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## Evaluating the Experience of Stuttering and Quality of Life among Polish School-age Children: Psychometric Investigation with the OASES-S-PL

### SUMMARY

*The Overall Assessment of the Speaker's Experience of Stuttering* (OASES; Yaruss & Quesal, 2006; 2016) is a comprehensive evaluation tool designed to support holistic, evidence-based diagnostic and therapeutic decision-making for children, teenagers, and adults who stutter. The OASES is based on the World Health Organization's International Classification of Functioning, Disability, and Health (WHO, 2001) as adapted to stuttering by Yaruss and Quesal (2004; see also Tichenor & Yaruss, 2019). It enables diagnosticians to gather information about the totality of the stuttering experience, including its social, emotional, and cognitive aspects. It also allows a deep exploration of the quality of life of an individual who stutters. This paper presents the study results for the Polish version of the OASES-S (for school-age children, ages 7 to 12). The general purpose of the study was to develop the Polish translation of the OASES-S and then to evaluate the validity and reliability of that translation. The OASES-S-PL was evaluated based on a sample of 55 Polish-speaking school-age children who stutter. The study findings show that OASES-S-PL can be considered a high validity test. Given the limited number of evidence-based and standardized Polish diagnostic

tools, the OASES-S-PL has important therapeutic implications for the treatment of stuttering in the population of polish children

**Keywords:** Assessment; evidence-based practice (EBP); school-age children, standardization, quality of life (QOL), *the Overall Assessment of the Speaker's Experience of Stuttering* (OASES); stuttering

## INTRODUCTION

Stuttering is a multidimensional communication disorder that can affect many aspects of a school-age child's life (Beilby et al., 2012; Blood et al., 2007; Davis et al., 2002; Lankman et al., 2015). Stuttering may negatively impact the peer relationships of children who stutter (CWS) and, more broadly, their daily functioning (Beilby, Byrnes, & Yaruss, 2012). Children and adolescents have reported instances of school teasing and bullying, both of which are experiences that may hinder an individual's future full participation in different areas of life opportunities (Blood & Blood, 2004; Davis, Howell, & Cook, 2002; Langevin, 1997, 2000; Langevin, Bortnick, Hammer, & Wiebe, 1998; Murphy & Quesal, 2002; Murphy, Yaruss, & Quesal, 2007a, 2007b; Yaruss, Murphy, Quesal, & Reardon, 2004). Moreover, people who stutter are at risk of experiencing a lower quality of life (QOL) due to the disorder (Craig, Blumgart, Tran, 2009; Yaruss, 2010). Quality of life is a multidimensional construct involving various areas of a person's state of being. Most definitions of quality of life focus on a person's *satisfaction with life* or overall sense of *well-being*. The World Health Organization (WHO) defines the quality of life as an individual's perception of their position in life in the context of the culture and value systems including a person's goals, expectations, standards, and concerns (WHOQOL, 1998a, b). While researchers have found that stuttering can significantly influence a speaker's overall quality of life, QOL in stuttering has mainly been studied in adolescents and adults (e.g. Craig et al., 2009, Hayhow et al., 2002, Klein & Hood, 2004, Klompas & Ross, 2004, Koedoot et al., 2011; Yaruss, 2010); fewer studies have examined QOL impacts on school-age children who stutter.

Traditional interventions focus mainly on reducing or eliminating stuttering behavior. Recent studies have emphasized that the complexity of the disorder, as well as the person's unique experiences with stuttering, should be taken into account in both assessment and treatment. Therefore, the diagnosis of stuttering has to be comprehensive to fully explore all dimensions of the phenomenon (Manning & DiLollo, 2018) and to develop an intervention that is appropriately tailored to an individual speaker's needs. The improvement of the client's quality of life is considered to be an essential goal of therapy (Bloodstein, et al., 2021; Vanryckeghem, 2021). This can be addressed by implementing a comprehensive therapy approach that considers all aspects of stuttering.

One way of accomplishing this is by considering stuttering in terms of the *International Classification of Functioning, Disability, and Health (ICF)* (WHO, 2001) in the diagnostic process. The ICF was established by the World Health Organization. It provides a framework for acknowledging a person's experience of functioning and disability related to a health condition within the context of that person's activities and participation in everyday life. The ICF framework was designed to describe the entirety of the human health experience, comprising the difficulties that individuals encounter due to a health issue. It captures this information through two primary components. One of them refers to *body structure* and *function* (the major structures and functions of the human body), entailing *impairments* that reflect difficulties one might experience in body and structure. The next one refers to *activities* and *participation* (the activities one might want to perform or the ways one might wish to participate in life), along with *activity limitations* or *participation restrictions* that reflect the difficulties one might have in living a life. The ICF also defines discrepancies in the individual's experiences and reactions within the *personal* and *environmental contexts*. Yaruss and Quesal (2004; see also Yaruss, 1998) adapted the ICF framework to stuttering, and the framework was updated by Tichenor and Yaruss (2019) to more directly account for the experiences of people who stutter.

