

A Proposed Speech-Language, Psychological, and Educational Program to Reduce Stuttering Severity and Improve Oral Participation among Primary School Children: A Theoretical and Applied Study

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Abstract ;

This study develops a theoretical and applied framework for managing stuttering among primary school children. It examines stuttering as a speech fluency disorder marked by repetitions, prolongations, and blocks. These signs may be accompanied by physical and emotional reactions, such as eye blinking, muscular tension, shyness, and avoidance of speaking situations. The study also reviews its psychological, educational, social, genetic, neurological, environmental, and linguistic dimensions. It draws on Arabic studies about stuttering, bilingualism, clinical treatment, and academic achievement. The study adopts a descriptive analytical approach. It also proposes a quasi-experimental design based on pre-test, post-test, and follow-up measures. The proposed ten-week program includes speech-language assessment, fluency training, breathing regulation, rhythmic speech, shadowing, behavioral reinforcement, family counseling, and classroom adaptation. The study concludes that comprehensive intervention involving the child, family, and teacher is more suitable than isolated speech drills.

Article info

Received

April 24;2026

Accepted

June 30;2026

Keyword:

- ✓ Stuttering
- ✓ speech-language therapy
- ✓ fluency disorders
- ✓ intervention program
- ✓ oral participation

1. Introduction:

Language is one of the most important human characteristics. It distinguishes human beings from other living creatures. It is a means of expressing needs and emotions. It is also a tool for social communication, knowledge acquisition, and personality development.

Speech cannot be separated from language. It represents the spoken external form of language. Through speech, the child communicates with the family, the school, and peers. Speech-language and educational studies confirm that language and speech disorders do not affect articulation alone. They also affect psychological and social development. They may also influence academic achievement.

Boumezawt, Saaidiya, and Azzouz stated that language and speech are essential means for exchanging information, emotions, and ideas. They also noted that language disorders may have negative effects on the child's social, behavioral, psychological, and academic development. These effects vary according to the type and severity of the disorder (Boumezawt, Saaidiya, & Azzouz, 2023).

Among speech fluency disorders, stuttering is one of the most noticeable speech disorders. It appears clearly in daily communicative situations. These situations include speaking with parents, answering the teacher's questions, reading aloud, and interacting with classmates.

Stuttering is a disturbance in the natural flow of speech. It appears through the repetition of sounds, syllables, or words. It may also appear through sound prolongations or involuntary blocks. These blocks interrupt the continuity of speech. Al-Ali operationally defined stuttering as a disorder of speech fluency. It makes the child unable to speak or read smoothly because of involuntary repetition, prolongation, and blocking (Al-Ali, 2020, p. 23).

The study of stuttering is especially important during the primary school stage. At this stage, the child needs speech not only for social communication. The child also needs it for learning, reading, answering questions, and building self-confidence. Bassi and Debba indicated that stuttering may hinder the child's verbal communication. It may also cause difficulty in self-expression. In addition, it may affect academic achievement during the first years of schooling (Bassi & Debba, 2014, pp. 8-9).

Based on this, the present study seeks to develop a scientific article that combines theoretical grounding with an applied framework for the treatment of stuttering. It does so through a speech-language, psychological, and educational program. This program integrates child training, family counseling, and modification of the classroom environment.

Statement of the Problem

Although stuttering first appears as a speech disorder, its effects extend to psychological, social, and school-related aspects. A child who stutters may know what he or she wants to say. Yet the child may be unable to produce speech smoothly. This may expose the child to embarrassment, ridicule, or interruption. As a result, the child may sometimes remain silent or avoid speaking situations.

Mahia and Sanousawi confirmed that people who stutter may show emotional and social characteristics. These include feelings of rejection, introversion, withdrawal from social situations, and feelings of failure and inferiority. Such difficulties require therapeutic intervention. The aim is to reduce the severity of symptoms and help the child adapt to communicative situations (Mahia & Sanousawi, 2023, p. 554).

