



# *What do people search for in stuttering therapy: personal goal-setting as a gold standard?*

Article

Published Version

Creative Commons: Attribution 4.0 (CC-BY)

Open Access

Sønsterud, H., Feragen, K. B., Kirmess, M., Halvorsen, M. S. and Ward, D. (2020) What do people search for in stuttering therapy: personal goal-setting as a gold standard? *Journal of Communication Disorders*. 105944. ISSN 0021-9924 doi: <https://doi.org/10.1016/j.jcomdis.2019.105944> Available at <http://centaur.reading.ac.uk/86541/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

To link to this article DOI: <http://dx.doi.org/10.1016/j.jcomdis.2019.105944>

Publisher: Elsevier

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in

the [End User Agreement](#).

[www.reading.ac.uk/centaur](http://www.reading.ac.uk/centaur)

## **CentAUR**

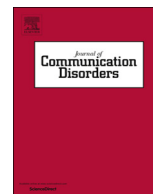
Central Archive at the University of Reading

Reading's research outputs online



Contents lists available at ScienceDirect

## Journal of Communication Disorders

journal homepage: [www.elsevier.com/locate/jcomdis](http://www.elsevier.com/locate/jcomdis)

## What do people search for in stuttering therapy: Personal goal-setting as a gold standard?



Hilda Sønsterud<sup>a,b,\*</sup>, Kristin Billaud Feragen<sup>c</sup>, Melanie Kirmess<sup>d,e</sup>,  
Margrethe Seeger Halvorsen<sup>a</sup>, David Ward<sup>f</sup>

<sup>a</sup> Department of Psychology, University of Oslo, Norway

<sup>b</sup> Statped, Department of Speech and Language Disorders, Norway

<sup>c</sup> Oslo University Hospital, Centre for Rare Disorders, Oslo, Norway

<sup>d</sup> Department of Special Needs Education, University of Oslo, Norway

<sup>e</sup> Sunnaas Rehabilitation Hospital, Norway

<sup>f</sup> University of Reading, Speech Research Laboratory, England, United Kingdom

## ARTICLE INFO

## Keywords:

Stuttering

Individualized treatment, Personal goals

Agreed therapy outcomes

Mixed- method research

## ABSTRACT

**Purpose:** Stuttering affects people in individual ways, and there are multiple factors which may influence a person's goals when seeking therapy. Even though there is a common consensus that speech-language pathologists should discuss the individual's goals and expectations for stuttering therapy and outcomes, few studies have systematically investigated this issue.

The aims of the present study were to investigate individual motivations and goal-setting related factors in stuttering therapy. The associations between self-reported impact of stuttering and the participants' perceptions of stuttering interference in communication, speaking abilities, and relationships with other people were also investigated.

**Method:** This study is part of a wider-ranging treatment study of individualized stuttering management tailored to the participants' personal goals and preferences. A mixed method, multiple single-case design was used to address the research questions. Twenty-one adults, age 21–61 years, took part in a pretherapy interview, which also included two quantitative measures: the Client Preferences for Stuttering Therapy-Extended version (CPST-E) and the Overall Assessment of Speakers' Experience of Stuttering-Adult version (OASES-A). Findings from the study sample was compared with a Norwegian reference group, in order to check for the representativeness of the study sample.

**Results:** Quantitative data showed that most participants wanted to focus on both physical and psychological aspects of therapy, and that 95% considered 'to gain a sense of control over the stuttering' as important. Participants' perspectives on their speaking ability and stuttering interference in communication were identified as central factors, particularly in social and professional settings. These outcomes aligned well with the finding of avoidance behaviors, such as avoiding words and speaking situations. Qualitative data identified four main areas that the participants wanted to improve: speech fluency, emotional functioning, activity and participation, and understanding of their stuttering.

**Conclusion:** The study confirms that multiple and individual factors may influence the person's goals for therapy. Goals were mainly anchored in participants' wish of better coping in real world settings. A high degree of avoidance behavior was reported, suggesting that anxiety, and in

\* Corresponding author at: Department of Psychology, University of Oslo, Postboks 1094 Blindern, N-0317 Oslo, Norway.

E-mail address: [hilda.sonsterud@statped.no](mailto:hilda.sonsterud@statped.no) (H. Sønsterud).

<https://doi.org/10.1016/j.jcomdis.2019.105944>

Received 23 October 2018; Received in revised form 3 September 2019; Accepted 24 September 2019

Available online 01 October 2019

0021-9924/ © 2019 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license

(<http://creativecommons.org/licenses/by/4.0/>).

particular linguistic-related anxiety needs to be taken into account when addressing social anxiety in fluency disorders.

## 1. Introduction

For many individuals who stutter, stuttering can significantly affect social experiences and hence potentially affect psychosocial and psychological adjustment (Boyle & Fearon, 2017; Manning & Beck, 2013). Although varying individually and contextually, stuttering can have a negative impact on education, career, and social life, which can significantly impact on both communication and quality of life (Bricker-Katz, Lincoln, & McCabe, 2009; Bricker-Katz, Lincoln, & Cumming, 2013; Craig, Blumgart, & Tran, 2009; Erickson & Block, 2013; O'Brian, Jones, Packman, Menzies, & Onslow, 2011; St. Louis & Tellis, 2015). Many persons who stutter experience their stuttering as a loss of control, or fear of impending loss of control, with following frustration and negative thoughts. Loss of control and loss of the belief that one can speak in social situations can further lead to avoidance behaviors and social withdrawal (Craig & Andrews, 1985; De Nil & Kroll, 1995; Riley, Riley, & Maguire, 2004).

There is considerable evidence that links stuttering with social anxiety (Craig & Tran, 2014; Iverach & Rapee, 2014; Menzies et al., 2008, 2019; Messenger, Onslow, Packman, & Menzies, 2004). According to Iverach et al. (2018), social anxiety in adults who stutter leads to greater emotional challenges, less satisfaction with speech, and increased avoidance of speaking situations. How anxiety levels may affect linguistic performance and interfere with speaking abilities and social activities has not, as far as we are aware, been investigated in stuttering research. For people with aphasia, the use of 'linguistic anxiety' has been created to describe stress reactions induced by language testing and everyday situations that require the use of language (Cahana-Amitay et al., 2015; Torres-Prioris et al., 2019). We believe it would be worthwhile considering whether linguistic-related anxiety might influence speaking abilities, communication and social involvement in people with stuttering.

