205.
- Van Borsel, J., Moeyaert, J., Mostaert, C., Rosseel, R., Van Loo, E., & Van Renterghem, T. (2006). Prevalence of stuttering in regular and special school populations in Belgium based on teacher perceptions. *Folia Phoniatica et Logopaedica*, 58(4), 289-302.
- Yairi, E., & Ambrose, N. (1992a). A longitudinal study of stuttering in children: A preliminary report. *Journal of speech, language, and hearing research*, 35(4), 755-760.
- Yairi, E., & Ambrose, N. G. (1999). Early childhood stuttering I: Persistency and recovery rates. *Journal of Speech, Language, and Hearing Research*, 42(5), 1097-1112.
- Yairi, E., & Ambrose, N. G. (2004). *Early Childhood Stuttering*: ERIC.
- Yairi, E., & Seery, C. H. (2015). *Stuttering: Foundations and clinical applications*: Pearson Boston.
- Yaruss, J. S., LaSalle, L. R., & Conture, E. G. (1998). Evaluating stuttering in young children: Diagnostic data. *American Journal of Speech-Language Pathology*, 7(4), 62-76.
- Zackheim, C. T., & Conture, E. G. (2003). Childhood stuttering and speech disfluencies in relation to children's mean length of utterance: A preliminary study. *Journal of Fluency Disorders*, 28(2), 115-142.
- Zengin-Bolatkale, H., Conture, E. G., Walden, T. A., & Jones, R. M. (2018). Sympathetic arousal as a marker of chronicity in childhood stuttering. *Developmental neuropsychology*, 43(2), 135-151.