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Stuttering
Health care quality, access, and evaluation
Effectiveness

Descritores

Gagueira
Qualidade do cuidados de saúde,
acesso e avaliação
Efetividade

Intensive non-avoidance group therapy with stutterer adults: preliminary results

Terapia intensiva de enfrentamento em grupo com adultos gagos: resultados preliminares

ABSTRACT

Purpose: The purpose of the present study was to evaluate and document the use and efficacy of intensive non-avoidance group treatment for Bulgarian adults who stutter (AWS), to specify that changes are adopted in different speech situations (in the stabilization phase), and to demonstrate that changes are maintained after intensive therapy. **Methods:** Participants were AWS (n=15, 12 males) with an average age of 25.2 years) Bulgarian native-speakers. Twelve participants were University students and three were clients with tertiary education in different areas. All participants were enrolled in First (overall effect) and Second (interim effect) Stages of Intensive Non-Avoidance Treatment for Stuttering. Van Riper's stuttering modification therapy approach was employed; the latter considers a non-avoidance treatment for stuttering. The treatment was conducted in participants' native Bulgarian language. **Results:** AWS, as a group (n=15), significantly decreased the number of stuttered utterances after intensive treatment; findings were consistent for participants with moderate as well as severe stuttering. Likewise, there was a significant decrease in duration (in seconds) of disfluencies after treatment; findings were consistent for participants with moderate as well as severe stuttering. Eighty percent of AWS used cancellation immediately and six months after treatment, 65% mastered preparatory sets immediately and six months after treatment, 35% exhibited pull-outs immediately after treatment and 55%, six months post-treatment. **Conclusion:** These preliminary findings were taken to suggest that intensive non-avoidance treatment for stuttering can be successfully employed with Bulgarian adults who stutter. Special focus was on the positive fluency changes that occurred during the course of therapy regarding the duration of disfluencies in seconds, and index of disfluencies.

RESUMO

Objetivo: O objetivo deste estudo foi avaliar e documentar o uso e a eficácia do tratamento intensivo de enfrentamento em grupo em adultos com gagueira (ACG) búlgaros, especificar quais mudanças são adotadas em diferentes situações de fala (em fase de estabilização), e demonstrar que as mudanças são mantidas após a terapia intensiva. **Métodos:** Os participantes eram ACG (n = 15, 12 do sexo masculino, com idade média de 25,2 anos), falantes nativos de búlgaro. Doze participantes eram estudantes universitários e três tinham ensino superior em diferentes áreas. Todos os participantes foram inscritos no Primeiro (efeito total) e Segundo (efeito provisório) Estágios do Tratamento Intensivo de Enfrentamento para Gagueira. A abordagem empregada foi a terapia de modificação da gagueira de Van Riper, considerado um tratamento de enfrentamento para a gagueira. O tratamento foi realizado em búlgaro, língua nativa dos participantes. **Resultados:** Como um grupo, os ACG (n = 15) apresentaram uma diminuição significativa no número de elocuições gaguejadas após tratamento intensivo. Estes resultados foram consistentes para os participantes com gagueira moderada e grave. Da mesma forma, houve uma diminuição significativa na duração (em segundos) das rupturas após o tratamento, sendo estes resultados também consistentes para os participantes com gagueira moderada e grave. Oitenta por cento dos ACG utilizaram o cancelamento imediatamente e seis meses após o tratamento, 65% dominaram os movimentos preparatórios imediatamente e seis meses após o tratamento, 35% apresentaram uso da técnica do *pull-out* imediatamente após o tratamento, e 55% o apresentaram seis meses após o tratamento. **Conclusão:** Estes resultados preliminares sugerem que o tratamento intensivo de enfrentamento pode ser empregado com sucesso em adultos com gagueira búlgaros. Destaca-se, em especial, as mudanças positivas que ocorreram na fluência durante o curso da terapia em relação à duração das rupturas em segundos, e o índice de rupturas.

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INTRODUCTION

Over the past 25 years, several publications relating to treatment effectiveness for stuttering have been widely-studied by Bulgarian speech-language pathologists⁽¹⁻⁴⁾. In particular, Cordes and Ingham's⁽³⁾ described a set of measurements and designed standards for stuttering treatment research in different age groups, including adults. More recently, in Bulgaria⁽⁵⁾ special attention has been paid to evidence-based practice, including the measurement of disfluencies in attempts to evaluate the efficacy and effectiveness of treatment for people who stutter.