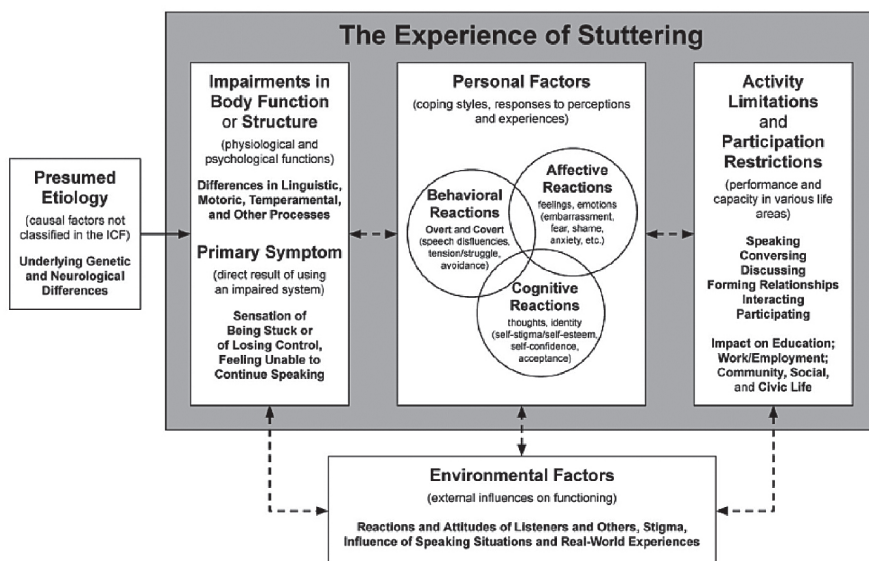


Figure 1. Adaptation of the World Health Organization's International Classification of Functioning (ICF) as it relates to stuttering. Reprinted from Tichenor S.E., & Yaruss, J.S. (2019). Stuttering as defined by adults who stutter. *Journal of Speech, Language, and Hearing Research*, 62(12), 4364. Figure Copyright © 2019 by Seth E. Tichenor & J. Scott Yaruss. Reprinted with permission.

The self-report instrument *The Overall Assessment of the Speaker's Experience of Stuttering* – OASES (Yaruss & Quesal, 2006, 2016) was developed based on the World Health Organization's original *the International Classification of Impairments, Disabilities, and Handicaps* (ICIDH; WHO, 1980, 1993) and the current *ICF*. This measure was designed to examine the speaker's experience of stuttering, including reactions to stuttering, functional communication difficulties, and QOL as reported by individuals who stutter (Yaruss & Quesal, 2006). The OASES samples have encompassed school-age children who stuttered from ages 7 to 12 on the OASES-S, teenagers from ages 13 to 17 on the OASES-T, and adults 18 and up on the OASES-A. The OASES provides a comprehensive view of the phenomenon of stuttering for diagnostic and therapy evaluation purposes. The instrument can also be used for research. The OASES was first published in American English in 2006, with ongoing revisions in 2008, 2010, and 2016 (Yaruss & Quesal, 2006, 2010, 2016). Furthermore, the tool has been translated into nearly 30 languages, and validation samples have been gathered in more than ten languages (Arabic, Dutch, Farsi/Persian, German, Hebrew, Japanese, Korean, Portuguese, Spanish, Swedish). Until now, the Polish adaptation of OASES has not been published. The need for its Polish adaptation is obvious.

A detailed description of the instrument is provided in the *Methods* section of the paper. It is important to add that Section IV of the OASES is designed to assess specific aspects of quality of life in individuals who stutter. This notion is essential, given that studies have shown that quality of life can improve as a result of the adequately programmed and delivered interventions for stuttering (Yaruss, 2010).

## AIMS OF THE STUDY

At present, there is a relatively limited number of evidence-based and standardized diagnostic tools that support the implementation of a comprehensive assessment for Polish-speaking school-age children who stutter (Vanryckeghem & Brutten, 2021; Tarkowski 2010, 2011; Góral-Półrola & Tarkowski 2011, 2012). Furthermore, research on the quality of life of individuals who stutter has only recently been initiated in Poland (Dziukiewicz, 2020; Ścibisz & Węsierska, 2019; Woźniak & Skibicka, 2021). Therefore, this present study was undertaken to develop a translation of the OASES-S for Polish-speaking school-age children (OASES-S-PL) and then to evaluate the validity and reliability of that translation. The indirect aim of this study was to investigate the experience of stuttering, its impact on communication, and overall quality of life in Polish-speaking school-age children who stutter.