The way the child's environment responds may either reduce stuttering or increase its severity. A child who is constantly interrupted may become more aware of the problem. The same may happen when the child is repeatedly asked to repeat speech. It may also happen when the child is corrected in a hurtful way. This may increase tension and deepen speech avoidance.

For this reason, stuttering cannot be treated by focusing on the child alone. The family, the teacher, and the speech-language specialist should be involved in one therapeutic plan.

The problem of the present study is expressed in the following main question: **What is the effectiveness of a proposed speech-language, psychological, and educational program in reducing stuttering severity and improving oral participation among primary school children?**

The following sub-questions arise from this main question:

- What are the verbal, physical, and emotional manifestations of stuttering in children?
- What genetic, neurological, psychological, and linguistic factors are associated with the onset of stuttering?
- How does stuttering affect classroom participation and academic achievement?
- What diagnostic procedures are appropriate for stuttering?
- What are the components of a suitable speech-language, psychological, and educational program for the intervention of children who stutter?

Significance of the Study

The significance of this study stems from the importance of the age group it targets. The primary school stage is a foundational period for the development of reading, writing, and social communication skills. Bassi and Debba showed that language disorders, especially stuttering, are important topics because of their negative effects on academic achievement. They also stressed the need to raise awareness among parents and educators. Such

awareness helps them deal flexibly with children who have speech disorders (Bassi & Debba, 2014, p. 11).

The importance of this study also lies in its applied perspective. It does not limit intervention to speech training alone. Rather, it combines speech therapy, family counseling, psychological support, and school-based intervention. This agrees with Mahia and Sanousawi's view that stuttering is a variable disorder in terms of causes and symptoms. Their study also indicates that recent research tends to support integrated treatment approaches. Such approaches aim to achieve psychological, cognitive, and social adjustment in children who stutter (Mahia & Sanousawi, 2023, p. 552).

Objectives of the Study:

The study aims to:

- Define the concept of stuttering and identify its main manifestations in children.
- Analyze the factors that explain stuttering from a multidimensional perspective.
- Highlight the effect of stuttering on oral participation and academic achievement.
- Develop an applicable speech-language, psychological, and educational program.
- Identify suitable diagnostic tools for measuring stuttering severity.
- Highlight the role of the family and the teacher in the intervention of children who stutter.

- Provide practical recommendations for specialists, parents, and teachers.

Proposed Applied Study Hypotheses:

Since the applied part of this study is proposed, its hypotheses are formulated as follows:

General Hypothesis:

There are statistically significant differences between the mean scores of children in stuttering severity before and after the application of the program, in favor of the post-test measurement.

Partial Hypotheses :

- The degree of repetitions, prolongations, and blocks decreases after the application of the program.
- The physical behaviors associated with stuttering decrease after the application of the program.
- Oral participation in the classroom improves after the application of the program.
- There is a negative correlation between stuttering severity and oral participation. This means that when stuttering severity decreases, participation improves.
- Family and school support contributes to strengthening the effect of the therapeutic program.

2. Definition of Concepts:

2.1 Stuttering:

Stuttering is a disorder of speech fluency. It appears in the form of involuntary repetitions, prolongations, or blocks. It may also be accompanied by muscular tension, physical movements, or avoidance of speaking situations. The National Stuttering Association defines stuttering as a communication disorder that involves interruptions in the flow of speech. These interruptions indicate disfluency among people who stutter. They may appear at different levels, ranging from moderate to severe (Association., 2002, p. 01), (Al-Ali, 2020, p. 24).

Mahia and Sanousawi define stuttering as a disorder that affects the rhythm of speech. It is marked by excessive prolongation and repetition of sounds and syllables. The person who stutters may seem as if speech is blocked in the throat, despite the effort made to produce it (Mahia & Sanousawi, 2023, p. 553).