Consistent with these international attempts to improve treatment for people who stutter, Bulgarian logopedists (i.e., speech-language pathologists) have also begun to adopt new paradigms in their professional practice. Such adoption has been focused on better understanding as well as application of existing international standards for evidence-based practice⁽⁶⁻⁸⁾. For example, the South-West University (SWU) intensive program was developed and carried out within the framework of the Evidence-Based Practice project sponsored by the National Science Fund 2009–2012. As part of that initiative, by Bulgarian logopedists, the present study was conducted. Specifically, the present researcher analyzed preliminary results obtained during the First Stage of the project (October 2010 — a five-day intensive program) followed by a Second Stage (ninemonth stabilization period from November 2010 to July 2011). The approach focused on objectively-determined changes in adult stutters' stuttering that resulted from a non-avoidance treatment program⁽⁹⁾. The need for such a study is witnessed by the fact that the Bulgarian health system does not provide logopedic treatment for adults who stutter^(5,10,11). To this researcher knowledge, the present non-avoidance therapy intensive course was the first one in Bulgaria conducted for adults with stuttering.

Therefore, it was the purpose of the present study to (1) measure and document the efficacy of the intensive non-avoidance group therapy for adults who stutter (AWS), (2) describe changes in stuttering behaviour (in the stabilization phase), and (3) investigate if changes were maintained post therapy.

METHODS

All types of measurement in the present study are presented in Table 1.

Table 1. Components providing comprehensive view of stuttering and guiding the documentation of treatment results in the present study

Component for measurement in the present study	Applied effectiveness instrument in the present study
Evaluation and assessment of the fluency disorders	Stuttering Severity Instrument – SSI ⁽¹²⁾
Assessment of the reactions related to stuttering	Stuttering Self-Rating of Reactions to Speech Situations ⁽¹³⁾
Evaluation of the stutters' self-examination	Wright & Ayer Stuttering Self-rating Profile ^(14,15)

The present preliminary study includes measurements of:

- 1) Changes in speech fluency before and after the intensive therapy (IT):

- a) duration of disfluencies in seconds (DDs) – the duration, in seconds, of the three longest stuttering events was measured;
- b) index of disfluencies (ID) – the number of stuttering events was divided by the number of syllables. Each speaking sample contained at least between 300–400 syllables for more reliable results.

In the present study, we assessed treatment results using stuttering frequency and scores by application of the Stuttering Severity Instrument for Adults, Third Edition (SSI-3)⁽¹²⁾.

- 2) Wright & Ayer Stuttering Self-rating Profile (WASSP)^(14,15). Useful WASSP profile information was collected from the logopedic files about how the participants used non-avoidance approach and modification techniques and how their affective/cognitive reactions to stuttering change. In this article, only group results are presented.
- 3) The clients' use of modification techniques at the end of IT from the perspective of the speech-language pathologist.

Subjects

Fifteen AWS (average age of 25.2 years, 12 males) served as participants for this study. All subjects participated in the first and second phases (to be explained) of a three-phase treatment project. Four participants exhibited severe, six moderate and five exhibited very severe stuttering (Table 2). The male–female ratio was 4:1.

Table 2. Stuttering Severity Instrument for Adults, Third Edition results from stuttering assessment before intensive therapy – percentile and equivalents

Client	Gender	Initial SSI score (percentage)	Initial severity
S1	F	27 (60)	Moderate
S2	M	25 (41)	Moderate
S3	M	37 (96)	Very severe
S4	M	46 (99)	Very severe
S5	M	46 (99)	Very severe
S6	F	27 (60)	Moderate
S7	M	25 (41)	Moderate
S8	M	46 (99)	Very severe
S9	M	34 (88)	Severe
S10	M	35 (89)	Severe
S11	F	28 (61)	Moderate
S12	M	31 (77)	Moderate
S13	M	46 (99)	Very severe
S14	M	35 (89)	Severe
S15	M	34 (88)	Severe

Caption: F = female; M = male; SSI = Stuttering Severity Instrument

Educational and social profile of the clients involved in the treatment

Twelve of the participants were students in different Bulgarian universities: South-West University, Technical University of Sofia, and University of National and World Economy, Sofia. The remaining three PWS were clients with tertiary education in management, economics, computer sciences and technologies.

