

## Speech and language therapists' approaches towards adults who stutter and its consequences on assessment and treatment

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**Abstract.** Speech-Language Therapists (SLT) may have negative approaches toward Adults Who Stutter (AWS). There is no consensus about the SLT perspectives on AWS. This study aimed to investigate the SLT approach to AWS and assessment-therapy components in their practices. A total of 209 SLT were included in the study. The survey consisted of four sections: demographic information, assessment-therapy components, and attitudes. The results are reported through boxplot graphics. The majority of the SLT were female (86.6%) and aged in the young group (20-29 years) (81.2%). SLT noted that they frequently used non-standard tools in the assessments and traditional or contemporary methods are preferred in the therapy components. The participants mentioned that important to AWS's quality of life, resilience, and psychosocial characteristics. SLT are more likely to utilize non-standard approaches while evaluating AWS. Traditional methods, as well as current approaches, are preferred by the SLT. SLT cares about AWS's resilience and temperament differences.

**Key words:** attitudes; speech-language therapists; stuttering; therapeutic alliance.

### [es] Aproximación logopédica a las personas adultas que tartamudean

**Resumen.** Los logopedas pueden tener enfoques negativos hacia los adultos que tartamudean. No hay consenso sobre las perspectivas de los logopedas sobre la tartamudez. En relación con lo anterior, este estudio tenía como objetivo investigar el enfoque de los logopedas hacia la tartamudez y los componentes de evaluación e intervención en sus prácticas clínicas. Se incluyó en el estudio a 209 logopedas. La encuesta constaba de cuatro secciones: información demográfica, componentes de evaluación e intervención y actitudes. Los resultados se presentan en forma de gráficos de caja. La mayoría de los logopedas eran mujeres (86,6%) y pertenecían al grupo de jóvenes (20-29 años) (81,2%). Los logopedas señalaron que utilizaban con frecuencia herramientas no estándar en las evaluaciones y que se preferían métodos tradicionales o contemporáneos en los componentes de la intervención. Los participantes mencionaron y destacaron que es importante la calidad de vida, la resiliencia y las características psicosociales de los logopedas. En definitiva, los datos muestran que es más probable que el logopeda utilice enfoques no estándar al evaluar a las personas que tartamudean.

**Palabras clave:** actitudes; alianza terapéutica; logopedia; tartamudez.

**Sumario:** Introduction. Material and Methods. Participants. Development of Survey. Design and Procedure. Data Analyses. Results. Responses Towards Aetiology of Stuttering. Responses Towards Educational Background. Responses Towards Assessment Components. Responses Towards Therapeutic Components. Responses Approach Adult Who Stutter. Discussion. Conclusions. References.

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### Introduction

Stuttering is defined as a fluency disorder in speech characterised by dysfluency. It begins in childhood and can continue into adulthood (American Psychiatric Association, 2013; Prasse & Kikano, 2008). There are several studies that support the adverse effects in psychosocial characteristics, resilience skills, quality of life and emotional regulation in Adults Who Stutter (AWS) (Chu et al., 2020; Croft & Byrd, 2020; Nicolai et al., 2018; Tran, Blumgart, & Craig, 2018). Temperament differences are also important in AWS and impact the quality of life (Lucey, Evans, & Maxfield, 2019; Tichenor & Yaruss, 2020). Additionally, AWS are disadvantaged in aspects such as education, employment, and may have social anxiety and low self-esteem (Crichton-Smith, 2002; Messenger et al., 2004).

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AWS consult to Speech-Language Therapists (SLT) not only for enhancing fluency but also to struggle these situations that are the result of dysfluencies (Davidson Thompson et al., 2009). In the literature, there is evidence that SLT's attitudes towards individuals who stutter vary and they feel inadequate when working with AWS, and their attitudes also differ among SLT working in different countries (Cooper & Cooper, 1996; Cooper & Rustin, 1985; Crichton-Smith, Wright, & Stackhouse, 2003).

SLT's educational and clinical backgrounds diverse, proper information about stuttering is obtained, still SLT have difficulties in their clinical experience and this may be related to self-efficacy in the study conducted by Lee (2014) in Korea. Another study conducted with SLT in the UK, the authors reported that the SLT practices are shown diversity in the research involving assessment components, therapeutic processes, and discharge criterias in AWS (Davidson Thompson et al., 2009). Cooper and Cooper (1996), SLT in the USA; the researchers stated that individuals who stutter may have psychological problems, feelings associated with being disadvantaged, and certain personality traits (Cooper & Cooper, 1996). Alternatively, there is a need for additional professional training about stuttering in Arabic SLT sample, and unlike previous studies, in the findings of the research were stated that SLT exhibit positive attitudes towards individuals who stutter in the study of Arabic SLT (Al-Khaledi et al., 2014). When the studies examined in the literature, it is seen that there is no consensus on SLT's approach towards AWS, assessment procedures and intervention methods in stuttering (Al-Khaledi et al., 2014; Cooper & Cooper, 1996; Davidson Thompson et al., 2009; Lee, 2014).

Earlier in the study on SLT's attitudes conducted in Turkey, it has been stated that diversity is seen in therapy techniques used by SLT. Moreover, it is declared that SLT emphasise the importance of intensive therapy applications and counselling the families. The same study is also seen to be a useful perspective on the effectiveness of therapy SLT in Turkey. However, the authors reported that it is seen self-confidence problems of SLT when providing therapy. Maviş et al. (2013) reported that the study was conducted at a time interval when the SLT profession was still developing in Turkey. It was emphasised that it would be appropriate to repeat the studies on SLT attitudes in the following years.

It is thought that the components used by SLT in evaluation and therapy may change due to the influences mentioned earlier in adulthood and therefore attitudes and approaches may also vary. In the literature, SLT have approaches to individuals who stutter throughout life, but there are a limited number of studies examining the approach of SLT specifically to the characteristics of AWS, assessments, and therapy components. The present study is planned to determine the SLT attitudes which can change over time and in terms of approaches of SLT that the number of increases in Turkey (Crichton-Smith, Wright, & Stackhouse, 2003; Cooper & Cooper, 1996; Maviş et al., 2013). In our study, it is aimed to investigate the training and clinical experiences of SLT in AWS, the assessments and intervention methods they practise, and their approach to AWS.