2.2 The Child Who Stutters:

The child who stutters is a child who shows repeated difficulties in speech flow. These difficulties may include repetition, prolongation, or blocking. They affect the child's communication within the family, at school, or in social settings.

2.3 The Speech-Language, Psychological, and Educational Program:

This is a therapeutic intervention program. It aims to reduce stuttering severity and improve the child's communication. It does

so through fluency training, breathing regulation, psychological support, modification of associated behaviors, family counseling, and adaptation of the classroom environment.

2.4 Oral Participation :

Oral participation refers to the child's ability to use speech inside and outside the classroom. It includes answering the teacher's questions, reading aloud, initiating speech, talking with classmates, and expressing needs without excessive avoidance.

3. Theoretical Framework :

3.1 Manifestations of Stuttering :

Stuttering appears through verbal and non-verbal manifestations. The verbal manifestations include repetitions, prolongations, and speech blocks. Al-Ali indicated that repetitions are among the most common manifestations of stuttering. They may include the repetition of a sound, a syllable, a word, or a phrase. Prolongations are also an important manifestation because they are rare in the speech of people who do not stutter. Speech blocks may cause frustration for both the speaker and the listener (Al-Ali, 2020, pp. 24-25)

The physical and emotional manifestations may include eye blinking, trembling of the lips, head movements, facial muscle tension, fear of speaking, and avoidance of eye contact with the speaker. Omrani and Aiwaj note that stuttering appears through involuntary repetitions, blocks, or prolongations of sounds or syllables. This

makes speech interrupted and unclear. It may also be accompanied by shyness and avoidance of looking at the speaker during stuttering moments (Omrani & Aiwaj, 2020, p. 346).

3.2 Developmental Stuttering and Persistent Stuttering :

Some signs of disfluency may appear during the child's language acquisition stage. This is especially common between the ages of three and five. At this stage, the child experiences linguistic pressure due to vocabulary growth and attempts to form sentences. However, if these symptoms continue after the age of five, the child should be referred to a speech-language specialist.

Omrani and Aiwaj explained that the appearance of stuttering symptoms in young children between the ages of three and five may be a normal developmental matter. Yet, if these symptoms continue after the age of five, the child should be referred to a specialist. This helps determine the appropriate therapeutic program. Early diagnosis and early treatment also help prevent the stuttering pattern from becoming established (Omrani & Aiwaj, 2020, p. 346).

3.3 Causes of Stuttering :

Stuttering cannot be explained by a single factor. It is a complex phenomenon in which genetic, neurological, psychological, environmental, and social factors interact. Al-Ali confirms that stuttering is a highly complex phenomenon. It may not have one single

cause. Rather, it may result from constitutional, chemical, neurological, psychological, environmental, and social causes (Al-Ali, 2020, pp. 25-26).

3.3.1 Genetic and Neurological Factors :

Some studies indicate that heredity may play a role in the onset of stuttering. This is especially relevant when similar cases exist within the family. Omrani and Aiwaj presented one view which holds that genetic factors may act as a predisposition to stuttering. They also noted that some studies found that a number of adults who stutter reported having at least one family member who also stutters (Omrani & Aiwaj, 2020, p. 348).

Al-Ali also indicates that some researchers assume that stuttering may result from brain damage or dysfunction in the motor functions of speech. Such dysfunction may affect the coordination of speech muscles (Al-Ali, 2020, p. 26).

3.3.2 Psychological and Emotional Factors :

Discussing psychological factors does not mean that stuttering is a purely psychological disorder. Rather, it means that anxiety, fear, and emotional pressure may increase the severity of symptoms and support their persistence. Mahia and Sanousawi indicate that psychotherapy may be useful for people who stutter and suffer from anxiety. It focuses on stress, conflicts, feelings of fear, and insecurity. It also helps strengthen self-confidence, reduce anxiety, and promote self-

acceptance (Mahia & Sanousawi, 2023, p. 557).

