

Perspective of Speech Language Pathologists Regarding Stammering Therapy Techniques: SLP Perspective

Mishal Butt ¹, Muhammad Azzam Khan ², Hafsa Noreen ³, Lubna Noureen ⁴, Saba Yaqoob ⁵, Amna Rashid ⁶

¹ Department of Rehabilitation Sciences, The University of Lahore, Defense road Lahore Pakistan.

² Lecturer, Department of Rehabilitation Sciences, The University of Lahore, Defense road Lahore Pakistan.

³ Assistant Professor, Department of Rehabilitation Sciences, The University of Lahore, Defense road Lahore Pakistan.

⁴ Senior lecturer, Department of Rehabilitation Sciences, The University of Lahore, Defense road, Lahore Pakistan.

⁵ Senior Lecturer Nur International University, Raiwind road, Lahore Pakistan.

⁶ Senior lecturer, Department of Rehabilitation Sciences, University of Lahore, Defense road Lahore Pakistan.

Author's Contribution

¹⁻²Conception and design, Collection and assembly of data, ²⁻⁴Analysis and interpretation of the data, ³⁻⁶Critical revision of the article for important intellectual content, Statistical expertise, ³Final approval and guarantor of the article.

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Address of Correspondence

Dr Hafsa Noreen

virgo202001@yahoo.com

ORCID: 0000-0002-7933-186X

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Introduction

Stammering is also known as Stammering and dysphemia. Stammering is a disorder of speech. It is indicated by involuntary prolongations, repetitions and interjections of sounds, syllables, words, and phrases. Stammering also involves includes involuntary silent or audible pauses or blockages and the person who experiences Stammering is not able to speak fluently. In stammering the normal flow of speech is disturbed. ¹

A B S T R A C T

Objective: To find the perspective of speech language pathologists regarding therapeutic techniques of stammering in Pakistan

Methodology: It was a cross sectional survey to find the Perspective of Speech Language Pathologist regarding two most common stammering therapeutic approaches fluency shaping and stammering modification therapy. Convenient sampling technique was used for this purpose. Graduated Speech and Language pathologist were considered in the study. For this purpose, a questionnaire was developed through expert opinion and literature review, consisting of two phases and 24 questions. Data was collected through online sources, the sample size of 120 Speech Language Pathologists was considered in the study. SPSS was used for statistical analysis and EndNote was used for referencing.

Results: Results showed that there is significant awareness of stammering at 73.6%, but the preference difference between two therapeutic approaches was not that substantial, Stammering Modification Therapy was given preference standing at 51.5% which roughly same as that of Fluency Shaping Therapy was given preference at 48.5%.

Conclusion: It is concluded that both therapeutic approaches fluency shaping and stammering modification therapy showed the same rate of efficacy and both are being used by the Speech Language Pathologist to reduce the rate of stammering.

Key words: Stammering, Fluency Shaping, Stammering Modification, Treatment approaches.

Stammering is a disruption in the normal flow of speech and disturbance in the verbal expression indicated by involuntary, silent and audible prolongations and repetitions of sound, syllable or words. These are not under voluntary control and may occur with other movements and emotions of negative nature such as fear, embarrassment, anger and sadness. Stammering is a symptom and not a disorder but it may refer as both disorder and symptom. ²

It is mostly obtained that the occurrence of stammering is around 1%. But the incidence of stammering in preschools and school population is around 4% and Stammering seems to be more common in males than females in all ages. Stammering occurs in almost around 1.4% of children younger than the age of 10 years. ^{3,4}

Developmental stammering is the most common form of stammering which starts during childhood. About 80 to 90% of developmental stammering begins during the age of 6 years and it affects around 5% of children population. ^{5,6}

Those people who stutter may face unusual levels of anxiety regardless of the speech tasks to the extent that they feel anxious even when they are distant from speaking situations. Within physiological measures this effect has also been reported with a discovery that during the events of general high stress the person who stutter show great increase in the activity of salivary cortisol. ^{7,8}

In addition, two treatment techniques for treating stammering in older adults and children including fluency shaping and stammering modification. To avoid moments of stammering, fluency shaping aims to evoke fluent speech while stammering modification encourages effortless and calm reactions to stammering. ⁹

Additionally, while Stammering modification and fluency shaping focuses to change the production of speech, there is also confirmation that cognitive, emotional and social factors contribute to persistence of stammering thus they should be discussed too. Clinicians sometimes add supplemental forms of treatment to improve “traditional” treatments (for example, fluency shaping and Stammering modification therapy). The treatments may include breathing regulation, cognitive-behavioral therapy, habit reversal programs, and development of pragmatics. ^{9,10}

Treatments of stammering are proven to have a lasting effect both for emotional, social, cognitive factors and speech outcomes, if they contain slowed speech variants, soft onset of voice, self-management, continuous phonation, exercises in group sessions,

response contingencies, and then transfer into non-clinical environment. ^{11,12}