## Material and Methods

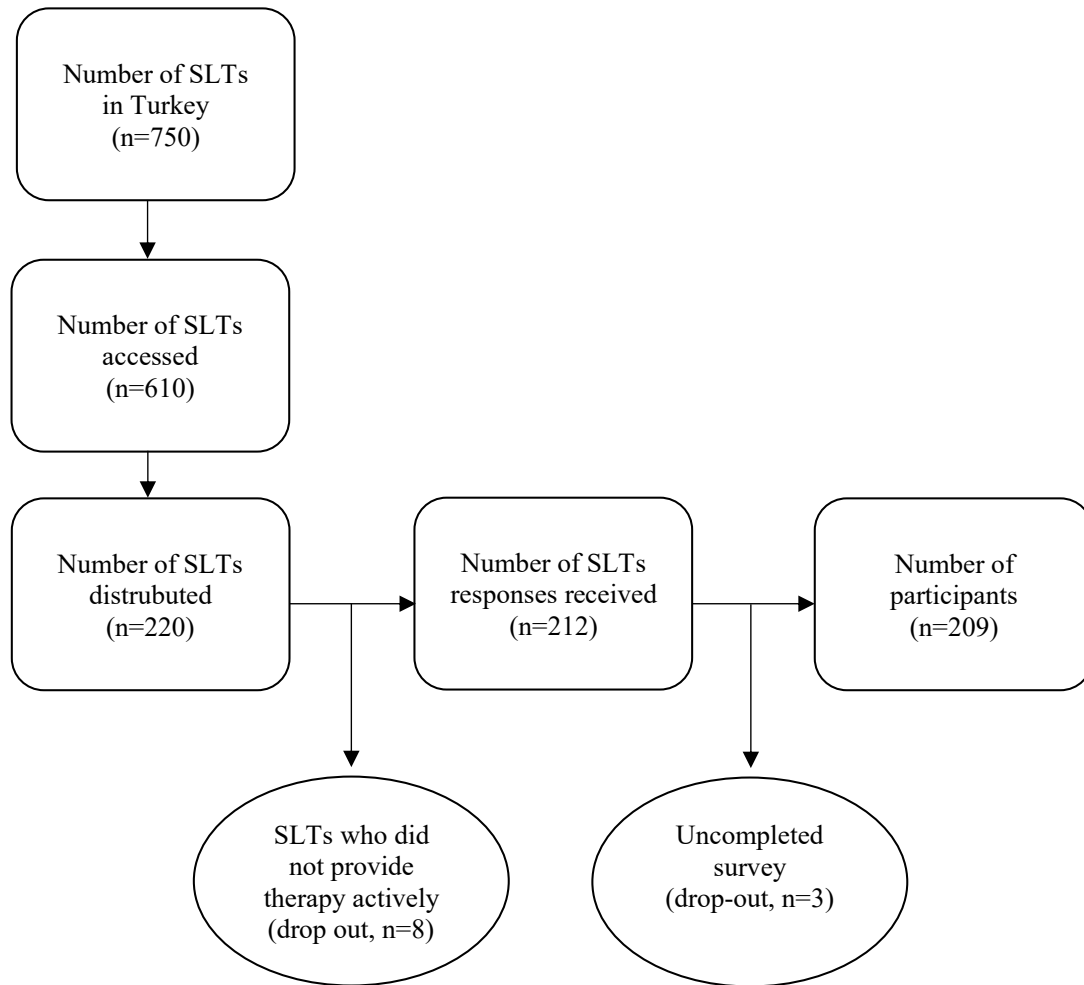
The present study is approved ethically by the Ethics Committee of Ankara Yıldırım Beyazıt University (15.03.2021-45-2021/115).

## Participants

Although SLT profession has a history of nearly forty years with postgraduate programmes in Turkey, it continues to develop with bachelor programmes. The first bachelor graduates were given in 2016, and previously, SLT were graduated from universities only through Master's and Doctorate programmes (Topbas, 2010). The number of licenced SLT who actively work is approximately 750 in Turkey (Cangi & Toğram, 2020). A total of 610 participants were reached in this study. The number of SLT that accepted to participate is 220 for the survey. Because of our exclusion criteria about providing assessment or therapy session to AWS, eight SLT were excluded from the study. Also, two SLT did not complete the survey. In total, 209 SLT established the sample of the study (Figure 1). The participants number represents 34% of the SLTs in Turkey.

## Development of Survey

The survey was created by considering the items in the Communication Attitude Test (CAT, Cooper & Cooper, 1996) and other articles in the literature (Al-Khaledi et al., 2014; Cooper & Cooper, 1996; Davidson Thompson et al., 2009; Lee, 2014; Maviş et al., 2013). Further, a literature review has been made for the psychosocial characteristics, current assessments, and therapy methods of AWS (Beilby, Byrnes, & Yaruss, 2012; Boyle 2011; Cangi & Toğram, 2020; Lucey, Evans, & Maxfield, 2019; Messenger et al., 2004; Nicolai et al., 2018; Tichenor & Yaruss, 2020; Tran, Blumgart, & Craig, 2018). After the literature review, an item pool was created by the researchers in this study. Then, the first draft of the survey form was prepared by ensuring the distribution of the items according to the sub-dimensions. The survey form consists of four sub-dimensions: I. De-

**Figure 1.** Flowchart of participants

(SLT: Speech-Language Therapists)

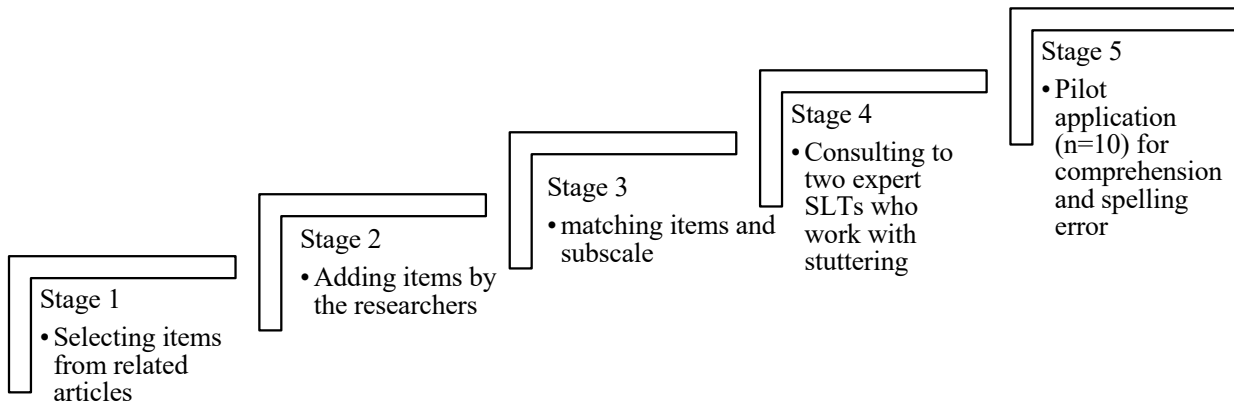
mographic information (eight items), II. Education and clinical experience (five items), III. Assessment and therapy components (eight items), IV. Approach to AWS (17 items) and there are 38 items in total (See Appendix). All items in the third and fourth sub-dimensions of the survey (except for two items) were designed according to the scoring style between 0 (I do not agree at all) and 10 (I fully agree) as a Visual Analogue Scale (VAS) (Cline et al., 1992). Following, as it was recommended to present the form prepared in the survey studies to expert opinions (Mertens, 2014), three experienced SLT working in stuttering independently from this study were consulted views. The comprehension and spelling errors were corrected with the proposed adjustments. “The McGuire Programme” has been added to survey section of the certified courses. Finally, the pilot application was conducted for ten SLT and the research data collection was initiated by last controls (Figure 2).