3.3.3 Linguistic Factors and Bilingualism :

Bilingualism is one of the factors that should be considered when studying stuttering. This is especially important in contexts where the child is exposed to two or more languages at an early age. This does not mean that bilingualism is a direct or inevitable cause of stuttering. However, it may become a source of linguistic pressure when two language systems overlap before the mother tongue is firmly established.

Omriani and Aiwaj found a positive and statistically significant correlation at the 0.01 level between bilingualism and stuttering severity. Their study was conducted on a sample of 24 cases and used the Stuttering Severity Test (Omriani & Aiwaj, 2020, p. 337). However, the two researchers explained that this result does not mean that multilingualism is negative in itself. A distinction should be made between learning a second language after mastering the mother tongue, which is positive, and the overlap of languages before the mother tongue has been acquired. Such overlap may lead to difficulty in controlling vocabulary and grammar. As a result, blocks and hesitations may appear (Omriani & Aiwaj, 2020, p. 357).

3.4 The Effect of Stuttering on Academic Achievement and Classroom Participation :

Stuttering affects learning by reducing oral participation. A child who stutters may know the answer but avoid raising his or her hand. The child may also fear reading aloud. In some cases, the child may choose silence in order to avoid ridicule.

Bassi and Debba showed that stuttering hinders the child's verbal communication. It also causes difficulty in self-expression. In addition, it may obstruct academic achievement during the first years of primary education (Bassi & Debba, 2014, p. 11).

Bassi and Debba also indicated that their study aimed to examine the relationship between language disorder and academic achievement among primary school pupils. The study found a relationship between language disorder and academic achievement. It also found statistically significant differences in language disorder according to some variables (Bassi & Debba, 2014).

4. Previous Studies :

4.1 Al-Ali's Study on the Causes of Stuttering and Its Future Effects :

Al-Ali's study aimed to identify the manifestations of stuttering. It also examined its causes among children, analyzed its future effects, and explored methods of treatment. The study confirmed that the early years have a decisive effect on a person's ability to speak. It also showed that any impairment in articulation and communication may affect social life, academic achievement, and self-perception.

The study recommended giving attention to the child from the early years. It also recommended referring the child to a speech specialist when speech problems are suspected. In addition, it called for guidance sessions for parents and teachers (Al-Ali, 2020, p. 20).

4.2 Omrani and Aiwaj's Study on Bilingualism and Stuttering :

Omrani and Aiwaj's study aimed to identify the relationship between bilingualism and stuttering severity in children. The study used the descriptive method. It was conducted on a purposive sample of 24 cases and used the Stuttering Severity Test.

The results showed a positive and statistically significant correlation between bilingualism and stuttering disorder in the studied sample (Omrani & Aiwaj, 2020, p. 337).

4.3 Bassi and Debba's Study on Language Disorder and Academic Achievement :

Bassi and Debba's study focused on language disorder and its relationship with academic achievement among primary school pupils. The study adopted the descriptive method and used a diagnostic test for stuttering. It found a relationship between language disorder and academic achievement among primary school pupils (Bassi & Debba, 2014).

4.4 Mahia and Sanousawi's Study on the Clinical and Therapeutic Management of Stuttering :

Mahia and Sanousawi's study aimed to identify the stages of clinical examination and therapeutic intervention for stuttering disorder. It examined the diagnostic methods used by the speech-language specialist. It also addressed the symptoms of stuttering, treatment techniques, and the way a speech-language assessment is developed according to each case and its degree of severity (Mahia & Sanousawi, 2023, p. 551).

5. Study Procedures :

The study proceeds through the following stages:

- Obtaining approval from the school administration.
- Obtaining parental consent.
- Selecting children through teacher nomination or referral by the speech-language specialist.
- Conducting an initial interview with the parents.
- Applying the pre-test measurement.
- Implementing the program for ten weeks.
- Applying the post-test measurement.
- Applying the follow-up measurement after one month.
- Analyzing and discussing the results.