All of them were fluent in English and Bulgarian, and the therapy was performed in their native language, Bulgarian.

Inclusion criteria

To be included as a participant in the present study, individuals had to: (1) be adults older than age 20, (2) participate previously in therapy, and (3) exhibit a range of stuttering severities to ensure a representative sample.

Data collection

The data collection included review of the client's files (assessment reports and progress reports). The Yarus^(16,17) components providing comprehensive view of stuttering and guiding the documentation of treatment results were accepted as the official standards in the study's framework (Table 1).

Three types of files were recorded during the initial diagnostic evaluation, at the onset of treatment, and at the end of the five-day intensive program. The preliminary results after the nine-month complete stabilization period are included in this study.

Therapy approach

The therapy approach was late Van Riper's⁽⁹⁾ stuttering modification therapy approach, which constitutes a non-avoidance approach.

Intensive program description (Table 3)

- Day one: information is given concerning the goals of the therapy program based on Van Riper's stuttering explanations. Goals of the therapy program include:
 - to learn how to handle interruptions in the flow of speech from tensed and struggled blocks to a slow, easy and soft stuttering;
 - to reduce negative feelings and desensitize the emotions due to reactions from the environment;
 - to learn new courses of action in relation to speech and communication;
 - to learn how to be your own stuttering therapist and to be active and responsible for changing your stuttering behaviour to more fluent stuttering;
 - to improve the understanding of each individual client's stuttering through observation of video recordings.

Table 3. Therapy structure

IT	Stabilization phase after IT – 9 months	Follow-up data
5 days	9 months after IT	1 year and 6 months
October 2010	November 2010–July 2011 – 9 months	September 2011–December 2012
First stage of the study	Second stage	Third stage
Overall effect of the IT	Interim effect of the therapy	Overall effect of the therapy

*The first two columns indicate reported data in the present study

Caption: IT = intensive therapy

Motivation for this therapeutic approach is a very important part of the therapy, and there is a central focus on motivation throughout the therapy. In the identification stage, the client and the clinician identify all the behaviours, feelings, and attitudes associated with the person's stuttering. Observation of prolongations, repetitions, blocks, avoiding behaviours etc. is recorded.

- Day two: desensitization is conducted in three stages. First, the client engages in activities to help him/her learn to accept that he/she stutters. Next, the client has to hold or continue the stutter; the goal is to make the client less emotional and more tolerant of the stuttering. The last part of desensitization is when the client voluntarily stutters. This helps the client remain calm when a stutter happens. Voluntary stuttering is when the person stutters on purpose. By choosing when and how to stutter, the individual begins to gain control over the stuttering, and the fear and anxiety begin to diminish.
- Day three: variation/modification is followed by approximation with the three strategies for altering stuttering: cancellation, pull-out, and preparatory set. Stuttering modification emphasizes how to change difficult stuttering into easier and more manageable stuttering. Clients can start with selecting one of their own ways of stuttering, and later modify their stuttering behaviour through:
 - cancellation, in which the person stutters all the way through a word, stops immediately, and then repeats the word, stuttered in a different way;
 - pull-out, in which the person gains control over a moment of stuttering while it is happening and smoothes it out; and
 - preparatory sets, in which the person prepares for a moment of stuttering before it happens, starts it gently and glides through it smoothly. Strategies such as bouncing, sliding, easy onset, and light contacts represent variations on these three techniques.
- Day four: assimilation involves training in the new fluency modification techniques and modelling different speech situations. This is an essential part of the therapy.
- Day five: stabilization includes the transfer of the new speech techniques into real everyday situations (under a speech-language pathologist's supervision). The goal of stabilization is to change the client's view of being a stutterer to a person who is fluent. Stuttering reassessments, as well as final observations and directions for future intervention are discussed. The stabilization part of the therapy has to be continued over a long period in order to ensure maintenance of the new stuttering behaviours.

Procedure: treatment environment

The therapy sessions were conducted within the Stuttering Research Centre at South-West University in Blagoevgrad, Bulgaria (<http://usrc.swu.bg>). The transfer practice took place in nearby public settings such as shopping malls and service centres.