### Design and Procedure

The research is defined as a cross-sectional survey study. The survey form was established as a “Google Forms”. To reach SLT, a survey announcement was made through social media, then the link of the survey was sent to those who accepted to participate in the study. The consent was obtained from the participants in the first section of form. The application was completed in approximately ten minutes for each participant. The data collection phase was executed in six months.

### Data Analyses

In this study, firstly the data obtained through “Google Forms” were transferred to Microsoft Excel. Then, SPSS 25.00 package programme was used for statistical analysis. Descriptive statistics were reported for the demographic characteristics of the participants. Boxplot charts were generated for the components used in assessments and therapy and the approach to AWS.

**Figure 2.** Stages of development of survey

## Results

The results are reported as per the four sections of the survey. Considering the demographic characteristics, which is the first of these results, it was found that females with 86.6% of participants were more than 13.4% of male. Additionally, when the age groups were examined, it was seen that there were 81.2% of the participants in the 20-29 age range. Most participants reported being at the bachelor level (67.5%). When the years of experience are examined, the major part of the participants (44%) are determined to have one-three years of experience. Finally, most of SLT included in the study work in the settings of the Special Education and Rehabilitation Centres (SERC) (35,5%), University Hospitals (19,2%). Participants' education levels, professional experiences, and working institutions are summarised in Table 1.

**Table 1.** Demographic Characteristics of Participants (n=209)

Respondents	Frequency	%
<b>Gender</b>		
Female	181	86,6
Male	28	13,4
<b>Age</b>		
20-29	168	81,2
30-39	29	14
40-49	9	4,3
50-59	1	0,5
<b>Educational Level</b>		
Bachelor	141	67,5
Master	58	27,8
Doctorate	10	4,8
<b>Experience (year)</b>		
0-1	41	19,6
1-3	92	44
3-6	49	23,4
6-9	12	5,7
9-12	9	4,3
12 +	6	2,9
<b>Institution</b>		
Special Education and Rehabilitation Centre (SERC)	74	35,5
University Hospital	40	19,2
Government Hospital	34	16,3
Private Clinic	25	12
SERC and Private Clinic	18	8,2
SERC and Government Hospital	4	1,9
SERC, Government Hospital and Private Clinic	3	1,4
University Hospital and Government Hospital	3	1,5
SERC and University Hospital	2	1
Multiple (home, private hospital, university hospital etc.)	6	3

### Responses Towards Aetiology of Stuttering

According to the Multifactorial Dynamic Theory based on the aetiology of stuttering, SLT have 46.6% genetic factors, 21.6% psychological factors, 18.8% neurological factors, 7.7% linguistic factors, and 5,3% physiological factors responded.

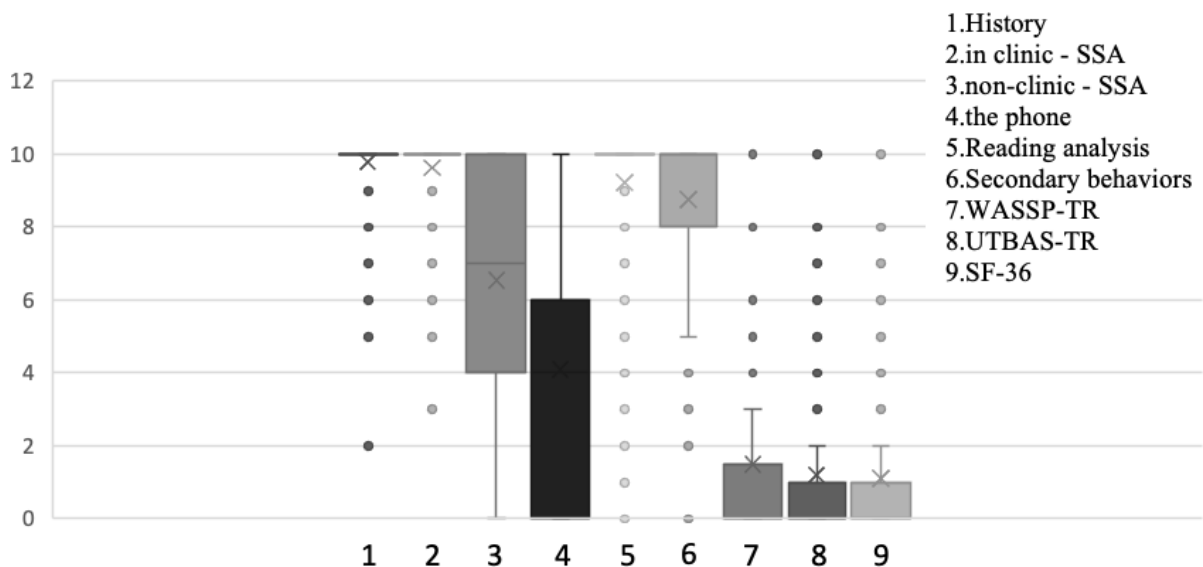
### Responses Towards Educational Background

All the SLT participating in the survey stated that they have learnt at least two lessons about stuttering. However, the rate of SLT who joined training that only include adult stuttering was determined as 33.5%. The SLT included in the study stated that they mostly (45,9%) did an internship for thirteen or more weeks, 37.8% for 5-12 weeks, and 16.3% for 0-4 weeks. In the case of receiving certified training after graduation, approximately one-third (30.6%) of the participants attended training on adult stuttering. Participants preferred these trainings respectively: Cognitive Behavior Therapy (CBT) (64,1%), European Clinical Specialization in Fluency Disorders Course (ECSF) (1,6%), CBT - ECSF (4,8%), and The Camperdown Programme (1, 6%).