The stuttering literature often divides stuttering therapy into two main traditions which are based upon seemingly different theoretical foundations, and further distinguished on the basis of behavioral or affective therapy goals, procedures and structure (Guitar, 2014; Shapiro, 2011). At the same time, integrated approaches highlight the principle that stuttering therapy should be tailored to each person's needs (Ward, 2018). Despite this, we still find examples in the literature where clinicians take a more polarized perspective; following either fluency shaping or stuttering modification approaches (Venkatagiri, 2009). The present study questions whether this binary distinction is still valid in today's clinical contexts and explores to what extent such an approach reflects a consensus within the field of fluency disorders.

### 1.1. People have diverse goals

Bothe and Richardson (2011) use the term *personal significance* to refer to goals, measures and changes that are of high value to the individual. They recommend the introduction of this concept as an addition to the known and well established measures of statistical, practical, and clinical significance for the interpretation of therapy outcomes (Bothe & Richardson, 2011; Ingham, Ingham, & Bothe, 2012). According to Ingham et al. (2012), this distinction lies in between the clinician or researcher's judgments and the client's own personal perceptions as to the worth of an achieved therapy outcome. The authors suggest that therapies may require changes that are designed to deal with what is especially significant for the individual. Using the person's self-judgment in therapy is part of an essential constituent in evidence-based practice and is also echoed in stuttering therapy (Bernstein Ratner, 2005; Bothe & Richardson, 2011; Ingham et al., 2012). According to Karimi et al., the person's satisfaction with communication in everyday speaking situations is a primary outcome which reflects 'a fundamental treatment gain that overarches all stuttering treatments' (2018, p. 82). Hence, the SLP needs to explore areas of communication in everyday speaking that matter the most to the client, in order to be able to address these issues as part of the treatment.

The discrepancy between desired and realistic outcomes is often a common issue in stuttering therapy, especially regarding adults with chronic stuttering. According to Ward, it is essential that the client is very aware of the goals of therapy, 'and of the likelihood of these goals being completely achieved' (Ward, 2018, p. 301). Goal-directed work and pretherapy reflections are integrated in the working alliance philosophy (Flückiger, Del Re, Wampold, & Horvath, 2018). The goals a client may be seeking in stuttering therapy will vary dependent on a wide range of factors, including the type of available therapies, the individual's previous experiences in therapy, phase-related aspects in life, and the subjective severity of physical and psychological distress associated with stuttering. We acknowledge that participants may not come for therapy with a full understanding of the range of options available. They might well desire a certain outcome without knowing whether this is achievable or not, and in the absence of any knowledge they may or may not have about therapy approaches.

The World Health Organization's (WHO) classification system, the International Classification of Functioning, Disability and Health (ICF), is often used as a framework of stuttering (St. Louis & Tellis, 2015). It considers the effect of function, disability and health across a wide range of factors and different aspects in life, including, a) impairment in body function, b) activity limitation and participation restriction, and c) environmental factors (World Health Organization, 2001). The ICF has provided a framework for understanding and assessing stuttering and stuttering therapy in a contextual setting. The contextual setting includes quality of life, overall well-being, self-stigma, and social aspects which may be regarded as particularly important for people who stutter (Boyle & Fearon, 2017; St. Louis et al., 2017; Yaruss, 2010). Stuttering identity, stuttering acceptance and avoidance-behavior can be regarded

as three important concepts in the field of stuttering, and may influence the clients' priorities regarding goals and wishes for therapy. We believe that an individualized goal-setting approach in many ways mirrors the client's optimal level of functioning, and fits well with the ICF framework regarding personal and environmental factors as discussed by for example Yaruss and Quesal (2004) and Logan (2015).

### 1.2. Collaborative 'working together' aspects of the relationship

The collaboration between the person who stutters and the speech-language pathologist (SLP) should be based on an agreed consideration of the individual's hopes and goals. According to Logan (2015, p. 469), people "*function most effectively when their daily activities are aligned with the goals or destinations that they hope to reach*". McLeod (2018) claims that the persons' goals can be stated, but cannot always be easily evaluated. The goals or tasks may therefore need to be broken down further into specific, meaningful and measurable sub goals or tasks.

The concept of the working alliance is commonly used in psychotherapy, where it is defined as the healthy, trusting aspect of the client-clinician relationship (Bordin, 1979; Flückiger et al., 2018, 2019; Wampold, 2015). The potential impact of the client-clinician relationship is also acknowledged within speech-language pathology in general (Berg, Askim, Balandin, Armstrong, & Rise, 2017; Lawton, Haddock, Conroy, Serrant, & Sage, 2018; Lawton, Sage, Haddock, Conroy, & Serrant, 2018) and in communities of people who stutter (Plexico, Manning, & Dilollo, 2010; Hayhow, Cray, & Enderby, 2002; Manning, 2010; Plexico, Manning, & Dilollo, 2005; Shapiro, 2011; Sønsterud et al., 2019; Van Riper, 1973; Zebrowski & Kelly, 2002). The establishment of agreed core outcomes is of importance and relevance to people who stutter and '*needs to be prioritized highly*' (Baxter et al., 2015, p. 690). Needs and goals may differ between individuals, and according to Hayhow et al. (2002) controlling stuttering and developing coping strategies were regarded as important in their survey. They also highlighted a need for clinicians and clients to collaborate on therapy aims and procedures that are more specified, and to match the stuttering therapy '*with the needs of each individual*' (Hayhow et al., 2002, p. 13). This view is in accordance with several authors, who highlight the importance of clinicians adopting the individual's own goals, needs and ideas about stuttering, as well as recognizing their personal values and aims in life (Cheasman, Simpson, & Everard, 2013; Cooke & Millard, 2018; Manning, 2010; Shapiro, 2011; Zebrowski & Kelly, 2002). Acknowledging both the individual's experiences within their own process of change and the conscious decision to address their own challenge with stuttering are central to successful goal-setting (Manning, 2010). Shapiro (2011) emphasizes that such a decision belongs to the individual and should not be made by anyone else. Furthermore, the motivation for change and/or amount of effort the person is willing to invest in the process may also be an important factor.

### 1.3. Clients' motivational readiness of change

Psychologists have proposed different theories to explain motivation (Cox & Klinger, 2004). Based on Seo et al.'s work motivation model (Seo, Bartunek, & Barrett, 2010), an individual's feelings may play an important role in motivation. This model includes three core components of motivation: generative-defensive orientation, effort and persistence. *Generative-defensive orientation* is characterized by active engagement to achieve anticipated positive outcomes, or it can indicate the opposite; defensiveness. The generative orientation might be reflected in behaviors such as exploring, innovating and risk-taking. *Effort* refers to how much time and energy a person devotes to complete a given task, and *persistence* refers to maintaining an initially chosen course of action over time (Seo et al., 2010). People who stutter need to be ready for stuttering management. In this study, motivation was regarded as comprising both psychological and social factors. The broader usage of the term motivation refers to all goal-related processes (Cox & Klinger, 2004).