Group and individual therapy was offered daily for six hours (10 a.m. – 1 p.m. and 2 p.m. – 5 p.m.). Clients were assigned

numerous speaking tasks during the mornings, including telephone calls, role playing, planning for exercising in the city, ask for a book in the bookstore etc.

The stabilization phase was also conducted at the University Stuttering Research Centre, every second Saturdays (11 a.m.–4 p.m). Speech situations were determined by the Darley and Spriesterbach⁽¹³⁾ assessment. The clients were involved in the therapy process by developing a hierarchy of situation, listed from the easiest to the most difficult situations for the individual client.

Procedure: clinician background

The intensive program was directed by Steen Fibiger, who had received training in administration of the non-avoidance approach in Sweden and Denmark. He has also served as a consultant for the University Stuttering Research Centre in Bulgaria during the last seven years. The other three Bulgarian clinicians involved in the IT course and stabilization phase were the author of the article (full professor in Public Health, also trained at Northwestern University's stuttering modification approach workshop), and two assistant professors in Logopedics (Miglena Simonska, PhD and Anna Andreeva).

The present non-avoidance therapy intensive course was the first one in the country conducted for adults (PWS).

Measurement reliability

All of the 15 participants were re-assessed by two trained speech-language pathologists concerning ID and DDs before

and after IT, as well as after nine-month stabilization phase. Both of them reported "measurement agreement" — 95% agreement index.

Dependent measures

After the IT course and each of the stabilization phase sessions, a five-minute video-recorded spontaneous speech sample was obtained from each of the participants. Those final IT recordings were used for calculating the final SSI point and severity.

Statistics

The data obtained were calculated using (1) the Wilcoxon signed-ranks test for hypotheses testing, and (2) the Mann-Whitney rank-sum test. For the statistics, the 15 subjects were divided into two main groups: Severe (Very severe and Severe), and Moderate.

RESULTS

Changes in speech fluency

Duration of disfluencies in seconds (Figure 1)

The Wilcoxon signed-ranks test confirmed that there was a reduction of DDs after IT ($Z=3.408$; $p<0.001$) except for the first month of IT ($Z=1.877$; $p>0.061$).

Results indicate that the overall effect of a sustained reduction in DDs was achieved ($p<0.001$) – there was a significant