6. The Proposed Speech-Language, Psychological, and Educational Program :

6.1 Philosophy of the Program :

The program is based on the view that stuttering cannot be treated through one technique alone. It is a multidimensional disorder. Breathing training alone is not sufficient. Speech training alone is also not sufficient. A comprehensive plan is needed. This plan should include the child, the family, and the teacher.

Mahia and Sanousawi confirm that treatment is often a complex and long-term process. They also stress that stuttering should be measured before, during, and after treatment. The interaction of different variables during treatment should also be taken into account (Mahia & Sanousawi, 2023, p. 556)

6.2 Objectives of the Program :

The program aims to:

- Reduce stuttering severity.
- Reduce repetitions, prolongations, and blocks.
- Reduce associated physical behaviors.
- Improve the child's confidence during speech.
- Increase oral participation in the classroom.
- Train the family in supportive interaction.
- Train the teacher to reduce speaking pressure in the classroom.

7. Program Units :

Unit One: Preparation and Building the Therapeutic Relationship

Duration: Week One.

Objective: To reduce the child's anxiety and build a safe therapeutic relationship.

This unit uses play, drawing, and free conversation. At the beginning, the focus is not placed on correcting speech. Rather, the aim is to help the child feel safe. Mahia and Sanousawi confirm that one important aspect of assessment is giving attention to both the person who stutters and the problem itself. The focus should not be on the disorder alone. This helps break the ice and build a warm relationship with the person who stutters (Mahia & Sanousawi, 2023, p. 553).

Unit Two: Simple Awareness of Stuttering

Duration: Week Two.

Objective: To help the child understand that stuttering does not mean failure or lack of intelligence.

The specialist explains to the child, in simple language, that some words need more time to come out. The aim is not perfect speech. The aim is to speak with confidence and calmness. The focus is placed on self-acceptance and reducing fear of mistakes.

Unit Three: Breathing Regulation and Relaxation

Duration: Weeks Three and Four.

Objectives: To regulate breathing and reduce muscular tension associated with speech.

Proposed exercises:

1. Calm inhalation through the nose.
2. Slow exhalation through the mouth.
3. Producing short words during exhalation.
4. Relaxing the facial and jaw muscles.
5. Using calm breathing before answering.

Mahia and Sanousawi indicate that breathing control is based on exercises that regulate breathing. However, its effect may be temporary if it is used alone. Therefore, it should be combined with other techniques (Mahia & Sanousawi, 2023, p. 559).

Unit Four: Slow and Rhythmic Speech

Duration: Weeks Five and Six.

Objective: To regulate speech rhythm and reduce repetitions.

The child is taught to speak slowly, divide the sentence into syllables, and use a simple rhythm through tapping or clapping. Mahia and Sanousawi state that rhythmic speech is based on dividing the sentence into syllables that are produced rhythmically. This technique has proven effective in reducing stuttering repetitions (Mahia & Sanousawi, 2023, p. 559).

Unit Five: Shadowing and Shared Reading

Duration: Week Seven.

Objective: To improve fluency through simultaneous reading with the specialist.

The specialist reads a short text in a clear voice. The child then repeats directly after the specialist. Mahia and Sanousawi explain that shadowing means that the child's speech is synchronized with the therapist's speech. The therapist reads aloud at a normal speed. The child then follows and repeats what the therapist says without stopping or interruption (Mahia & Sanousawi, 2023, p. 560).

Unit Six: Behavioral Therapy and Reinforcement

Duration: Week Eight.

Objective: To reinforce calm speech and reduce avoidance.

The child is reinforced when he or she attempts to speak without withdrawal. Reinforcement is also given when the child uses calm breathing, reads a sentence in front of the specialist, or answers despite some stuttering. Mahia and Sanousawi state that behavioral therapy depends on providing reinforcement to children when they practice fluent speech. It also teaches them to speak correctly and reduces associated physical tension (Mahia & Sanousawi, 2023, p. 560).