In a study which took a network approach to the analyses of the OASES-A assessment, Siew, Pelczarski, Yaruss, and Vitevitch (2017) explored participants' knowledge and feelings about stuttering interference with personal relationships, quality of life, self-esteem, emotional and physical reactions to stuttering, and difficulties speaking in various daily situations. Several central nodes (key items) were identified that described shared experiences related to stuttering. The study detected four areas which were regarded as particularly important: 1) knowledge and feelings about speech techniques, 2) the extent to which stuttering interferes with personal relationships, quality of life, and self-esteem, 3) the emotional and physical reactions one has to stuttering and how they may interfere with professional performances, and 4) how difficult it is to speak in various daily situations, and strategies one might employ to avoid those situations (Siew et al., 2017). According to the authors, investigating key nodes may improve clinicians' understanding about how stuttering is experienced by the clients, and provide insights for therapy. Nevertheless, even though there is a common consensus that SLPs should openly and honestly discuss the individual's goals and expectations of stuttering therapy, few studies have investigated clients' personal motivation for therapy or their priorities regarding therapy outcomes.

### 1.4. Summary and aims

In order to provide more individually tailored therapies for stuttering, '*we need to be prepared for a number of outcomes*' (Bernstein Ratner, 2005, p. 265), and a broader definition of progress and goals is therefore required. In particular, we need to be clear when defining exactly what an 'improvement' really entails. For some people, improvements may well be a reduction in stuttering frequency, whereas for others, improvement may be realized through a reduction in struggle during stuttered moments or changes in approach and avoidance-related behavior. Hence, goals will be individual and person-specific, and depend on the individual's personality and style of communication. The literature on stuttering therapy has not always been systematically and scientifically

attentive to the investigation of the elements outlined above (Ward, 2018). Therefore, the purpose of the present study was to contribute further knowledge regarding client motivation for therapy, and to shed light on how individual variations regarding goal-setting in people who stutter may influence outcome goals. In order to evaluate the adverse impact of stuttering on quality of life, associations between self-reported overall impact of stuttering and the participants' speaking abilities, perceptions of stuttering interference in communication, and relationships with other people were investigated.

## 2. Material and methods

### 2.1. Research design

The study is part of an A-B-A multiple single-case design study (Gast & Ledford, 2014) that investigated individualized stuttering therapy (Sønsterud, 2015; Sønsterud et al., 2019). Ethical approval for the study was received in June 2015 from the Regional Committee for Medical Research Ethics (2015/1275). All participants provided written consent before participating in the study. All participants have been given pseudonyms to preserve anonymity.

In order to investigate motivational and goal-setting factors, a convergent parallel mixed method design which combines both qualitative and quantitative data (Fetters, Curry, & Creswell, 2013) was used. Qualitative data were analyzed according to thematic analysis outlined by Braun and Clarke (2006).

### 2.2. Recruitment and relevant backgrounds about participants

Participants were recruited through the Facebook pages of the Norwegian Association of Stuttering and Cluttering, via the public webpages of the Statped's<sup>1</sup> department of speech and language disorders and via student and professional networks at the University of Oslo. The final cohort comprised 21 adults who stuttered, all of who expressed a proactive interest in having therapy and participating in the study. Sixteen participants were male, five participants were female, ranging from 21 to 61 years ( $M = 34.9$ ,  $SD = 12.2$ ). Seventeen participants indicated no history of speech or language disorders, while two of the participants reported mild to moderate dyslexia, and two disclosed an anxiety-related disorder prior to therapy. Demographics and other relevant background variables are presented in Table 1.

Participants were further invited to categorize their stuttering within one of four profiles based on the work of Tomaiuolo, Del Gado, Spinetti, Capparelli, and Venuti (2015): a) Mild overt and mild covert components, b) Mild overt and moderate/severe covert components, c) Moderate/severe overt and mild covert components, and d) Moderate/severe overt and moderate/severe covert components. Two participants self-identified as having mild overt and mild covert stuttering, eight with mild overt and moderate/severe covert components, seven with moderate/severe covert and mild overt, and lastly, four participants described themselves as having both moderate/severe overt and moderate/severe covert components.

### 2.3. Data collection procedures

To obtain insight into the participants' motivation and goals for stuttering therapy, quantitative and qualitative data were collected for each person, pretherapy. Data were initially collected at the beginning of the first meeting, 6 weeks pre-therapy. The questionnaire included an open-ended text unit, designed specifically to elicit responses regarding personal goals for therapy.

### 2.4. Measures and instruments

All participants were assessed using the same measurement procedures.

#### 2.4.1. Assessment of therapy goals and personal characteristics (CPST-E)

The participants completed an extended version of the 'Client Preferences for Stuttering Therapy' (CPST) during a pre-therapy session (McCauley & Guitart, 2010). The original CPST covers a brief overview of therapy goals, the participants' own considerations regarding fluency, ease of participation in different speaking situations, and being in-control. Items are rated on a Likert scale ranging from 1 to 5 (not at all important - very important).

Previous clinical and research experience with the CPST has indicated the need for a broader perspective on goals and motivation for therapy. An extended version has therefore recently been developed, the Client Preferences for Stuttering Therapy - Extended version (CPST-E) (Sønsterud, Howells, & Baluyot, 2017). The extended version includes an additional item in the section 'Goals of treatment': 'To have more positive feelings associated with stuttering'. The extended version also includes two additional sections measuring motivation and expectations for therapy in more detail than the original version. The section 'Motivation and expectations' addressed five questions regarding personal characteristics, including aspects related to the participants' motivation and was based on Seo et al.'s (2010) 'work motivation model', comprising questions probing: a) A person's persistence (the maintenance of an initially chosen course of action over time), b) how motivated they are to work actively with their stuttering, c) the amount of time a client is willing to set aside for independent training, d) how much help and support they expect during the therapy period, and e)

<sup>1</sup> Statped is a national service for special needs education, defined for different core areas, including services for speech and language disorders.