## METHODS

### The instrument

The original OASES-S is a comprehensive, pen and paper, a self-report tool that measures the overall impact of stuttering. The OASES consists of four sections directly based on the ICF. Section I *General information* (consisting of 15 items) evaluates the children's perceptions of their speech, their knowledge of the disorder, and their feelings about being someone who stutters. Section II *Reactions to stuttering* (20 items) addresses the reactions to children's perceptions of their emotional (e.g., shame, embarrassment, and guilt), behavioral (e.g., tension, struggle, and avoidance), and cognitive (e.g., beliefs about stuttering) reactions to stuttering. Section III *Communication in daily situations* (15 items) assesses the children's perceptions of their difficulties and their experiences in different communication situations. Section IV *Quality of life* (10 items) measures the children's perception of how stuttering negatively affects their quality of life, along with social relations, self-confidence, well-being, and participation restrictions. Table 1 shows sample items (original and translated) for each of the sections of the OASES-S questionnaire. All of sections' scores are collected to measure the overall impact of stuttering on a person's life. All items are answered on a 5-point Likert-type scale, with answer categories reflecting the frequency of impact (*never to always*), the extent of difficulties (*not difficult at all to extremely difficult*), degree of impact (*a little to completely*), and agreement with statements reflecting cognitive reactions (*disagree strongly to agree strongly*). Higher marks indicate a greater negative impact on stuttering. Impact scores can be calculated for each section and all sections in total. Impact scores range from 1 to 5, with the corresponding impact ratings: *mild, mild-moderate, moderate, moderate-severe, and severe*. Selected examples of test questions from each section are presented in Table 1.

Table 1. Selected examples of the items (original and translated) of the OASES-S questionnaire

Section	English	Polish
I	How often does your speech sound "natural" to you (like the speech of other kids)?	Jak często Twoje wypowiedzi brzmią dla Ciebie „naturalnie” (jak mowa innych dzieci)?
	How much do you know about what helps people stutter less often?	Jak dużo wiesz na temat tego, co pomaga ludziom jąkać się mniej/rzadziej?

Table 1. cont.

II	When you think about your stuttering, how often do you feel nervous or anxious that you might stutter?	Kiedy myślisz o swoim jąkanii, jak często czujesz się zdenerwowany lub zaniepokojony w obawie, że możesz się zająknąć?
	How often do you avoid or stay away from activities or situations because you think you might stutter?	Jak często unikasz różnych aktywności lub sytuacji w obawie, że się zająkniesz?
III	In general, how hard is it for you to talk with other kids?	Ogólnie ujmując, jak trudno jest Ci rozmawiać z innymi dziećmi?
	At school, how hard is it for you to ask a question or read out loud in class?	W szkole – jak trudno jest Ci zadawać pytania lub czytać na głos na lekcji?
IV	How much is your life negatively affected by your stuttering?	Jak bardzo negatywnie na Twoje życie wpływa Twoje jąkanie?
	How much does stuttering get in the way of your ability to succeed at school?	Jak bardzo Twoje jąkanie przeszkadza Ci w odnoszeniu sukcesów w szkole?

The original English version of the OASES-S for children ages 7-12 (Yaruss & Quesal, 2016) was translated into Polish following a forward-backward translation process: first, it was translated into Polish by one of the Polish research team members, who is a certified speech-language therapist (SLT) and has a Master's degree in English Philology. The first Polish version obtained was then back-translated by a qualified translator who is a bilingual Polish-English speaker. Consequently, this version of OASES-S was compared with its English equivalent by the research team, the differences between the two versions were discussed, and final revisions were made, resulting in the OASES-S-PL discussed in this paper.

### Data collection procedure

The OASES-S-PL was administered to study participants individually or in group settings. A total of 35 SLTs conducted data collection. Purposive sampling was used. Data collection was implemented at the following places: psychological-educational city centres, private practices, educational settings, and support groups for CWS provided by leaders of the self-help movements for PWS, SLTs and students of speech-therapy. SLTs who specialize in fluency disorders administered the OASES-S to each participant individually. School SLTs and SLTs from psychological-educational city centres worked with children in groups. Similarly, self-help leaders administered the OASES in groups to children who participated in workshops for CWS.

### Participants

The OASES-S-PL was distributed to 55 Polish-speaking school-age children (21 girls and 34 boys) who stutter. All respondents were native speakers of Polish who came from both urban and rural areas across Poland. Table 2 shows the demographics of the study participants.

Table 2. Distribution of sex and age of participants

Sex	N	%	Age (years; months)			
			Minimum	Maximum	Mean	SD
Female	21	38	7;7	12;7	9;11	1;4
Male	34	62	7;1	12;6	9;7	1;8
Total	55	100	7;1	12;7	9;9	1;7

The mean age for the sample was 9 years 9 months (SD = 1y 7m), with a range of 7y 1m to 12y 7m.