### Responses Towards Assessment Components

According to the findings, the most frequently used components in assessments are; stuttering history of AWS ( $\bar{x} = 9.7, SD = 0.9$ ), spontaneous speech analysis (in-clinic) ( $\bar{x} = 9.6, SD = 1.1$ ), reading analysis ( $\bar{x} = 9.2, SD = 1.9$ ), evaluation of the frequency of secondary behaviours ( $\bar{x} = 8.7, SD = 2.2$ ). After these components, it is observed that spontaneous speech analysis (non-clinic) ( $\bar{x} = 6.5, SD = 3.4$ ) and spontaneous speech analysis on the phone ( $\bar{x} = 4, SD = 3.5$ ) were among the components that are not frequently used but preferred. However, WASSP-TR ( $\bar{x} = 1.5, SD = 2.8$ ), UTBAS-TR ( $\bar{x} = 1.2, SD = 2.5$ ) and SF-36 ( $\bar{x} = 1.1, SD = 2.2$ ) scales were found not to be preferred frequently. Also, a few participants stated that they could use scales for depression, anxiety, and perfectionism or subjective forms they created. The usage frequency of these components is shown in Figure 3.

**Figure 3.** Assessment Components Responses by SLTs



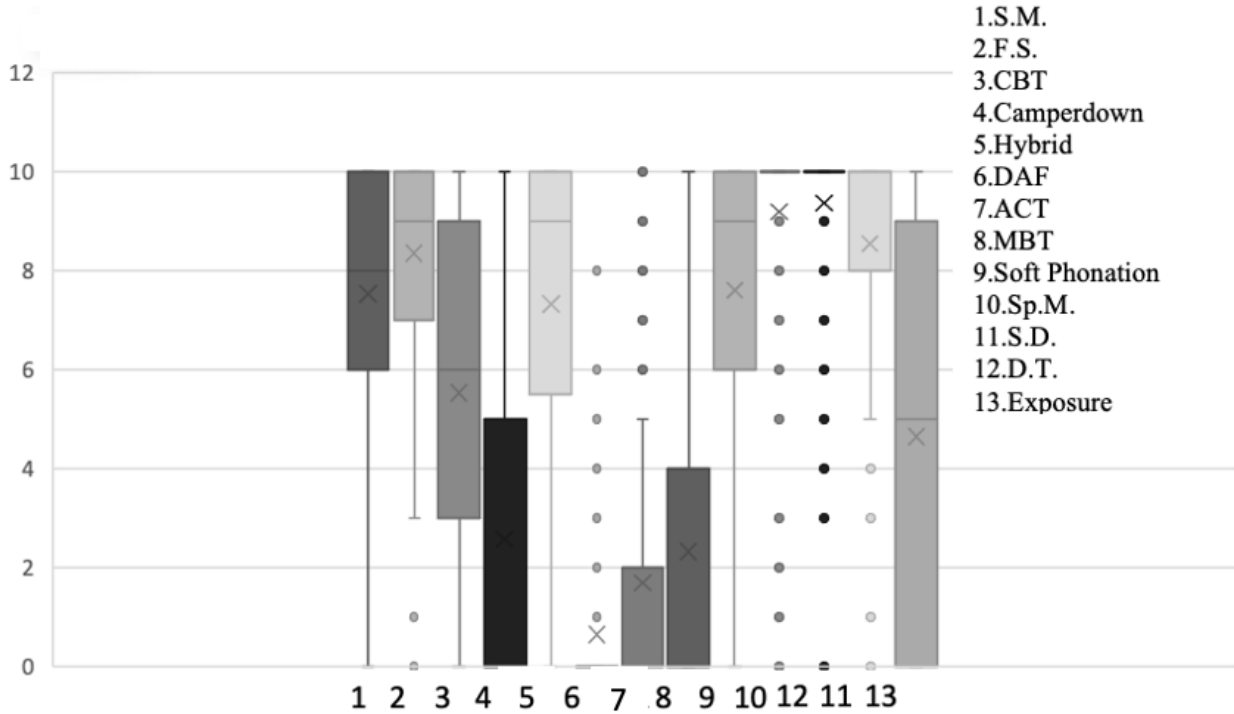
(SSA: Spontaneous Speech Analysis, WASSP-TR: The Wright and Ayre Stuttering Self-Rating Profile - Turkish Version, UTBAS-TR: Unhelpful Thoughts and Beliefs Scale – Turkish Version, SF-36: Short Form – 36)

### Responses Towards Therapeutic Components

The most frequently used components in interventions were defining stuttering dysfluencies ( $\bar{x} = 9.3, SD = 1.7$ ) and explaining speech mechanism ( $\bar{x} = 9.2, SD = 2.02$ ). These techniques are followed by desensitization tasks ( $\bar{x} = 8.5, SD = 2.3$ ), fluency shaping ( $\bar{x} = 8.3, SD = 2.09$ ) and stuttering modification techniques ( $\bar{x} = 7.5, SD = 2.5$ ). CBT ( $\bar{x} = 5.5, SD = 3.6$ ) was preferred more frequently than the exposure technique ( $\bar{x} = 4.6, SD = 4.06$ ), although they are used at similar rates. In addition to these techniques, The Camperdown Programme ( $\bar{x} = 2.5, SD = 3.2$ ), Mindfulness-Based Therapy ( $\bar{x} = 2.3, SD = 3.2$ ), Acceptance and Commitment Therapy (ACT) ( $\bar{x} = 1.6, SD = 2.7$ ) were used less frequently. The Delayed Auditory Feedback (DAF) technique, on the other hand, is rarely preferred, with a frequency ratio ( $\bar{x} = 0.6, SD = 1.4$ ) (Figure 4). The frequency of therapy applied to