**Table 1**  
Client demographics for the 21 participants.

Background variables	%	n
Male gender	76.2	16
Stuttering in family	47.6	10*
Higher academic education $\geq 3$ years	38.1	8
Vocational rehabilitation	9.5	2
Received SLP treatment as children	57.1	12
Received SLP treatment as adults	13.3	3
Not received stuttering treatment at all	28.6	6

Percent (%) and Frequency (n) \*1 unknown.

their anticipations of the outcome. All items were measured on Likert scales, ranging from 1 to 5 (not at all or nothing - very much or completely). Internal consistency was good to excellent for the section 'Goals of treatment' ( $\alpha = .81$ ), 'Motivation and expectations' ( $\alpha = .92$ ), and for the summarized sections ( $\alpha = .89$ ) (Sønsterud et al., 2017).

The CPST-E also includes open text units where participants can specify their own goals and wishes for therapy, their need in order to achieve their goals, and other factors they consider important in the collaboration with the SLP, headed by the following specific question: 'Describe, using your own words, your goals and wishes for the therapy'. The qualitative data included in the present study are based on those data.

#### 2.4.2. Assessment of stuttering severity, communication and quality of life (OASES-A)

The Overall Assessment of the Speakers' Experience of Stuttering-Adult version (OASES-A) is a measure designed for examining the impact of stuttering from the perspective of the individual who stutters, and is built upon the framework of the ICF (Yaruss & Quesal, 2006, 2010). The participants completed the CPST-E, including the open-text units, before the completion of the OASES-A.

The OASES-A consists of 100 items organized into four sections: 1) General information: the person's perceptions of his or her speech, stuttering behaviors, knowledge of treatment options and overall speaking ability, 2) Reactions to Stuttering: affective, behavioral and cognitive reactions as a result of stuttering, 3) Communication in Daily Situations: for example, at work, in social settings, or at home, and 4) Quality of Life: the degree to which stuttering interferes with the person's relationships with others and the ability to participate in everyday life. Each item is scored on a 5-point Likert scale, with higher scores indicating greater negative impact associated with stuttering. The OASES-A has demonstrated good test-retest reliability ( $r = 0.90-0.97$ ) and concurrent validity ( $r = 0.68-0.93$ ). Each of the four sections of the instrument has also revealed very strong internal reliability ( $r = 0.92-0.97$ ) (Yaruss & Quesal, 2010).

### 2.5. Quantitative and qualitative analyses: A convergent mixed methods design

Qualitative methods highlight individual variations, nuances and processes that are difficult to capture quantitatively, whereas a quantitative approach enables comparisons within and across samples, using a statistical approach (Dures, Rumsey, Morris, & Gleeson, 2011). In the present study, the qualitative data provide a detailed and individual picture of goals for therapy, while the quantitative data examine priorities regarding goals, perceptions of stuttering, speaking abilities, and difficulties in performing daily activities involving communication.

#### 2.5.1. Quantitative analyses

Quantitative data were analyzed using the IBM SPSS Statistic, version 25. In order to assess whether to use parametric or non-parametric statistical tests, normality was assessed by obtaining skewness and kurtosis values. A normal distribution was found on the OASES-A, while two items on the subscale 'Motivation and expectations' of the CPST-E did not show a normal distribution. Results are therefore presented as means with standard deviations (SD), where assumptions of normality were fulfilled, and as median with 25<sup>th</sup> and 75<sup>th</sup> percentiles (interquartile range [IQR]) when data were skewed. Results are also presented as percentages (%), and frequencies (n).

In order to compare the study sample ( $n = 21$ ) to the Norwegian general population of people who stutter ( $n = 62$ ), so that the reader can assess its representativeness (Nordbø, Sønsterud, & Kirmess, 2018), independent samples *t*-tests were conducted. The level of significance was set to  $p < .050$ .

Scores from the subscale 'Goals of treatment' (CPST-E) were analysed for comparative purposes. The responses 'important' and 'very important' on the 5-point Likert scale were combined when presenting frequencies. In addition, frequencies are also presented for participants who reported the highest score (very important). The subscale 'Motivation and expectations' (CPST-E) was used to calculate the participants' degree of motivation for therapy, and to evaluate their degree of expectation of support and a positive therapy outcome. As with the subscale 'Goals of treatment', the responses 'a lot' and 'very much' on the 5-point Likert scale were combined when presenting frequencies.

In order to explore personal aspects potentially affecting motivation for therapy, the concepts of stuttering identity (items 17 and 18), stuttering acceptance (item 49), and avoidance-behavior (items 35-38 and 40) were described in more detail. Furthermore, the 5-point Likert scale of the OASES-A was transformed into 3 categories: positive, neutral, or negative, and disagreeing, neutral, or

agreeing.

Investigating key items from the OASES-A may provide clinicians with insights about clients' motivation for therapy. Hence, items from the OASES-A identified as central nodes (key items) in Siew et al.'s (2017) study, were examined also in the present study. The OASES-A and the CPST-E were further used to investigate participants' evaluations regarding certain speaking- and communicative settings (socially, work-related and/or home-based settings), and to what degree speaking more effortlessly in such speaking situations was important to them.

Correlational analyses between the Total Impact score (OASES-A) and individual items of the OASES-A were performed in order to investigate which items were most important for participants' self-perceptions of the impact of stuttering. Correlation analyses also calculated associations between the Total Impact Score (OASES-A) and the participants' perceptions of stuttering interference, speaking abilities, overall sense of control over life, and relationships with other people (all subscores from the OASES-A). Further, correlations between experienced quality of life (OASES-A) and the extent to which stuttering interfered with communicating in certain situations (OASES-A) were also calculated. Only associations larger than Pearson's  $r = .50$  are presented in the Results, as suggested by Siew et al. (2017).

### 2.5.2. Qualitative analyses

Interviews were analyzed according to principles for thematic analyses outlined by Braun and Clarke (2006). Thematic analysis provides a flexible tool that can be used to identify patterns within and across data in relation to participants' lived experience and provides a framework from which to unpick participants' thoughts and perceptions. The data were analyzed at a semantic level, following Braun and Clarke's six phases of analysis (2006). During the phase where initial codes were generated, codes were applied to concepts that were similar throughout the orthographical transcripts. Data were categorized according to semantic similarity. In order to secure reliability, two of the authors were involved in this first stage of analysis. At a semantic level and according to Braun and Clarke, themes should be identified within the explicit or surface meanings of the data (2006). Therefore, the researchers were not looking for anything beyond what the participant had written. Following initial coding, thematic units were then compared to initial concepts and across participants. Subsequently, data were summarized into broader themes and concepts (Braun & Clarke, 2006; Dures et al., 2011). All authors had access to the anonymized qualitative data set. Except for the first author, no authors had contact or involvement with the center where the therapy was conducted.