Participants differed in terms of their previous experience attending speech therapy. Among the tested individuals, 10 children had not participated in speech therapy before, and 45 children had.

## ANALYSES – STATISTICAL APPROACHES

### Reliability

To assess the reliability of the OASES-S-PL, the internal consistency was measured using Cronbach's alpha for each section and the total score. Internal consistency reflects the degree to which the test items are related to each other, meaning the degree to which they measure the same concept. Cronbach's alpha above 0.70 indicates good internal consistency and test reliability (Peterson, 1994).

### Validity

The construct validity was assessed. It can be measured by analyzing the internal structure of the test, assessing the degree of interconnection of its parts. A test is valid when its parts are related to each other according to theoretical assumptions (Cronbach & Meehl, 1955). In this study, the item-test correlations and the correlations between the scores of each OASES-S-PL section were calculated. The validity of a test is confirmed when these correlations are positive.



## RESULTS

In Table 3 frequency distributions of Impact Ratings for all four sections and the total score for the 55 Polish school-age children who completed the OASES-S-PL are presented.

Table 3. Frequency Distributions of Impact Ratings in the Standardization Sample for OASES-S-PL Response Form

Impact Rating	Impact Scores	Section I	Section II	Section III	Section IV	Overall
Mild	1.00 – 1.49	0%	16.4%	23.6%	40.0%	9.1%
Mild-Moderate	1.50 – 2.24	20.0%	36.4%	40.0%	34.5%	40.0%
Moderate	2.25 – 2.99	32.7%	32.7%	25.5%	14.5%	41.8%
Moderate-Severe	3.00 – 3.74	45.5%	9.1%	7.3%	9.1%	7.3%
Severe	3.75 – 5.00	1.8%	5.5%	3.6%	1.8%	1.8%

Most participants declared that stuttering had a moderate (41.8%) or mild-moderate (40.0%) impact on their lives. Most often, stuttering had a moderate-severe (45.5%) or moderate (32.7%) impact on participants' general impressions about their impairment and how they felt about it; mild-moderate (36.4%) or moderate (32.7%) impact on their affective, behavioural, and cognitive reactions to stuttering; mild-moderate (40%) or moderate (25.5%) impact on their communication in daily situations; and mild (40%) or mild-moderate (34.5%) impact on the quality of their lives.

### Relation to international data

Table 4 shows results from the Polish version of OASES-S-PL together with data from the Swedish (Lindström et al., 2020), American (Yaruss & Quesal, 2016), and Dutch (Lankman, Yaruss & Franken, 2015) versions. Table 5 presents values of statistical comparison between these OASES-S versions.



Table 4. Descriptive statistics for Polish, Swedish, American, and Dutch OASES-S impact scores

	Polish (n = 55)		Swedish (n = 32)		American (n = 75)		Dutch (n = 101)	
	M	SD	M	SD	M	SD	M	SD
I: General Information	2.84	0.56	2.89	0.42	2.57*	0.44	2.75	0.40
II: Your Reactions to Stuttering	2.22	0.75	2.33	0.63	2.38	0.70	1.87*	0.64
III: Communication in Daily Situations	2.06	0.78	1.96	0.65	2.09	0.74	2.04	0.57
IV: Quality of Life	1.83	0.76	1.69	0.58	1.72	0.59	1.57*	0.55
Overall Score	2.26	0.61	2.28	0.47	2.25	0.50	2.09*	0.42

\* There were statistically significant differences between international and Polish results (one-sample t-test)

Table 5. Values of statistical comparison between Polish and Swedish, American, and Dutch OASES-S impact scores (one-sample t-test)

	Swedish (n = 32)		American (n = 75)		Dutch (n = 101)	
	t	p	t	p	t	P
I: General Information	-0.692	0.492	3.520	0.001	1.151	0.255
II: Your Reactions to Stuttering	-1.063	0.293	-1.558	0.125	3.494	0.001
III: Communication in Daily Situations	0.968	0.337	-0.266	0.791	0.208	0.836
IV: Quality of Life	1.340	0.186	1.049	0.299	2.505	0.015
Overall Score	-0.185	0.854	0.181	0.857	2.132	0.038

The mean of Section I (*General Information*) of the Polish version of OASES-S-PL was significantly higher than those from the American version ( $t = 3.520$ ;  $p < 0.01$ ). The means of Section II (*Your Reactions to Stuttering*), Section IV (*Quality of Life*) and Overall Score of OASES-S-PL were significantly higher than those from the Dutch version ( $t_{SII} = 3.494$ ;  $p_{SII} < 0.01$ ;  $t_{SIV} = 2.505$ ;  $p_{SIV} < 0.05$ ;  $t_{OS} = 2.132$ ;  $p_{OS} < 0.05$ ). For Section III, there was no difference between Polish, Swedish, American, and Dutch results (Table 5).