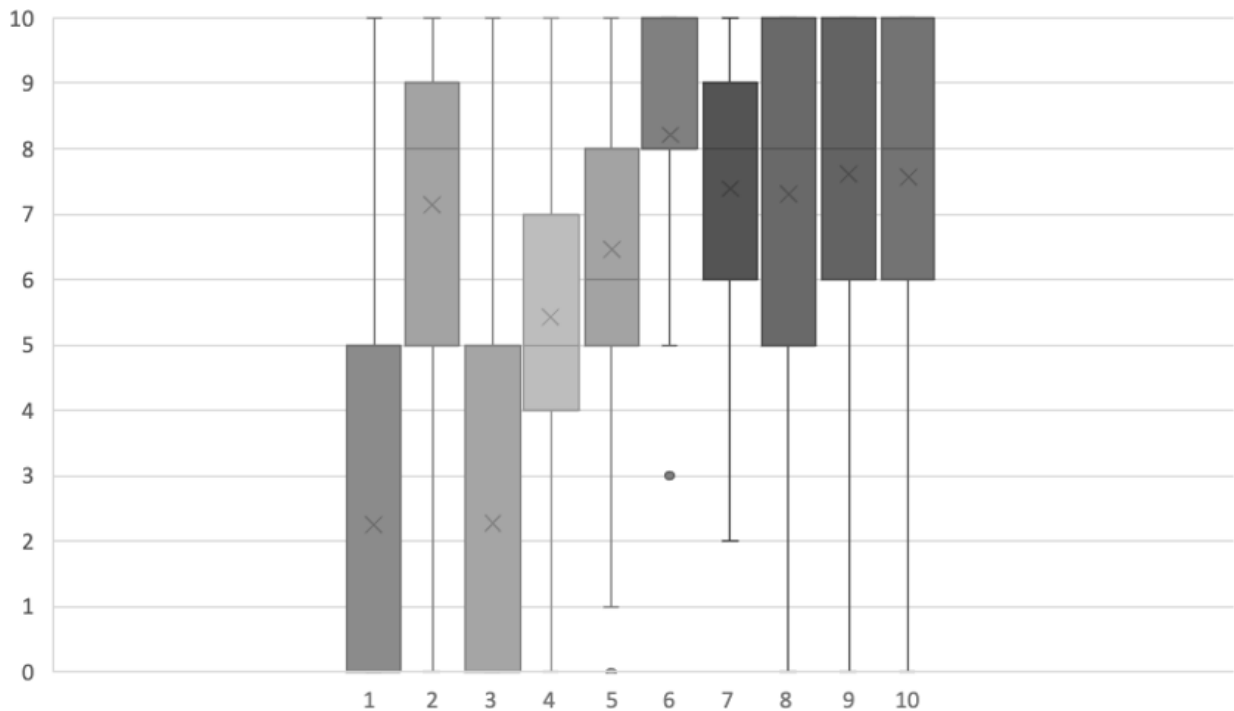
AWS is 77% once a week, 12,9% twice a week, 7,2% once every two weeks, 1,4% once a month, 1% three times a week, 0,5% four or more sessions a week. Although 71% of the participants reported that they found group therapy as a functional for AWS, 22% of them stated that they used group therapy in their clinical routines. It has also been reported by SLT that the intensive therapy method in AWS is functional (64%) (Figure 5).

**Figure 4.** Therapy components Responses by SLTs



(S.M.: Stuttering Modification, F.S.: Fluency Shaping, CBT: Cognitive Behavior Therapy, DAF: Delayed Auditory Feedback, ACT: Acceptance and Commitment Therapy, MBT: Mindfulness Based Therapy, Sp.M.: Introducing Speech Mechanism, S.D.: Introducing Stuttering Dysfluencies, D.T.: Desensitization Tasks)

**Figure 5.** SLTs' confident, beliefs and therapy methods



(1. Group Therapy, 2. Functionality of Group Therapy, 3. Using tele-practice In AWS, 4. Using tele-practice for group therapy, 5. Using Intensive therapy method, 6. SLPs' confident in assessment, 7. SLTs' confident in therapy, 8. Using the word of 'stuttering', 9. Defining 'stuttering' by AWS, 10. Dysfluencies effect to therapeutic components)

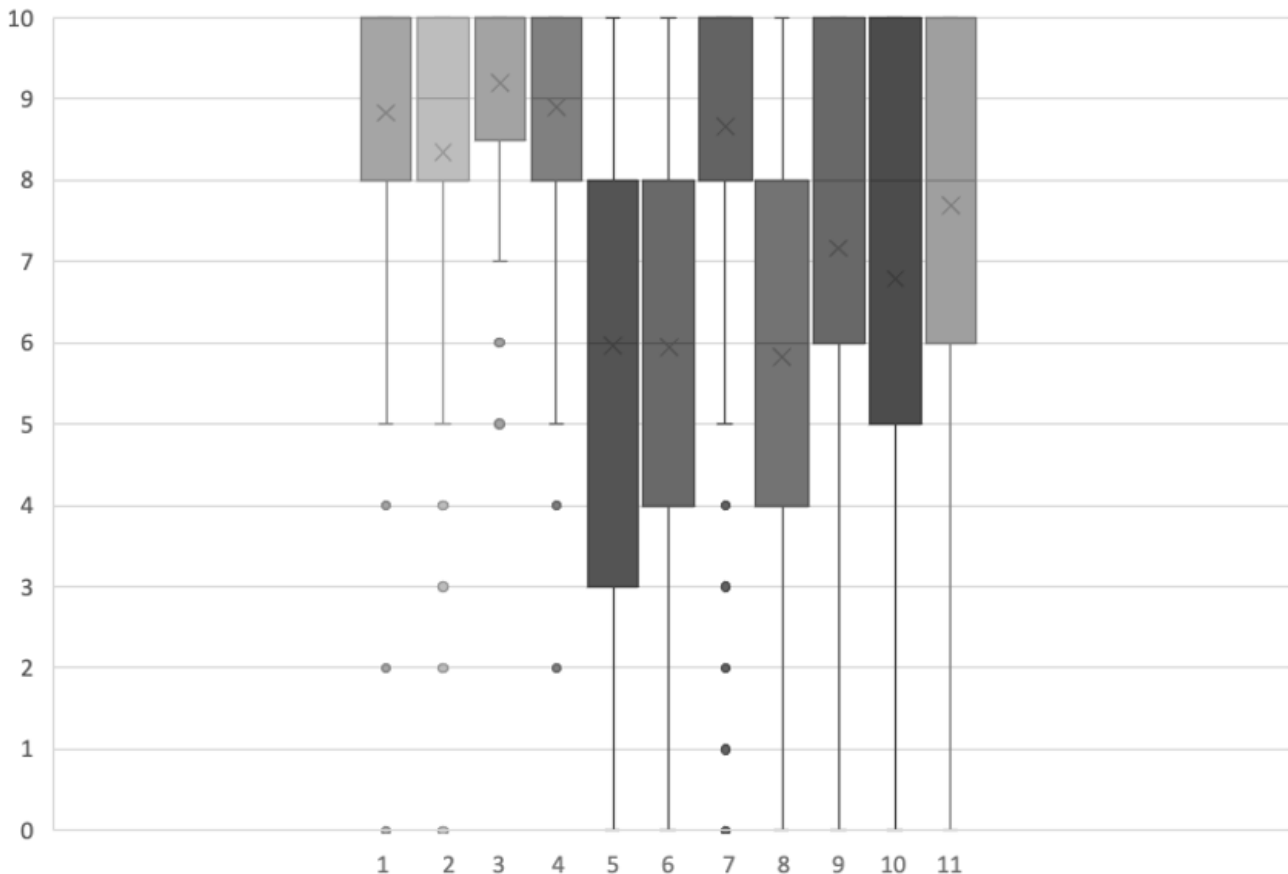
### Responses Approach Adult Who Stutter