## 3. Results

### 3.1. Personal goal-setting: quantitative analyses

According to the CPST-E, three participants (14.5%) rated physical factors as the most relevant aspect of their therapy. Two participants (9.5%) rated the emotional aspect of therapy as most important. The majority, 16 participants (76%), wanted to focus on both the physical/behavioral and emotional/psychological aspects of therapy.

#### 3.1.1. Impact of stuttering (OASES-A)

The distribution of the stuttering Impact Rating (IR) scores on the OASES-A were as follows: No participants categorized their stuttering as mild (range 1.00–1.49), four as mild/moderate (range 1.50–2.24), eight as moderate (range 2.25–2.99), eight as moderate/severe (range 3.00–3.74), and one as severe (range 3.75–5).

Mean scores of self-reported stuttering (overall impact and subscales) for the study sample and for the reference group (Nordbo et al., 2018) are presented in Table 2.

As can be seen in Table 2, the only statistically significant difference between the two groups was for the subscale 'General information', indicating that participants from the study sample had a more negative perception of their speech and overall speaking abilities than the reference group.

#### 3.1.2. Therapy goals (CPST-E)

As can be seen in Table 3, analyses revealed item means ranging from 4.14 to 4.67, indicating that all four therapy goals were of

**Table 2**

Overall Assessment of Speakers' Experience of Stuttering-Adult version (OASES-A): Overall impact- and sub-scores for the study sample prior to therapy compared with Norwegian norms.

Sections OASES-A	Study sample		Reference group		
	Mean	SD	Mean	SD	<i>p</i>
Overall stuttering impact	2.80	0.61	2.61	0.61	.220
General information	3.04	0.42	2.66	0.51	.003*
Reactions	2.91	0.65	2.77	0.63	.393
Communication	2.75	0.79	2.66	0.73	.643
Quality of life	2.54	0.80	2.31	0.82	.266

Mean, Standard Deviation (SD) and p-value (Note: \* $p < .050$ ).



**Table 3**  
Client Preferences for Stuttering Therapy (CPST-E): The degree of importance regarding goals.

Goals in therapy	% *	n	Mean	SD
To gain a sense of control over the stuttering	95.2	20	4.67	0.58
To participate easily in most or all speaking situations	85.7	18	4.43	0.75
To have fluent speech	76.2	16	4.14	0.91
To have more positive feelings associated with stuttering	76.2	16	4.14	1.15

Percent (%), Frequency (n), Mean, and Standard Deviation (SD). \*Note: Frequencies consist of the summarised responses of 'important' and 'very important'.

importance for the participants. The highest mean score was found for 'to gain a sense of control over the stuttering'.

In order to further investigate individual variations regarding motivation for therapy, participants' grading of which specific goal's they rated as of highest importance ('very important') was explored. Nine participants (43%) rated the significance of gaining fluent speech as 'very important', while 15 (71%<sup>2</sup>) considered 'to gain a sense of control over stuttering' as 'very important'. Further, 11 participants (52%) found it highly important 'to have more positive feelings associated with stuttering' and 12 participants (57%) 'to participate easily in most or all speaking situations'.

As can be seen in Table 4, the majority of the participants rated themselves as highly motivated for stuttering therapy.

### 3.1.3. Stuttering identity, stuttering acceptance and avoidance behavior (OASES-A)

Individual variations concerning self-reported stuttering identity, self- acceptance, and avoidance behaviors were measured through the OASES-A. Regarding participants' consideration as being a person who stutter, two participants perceived this as positive (9%), five as neutral (24%), and 14 as negative (67%). 'Being identified by others as a person who stutters' was considered as positive by four participants (19%), as neutral by 10 participants (48%), and as negative by seven (33%). Further, nine participants (43%) disagreed with the statement: 'I cannot accept the fact that I stutter', three participants (14%) gave a neutral response to this statement, and nine agreed (43%).

Five items of the OASES-A (items 35–38 and 40) measuring avoidance behaviors are presented in Table 5.

### 3.1.4. Challenges in communication and the desire to speak more easily (OASES-A/CPST-E)

Several of the participants perceived their speech as disfluent ( $M = 3.19$ ,  $SD = 1.03$ ) and 'unnatural'- sounding ( $M = 3.14$ ,  $SD = 0.91$ ). According to the OASES-A, participants reported that talking while under time pressure ( $M = 3.29$ ,  $SD = 0.90$ ), introducing themselves ( $M = 3.33$ ,  $SD = 1.11$ ), and talking on the telephone ( $M = 3.00$ ,  $SD = 1.09$ ) were the most challenging communication settings. Conversation with friends ( $M = 2.10$ ,  $SD = 1.05$ ) and family members ( $M = 2.24$ ,  $SD = 1.04$ ) led to lower mean scores than conversations with strangers ( $M = 2.76$ ,  $SD = 0.89$ ). Communication was regarded as especially difficult in social settings where 'small talk' ( $M = 2.95$ ,  $SD = 1.28$ ) and telling stories or making jokes ( $M = 3.57$ ,  $SD = 1.29$ ) were expected.

A similar tendency was found in the CPST-E: communication situations that were rated as challenging in the OASES-A, were also situations participants rated as important in the CPST-E. For example, participants considered 'Telephone conversations' ( $M = 3.71$ ,  $SD = 1.15$ ), 'Introducing yourself to others' ( $M = 4.10$ ,  $SD = 1.14$ ), and 'Conversations with strangers' ( $M = 4.05$ ,  $SD = 0.97$ ) as very important situations in which they wished for an improved sense of control in their stuttering, while 'Conversation with family members' ( $M = 2.67$ ,  $SD = 1.35$ ) and friends ( $M = 3.05$ ,  $SD = 1.28$ ) were considered as less important in comparison.

### 3.1.5. Stuttering interference in communication and quality of life (OASES-A)

Key items from Siew et al.'s study (2017) were also investigated in the present study. Associations were calculated between the Total Impact Score and other subscores (OASES-A). The relationship between the Total Impact Score and the participants' own considerations regarding how consistently they were able to maintain fluent speech ( $r(19) = 0.69$ ,  $p < .001$ ), and perceived ability to communicate ( $r(19) = 0.74$ ,  $p < .001$ ), both showed strong correlations. Further, the Total impact score correlated moderately with the participants' overall feeling about their speaking ability ( $r(19) = 0.59$ ,  $p < .001$ ), and with the participants' overall feeling about the way they sounded when speaking ( $r(19) = 0.57$ ,  $p < .001$ ).