### Reliability

Reliability (internal consistency) of each section and total OASES-S-PL score are presented in Table 6. Missing values were replaced with the series means.

Table 6. Internal Consistency Reliabilities (Cronbach's alpha) of Impact Scores for the OASES-S-PL Response Form

Section	Cronbach's alpha	Number of items
I: General Information	0.785	15
II: Your Reactions to Stuttering	0.917	20
III: Communication in Daily Situations	0.939	15
IV: Quality of Life	0.897	10
Overall Score	0.959	60

Both the Cronbach's alpha of each section and the total score of OASES-S-PL were greater than 0.70 (ranging from 0.785-0.959). The result indicates strong internal consistency and reliability.

### Validity

To evaluate the validity, the item-test correlations (Table 7) and the correlations among the Impact Scores of four sections (Table 8) were calculated.

Table 7. Internal Structure Construct Validity – Item-test Correlations (Spearman's rho)

I: General Information		II: Your Reactions to Stuttering		III: Communication in Daily Situations		IV: Quality of Life	
Item	Spearman's rho	Item	Spearman's rho	Item	Spearman's rho	Item	Spearman's rho
1	0.499***	16	0.478***	36	0.647***	51	0.769***
2	0.476***	17	0.661***	37	0.657***	52	0.467***
3	0.168	18	0.660***	38	0.602***	53	0.292*
4	0.603***	19	0.592***	39	0.676***	54	0.773***
5	0.180	20	0.388***	40	0.592***	55	0.706***
6	0.179	21	0.340*	41	0.607***	56	0.526***
7	0.261	22	0.272*	42	0.688***	57	0.735***
8	0.153	23	0.495***	43	0.687***	58	0.782***
9	0.235	24	0.572***	44	0.600***	59	0.546***
10	0.675***	25	0.573***	45	0.712***	60	0.674***
11	0.671***	26	0.667***	46	0.705***		
12	0.371*	27	0.498***	47	0.687***		

Table 7. cont.

13	0.547***	28	0.584***	48	0.573***		
14	0.246	29	0.574***	49	0.544***		
15	0.043	30	0.634***	50	0.514***		
		31	0.676***				
		32	0.468***				
		33	0.563***				
		34	0.629***				
		35	0.622***				
Section I	0.608**	Section II	0.927***	Section III	0.885**	Section IV	0.909**

\*\*\*  $p < 0.001$ ; \*  $p < 0.05$

All items in Sections 2, 3, and 4 were positively correlated with the total OASES-S-PL score ( $\rho = 0.272 - 0.782$ ). Some of the items in Section 1 are not related to the overall OASES-S-PL score.

Table 8. Internal Structure Construct Validity – correlation between all sections and total OASES-S score (Pearson's  $r$ )

	<b>I: General Information</b>	<b>II: Your Reactions to Stuttering</b>	<b>III: Communication in Daily Situations</b>	<b>IV: Quality of Life</b>
I: General Information	1			
II: Your Reactions to Stuttering	0.413**	1		
III: Communication in Daily Situations	0.365**	0.760***	1	
IV: Quality of Life	0.466***	0.813***	0.786***	1
Overall Score	0.608***	0.927***	0.885***	0.909***

\*\*\*  $p < 0.001$ ; \*\*  $p < 0.01$

All OASES-S-PL sections were positively correlated with each other ( $r = 0.365 - 0.786$ ) and with the overall OASES-S-PL score ( $r = 0.608 - 0.927$ ). The results show that OASES-S-PL can be considered a high validity test.

## DISCUSSION

In this study, the translation and psychometric characteristics of the Polish version of the OASES for school-age children were reported. The study involved 55 Polish school-age children who stutter. The Polish forward-backward translation of the original version of OASES-S was made.

For the reliability of OASES-S-PL, internal consistency was assessed. The study findings indicate that there is a strong consistency among scores on items. The OASES-S-PL reliability corresponds with findings from the original American evaluation of OASES-S (Yaruss & Quesal, 2016). Section I of OASES-S-PL revealed higher reliability than Section I of the Swedish (with the Cronbach's alpha of 0.54; Lindström et al., 2020) and Dutch (with the Cronbach's alpha of 0.29; Lankman, Yaruss & Franken, 2015) versions of the OASES-S.

The construct validity was assessed using the item-test correlations and the correlations among the Impact Scores of four sections. All items in Sections II, III, and IV and almost all items in Section I were positively correlated with the total OASES-S-PL score. All sections were positively correlated with each other and with the total score. These results indicate a high validity of the Polish version of OASES-S. The lack of significant correlations between some Section I items with the overall score may be due to the fact that Section I assesses the children's perceptions of their speech, their knowledge of the disorder, and their feelings related to being a person who stutters. This can be explained by the fact that speech therapy offered to Polish CWS is rarely based on extending their knowledge of stuttering and often fails to add the aspects of thoughts, feelings, and attitudes these children have about stuttering. Its main (if not sole) focus is on improving the fluency of speaking in CWS.