Unit Seven: Training in School Situations

Duration: Week Nine.

Objective: To transfer the acquired skills to the classroom.

The child is trained to:

1. Answer a short question.
2. Read a sentence in front of a classmate.
3. Ask the teacher for something.
4. Introduce himself or herself.
5. Take part in a short dialogue.

Training moves gradually from easy situations to more difficult ones.

Unit Eight: Generalization and Follow-Up

Duration: Week Ten.

Objective: To consolidate the skills at home and at school.

The family and the teacher are given a weekly follow-up card. This card includes successful situations, difficult situations, the degree of participation, and the response of the surrounding environment.

8. Family Counseling

Family counseling is an essential element in the success of the program. The child spends most of his or her time at home. The family's response may increase the problem or reduce it.

Family counseling includes teaching parents to:

1. Avoid interrupting the child while speaking.
2. Avoid completing the word or sentence for the child.
3. Avoid ridicule or exaggerated anxiety.

4. Speak to the child calmly and in short sentences.
5. Set aside daily time for calm conversation.
6. Praise the content of the child's speech, not fluency alone.
7. Avoid comparing the child with siblings.
8. Encourage the child to try without pressure.

Al-Ali indicates that the success of psychological treatment for children depends on the cooperation of parents and their understanding of the therapeutic goal (Al-Ali, 2020, p. 28).

9. The Role of the Teacher

The teacher plays an essential role in supporting the child who stutters inside the classroom. The teacher can make the classroom either a safe environment or a stressful one. Therefore, the following recommendations are proposed:

1. Avoid surprising the child by asking him or her to read in front of the class.
2. Give the child enough time to answer.
3. Avoid interrupting the child while speaking.
4. Prevent classmates from mocking the child.
5. Encourage short forms of participation at the beginning.
6. Avoid focusing on the form of speech in front of pupils.
7. Coordinate with the family and the speech-language specialist.

Boumezawt et al. stressed the importance of providing recommendations for parents and teachers in order to support this group. They also emphasized the need to raise the morale of children who stutter. This helps them overcome difficulties and prevents the problem from developing into harmful psychological disorders (Boumezawt, Saaidiya, & Azzouz, 2023, p. 08).

10. Program Timeline :

Week	Focus	Activities	Participating Party
1	Building the relationship	Play, drawing, free conversation	Child
2	Understanding stuttering	Therapeutic story, simple explanation	Child
3	Breathing	Inhalation and exhalation, speech during exhalation	Child
4	Relaxation	Relaxation of the face, jaw, and neck	Child
5	Slow speech	Words and short sentences	Child
6	Rhythmic speech	Sentence segmentation and rhythmic tapping	Child
7	Shadowing	Shared reading	Child and specialist
8	Behavioral reinforcement	Reinforcement of calm speech	Child
9	School situations	Answering, reading, dialogue	Child and teacher
10	Generalization	Home and school follow-up card	Family and teacher

11. Methods of Data Analysis

11.1 Quantitative Analysis

The use of the following statistical methods is proposed:

1. Arithmetic mean and standard deviation.
2. Paired-samples t-test to compare pre-test and post-test measurements.
3. Wilcoxon test if the sample is small or does not follow a normal distribution.
4. Spearman's correlation coefficient between stuttering severity and oral participation.
5. Effect size calculation to determine the strength of the program.

Bassi and Debba used arithmetic means, standard deviations, percentages, and the t-test in processing their data (Bassi & Debba, 2014).

11.2 Qualitative Analysis

The observations of the family, teacher, and specialist are analyzed according to the following themes:

1. Situations in which stuttering increases.
2. The child's reactions.
3. The family's reactions.
4. The teacher's reactions.
5. Degree of avoidance.
6. Successful situations.
7. Change in self-confidence.