The relationship between the Total Impact Score and the persons' overall sense of control over life was also investigated, and was found to be strong ( $r(19) = 0.70$ ,  $p < .001$ ). The strongest relationship was found between the Total Impact Score (OASES-A) and Item 85 'Overall, how much does stuttering interfere with your relationships with other people': ( $r(19) = 0.91$ ,  $p < .001$ ) and Item 94 'Overall, how much does stuttering interfere with your overall outlook on life' ( $r(19) = 0.85$ ,  $p < .001$ ).

Associations were found between participants' quality of life and stuttering interference in communicative settings. More specifically, moderately strong associations were found between quality of life and self-reported negative stuttering impact ( $r(19) = 0.71$ ,  $p < .001$ ), their own reactions to stuttering ( $r(19) = 0.69$ ,  $p < .001$ ), and other people's reactions to their stuttering ( $r(19) = 0.63$ ,  $p < .001$ ).

<sup>2</sup> Participants could provide multiple answers to the questions. Hence, frequencies do not add up to 100%.

**Table 4**

Subscale 'Motivation and expectations' (CPST-E). Participants' considerations regarding motivation for therapy and expectations of positive outcomes and support.

Subscale 'Motivation and Expectation'	%*	n	Median	IQR	Mean	SD
Persistent (maintaining action over time)	90.5	19	4.0	4.0 - 5.0	4.19	0.93
Motivated	90.5	19	5.0	4.0 - 5.0	4.52	0.98
Time set aside for training	71.4	15	4.0	3.0 - 4.0	3.86	0.96
Anticipation of positive outcome	57.1	12	4.0	3.0 - 4.0	3.57	0.87
Expectations support or help	42.9	9	3.0	3.0 - 4.0	3.38	0.81

Percent (%), Frequency (n), Median and interquartile range (IQR), Mean, and Standard Deviation (SD). \*Note: Frequencies consist of the summarised responses of 'a lot' and 'very much'.

**Table 5**

Self-reported avoidance-behaviors (OASES-A).

Items in the OASES-A	Mean	SD
Use 'filler words' or starters to be more fluent	3.5	1.12
Not say what you want to say	3.4	1.07
Avoid speaking in certain situations or to certain people	3.1	0.89
Leave a situation because you think you might stutter	2.9	0.94
Let somebody else speak for you	2.1	0.97

Mean, and Standard Deviation (SD).

### 3.2. Personal goal-setting: qualitative analyses

Qualitative analyses led to four main themes: a) improving speech fluency, b) improving emotional functioning, c) improving activity and participation, and d) improving participants' understanding of their stuttering. Some examples of some central statements are included in Table 6.

Several participants expressed multiple goals. Participants' responses are presented below, in more detail.

#### 3.2.1. Improving speech fluency

Eighteen participants described 'reducing stuttering' or 'improving fluency' as one of their main therapy goals, as exemplified by Jake (32 years): "I want to reduce stuttering and improve fluency. This project can be a start, and a good kick in the butt". Patrick (24 years) highlighted the social aspects of stuttering, "talk fluently and calmly in social situations", whereas Sander (34 years) focused on his voice when stuttering: "Less stuttering, more relaxed and without a wavering/nervous voice, and to lose the feeling that I'm being strangled". Celine (25 years) wanted her stuttering to disappear totally: "My personal goal is to get rid of the stuttering. I'm planning to put in a lot of effort, and I am expecting the collaboration to work well".

Concepts such as 'tools', 'methods' or 'techniques' were explicitly used by more than half of the participants, when describing therapy goals. As an example, Frank (27 years) expressed his goal this way: "My goal is to get some different tools that can help me achieve more fluency. Guidance, stuttering therapy, and follow-up is needed so that I will have an antidote to stuttering when it occurs and action I can take when I am in the middle of a stuttering situation". Similarly, Glenda (39 years) said: "See if we can find some exercises that can hit the spot and lead to improved fluency. Help to identify exercises that can lead to less variation in the stuttering, and increased fluency over longer periods". Adam (42 years), expressed the wish to learn techniques that would be useful for him in particular: "Learn techniques that suit me [...] I want to find out what feels right for me, physically, and in terms of my personality. What I learned earlier was too general".

#### 3.2.2. Improving emotional functioning

Seven participants explicitly mentioned obtaining control over their stuttering. Some participants used the word 'control' in

**Table 6**

Examples of some central statements representing the four main themes.

Improving speech fluency	Improving emotional functioning	Improving activity and participation	Improving understanding of stuttering
"I want to achieve fluent speech and a sense of control."	"Less anxiety associated with socialising. Feel better, lighter in myself, even though I stutter."	"Defuse situations where stuttering occurs and manage to speak to people, I'm not confident with."	"Learn more about the mechanics of stuttering, physical and psychological, so that I develop a better understanding."
"Learn techniques that suit me and that can either reduce the stuttering or help me in 'acute' situations."	"I want to increase my competence in handling my stuttering, in order to improve my quality of life."	"I want conversations with colleagues to feel easier."	"Together with the speech-language pathologist, identify what is real stuttering and what is 'old habit'."

relation to emotional and/or social aspects, such as Ken (48 years) who expressed a twofold goal: “*Get help to [...] prevent stuttering from affecting social life. Reduce the fear of showing others that I stutter*”. Marcus (26 years) had experienced the negative impact of stuttering in his professional life and wanted help to reduce emotional reactions associated with these challenges: “*I have developed a kind of anxious feeling which makes me nervous about my future, work and meeting colleagues. I want to reduce the anxiety*.” Some participants hoped that therapy could increase general well-being and quality of life: “*Less anxiety associated with socialising. Feel better, even though I stutter*” (Tim, 33 years), and “*I want to increase my competence in handling my stuttering, in order to improve my quality of life*” (Jacob, 29 years). Jacob hoped that therapy would decrease the emotionally demanding aspects of stuttering “*I want to challenge my own stuttering, I want, quite simply, to become more comfortable and get to the stage where I never again need to use any energy on stuttering. I don't want stuttering to limit me in any way or to rob me of energy anymore [...] to have a better life with or without stuttering*”. For Mitch (24 years), emotional support was hoped for in the relationship with the SLP: “*In the short term, just to have someone to talk with, and to feel secure. It's incredibly good to get to speak with someone else about stuttering. I haven't done that before and there aren't many people who know what stuttering is. In the longer term – stutter less, become aware of techniques I can use*”.