Concerning international data, the Polish scores in Section I were significantly higher than those from the USA, and results in Section II, Section IV, and Overall Score were significantly higher than those from Sweden and the Netherlands. These findings indicate cultural differences in terms of the quality of life of children who stutter. Specific for Polish results are high scores in Section I; for almost half of the participants, stuttering has a moderate-severe impact on their perceptions of their speech, knowledge of the stuttering, and their feeling about being a child who stutters.

### **Practical implications**

The experience of stuttering cannot merely be analyzed via exploring the severity of the behavioural symptoms. Personal and environmental factors, the degree of activity, and social participation are additional dimensions that serve to build a holistic picture of an individual's struggle with stuttering. Therefore, in the

process of diagnosing stuttering in school-age children, it is advisable to use the WHO's ICF model. The speech-language pathologist should identify the symptoms of stuttering observable by listeners. The child's and listeners' reactions to these symptoms should also be evaluated, as well as the impact of stuttering on the child's life (Coleman & Yaruss, 2014). With such a broad approach in the diagnostic process, it is possible to highly individualize therapy goals and undertake a person-centred intervention. According to the American Speech-Language and Hearing Association (ASHA) guidelines (ASHA, 2022), treatment goals for fluency disorders should consist of the following:

- reducing the frequency and severity of disfluencies, physical secondary behaviour and learned avoidance behaviour, tension, and effort in communication;
- enabling effective communication in various speaking situations, minimizing the impact of stuttering on the speaker's ability to achieve educational objectives and interact with others;
- reducing the impact of stuttering on the speaker's perceived quality of life;
- reducing negative emotional responses to stuttering and communication in general;
- increasing self-confidence, participation, and enjoyment; increasing knowledge about stuttering, taking the initiative to educate others and advocate for appropriate accommodations;
- developing and maintaining support systems; managing teasing/bullying and other negative listener reactions; developing self-therapy, self-management, and problem-solving skills<sup>1</sup>.

Therapeutic goals should target all areas of communication so that the child can become a more effective speaker. In this way, improvement of communication and increased education and support in the environment can be achieved. As a result, the adverse impact on quality of life, along with negative reactions and impairment, can be reduced (Coleman, Yaruss, 2014). Delivering the diagnostic and therapeutic processes in such a way that the quality of children's lives is taken into account has one more potential advantage. It prevents overlooking shy or reticent children, who tend to answer questions briefly and reluctantly, or who prefer writing to speaking and are not very active in social life. Alas, it happens that such individuals may "pass" as fluent their entire lives, even their significant others unaware of this phenomenon, yet still experience significant adverse impact due to their hidden stuttering. By examining the quality of life of CWS, diagnosticians

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<sup>1</sup> For more information visit: <https://www.asha.org/practice-portal/clinical-topics/fluency-disorders/treatment-goals-for-fluency-disorders-in-the-context-of-the-who-icf-framework/>

can apply a comprehensive detailed assessment and select appropriate intervention strategies.

Close collaboration with the child's parents is another key component of the effective therapeutic process. First of all, parents should be provided opportunities to get familiar with updated knowledge on stuttering and its impact on various areas of life. This will allow a better understanding of the nature of a child's difficulties and facilitate the whole therapy process. Findings from the present study indicate that these children who stutter possessed a relatively low level of knowledge about stuttering (such as its causes, strengthening and mitigating factors, and treatment options). This leads to the conclusion that Polish speech-language pathologists should incorporate this kind of information into their professional activities to increase openness about stuttering and create more accepting attitudes toward it, both within their clients who stutter and within society as a whole.

Unfortunately, stuttering therapy in Poland frequently aims at eliminating stuttering by using fluency shaping techniques and rarely includes work on beliefs and emotions or changing attitudes towards stuttering (Węsierska & Pakura, 2018; Dziukiewicz, 2020; Gunia, 2017). Although this has historically been true for all stuttering therapy, trends are changing in other countries, and a move toward more holistic therapy is becoming more common (Bloodstein et al., 2021). Providing Polish SLPs with access to the OASES-S-PL could encourage them to apply a more comprehensive assessment of the disorder's overall impact and establish broader therapy programs that are tailored to each child's individual needs. It is also possible that some school-age children who stutter will feel empowered by gaining knowledge and obtaining a deeper understanding of their stuttering as a result of following a custom-made treatment program based on the OASES-S-PL outcomes. The ultimate goals of such intervention are to minimize the negative impact of stuttering on children's lives and enable them to live life to the fullest and realize their potential, regardless of whether or how much they might stutter.

## CONCLUSION

The translated questionnaire (OASES-S-PL) showed good internal consistency and positive significant correlations among its parts. These findings support the conclusion that the OASES-S-PL is a reliable, valid measure of school-age children's experience of stuttering and point to the importance of assessing and treating stuttering in its entirety.

