

## **Intensive Non-avoidance Group Therapy with Adults Stutterers: Experience from Bulgaria**

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In Bulgaria numerous approaches are used to treat stuttering, yet there is a paucity of empirically based research concerning stuttering treatment outcomes. “Evidence-based” treatments, built on well-researched and scientifically validated techniques, remain relatively rare in the field of stuttering and are usually limited to behavioral and fluency shaping approaches (Boberg & Kully, 1994; Boberg & Kully, 1985; Craig et al., 1996; R. J. Ingham, 2003; Onslow, 2003; Bothe, 2004). With increasing emphasis being placed on evidence-based practices in clinical speech language pathology, an objective evaluation of the effectiveness of specific stuttering treatment approaches in Bulgaria is imperative (Георгиева, 2005). The new paradigm of Evidence-Based Practice (EBP) is unknown to the majority of Bulgarian logopedists (Георгиева, 2002; Георгиева, 2005; Онслоу, 2004). EBP is a popular concept in other European Union countries, as well as in the USA, Australia, and Canada, and is regarded as fundamental to logopedics practice (Sacket, Rosenberg, Muir-Gray, Haynes, & Richardson, 1996; Ingham, 2003; Ingham, & Cordes, 1997). However, appraising EBP is often controversial and difficult (Langevin & Kully, 2003; Kully & Langevin, 2005).

Because of the lack of EBP guidelines in Bulgaria in relation to stuttering, it is difficult to provide:

- (a) The maximum potential benefits for clients
- (b) Optimum clinical education and training for logopedics students and practicing speech language pathologists
- (c) More cost-effective practice
- (d) Knowledge about difficult or unusual cases in fluency disorders
- (e) Better treatment for each individual stutterer.

The failure to make clinical practice evidence-based means Bulgarian logopedists:

- (a) May fail to recognize the needs, abilities, values, preferences, and interests of individuals and their families to whom they provide clinical services

(b) May not acquire and maintain the knowledge and skills necessary to provide high quality professional services, including knowledge and skills related to EBP

(c) May improperly evaluate prevention, screening, diagnostic procedures, protocols, and other measures used to identify maximally informative and cost-effective diagnostic and screening tools

(d) May fail to evaluate the efficacy, effectiveness, and efficiency of clinical protocols for prevention, treatment, and enhancement using criteria recognized in the EBP literature in the leading countries in that area.

Many publications, both in Bulgaria and abroad, point out that the Bulgarian health system does not offer any kind of logopedics therapy for adults who stutter (Георгиева, 2000; Georgieva, 1995; Fibiger, Peters, Neumann, 2006; Fibiger, Peters, Neumann, Biain de Touzet, 2008).

## **Methods**

### **Participants**

Seven stutterers (6 males and 1 female) were recruited from two consecutive sessions of the group intensive therapy offered at The South West University Stuttering Research Center in Blagoevgrad. These 7 individuals were all of the participants enrolled in the 6 days intensive sessions. All participants volunteered to be part of the study and provided written informed consent. The 7 participants were all native Bulgarian speakers as well as being fluent in English. They came from three different Bulgarian cities: Sofia, Blagoevgrad, and Varna. The mean participant age was 22.8 years (range = 14–29). All the participants had experienced fluency shaping therapy prior to the current intensive stuttering modification therapy (averaging 12.6 years prior to the present study; range = 4–23). One participant had stuttering modification therapy (1 year prior to participation in the SWU course).

### **Assessments**

Stuttering is a multidimensional disorder, and thus a multidimensional approach is required to appropriately evaluate treatment outcomes. The primary goal of this study was to assess treatment outcomes using a variety of measurements of stuttering, including: (a) overt stuttering measurements (stuttering frequency and scores on the Stuttering Severity Instrument for Children and Adults, Third Edition [SSI-3]; Riley, 1994), and (b) client perceived stuttering measures (WASSP), (Ayre & Wright, 2000). For

example, evaluation of stuttering severity in was based on stuttering frequency during oral reading and spontaneous speaking.

The series mentioned above consists of two fluency and affective-based measurements, which were assessed before treatment and immediately after treatment.

**Table 1. SSI – 3 results**

S1	Atanas	point 39 (99%)	Very severe
S2	Niki	point 22 (52%)	Moderate
S3	Deni	point 26 (42%)	Moderate
S4	Ivan	point 29 (59%)	Moderate
S5	Vesselin	point 43 (99%)	Very severe
S6	Alexander	point 33 (80%)	Severe
S7	Galja	point 23 (30%)	Mild

### Description of WASSP

WASSP reflects the belief that success in stuttering therapy cannot be measured by a reduction of dysfluency alone, but needs to consider the changes in a range of factors. Specifically, it measures changes in the four key areas of stuttering:

- Behavior
- Cognition
- Affect
- Participation.