### 3.2.3. Improving activity and participation

More than half of the participants specifically expressed goals related to improving communication at work or in academic situations, like for example Adam (42 years): “*I want conversations with colleagues to feel easier*” or Sandy (21 years): “*Stuttering has stopped me since high school*”. Further, a high number of participants wanted to improve social activity in general: “*I want greater self-confidence in terms of taking the initiative in conversations/social activities and in relation to stuttering more generally*” (Frank, 27 years), or “*Dare to take the initiative in new social groups. Chat in groups. Feel more secure about talking in meetings. Stand up for myself in general*” (Patrick, 24 years). Marcus (26 years) found introducing himself to others particularly challenging: “*Introducing myself is a big challenge*”.

### 3.2.4. Improving participants' understanding of their stuttering

Some participants expressed the wish to understand their stuttering better, and mentioned the wish for help to identify underlying components of stuttering: “*Document the stuttering: The hard and the easier stuttering. Together with the speech-language pathologist, identify what is real stuttering and what is 'old habit'. Grab hold of it and work hard, first in safe environments and later in all situations. I've developed some negative patterns; the stuttering has become a habit*” (Kelly, 56 years), or “*Learn more about the mechanics of stuttering, physical and psychological, so that I develop a better understanding*” (Barbara, 46 years). A few participants' goal was to support the current study, hoping that the study would increase awareness about stuttering in the general population: “*The reason I want to join the project is that I want to contribute to stuttering being better understood, and that others – who struggle even more than I do – can get the help they need*” (Stefan, 34 years).

## 4. Discussion

The purpose of this study was to gain an improved understanding of client-reported goals in stuttering therapy. The majority of the participants reported that both physical and psychological aspects were important for them when seeking stuttering therapy. Therapy goals were related to the participants' personal contexts in daily life and the hope to cope better with daily communication settings, at work, and in other social settings. Several confirmed that stuttering was a challenge that limited their activity or participation in life. Consistent with findings from Hayhow et al. (2002), improving a sense of control in speech and communication was a major focus for the majority of the participants in this study.

Quantitative and qualitative data from the present study offer interesting insights into the individual's goal-setting and motivation for stuttering therapy. As presented in the results, the thematic analysis of the qualitative dataset resulted in the identification of four main themes. Based on the present study's qualitative and quantitative data (Dures et al., 2011), results are summarized and discussed according to five sub-themes: 1) The centrality of physical and psychological aspects, 2) Therapy goals related to daily life and communication settings, 3) Finding a sense of control in life, 4) Self-acceptance and improving speech as a complementary process, and 5) The importance of support and a strong working alliance. The five sub-themes and the implications of these findings are discussed in more detail below.

### 4.1. The centrality of physical and psychological aspects

The majority of the participants in the present study expressed goals related to the importance of including both physical and psychological aspects of stuttering, suggesting that both aspects were experienced as challenging in everyday life. Although the main question regarding goals for therapy was open ended and designed specifically to elicit personal responses, most of the participants expressed, in one way or another, a desire to reduce stuttering, improve fluency and/or improve feelings associated with stuttering.

It may sometimes be difficult to differentiate physical and psychological aspects of stuttering (Bloodstein & Bernstein Ratner, 2008). Based on clinical experience, both aspects may lead to increased muscle tension in body and speech. For individuals who stutter, the physical and psychological aspects of stuttering might be intertwined, and therefore, difficult to separate. Stuttering or holding back words can cause tension in the body, specifically in muscles involved in vocal control, an experience that was confirmed in this study, and frequently has been described in the personal narratives of other adults who stutter (Albrigtsen, Stauri, & Wright, 2017; Cheasman et al., 2013; St. Louis, 2001). Anxiety and stress can trigger the fight or flight response of the autonomic nervous system. This system can also work in the other direction: high lung-volume and fast breathing can send signals to the body that one is

anxious or in danger, irrespective of the actual danger (DeVore & Cookman, 2009; Shewell, 2009).

Interestingly, the ICF combines physical and psychological aspects in the first section describing 'Impairments of body function'. In other words, speech, voice, and respiratory functions are categorized into the same section as mental and emotional functions. Similarly, the subscale 'Reactions to stuttering' from the OASES-A includes items measuring both physical and emotional symptoms (Yarus & Quesal, 2006).

#### 4.2. Therapy goals related to daily life and communication settings

The participants' desire to improve their knowledge about stuttering seemed to be related to specific speech challenges in their own communication and social settings. This was very closely associated with an eagerness to learn better strategies for dealing with stuttering, and/or to cope with stressful feelings associated with social, academic or work-related settings. Participants' perspectives on speaking ability and stuttering interference in communication were identified as central factors, as described in the previous literature (Karimi et al., 2018; Siew et al., 2017). As a consequence of communication difficulties, people who stutter may experience that social activity is challenged (Bricker-Katz et al., 2013; Craig et al., 2009; Erickson & Block, 2013; O'Brian et al., 2011), as confirmed by the present study's participants. As seen in both the qualitative and quantitative datasets, avoidance behavior was found to be very common among the participants regardless of whether their stuttering was associated with overall overt or overall covert stuttering, suggesting a close relationship between the experience of limitations in social activities. Helgadottir, Menzies, Onslow, Packman, and O'Brian (2014) consider that if a behavior is used to prevent negative outcomes from a specific speaking situation, it can be regarded as a safety behavior. However, and according to the authors, safety behaviors may occur alongside feared events, and may affect individuals with increased fear or anxiety. The authors (Helgadottir et al., 2014) highlight a need to establish a classification system of what should be considered as safety behaviors, in contrast to healthy adaptive behaviors.

In the present study, communication was regarded as especially difficult in social settings where 'small talk' was expected. Most of the participants were concerned about how stuttering interfered with their relationship with other people. Several participants experienced negative emotional reactions such as frustration, embarrassment, and helplessness, and avoided speaking in certain situations or to certain people. Avoiding certain words and experiencing restrictions in what they wanted to say was reported by several participants. The quantitative data suggest that participants found avoiding words challenging, indicating that clinically significant levels of linguistic-related anxiety needs to be taken into account in addition to the more commonly accepted social anxiety (Craig & Tran, 2014; Iverach & Rapee, 2014; Menzies et al., 2008; Messenger et al., 2004). Fear of negative evaluation and social anxiety are recognized as common for many adults who stutter (Menzies et al., 2008). Therefore, screening individuals seeking stuttering treatment for social anxiety has been suggested (Menzies et al., 2019). Social anxiety can in many ways influence stuttering specifically, and (speech) behavior in general. Clinicians need to be aware of this and to consider whether the anxiety is related to speech (speech-related anxiety), word avoidance (linguistic-related anxiety), situations (situation-specific anxiety), and/or general or social anxiety. Menzies et al. (2008) indicate that up to 60% of adults seeking treatment for stuttering have clinically significant levels of social phobia (Menzies et al., 2008) or social-evaluative fear (Menzies et al., 2019). We believe that this number is likely to include adults with clinically significant levels of linguistic-related anxiety. Anxiety in speaking-related or social settings can be considered as a negative communication consequence experienced by many people who stutter, and management may differ depending on the type of fear or anxiety involved. We therefore suggest it is important to consider whether linguistic anxiety potentially might be a significant factor in some of the cases disclosed as social anxiety. Differentiation would potentially help develop a more individual and context-sensitive treatment for individuals seeking stuttering treatment in the future.