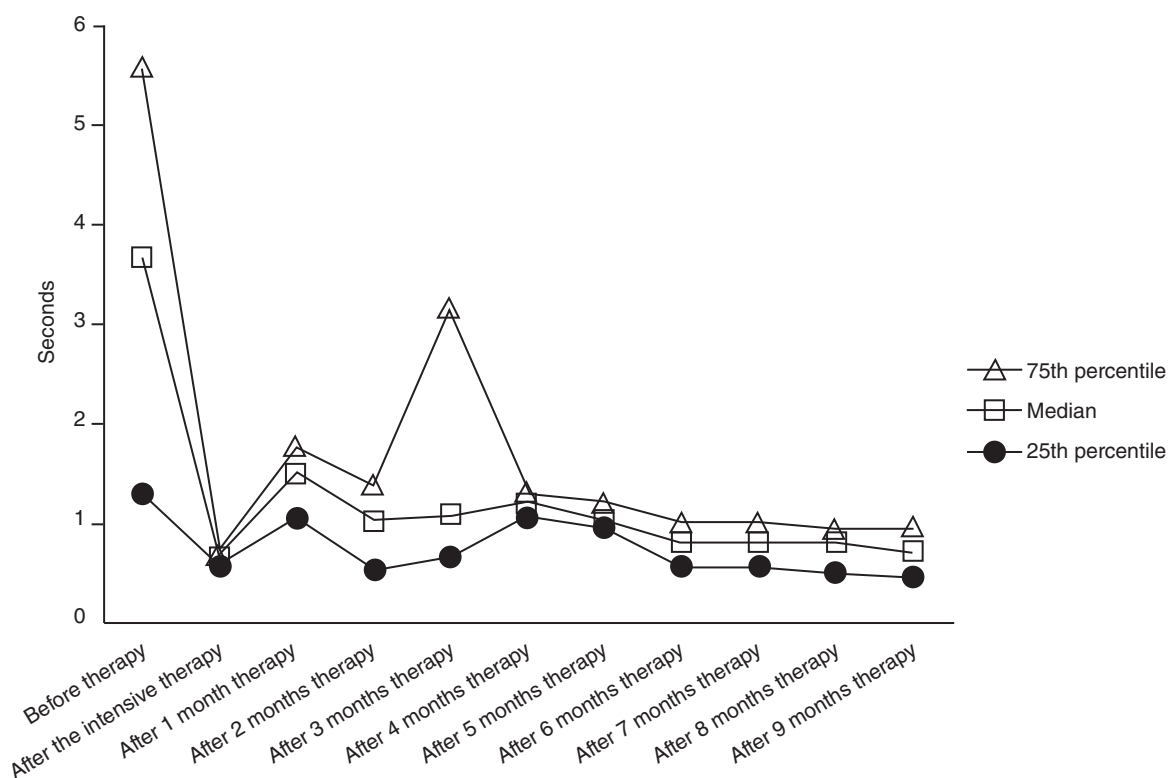


Figure 1. Duration of disfluencies in seconds at the beginning *versus* end of the intensive therapy, and nine months after the intensive therapy for all subjects ($n=15$)

reduction in the average duration of fluency disruptions. Our explanation is that, perhaps a month after the IT, PWS have not yet mastered the three major techniques underlying the stuttering modification approach. The variance coefficient for some of the cases takes on a very high value, 109.74, which points out that some of the individual clients also encountered difficulties in mastering the techniques during the first month after the IT (S3, S8, and S13).

The study of the interim effect on DDs shows positive results and there is a statistically significant reduction of DDs with respect to: after IT and one month after IT ($Z=3.408$; $p<0.001$); two months after ($Z=2.272$; $p<0.023$); three months after ($Z=2.528$; $p<0.011$); four months after ($Z=3.181$; $p<0.001$); five months after ($Z=2.984$; $p<0.003$); seven months after ($Z=2.984$; $p<0.003$); eight months after ($Z=3.181$; $p<0.001$), and nine months after ($Z=3.181$; $p<0.001$). Thus, the values for DDs are permanently reduced except for the sixth month after IT ($Z=1.292$; $p>0.196$). This slow change in sixth months can be explained by the decision to employ stuttering modification approaches in the therapy. It is difficult to maintain a long lasting motivation for therapy and there is a gradual acquisition of skills and progress for being oneself's stuttering therapist.

In the group of adults with moderate stuttering, there has been a significant reduction of DDs after IT ($Z=2.201$; $p<0.028$) and nine months thereafter ($Z=2.201$; $p<0.028$) according to an application of Mann-Whitney rank-sum test. The same trend was observed in the group of clients with severe stuttering.

There was a significant reduction of DDs after the IT and nine months later ($Z=2.668$; $p<0.008$). An analysis of the results shows that DDs was not influenced by the severity of stuttering in both groups.

This gives us grounds to assume that the stuttering modification approach is suitable for individuals with both moderate and severe stuttering.

Index of disfluencies (Figure 2)

The Wilcoxon signed-ranks test also confirmed the data that the overall effect indicates significant fluency changes. There was a positive progression over time in ID with the exception of the third month after IT ($Z=1.136$; $p>0.256$).

Significant changes regarding ID reduction were found after IT ($Z=3.408$; $p<0.001$), after the first month ($Z=3.295$; $p<0.001$), after the second month ($Z=2.556$; $p<0.011$), after the fourth month ($Z=3.351$; $p<0.001$), after the fifth month ($Z=3.408$; $p<0.001$), after the sixth month ($Z=3.408$; $p<0.001$), after the seventh month ($Z=3.351$; $p<0.001$), after the eighth month ($Z=3.408$; $p<0.001$), and after the ninth month ($Z=3.295$; $p<0.001$).

ID was also examined in groups, according to the severity of impairment in PWS (Moderate and Severe). Because of the smaller number of participants in these groups, the Mann-Whitney U-test was used for these comparisons. We assume again that the severity of stuttering does not affect the reduction of the impaired fluency index. In the group of individuals with