12. Proposed Model for Presenting Results after Application

Real numerical results cannot be presented before field application. Therefore, it is proposed that the results be presented according to the following tables:

Table 1. Differences between Pre-Test and Post-Test Measurements in Stuttering Severity

Measurement	Mean	Standard Deviation	Test Value	Significance
Pre-test	...	...	...	...
Post-test	...	...	...	...

Table 2. Development of Oral Participation

Indicator	Before the Program	After the Program	Change
Reading aloud	...	...	...
Oral answering	...	...	...
Initiating speech	...	...	...
Avoiding speech	...	...	...

13. Expected Discussion of the Results

If the results show a decrease in stuttering severity after the application of the program, this may be explained by the integration of its components. The program is not limited to speech training. It combines breathing regulation, rhythmic speech, shadowing, behavioral therapy, family counseling, and modification of the school environment.

This is consistent with Mahia and Sanousawi's view. They state that treatment should be based on accurate diagnosis. They also stress that stuttering should be assessed before, during, and after treatment. This is because treatment is a complex process in which several variables interact (Mahia & Sanousawi, 2023, p. 556).

If oral participation improves in the classroom, this may be explained by a decrease in speech-related anxiety. It may also be linked to improved self-confidence and changes in the way the teacher and classmates interact with the child. Stuttering is not only an articulation problem. It is also a communication problem. It may make the child avoid speaking, even when the child knows the answer or has an idea to express.

If some cases do not improve, this may be due to the severity of the disorder. It may also be due to continued family pressure, family history, high anxiety, or weak commitment to home and school follow-up.

14. Limitations of the Study

The limitations of the study are as follows:

1. The small size of the proposed sample.
2. The absence of a control group in the proposed design.
3. Differences in the level of cooperation among families and teachers.
4. Variation in stuttering severity among children.

5. The need for locally standardized Arabic assessment tools.
6. The difficulty of separating the effect of the program from other family and school factors.

Recommendations of the Study

In light of the theoretical and applied discussion of stuttering among primary school children, and based on previous studies that stressed early diagnosis, the role of the family and teacher, and the need for organized speech-language intervention, the study recommends the following:

- Early detection of stuttering in children is necessary, especially during the preschool stage and the first years of primary education. This stage is critical in the development of language and speech. Any delay in diagnosis may allow stuttering behavior to become established and turn into a more stable disorder. Al-Ali recommended monitoring children during the first years of life, especially when they start school. She also recommended referring them to a speech therapist when a speech disorder is suspected.
- The child who stutters should be referred to a speech-language specialist as early as possible. Families should not rely on explanations such as “the child will grow up and improve alone.” Distinguishing normal developmental disfluency from pathological stuttering requires specialized assessment.
- Diagnostic and observation tools should be provided in kindergartens and primary schools. These tools may include a form for recording blocks, repetitions, prolongations, physical movements, and attempts to avoid speech. One study presented a checklist of indicators of stuttering disorder. These indicators include the use of filler words, blocks at the beginning or middle of speech, head or body movements, and facial expressions used to overcome blocks.
- Teachers and preschool educators should be trained to identify the signs of stuttering. The teacher is often the first person to notice the child’s difficulty in reading aloud, answering orally, or communicating with classmates. Al-Ali also recommended guidance and training sessions for mothers and preschool teachers. These sessions may help prevent speech disorders in children.
- Speech pressure on the child who stutters should be avoided. The child should not be asked to “speak well” or “repeat the sentence” in an embarrassing way. The child should not be interrupted, and adults should not complete words or sentences on the child’s behalf. Such behavior may increase tension and make the child more aware of the problem.
- A safe and supportive classroom environment should be created. The child should not be surprised by being asked to read in front of the class. The child should not be forced to speak before the group without preparation. The teacher should give the child enough time to answer. Mockery or

imitation by classmates should also be prevented.