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## REFERENCES

- American Speech-Language-Hearing Association (bd). Fluency Disorders (Practice Portal). Retrived from: [https://www.asha.org/practice-portal/clinical-topics/fluency-disorders/#collapse\\_0](https://www.asha.org/practice-portal/clinical-topics/fluency-disorders/#collapse_0)
- Beilby J.M., Byrnes M.L., Yaruss J.S., 2012, *The impact of a stuttering disorder on Western Australian children and adolescents*, "Perspectives on Fluency and Fluency Disorders", 22, pp. 51–62. <https://doi.org/10.1044/ffd22.2.51>
- Blood G.W., Blood I.M., 2004, *Bullying in adolescents who stutter: Communicative competence and self-esteem*, "Contemporary Issues in Communication Science and Disorders", 31, pp. 69–79.
- Blood G.W., Blood I.M., Maloney K., Meyer C., Qualls C.D., 2007, *Anxiety levels in adolescents who stutter*, "Journal of Communication Disorders", 40(6), pp. 452–469. <https://doi.org/10.1016/j.jcomdis.2006.10.005>
- Bloodstein O., Bernstein Ratner N., Brundage S.B., 2021, *The Handbook on Stuttering*. (7<sup>th</sup>ed.). Plural Publishing Inc.
- Coleman C., Yaruss J.S., 2014, *A comprehensive view of stuttering: Implications for Assessment and Treatment*, "SIG 16 Perspectives on School-Based Issues", 15(2), pp. 75–80.
- 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, pp. 61–71.
- Cronbach L.J., Meehl P.E., 1955, *Construct validity in psychological tests*, "Psychological Bulletin", 52(4), pp. 281–302.
- Davis S., Howell P., Cooke F., 2002, *Sociodynamic relationships between children who stutter and their non-stuttering classmates*, "The Journal of Child Psychology and Psychiatry", 43(7), pp. 939–947. <https://doi.org/10.1111/1469-7610.00093>
- Dziukiewicz J., 2020, *Jakość życia dziecka jękającego się – analiza przypadku w kontekście funkcjonowania psychospołecznego*, [w:] *Zaburzenia płynności mowy – teoria i praktyka*, eds. K. Wesierska, M. Witkowski, t. 2, Katowice, pp. 153–176.
- Góral-Pótroła J., Tarkowski Z., 2012, *Skala Samooceny i Oceny Jękania*, Lublin.
- Góral-Pótroła J., Tarkowski Z., 2011, *Skala Motywacji do Terapii Jękania*, Lublin.
- Gunia G., 2017, *Strategie podwyższenia jakości życia osób z zaburzeniami komunikacji*, „Rocznik Komisji Nauk Pedagogicznych”, 70, pp. 29–42.
- Hayhow R., Cray A.M., Enderby P., 2002, *Stammering and therapy views of people who stammer*, "Journal of Fluency Disorders", 27(1) (2002), pp. 1–16.
- Klein J.F., Hood S.B., 2004, *The impact of stuttering on employment opportunities and job performance*, "Journal of Fluency Disorders", 29(4), pp. 255–273.
- Klompas M., Ross E., 2004, *Life experiences of people who stutter, and the perceived impact of stuttering on quality of life: Personal accounts of South African individuals*, "Journal of Fluency Disorders", 29 (4), pp. 275–305.
- Koedoot C., Bouwmans C., Franken M.C., Stolk E., 2011, *Quality of life in adults who stutter*, "Journal of Communication Disorders", 44,4, pp. 429–433.
- Langevin M., 1997, *Peer teasing project*, [w:] *Proceedings from the second world congress on fluency disorders*, eds. E.C. Healy, H.F.M. Peters, Nijmegen, pp. 169–171.