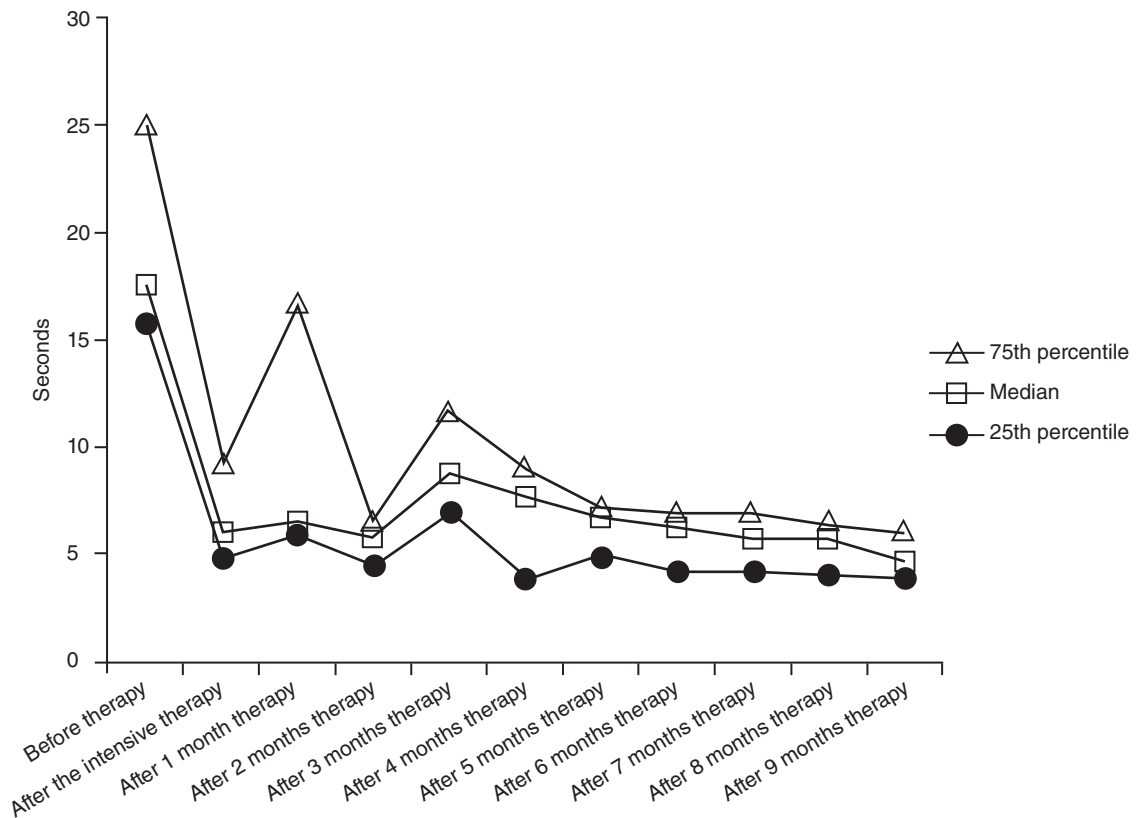


Figure 2. Index of disfluencies at the beginning versus end of the intensive therapy, and nine months after the intensive therapy for all subjects (n=15)

moderate stuttering, the differences in response before and nine months after therapy was significant ($Z=2.201$; $p<0.028$). The same tendency was observed in persons with severe stuttering ($Z=2.666$; $p<0.008$). For both groups, the index of impaired fluency decreased significantly — this indicated that both groups responded equally well to therapy.

DISCUSSION

Wright & Ayer Stuttering Self-rating Profile application

The set of fifth subscale of the WASSP revealed considerable positive changes in response to course participation in 12 of the 15 participants immediately after the intensive course. A small positive change after therapy was observed in only three PWS (S3, S8, and S13). Between ten and 12 of those clients, WASSP profile parameters were not changed after the intensive course. We attribute those participants' limited progress to several factors, such as poor awareness of their stuttering behaviours, significant levels of avoidance, and low initial motivation. We may explain this fact by the inability of the clients to admit the severity of their stuttering, as well as their feelings and avoidance at the beginning of the course. Furthermore, it was difficult to obtain their motivation for the therapy, although we believe that, after the therapy, they were able to rate the profile elements more realistically (see the completed profile for client S3 in Figure 3). He reports positive change and awareness of the parameters: frequency of stutters; physical struggle during stuttering; uncontrollable stutters; negative thoughts before speaking; embarrassment; fear; anger; avoidance of situations and talking about stuttering with others; socially and educationally disadvantage due to stuttering. The initial completion of his WASSP profile showed that the client had high expectations "to reduce and to eliminate completely my stuttering". In the final profile, he wrote:

During this block I understood that I talk faster than I thought. During the recorded visual identification, I saw that I do some facial movements, especially blinking with my eyes. The modification techniques we worked on were not very useful to me because I consider myself a less severe stuttering person. The modification technique, which probably may be useful for me, is the pull-out. I don't use it very often but I focus on working with the pull-out technique it might work out for me.