Although the participants in the present study had a high degree of self-confidence ( $\bar{x} = 8.2, SD = 1.7$ ) in assessments, the SLT reported that they were relatively less confident ( $\bar{x} = 7.3, SD = 1.9$ ) in therapy sessions. Additionally, the participants stated that they felt comfortable using the word of “stuttering” ( $\bar{x} = 7.3, SD = 2.9$ ) during the sessions. The participants indicated that they mostly ( $\bar{x} = 7.6, SD = 2.5$ ) asked for defining “stuttering” in their therapy session. The SLT stated that the dysfluency types of AWS affect the therapy components ( $\bar{x} = 7.5, SD = 2.4$ ) (Figure 5). In addition to these results, when asked how the SLT define AWS, 58.4% of the participants were preferred “clients”, 24.6% preferred “adult who stutter”, 10.7% preferred “individual who stutter”, 4, 3% preferred “patient” and 2% preferred “case” definition.

Responses of the SLT regarding psychosocial influence, resilience, quality of life and temperament differences in relation to AWS are shown in Figure 6. When these results are examined, it is seen that the SLT have a common opinion concerning to care about the effect of stuttering on quality of life ( $\bar{x} = 9.1, SD = 1.2$ ). A significant positive range was found in psychosocial influences ( $\bar{x} = 8.8, SD = 1.7$ ). Similar to these results, the SLT stated that resilience ( $\bar{x} = 8.3, SD = 2.1$ ) and temperament differences ( $\bar{x} = 8.8, SD = 1.4$ ) are also important in AWS. It has been determined that the SLT usually care about the beliefs on stuttering of AWS ( $\bar{x} = 8.6, SD = 1.9$ ). In addition, it can be said that emotion regulation skills are preferred moderately in AWS ( $\bar{x} = 7.1, SD = 2.6$ ).

It has been determined that there is no common opinion in the scores given by SLT regarding the existence of the relationship between AWS and the socio-economic/education level ( $\bar{x} = 5.9, SD = 2.9$ ). Concerning relatives of AWS, it was attained that the SLT did not prefer the component often during therapy sessions ( $\bar{x} = 5.8, SD = 2.7$ ). When the recommendations presented to AWS are examined, first, it was found that referring AWS to self-help groups were relatively more frequently referred ( $\bar{x} = 6.7, SD = 3.3$ ). Following this, it has been observed that SLT mostly prefer this when it comes to recommending books, films and internet-based reliable sources to AWS ( $\bar{x} = 7.6, SD = 2.3$ ) (Figure 6).

**Figure 6.** AWS’s Characteristics and SLT’s behaviors



(1. Psychosocial influences, 2. Resilience, 3. Quality of life, 4. Temperament differences, 5. Socio-economic status, 6. Educational status, 7. Beliefs on stuttering, 8. Relatives of AWS's, 9. Emotional Regulation, 10. Self-support groups, 11. Advices of Books, film, internet)

## Discussion

In the present study, a major number of SLT (n=209/750) in Turkey responded the survey that their approach towards AWS, clinical practises were investigated. The SLT who completed the survey are mostly (81,2%) in the youngest age group (20-29). One of the reasons is that the discipline of speech-language pathology in Turkey continues to develop. Another reason is that most of the SLT graduated from bachelor degree are in this age group (Cangi & Toğram, 2020; Topbas, 2010). It can be mentioned that the average age of the SLT of the present study is similar to studies in other countries such as Korea and Saudi Arabia (Al-Khaledi et al., 2014; Lee, 2014; Maviş et al., 2013).

Speech-language therapists have stated that the Multifactorial Model for aetiology of stuttering often was mentioned an important part in the previous studies (Cooper & Cooper, 1996; Crichton-Smith, Wright, & Stackhouse, 2003; Maviş et al., 2013). In the present study, SLT reported that genetic factors (46.6%) are more important part of the Multifactorial Model. Supporting this finding, Smith and Weber (2017) stated that genetic factors are important components in the Multifactorial Dynamical Theory. Hence, it can be mentioned that SLT in Turkey are thought to be more related to genetic factors in the aetiology of stuttering.

When the assessment components were examined, it was seen that non-standard analysis were frequently used by SLT. The important details about assessment procedures that spontaneous speech analysis (non-clinic) and spontaneous speech analysis on the phone are preferred less frequently than spontaneous speech analysis (in-clinic). In the literature, it is seen that there is a differentiation in the spontaneous speech analysis that performed in the assessments ( Everard & Howell, 2018; Huinck et al., 2006; Irani et al., 2012; Scheurich, Beidel, & Vanryckeghem, 2019).

The limited use of WASSP-TR (2021) and UTBAS-TR (2020) scales is thought to be related to the recent adaptation of these scales to Turkish (Aydın Uysal & Ege, 2020; Uysal & Köse, 2021). Craig et al. (2009) suggested that SF-36 might be used frequently in AWS, but the responses of the SLT in this study contradict this recommendation. Stuttering Severity Instrument - 4 and Overall Assessment of the Speaker's Experience of Stuttering for Adults (OASES-A) scales were not included the questionnaire options as they were not adapted to Turkish speaking AWS (Riley, 1972; Yaruss & Quesal, 2006;). However, a few participants stated that they also use these tools with their informal translations. It is thought that the limitation of standardisation studies in the use of scales negatively reflects on the clinical application of the SLT. When the responses about therapeutic components were examined, it was observed that The Camperdown Programme, which is known as an effective intervention (Brignell et al., 2020; Carey et al., 2010; O'Brian et al., 2018), is not used very often by the SLT. It is remarkable that ACT and Mindfulness Based Therapy in the current literature can be preferred less frequently (Beilby, Byrnes, & Yaruss, 2012; Boyle, 2011). Furthermore, there has been almost no research conducted on AWS therapy with the DAF technique recently. In addition, the DAF technique is rarely used by the SLT in the present study, in accordance with a systematic review in 2011 that reported the limitations in generalisation and implementation for DAF (Andrade & Juste, 2011).

Maviş et al. (2013) reported that SLT expressed a positive opinion on intensive therapy. The SLT who responded the survey also stated that they found the intensive therapy is functional for AWS. There are also studies in the literature that intensive therapy is effective (Boberg & Kully, 1994; Irani et al., 2012; Langevin & Boberg, 1996;).