- Langevin M., Bortnick K., Hammer T., Weibe E., 1998, *Teasing/bullying experienced by children who stutter: Toward development of a questionnaire*, "Contemporary Issues in Communication Science and Disorders", 25, pp. 12–24.
- Langevin M., 2000, *Teasing and Bullying: Unacceptable Behaviour: the TAB program*. Edmonton.
- Lankman R.S., Yaruss J.S., Franken M.-C., 2015, *Validation and evaluation of the Dutch translation of the Overall Assessment of the Speaker's Experience of Stuttering for School-Age Children (OASES-S-D)*, "Journal of Fluency Disorders", 45, pp. 27–37. <https://doi.org/10.1016/j.jfludis.2015.05.0>
- Lindström E., Nilsson E., Nilsson J., Schödin I., Strömberg N., Österberg S., Yaruss J.S., Samson I., 2020, *Swedish outcomes of the Overall Assessment of the Speaker's Experience of Stuttering in an international perspective*, "Logopedics Phoniatrics Vocology", 45:4, pp. 181–189, DOI: 10.1080/14015439.2019.1695930
- Manning W., DiLollo A., 2018, *Clinical decision making in fluency disorders* (4<sup>th</sup>ed.), San Diego.
- Murphy W.P., Yaruss J.S., Quesal R.W., 2007a, *Enhancing treatment for school-age children who stutter: I. Reducing negative reactions through desensitization and cognitive restructuring*, "Journal of Fluency Disorders", 32(2), pp. 121–138.
- Murphy W.P., Yaruss J.S., Quesal R.W., 2007b, *Enhancing treatment for school-age children who stutter II: Reducing bullying through role-playing and self-disclosure*, "Journal of Fluency Disorders", 32(2), pp. 139–162.
- Peterson R.A., 1994, *A meta-analysis of Cronbach's*, "Journal of Consumer Research", 21, pp. 381–391.
- Ścibisz K., Węsierska K., 2019, *Jakość życia dorosłych osób z jękaniami – implikacje dla praktyki logopedycznej / Kvalita života koptavých – implikace pro klinickou praxi*, „Listy klinické logopedie”, 2, pp. 80–98.
- Tarkowski Z., 2010, *Kwestionariusz Zaburzeń Płynności Mówienia*, Lublin.
- Tarkowski Z., 2011, *Skala reakcji na Niepłynność Mówienia*, Lublin.
- Tichenor S.E., Yaruss J.S., 2019, *Stuttering as Defined by Adults Who Stutter*, "Journal of Speech Language and Hearing Research" 62(12), pp. 1–14. DOI:10.1044/2019\_JSLHR-19-00137.
- Vanryckeghem M., 2021, *Ocena afektywnych, behawioralnych i kognitywnych aspektów jękania – jak złożenie tych elementów układanki prowadzi do diagnozy różnicowej i wyznacza cele terapii*, [w:] *Dialog bez barier – kompleksowa interwencja logopedyczna w jękanii*. Wydanie polskie rozszerzone, red. K. Węsierska, H. Sønsterud, Chorzów, pp. 179–206.
- Vanryckeghem M., Brutten G., 2021, *BAB – Bateria testów do oceny zachowań dla dzieci w wieku szkolnym, które się jękają*, Katowice.
- The WHOQOL Group, 1998a, *The World Health Organization quality of life assessment (WHOQOL): Development and general psychometric properties*, "Social Science and Medicine", 46, pp. 1569–1585.
- The WHOQOL Group, 1998b, *WHOQOL User Manual*, Genewa.
- Węsierska K., Pakura M., 2018, *Sytuacja dorosłych zmagających się z jękaniami w Polsce w opiniach logopedów i osób jękających się*, [w:] *Zaburzenia płynności mowy*, red. K. Węsierska, K. Gaweł, Gdańsk, pp. 113–130.
- World Health Organization, 1980, *International classification of impairments, disabilities and handicaps: A manual of classification relating to the consequences of disease*, Geneva.
- World Health Organization, 1993, *International classification of impairments, disabilities and handicaps: A manual of classification relating to the consequences of disease*, Geneva.
- World Health Organization, 2001, *The International Classification of Functioning, Disability and Health*, Geneva.

- Woźniak T., Skibicka A., 2021, *Jakość życia dorosłych osób jękających się. Próby opisu zjawiska. Paper presented at 4<sup>th</sup> International Conference on Logopedics: Fluency Disorders: Theory and Practice*, Katowice.
- Yaruss J.S., 1998, *Describing the consequences of disorders: Stuttering and the International Classification of Impairments, Disabilities, and Handicaps*, "Journal of Speech, Language, and Hearing Research", 49, pp. 249–257. <https://doi.org/10.1044/jslhr.4102.249>
- Yaruss J.S., 2010, *Assessing quality of life in stuttering treatment outcomes research*, "Journal of Fluency Disorders", 35(3), pp. 190–202. <https://doi.org/10.1016/j.jfludis.2010.05.010>.
- Yaruss J.S., Murphy W.P., Quesal R.W., Reardon N.A., 2004, *Bullying and teasing: Helping children who stutter*, New York.
- Yaruss J.S., Quesal R.W., 2004, *Stuttering and the International Classification of Functioning, Disability, and Health (ICF): An update*, "Journal of Communication Disorders", 37, pp. 35–52.
- Yaruss J., Quesal R., 2006, *Overall Assessment of the Speaker's Experience of Stuttering (OASES): Documenting multiple outcomes in stuttering treatment*, "Journal of Fluency Disorders", 31, pp. 90–115.
- Yaruss J.S., Quesal R.W., 2010, *Overall Assessment of the Speaker's Experience of Stuttering (OASES)*, Bloomington.
- Yaruss J.S., Quesal R.W., 2016, *Overall Assessment of the Speaker's Experience of Stuttering (OASES)*, McKinney.