Methodology

It was a cross sectional study. Sampling technique used for this study was convenient. It was conducted through social media platform including emails WhatsApp and online survey through Google forms. Duration of the study was six months from January 2021 to June 2021, after the approval of IRB of University of Lahore. Sample size was 120 that was taken on the basis of statistical analysis using that membership statistics of Pakistan Speech Language Pathology Association. ^{13,14} The inclusion criteria were graduated Speech Language Pathology (BS SLP) with any working experience. Data was collected through questionnaire that was developed through expert opinion and literature review. Content validity index of this questionnaire was found out and Cronbach alpha was 0.7. The questionnaire consisted of two phases. After initial demographical portion, first phase dealt with awareness and knowledge of stammering and treatment strategies, while second phase dealt with the perspective of speech language pathologists regarding fluency shaping and speech modification therapy for stammering. The questions specifically target the personal perspective of the pathologist and the treatment effectiveness of each therapeutic technique, so the frequencies of the answers show the preference of the selected sample towards both types of therapies and they are scored according to the degree of the selected answers. Yes, indicates a positive outlook towards that form of therapy and No indicates a lack of preference towards that therapy and they these results are pooled to give a final result of preference towards that particular type of therapy. All the responses were recorded and analyzed using Statistical Package for social sciences (SPSS) version 22. The data was collected using social media platforms including emails, WhatsApp and online surveys through Google Forms to find the perspective of Speech Language Pathologists regarding stammering therapeutic techniques.

Results

A questionnaire was designed in 2 phases, the first phase shows that degree of awareness regarding

stammering among the practicing SLPs, and the later 2nd phase studies the preference of Stammering modification therapy and Fluency shaping technique.(Table I & II) The selected therapist is asked about both the techniques and is required to give his/her preference.

Speech Language Pathologists has recommended that both treatment options Stammering Modification Therapy and Fluency Shaping Therapy are equally effective for the treatment of stammering.

Discussion

A research was conducted in Germany in 2013 in which 231 participants had taken part. In this research five of the most common Stammering treatments were rated as to their effectiveness. Two Stammering treatments showed satisfactory effectiveness while other three showed unsatisfactory effectiveness. The effectiveness of Stammering modification and fluency shaping therapy did not differ significantly and both were highly effective. Results of this study showed that the Stammering treatment most often prescribed in Germany by speech language pathologists were stammering

modification and fluency shaping. Better effectiveness can be expected from these treatments but with intensive group session and time schedule.

Perspective of speech language pathologists regarding stammering therapy techniques in Pakistan had showed similar results with the study that was conducted in Germany. According to perspective of speech language pathologists Stammering modification and fluency shaping therapies both had showed equal effectiveness.¹⁵

A research was conducted in Taibah University, Saudi Arabia in 2020 to find out the evidence of stammering modification effectiveness. The research was not confined to study designs and assessment tools, but it was limited by the attributes of the participants. The combined proof from the studies suggests that the relapse and sound quality after fluency shaping intervention may be the basic reasons for the limited proof that Stammering modification has. Additionally, participants treated with combination methods demonstrated the ability to lessen the stammering and maintain long term therapeutic benefits compared with those treated with FS or SM. The review suggested that combining FS with SM alone or

Questions	Percentages					
	Yes	No	Never	Yes	No	Never
Have you ever seen a patient with stammering?	111	9		92.5	7.5	
How often a week you see a stammering patient?	Five 86	Ten 13	Above Ten 16	Five 71.7	Ten 10.8	Above Ten 13.3
Have you ever researched about stammering?	Yes 63	No 52	Never 5	Yes 52.5	No 43.3	Never 4.2
Do you attend seminars related to stammering?	Yes 49	No 67	Don't Know 4	Yes 40.8	No 55.8	Don't Know 3.3
Have you studied stammering as a subject?	Yes 98	No 19	Don't Know 3	Yes 81.7	No 15.8	Don't Know 2.5
Are you aware of overt and covert symptoms of stammering?	Yes 105	No 11	Don't Know 4	Yes 87.5	No 9.2	Don't Know 3.3
According to you is stammering treatable?	Yes 106	No 10	Don't Know 4	Yes 88.3	No 8.3	Don't Know 3.3
Pool Percentage	73.6%					

Questions	Stammering Modification Therapy			Fluency Shaping Therapy		
	Yes	No	Don't Know	Yes	No	Don't Know
Which Therapy of Stammering do you apply mostly?	83	34	4	80	34	6
Which therapy focuses on the psychological aspects of stammering?	94	4	20	61	29	30
Which therapy targets the core problem of the Stammering?	85	14	21	76	18	26
Which of the following therapy is a faster means to cure stammering?	77	18	23	58	30	32
With which therapy patients are more satisfied?	68	12	40	71	12	33
Which Stammering therapy gives better results in patients?	88	12	20	74	17	29
Pool Percentage	51.5%			48.5%		

with other therapies that can help clinicians in helping child with Stammering achieve their goals and maintain their therapeutic benefits.¹⁶

A research was conducted in 2017 in Al Azhar University Cairo, Egypt. The aim of the Fluency Shaping techniques is not to change stammering however the idea is to fully restore it with a speech that is fluent. In this research clients were distributed in 2 groups: control group and experimental group. Clients within the experimental group were trained with the use of the Arabic modified fluency shaping program. The outcomes of the research had showed the effectiveness of the Arabic-modified fluency-shaping program in the restoration of stammering. Results had showed that the fluency shaping program is more effective in the restoring of stammering.¹⁷

Conclusion

On the basis of Speech Language Pathologist's perspective, It is concluded that both therapeutic approaches fluency shaping and Stammering modification therapy showed the same rate of efficacy and both are being used by the Speech Language Pathologist to reduce the rate of stammering.

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