In study of Smyk (2019) the education, training and courses that SLT receive about stuttering will positively affect their confidence and comfort. In the present study, the SLT's confidence in themselves in therapy and assesment may be related to their educational background. Byrd et al. (2020) states that SLT feel less comfortable when using the word "stuttering" in therapy sessions compared to other speech and language disorders. It was determined that SLT in our study felt comfortable using the word "stuttering" during the therapy session. On the other hand, considering that the SLT participating in our study have made a definition of "stuttering" from AWS, it is possible that they can easily use the word "stuttering" during the therapy session. These findings do not seem surprising, as the stuttering modification technique is frequently used by the SLT and stuttering is defined within the scope of this technique (Zebrowski & Kelly, 2002).

Although the SLT in the present study care about the quality of life towards AWS, it was observed that they did not use quality of life scales for assessment. At this point, it can be thought that the SLT subjectively examine this situation during the assessment. Although the standard scale is not used, the SLT care about quality of life, psychosocial influences, resilience and temperament differences, emotion regulation skills and AWS's beliefs about stuttering and this situation seems to be compatible with the current literature (Beilby et al., 2013; Craig, Blumgart, & Tran, 2009, 2011; Lucey, Evans, & Maxfield, 2019; Tichenor & Yaruss, 2020; Tran, Blumgart, & Craig, 2018)

In recent years, it is seen that the importance of family and life partners' factors has been emphasized in AWS (Beilby et al., 2013; Nang et al., 2018; Svenning et al., 2021). Participants in our study did not frequently include relatives of AWS in therapy. Accordingly, the results of studies reported in the literature can be interpreted as yet unable to find a place in clinical practise in Turkey.



Dunaway (2013) states that SLT frequently direct AWS to self-help groups, because they find these groups therapeutically useful for themselves. In the present study, results consistent with the mentioned study were obtained by stating that SLT frequently direct AWS to self-help groups.

In this study, assessment and therapy components of the SLT towards AWS and their approach characteristics of AWS were examined. Our study shows that the SLTs could use traditional, modern, or a combination of both approaches in their therapy practices. In the scope of the assessment, the various methods were presented in the results section. It may be remarkable for the clinical procedures of SLTs. This study provides an opportunity to compare the practice of SLTs with the general practice trend in Turkey. Furthermore, tools e.g. quality of life scales that SLTs can use in addition to their clinical assessment routine are included, these tools can take place pre and post-therapy sessions.

In our study, it was determined which of the current therapy and evaluation components the SLT preferred in Turkey. Additionally, it is thought that it can help university education and training curricula and provide a guide for the SLT.

Although SLT in Turkey are thought to have confusion when describing adults with symptoms of stuttering, more than half of the SLT stated that it is more appropriate to use the word “client” when talking about AWS. It is thought that this finding may also include SLT’s perspective on AWS. Whether this approach has changed according to the definitions in the future can be seen as a research topic.

The present study has a few limitations. The processes of SLT’s membership to professional organisations or non-governmental organisations related to stuttering and their active role in these organisations can be investigated. On the other hand, additional information about the therapy discharge criteria of SLT in AWS and the order of maintain sessions can be investigated. In this study, approaches towards AWS have been examined. As the approaches may differ in pre-school and school-age periods, it is recommended to conduct a different research specific to these populations. Because considering SLT in Turkey approach to AWS may change or remain stable, this study can be repeated in the future.

## Conclusions

SLT in Turkey use non-standard analysis methods more frequently in the assessment of AWS. The SLT prefer using traditional methods extensively in the therapy as well as CBT and exposure techniques. SLT in Turkey also care about psychosocial characteristics, resilience and temperament differences in AWS.

## References

- Al-Khaledi, M., Lincoln, M., McCabe, P., & Alshatti, T. (2014). Attitudes, knowledge, and beliefs of Arab speech-language pathologists about stuttering, *Speech, Language and Hearing*, 17, 168-80.
- Andrade, C.R. & Juste, F.S. (2011). Systematic review of delayed auditory feedback effectiveness for stuttering reduction, *Jornal da Sociedade Brasileira de Fonoaudiologia*, 23, 187-91.
- American Psychiatric Association (APA) (2013). *Diagnostic and statistical manual of mental disorders (DSM-5®)*, Washington D.C.: American Psychiatric Pub.
- Aydın-Uysal, A. & Ege, P. (2020). Reliability and validity of the UTBAS-TR (The Unhelpful Thoughts and Beliefs Scale-the Turkish version) in the Turkish population, *International Journal of Speech-Language Pathology*, 22, 24-29.
- Beilby, J. M. & Byrnes, M.L., Meagher, E.L., Yaruss, J.S. (2013). The impact of stuttering on adults who stutter and their partners, *Journal of Fluency Disorders*, 38, 14-29.
- Beilby, J. M., Byrnes, M.L., & Yaruss, J.S. (2012). Acceptance and commitment therapy for adults who stutter: Psychosocial adjustment and speech fluency, *Journal of Fluency Disorders*, 37, 289-99.
- Boberg, E. & Kully, D. (1994). Long-term results of an intensive treatment program for adults and adolescents who stutter, *Journal of Speech, Language, and Hearing Research*, 37, 1050-59.
- Boyle, M. P. (2011). Mindfulness training in stuttering therapy, A tutorial for speech-language pathologists, *Journal of Fluency Disorders*, 36, 122-29.
- Brignell, A., Krahe, M., Downes, M., Kefalianos, E., Reilly, S., & Morgan, A.T. (2020). A systematic review of interventions for adults who stutter, *Journal of Fluency Disorders*, 105766.
- Byrd, C. T., Werle, D. & St. Louis, K.O. (2020). Speech-language pathologists’ comfort level with use of term “stuttering” during evaluations, *American Journal of Speech-Language Pathology*, 29, 841-50.
- Cangi, M.E., & Toğram, B. (2020). Stuttering therapy through telepractice in Turkey: A mixed method study, *Journal of Fluency Disorders*, 66, 105793.
- Carey, B., O’Brian, S., Onslow, M., Block, S., Jones, M., & Packman, A. (2010). Randomized controlled non-inferiority trial of a telehealth treatment for chronic stuttering: The Camperdown Program, *International Journal of Language & Communication Disorders*, 45, 108-20.