WASSP reflects the social dimensions of stuttering and is related to the World Health Organization’s International Classification of Impairments, Disability and Handicap (ICIDH; WHO; 1980), (Ayre & Wright, 2009). One of the first studies on the relevance of the ICF for dysfluent people was done by Yaruss, 2007. The ICF is becoming increasingly important as a framework for assessing and describing different types of communication disorders.

WASSP has been used in 18 countries (including Bulgaria) located in six continents.

### **Audio/Video-Recording Procedure and Speech Material**

Speaking samples were collected immediately pre and post treatment. Each participant was audio- and video-recorded during an oral reading task (“The SWU history passage”) and during a spontaneous monologue-speaking task.

For the spontaneous speaking task, participants were informed that they should speak for at least 4 minutes at a normal rate and loudness. Topics could relate to work and their interests. A minimum of 200 words were collected for each participant. The audio and video signals were collected using a Sony digital video camera. The camera was situated approximately 2.5 meters from each participant and positioned to obtain a clear video image.

### **Speech Sample Analysis**

The video recordings of each participant's speech were later viewed on a Sony TV monitor. To improve analysis accuracy and reliability, a written transcript of the monologue-speaking task was created for all participants. Whole word repetitions and interjections were transcribed, but otherwise no coding of stuttering type was made on the original transcripts. A second clinician (Andreeva) counted the actual number of stuttered words by marking them on the monologue transcripts and copies of the reading passage. Frequency of stuttering was calculated for each sample as the number of words stuttered divided by the total number of words spoken. Words were coded as stuttered if they contained any type of repeated movement (whole syllable repetitions, incomplete syllable repetitions, or multisyllable unit repetitions) or any type of fixed articulatory posture (with or without audible airflow). Each word was coded as stuttered only once, regardless of the number of different types of stuttering present within the word. Interjections such as "ah" or "um" were not counted or analyzed. Secondary features and average durations of the three longest moments of stuttering were calculated using the SSI-3 guidelines (Riley, 1994).

### **Therapy approach**

The design of the therapy program was kindly elaborated by Dr. Fibiger and was based on the application of the Van Riper's (1973) stuttering modification approach. Usually, the Bulgarian logopedists prefer to apply fluency shaping approach and are much more familiar with it.

The duration of the intensive non-avoidance stuttering therapy course was six days. Therapy was conducted within the Stuttering Research center at South West University in Blagoevgrad, and transfer practice took place in nearby public settings such as shopping malls. Group and individual therapy was offered for six hours (10-13 AM and 14-17 PM) during the weekdays. Clients were assigned numerous speaking tasks to complete during the mornings. The program was directed by a certified speech-language pathologist (Steen Fibiger from Denmark), who had received training in

administration of the non-avoidance approach in Sweden and Denmark. He has also been a fellow at the Charles Van Riper Language, Speech and Hearing Clinic at Western Michigan University. Dr. Fibiger also served as a consultant for the University Stuttering Research Center. The other three Bulgarian clinicians involved in the therapy course were: Dr. Dobrinka Georgieva, trained at Northwestern University's stuttering modification approach workshop, and two assistant professors in Logopedics working from SWU – M. Simonska and Anna Andreeva (both are certified speech-language pathologists). D. Georgieva, S. Fibiger, and M. Simonska have each written a Ph.D. dissertation on stuttering.

Each client was assigned two clinicians, who were enrolled in this stuttering workshop. The present non-avoidance therapy intensive course was the first one in the country conducted for adult stutterers.

## **Therapy Program**

**Day One: Information is given concerning the goals of the therapy program (Van Riper's story). Initial testing (self-rating) using WASSP is carried out, and issues of motivation and identification are addressed.**

Goals of the therapy program:

- 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 actions 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 behavior to more fluent stuttering
- to improve the understanding of each individual patient's stuttering by video recording.

**Motivation for this therapy approach:** The stutterer needs to assess her/his motivation for seeking therapy and the logopedic tools required for building and maintaining the motivation necessary for successfully changing speech behaviours and attitudes. Facing one's weaknesses squarely enough and long enough to change them is not easy. Stuttering therapy is not something to enter into lightly; it takes a large investment of time, physical energy, emotional energy, and money. Motivation is addressed throughout the therapy.

**Identification of stuttering behaviors:** In the identification stage, the client and clinician identify all the behaviours, feelings, and attitudes associated with the person's stuttering. First the client is taught how to identify primary behaviors, secondary behaviors, and feelings and attitudes that characterize the client's stuttering. Observation of prolongations, repetitions, blocks, avoiding behaviors etc. are noted.