- The child's self-confidence should be strengthened at home and at school. Stuttering may affect the child's psychological and social development. A field study on stuttering stressed the importance of providing recommendations for parents and teachers. This helps support this group and raise their morale. It also helps them overcome difficulties and prevents the problem from developing into harmful psychological disorders.
- A comprehensive therapeutic program should be adopted. It should not be limited to speech training alone. It should combine breathing regulation, slow speech, rhythmic speech, shadowing, behavioral reinforcement, anxiety reduction, and family and school counseling.
- The family should be involved in the therapeutic plan. The family is the child's first communication environment. Parents should be trained to listen calmly, avoid interruption, avoid hurtful correction, and set aside daily time for calm dialogue with the child.
- Organized cooperation should be established among the family, the teacher, and the speech-language specialist. Treatment cannot succeed if it remains limited to the clinical session. One study indicates the need for harmony, connection, and joint work between the family and the therapist in order to achieve better results. It also stresses the importance of a meeting that brings together the parents, teacher, and therapist to discuss the child's problem and develop a shared program.
- Oral participation in the classroom should be treated as an important therapeutic indicator. It is not enough to measure only the number of repetitions or blocks. The child's ability to answer, read, initiate speech, and communicate with classmates should also be monitored.
- The effect of stuttering on academic achievement should be reduced through adaptation of some learning situations. For example, the child may be allowed to read in small groups. The child may also be given more time to answer. Sudden speaking situations should be reduced. Stuttering may affect academic achievement. Bassi and Debba stressed the importance of raising awareness among parents, families, and educators. They also emphasized the need for flexibility when dealing with children who have speech disorders, especially stuttering, because of its effect on school performance.
- The psychological and emotional aspects of the child who stutters should be considered. Anxiety, fear, frustration, and feelings of inferiority may increase stuttering severity. Therefore, play, drawing, free expression, and self-confidence activities should be included in the therapeutic program.
- Children who live in bilingual or multilingual environments should be followed up carefully. They should not be prevented from learning languages. Rather, language exposure should be organized. The child should not be placed under linguistic pressure that

exceeds his or her ability, especially before the first language becomes stable.

- Pre-test, post-test, and follow-up assessment should be conducted for the therapeutic program. Evaluation should not depend on personal impressions only. Stuttering severity should be measured before treatment, after treatment, and after a follow-up period. This helps determine whether the improvement is stable.
- Speech-language units or support cells should be established within educational institutions. At the very least, a clear referral mechanism should be created between schools and speech-language specialists. This would prevent children who stutter from remaining without follow-up.
- Awareness campaigns should be organized for parents and teachers. These campaigns should correct false beliefs about stuttering. Such beliefs include linking stuttering to intellectual weakness, poor upbringing, or shyness alone.
- Field research on stuttering should be encouraged. This is especially important for quasi-experimental studies that test the effectiveness of therapeutic programs. It is also important for studies that examine the relationship between stuttering and academic achievement, anxiety, self-confidence, and bilingualism.

15. Conclusion:

The study concluded that childhood stuttering is a disorder of speech fluency. It goes beyond the repetition of sounds or syllables. It is linked to self-confidence, school participation, family and teacher responses, and the linguistic environment in which the child lives. The literature also showed that stuttering is a multifactorial disorder. It may involve heredity, neurological factors, psychological pressure, bilingualism, and the way the surrounding environment responds to the child.

The study proposed a ten-week speech-language, psychological, and educational program. The program is based on accurate diagnosis, breathing regulation, rhythmic speech, shadowing, behavioral reinforcement, family counseling, and school-based intervention. The study confirms that the success of stuttering treatment does not depend on the child alone. It also depends on the environment in which the child speaks. When the child finds a listening family, an understanding teacher, and a specialist who considers the uniqueness of the case, the child becomes more able to speak with confidence. This may occur even if some signs of disfluency remain.

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