- Chu, S.Y., Sakai, N., Lee, J., Harrison, E., Tang, K.P., & Koichi Mori, K. (2020). Comparison of social anxiety between Japanese adults who stutter and non-stuttering controls, *Journal of Fluency Disorders*, 65, 105767.
- Cline, M. E., Herman, J., Shaw, E.R., & Morton, R.D. (1992). Standardization of the visual analogue scale, *Nursing Research*, 41(6), 378-380.
- Cooper, E.B., & Cooper, C.S. (1996). Clinician attitudes towards stuttering: Two decades of change, *Journal of Fluency Disorders*, 21, 119-35.
- Cooper, E.B., & Rustin, L. (1985). Clinician attitudes toward stuttering in the United States and Great Britain: A cross-cultural study, *Journal of Fluency Disorders*, 10, 1-17.
- Craig, A., Blumgart, E., & Tran, Y. (2009). The impact of stuttering on the quality of life in adults who stutter, *Journal of Fluency Disorders*, 34, 61-71.
- Craig, A., Blumgart, E., & Tran, Y. (2011). Resilience and stuttering: Factors that protect people from the adversity of chronic stuttering. *Journal of Speech, Language, and Hearing Research*, 54, 1485-1496
- Crichton-Smith, I. (2002). Communicating in the real world: Accounts from people who stammer, *Journal of Fluency Disorders*, 27, 333-52.
- Crichton-Smith, I., Wright, J., & Stackhouse, J. (2003). Attitudes of speech and language therapists towards stammering: 1985 and 2000, *International Journal of Language & Communication Disorders*, 38, 213-34.
- Croft, R. L., & Byrd, C.T. (2020). Self-Compassion and Quality of Life in Adults Who Stutter, *American Journal of Speech-Language Pathology*, 29, 2097-108.
- Davidson Thompson, T., Mcallister, J.C., Adams, M., & Horton, S. (2009). Evaluation and discharge criteria in therapy with adults who stutter: A survey of speech and language therapists, *International Journal of Speech-Language Pathology*, 11, 45-53.
- Dunaway, L.S. (2013). *Support groups for people who stutter: the role and perspective of speech-language pathologists*. [Unpublished Master's Thesis], The University of Texas at Austin.
- Everard, R. A., & Howell, P. (2018). We have a voice: Exploring participants' experiences of stuttering modification therapy, *American Journal of Speech-Language Pathology*, 27, 1273-86.
- Huinck, W.J., Langevin, M., Kully, D., Graamans, K., Peters, HFM, & Hulstijn, W. (2006). The relationship between pre-treatment clinical profile and treatment outcome in an integrated stuttering program, *Journal of Fluency Disorders*, 31, 43-63.
- Irani, F., Gabel, R., Daniels, D., & Hughes, S. (2012). 'The long term effectiveness of intensive stuttering therapy: A mixed methods study, *Journal of Fluency Disorders*, 37, 164-78.
- Langevin, M., & Boberg, E. (1996). Results of intensive stuttering therapy with adults who clutter and stutter, *Journal of Fluency Disorders*, 21, 315-27.
- Lee, K. (2014). Korean speech-language pathologists' attitudes toward stuttering according to clinical experiences, *International Journal of Language & Communication Disorders*, 49, 771-79.
- Lucey, J., Evans, D., & Maxfield, N.D. (2019). Temperament in Adults Who Stutter and Its Association With Stuttering Frequency and Quality-of-Life Impacts, *Journal of Speech, Language, and Hearing Research*, 62, 2691-702.
- Maviş, İ., St Louis, K., Özdemir, S., & Toğram, B. (2013). Attitudes of Turkish speech and language therapists toward stuttering, *Journal of Fluency Disorders*, 38, 157-70.
- Mertens, D.M. (2014). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*, Sage Publications.
- Messenger, M., Onslow, M., Packman, A., & Menzies, R. (2004). Social anxiety in stuttering: measuring negative social expectancies, *Journal of Fluency Disorders*, 29, 201-12.
- Nang, C., Hersh, D., Milton, K., & Lau, S.R. (2018). The impact of stuttering on development of self-identity, relationships, and quality of life in women who stutter, *American Journal of Speech-Language Pathology*, 27, 1244-58.
- Nicolai, S., Geffner, R., Stolberg, R., & Yaruss, J.S.. (2018). Retrospective experiences of cyberbullying and emotional outcomes on young adults who stutter, *Journal of Child & Adolescent Trauma*, 11, 27-37.
- O'Brian, S., Carey, B., Lowe, R., Onslow, M., Packman, A. & Cream, A. (2018). The Camperdown Program stuttering treatment guide, *Australian Stuttering Research Centre*. <https://www.uts.edu.au/research-and-teaching/our-research/australian-stuttering-researchcentre/asrc-resources/resources>. Accessed 10th March, 2021.
- Prasse, J. E., & Kikano, E.G. (2008). Stuttering: an overview, *American Family Physician*, 77, 1271-76.
- Riley, G.D. (1972) A stuttering severity instrument for children and adults, *Journal of Speech And Hearing Disorders*, 37, 314-22.
- Scheurich, J. A., Beidel, C.B., & Vanryckeghem, M. (2019). Exposure therapy for social anxiety disorder in people who stutter: An exploratory multiple baseline design, *Journal of Fluency Disorders*, 59, 21-32.
- Smith, A., & Christine, W. (2017). How stuttering develops: The multifactorial dynamic pathways theory, *Journal of Speech, Language, and Hearing Research*, 60, 2483-505.
- Smyk, C. (2019). *Assessing Speech-Language Pathologists' Comfort with Stuttering* [Unpublished Master's Thesis], Michigan State University.
- Svenning, A., Pnzarino, R., Vanryckeghem M., & Vestner, T. (2021). Life partners' perceptions of the emotional, speech disruptive, and attitudinal correlates of stuttering, *Journal of Fluency Disorders*, 67, 105821.

- Tichenor, S., & Yaruss, J.S. (2020). Repetitive negative thinking, temperament, and adverse impact in adults who stutter, *American Journal of Speech-Language Pathology*, 29, 201-15.
- Topbas, S. (2010). A Closer Look at the Developing Profession of Speech and Language Pathology (SLP) in Turkey. in, *Communication Disorders in Turkish (Multilingual Matters)*.
- Tran, Y., Blumgart, E., & Craig, A. (2018). Mood state sub-types in adults who stutter: A prospective study, *Journal of Fluency Disorders*, 56, 100-11.
- Uysal, H.T. & Köse, A. 2021. The investigation of the Turkish version of the Wright and Ayre Stuttering Self-Rating Profile. *International Journal of Language and Communication Disorders*, 56(3), 653-661.
- Yaruss, J.S., & Quesal, W.R. (2006). Overall Assessment of the Speaker's Experience of Stuttering (OASES), Documenting multiple outcomes in stuttering treatment, *Journal of Fluency Disorders*, 31, 90-115.
- Zebrowski, P.M., & Kelly, E.M. (2002). *Manual of stuttering intervention*, San Diego: Singular Publishing Group.