The rest of the clients reported a visible change of progress and reduction of scores for all five subscales in WASSP. Their explanatory comments in the last section of their profiles reveal they had developed realistic expectations for the stuttering outcomes.

Our overall experience shows that, in order to stabilize the new stuttering behaviours acquired during therapy, continued therapy and support for a longer period are necessary. Such a longer term of support allows stabilization to continue and helps manage relapses to the old stuttering behaviours.

The clients' use of modification techniques at the end of intensive therapy from the perspective of the speech-language pathologist

Figure 4 illustrates the percentages of clients' ($n=15$) ability to use the three main modification techniques (cancellation, pull-out and preparatory sets) in different speech situations (conversation) at the end of the IT and after the six-month stabilization phase. This evaluation was made by SLPs who judged whether a client was able to use the three modification techniques practiced during the IT. The data were obtained by seven clinical reports per person — one after the IT and six for each of the following six months (i.e., a total of 105 reports for all 15 participants). Our SLPs used the Yarus⁽¹⁸⁾ suggested criterion level of modification in at least 80% of the opportunities during structured speech situations in the clinical Speech-Therapy room and outside the clinic.

Cancellation

Eighty per cent of our clients were able to use the cancellation modifications immediately after the IT and 80%, after six months.

Pull-out

Approximately 35% of the clients showed pull-out modifications after the IT and 55% after six months.

Preparatory set

Sixty-five per cent mastered preparatory sets after the IT and 70%, after six months.

The results show that, after the IT, the modification techniques have been learned and successfully practiced in the six-month stabilization phase but not yet sufficiently well.

The present study resulted in four main findings. First, there was a significant improvement in stuttering frequency associated with this non-avoidance treatment program, both immediately after treatment and nine months post-treatment. Second, there was a significant reduction of DDs after this treatment program as well as six months later. Third, the positive changes regarding ID were obtained. Fourth, of the three modification techniques, clients were most successful with cancellations, then preparatory sets and least successful with pull-outs. Only three of the clients have been unsuccessful in the long modification process.

In time, some findings are presented and application of new modification techniques during the IT and in the post therapy period are briefly discussed. Three of the stutterers (S3, S8, and S13) found it strange and were confused by the idea that this particular fluency disorder can be taught. The therapeutic team tried to encourage them to abandon the stereotypical models of behavior: primarily frustration, confusion, and shame. Unfortunately, in those subjects, a reluctance to change was noticed. The modification process started and went slowly, with recommendations for modest and slight changes in the way of living. The basic goal of the modification phase was to achieve and develop variability in cancellation, pull-out and preparatory

WASSP rating sheet		None						Very severe
		1	2	3	4	5	6	7
Stuttering behaviors	Frequency of stutters	1	2	3				
		2						
	Physical struggle during stutters	1	2	3				
		2						
	Duration of stutters	1	2					
		2						
	Uncontrollable stutters	1	2					
		2						
	Urgency/fast speech rate	1	2	3	4			
		2						
Associated facial/body movements	1	2						
	2							
General level of physical tension	1	2						
	2							
Loss of eye contact	1	2						
	2							
Other	1	2						
	2							
Thoughts	Negative thoughts before speaking	1	2	3				
		2						
	Negative thoughts during speaking	1	2					
	2							
Negative thoughts after speaking	1	2						
	2							
		1	2	3				
Feelings	Frustration	1	2	3				
		2						
	Embarrassment	1	2	3	4			
		2						
	Fear	1	2	3				
		2						
	Anger	1	2	3	4			
	2							
Helplessness	1	2						
	2							
	Other	1	2					
	2							
Avoidance	Of words	1	2	3	4	5		
		2						
	Of situations	1	2	3	4			
		2						
	Of talking about stuttering with others	1	2					
	2							
Disadvantage	Of admitting your problem to yourself	1	2					
		2						
	At home	1	2					
		2						
Socially	1	2	3					
		2						
	Educationally	1	2	3	4			
		2						
At work	1	2	3					
	2							