**Day Two:** Desensitization is conducted in three stages. First the client has 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 stutters. 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 stutters into easier more manageable stutters. You can start with selecting one of your own ways of stuttering:

**Cancellation**, in which the person stutters all the way through a word, stops immediately, and then repeats the word stuttered a different way.

**Pull-out**, in which the person gains control over a moment of stuttering while it is happening and smooth it out, and

**Preparatory set**, 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 modeling different speech situations and is essential part of the therapy.

**Day Five: Stabilization** includes the transfer of the new speech techniques into real day situations (under a speech language pathologist's control). Therapy evaluation and final self-rating with WASSP profile, as well final

observations and directions about the future intervention and therapy are the accent of the work. The stabilization part of the therapy has to be continued over a long period of time in order to stabilize the new stuttering behaviors.

## **Results**

### **Discussion**

In addition to a stuttering frequency score, the total overall SSI-3 score includes the stuttering moment duration score and a physical concomitants score. Given that stuttering frequency decreases following treatment, it is likely that decreases in stuttering moment duration and decreases in secondary features contributed most to the significant lowering of overall SSI-3 scores. In this regard, two of the central goals of the present therapy relate to eliminating concomitant (secondary) behaviors and decreasing the severity of stuttering moments when they occur. Based on the cursory assessment of stuttering duration and concomitant behaviors provided by the SSI-3, it appears that the therapy may have been successful in reducing stuttering severity immediately following treatment. However, this improvement was not maintained over the long term.

The set of 5th subscale of the WASSP revealed the considerable positive changes in response to participation in the course in one out of six of the participants. A small change after therapy was observed in only in one case (S 6, pdf table 6). Eleven of the examinees' WASSP profile parameters were not changed after the intensive course. We may explain this fact by the inability of the patient to admit the severity of stuttering, as well as feelings and avoidance at the beginning of the course and as a final result. The client was not motivated from the beginning of the therapy. But we believe that after the therapy he was able to rate profile elements more realistically (see for example, the completed profile of the S6). 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 to talk about stuttering with others; disadvantage due to stuttering socially and educationally. The initial completion of the WASSP profile showed the client had high expectations "*to reduce and to eliminate completely my stuttering*". In the time two profiles he wrote: "*During this block I understood that I talk faster than I thought. I also saw during the visual exercises that I do some facial movements especially blinking with my eyes. The techniques we worked on I found to be not very useful for me because I consider myself a less severe stuttering case. Probably the technique can be*

*useful for me is the pull-out. I don't use it very often but if 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 in approximately all five subscales of the WASSP. Their explanatory comments in the last section of the profile reveal they had developed accurate reflection on the stuttering outcomes (see each of the pdf attached files).

Overall experience shows that in order for the new stuttering behaviors acquired during therapy to be stabilized, continued therapy and support for a longer period are necessary. Such longer term support allows stabilization to continued and helps manage relapses to the old stuttering behaviors.

### **Suggestions for Future Therapy**

This study represents only an initial step in objectively evaluating the outcomes obtaining by intensive group therapy for adults. The present results are relevant only to an intensive group treatment format. While the non-avoidance approach is a classic example of a stuttering modification approach to stuttering therapy, it is only one variant of many stuttering modification treatments. It is not known whether these results can be generalized to other stuttering modification approaches. The absence of a non-treatment control group, or an alternative treatment, also makes it difficult to place the present results in a larger context. Perhaps simply participating in the present type of group stuttering intervention may be sufficient to bring about the positive changes of the type and magnitude that were observed.

### **Conclusions**

The present study represents the first WASSP's evaluation of a stuttering modification treatment program – non avoidance approach in Bulgaria. The goals presented in the beginning of the paper, e.g. to reduce avoidance behavior, anticipation, and social and cognitive anxiety through desensitization to stuttering were reached. The five subscales of the WASSP revealed the considerable positive changes in response to participation in the course in 90% of the participants.

Although reduced frequency of stuttering was not an overt goal of our intensive therapy, some modest improvements in stuttering severity were observed immediately following treatment. However, these improvements were short-lived. We strongly believe that without further long-term data (i.e., greater than six months post treatment), even the durability of the changes outlined above is questionable.

The practice of evidence-based stuttering therapy requires that clinicians apply the most effective, proven, and efficacious techniques available (Onslow, 2003). In summary, the non-avoidance intensive group therapy outcomes presented here provide qualified support for some changes in affective functioning but negligible improvements in core stuttering behaviors and secondary behaviors.

Our first experience showed that WASSP is briefer and easy to administrate. It is useful as an assessment and outcome measure in the intensive stuttering therapy.

We can report that the present version of the intensive group modification program achieved short-term improvement. This program is useful for adults exhibiting a persistent stuttering disorder that have failed to show substantial improvement from other therapy methods.

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