In the third column — 1 = the first WASSP evaluation; 2 = the second WASSP evaluation (after the intensive therapy)

Figure 3. Wright & Ayer Stuttering Self-rating Profile Summary of the subject S3

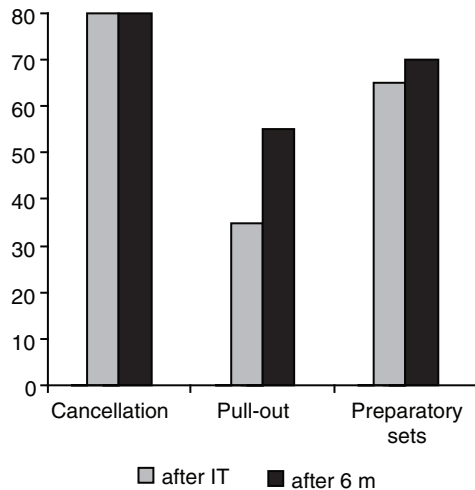


Figure 4. Percentages of subjects ($n=15$) judged by speech-language pathologists to show use of the three main modification techniques in different speech situations after intensive therapy (IT) and six months (m) after the IT

set training. The SLPs team helped very strongly the stuttering shaping behavior through cancellation technique. For S3, S8, and S13, cancelling was not simple and easy to learn according to the new response to the specific stimuli related with the abnormal stuttering response. It was manifested during the stuttering moments.

Modification of stuttering during pull-outs occurrence was also difficult to be realized. In the IT modification phase and nine months later, the three subjects tried to stimulate themselves in any attempt to change the stereotyped stuttering model before the speech element (word) is spoken. It was not easy to transfer this model into the normal fluent speech (frequently reported) in the post-therapy stabilization meetings.

For the team, it was interesting to describe the strong stuttering fixation, including sounds and syllables repetitions and difficulties. For subjects S3 and S8, it was difficult to explore and implement the new timing way of transition slight movements. For S13, this sub goal was hard to understand and exercise for a long period (even long prolongations in the stuttering moments). The severity of stuttering including atypical and abnormal articulatory posture or tremor observed in some sounds pronunciation hampered the slight pull-out application. They found difficulties in continuing and changing the initial behavior model during the overall nine-month post-therapy period. They reported lack of success in completing pull-out exercises in their daily tasks “portions”.

The abnormal preparatory sets were reported by the same three subjects. As Riper⁽⁹⁾ gave brief explanation many years ago, “the new slow-motion form of fluent stuttering that had been learned through the cancellation and pull-out techniques appear in their speech” (p. 338). Unfortunately, the expected new way of attempting frustrated words has not been learned. For them, it was impossible to reject their old abnormal stereotype to use hard contacts resulting in observed disintegration between timing and phonation. The motor transition was compromised.

One possible explanation is the previous therapy experience based on the fluency shaping model application in Bulgaria. They have been trained for years to prolong the first sound of the word. Implementation of the proportional model of speech elements prolongations failed. After exploration of the talking, formulation and organization of the motor process in stuttering, it could be possible to conclude that this requires a high level of awareness and self regulation.

CONCLUSIONS

The preliminary results of this study represent only one initial step in evaluating the outcomes obtained by intensive group therapy for adults in Bulgaria. The present results are relevant only with respect to an intensive group treatment format.

The changes in speech fluency before and after the IT and in the stabilization phase (first nine months) were obtained regarding the duration and index of disfluency.

Also concerning duration of disfluencies, a significant reduction of duration after the IT and nine months later was observed for both groups: the group with severe stuttering and the group with moderate stuttering.

Significant changes in the index of disfluencies were found in comparisons before and after IT. In the period of the nine-month stabilization phase, these positive changes were maintained.

We assume from the mentioned results that the stuttering non-avoidance modification approach is suitable for adults with both moderate and severe stuttering.

In sum, results from this study demonstrate that Van Riper’s non-avoidance approach of stuttering was successfully applied for the Bulgarian conditions and provided a modern and comprehensive treatment for the stuttering disorder. The existing Bulgarian experience over the last 40 years put an accent on the SLP leading role in the therapy process. With the present study of the Riper’s non-avoidance approach, a new “spirit” and view to the stuttering therapy process are suggested.

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