Most participants found it easier to talk with family members or familiar people, indicating that settings where they felt safe and secure were easier than communication settings involving strangers. Participants' desire to improve communication and reduce avoidance behaviors seemed to be very much associated with social, educational and/or professional communication settings outside home, both in the quantitative and the qualitative datasets. These findings are consistent with those by Hearne, Packman, Onslow, and Quine (2008), who suggest that concerns about education and starting work might be reasons for seeking stuttering therapy, settings which usually brings the need to interact with new people. Hence, the impact of stuttering in professional and educational settings could bring up the question of whether stuttering may interfere with the likelihood of developing a successful career (Klein & Hood, 2004), an issue that should be explored by future research.

The qualitative and quantitative data showed that the majority of the participants considered therapy goals in close relation to their real contextual everyday life situations, describing specific scenarios, in which communication was challenging. The participants' perceived ability to communicate was found to be personally significant, mirroring Logan's (2015) statement that people function more effectively when their daily activities are associated with the goals that they hope to reach. Many participants wanted to acquire or develop specific strategies, methods or techniques for coping with their stuttering in challenging situations, particularly in social, educational and/or work-related settings. Hence, our findings support one of the statements in Hearne et al.'s study (2008), that stuttering may not necessarily be considered a challenge in itself, but rather when the stuttering is interfering with the person's activities and communication in daily life settings. The participants shared highly specific aims or goals for their therapy, and concepts such as 'tools', 'techniques' or 'method' were frequently used in association with those targets. Furthermore, the participants included an individual content into these concepts, such as 'speech fluency', 'stuttering reduction', 'decreasing mental effort' or 'improving the feeling in control in speech or communication'. Results from the present study suggest that such considerations should be integrated into pretherapy, hence strengthening the collaborative work between clients and clinicians by focusing more on tasks and goals that have been identified as central by each client.

The qualitative data revealed that two participants expressed a wish for the stuttering to disappear. This aspect is well-known by

SLPs working with adults who stutter. The issue of managing clients with probable unrealistic goals can be difficult; to what degree should clinicians adhere to potentially unrealistic goals, and to what extent can such goals be discussed openly and honestly in the context of the client-clinician collaboration? Since research and clinical experience suggests that complete fluency is difficult to achieve for a significant number of adults who stutter, especially in the long-term, we consider this issue important to investigate and discuss further.

#### 4.3. Finding a sense of control in life

Participants expressed a relationship between stuttering and interference with the participants' overall sense of control in life. This finding is in accordance with the study by Hayhow et al. (2002), in which obtaining a sense of control was highly valued by most of the participants. Lack of control has often been associated with stuttering in the literature (Craig & Andrews, 1985; De Nil & Kroll, 1995; Helgadottir et al., 2014; Riley et al., 2004; Swift, Langevin, & Clark, 2017; Van Lieshout, Ben-David, Lipski, & Namasivayam, 2014). Obtaining control has implications for the extent to which a person considers various life-events to be either self-determined or a result of external factors (e.g. luck or due to other's actions). Some research has investigated locus of control within the field of stuttering (Craig & Andrews, 1985; De Nil & Kroll, 1995; Riley et al., 2004). Internal perceptions of control can be regarded as an indication that a person bases their success on their own contributions and the belief that he/she may control his/her life. Riley et al. (2004) proposed that self-perceptions of stuttering severity is significantly associated with the concept of control. Their study also indicated a significant association between increased external locus of control and avoidance behaviors. Further, De Nil and Kroll (1995) suggest that the locus of control might be predictive of the change in self-evaluations of stuttering, although the trend observed in their study was not statistically significant. There is some evidence to support the hypothesis that internal locus of control can be a significant predictor for a positive therapy outcome (Craig & Andrews, 1985).

The participants' overall sense of control over life events may influence their mastery over stuttering management (De Nil & Kroll, 1995). As described by some participants, individual aspects of speech resulted in emotional reactions, so that stuttering interfered with their sense of control in life. The quantitative data mirror in many ways the qualitative data. Some participants aimed for an increased control in speech and communication, others for complete control in stuttering, whereas others used the word 'control' in a wider sense to include both cognitive and physical aspects. Both the quantitative and qualitative data demonstrated that a desire for improved control was highly valued as a specific goal for therapy. Even though feelings of control were valued very highly, control could also potentially lead to negative implications. For some individuals with an impact of covert speech-, and stuttering behavior, the need for speech control may limit the freedom of communication. There is also a need to define, exactly, how each individual defines 'control' (and/or 'acceptable levels of control'). Interventions may be better tailored to individual needs if clinicians could discuss how clients define control, and which aspects of lack of control they experience as distressing in everyday life. Findings in the present study indicate a need to further investigate the relationship between the locus of control and stuttering.

#### 4.4. Self-acceptance and improving speech as a complementary process

Although several participants reported neutral or accepting feelings towards their stuttering, the majority still expressed the wish to improve speech fluency or reduce stuttering. In Venkatagiri's (2009) study, participants were categorized according to whether their wish for therapy was 'fluency focused' or 'freedom-focused'. Findings from the present study suggest that this categorization may be too simple, in line with Alm and Dahlin (2015) who question if such a dichotomy really exists. Participants expressed a wish to improve speech fluency regardless of whether they identified themselves positively, neutrally or negatively as a person who stutters or whether they had a high degree of stuttering acceptance or not, in accordance with the study of Siew et al. (2017). Our study demonstrates a strong congruence between the communicative challenges faced by participants and their desire to improve ease of participation in communicative settings. We therefore believe that improving acceptance of stuttering while at the same time working to improve effortless speech may not be contradictory concepts, but rather complementary, as stated by Beilby, Byrnes, and Yaruss (2012). Thus, both 'freedom-focus' and/or 'fluency-focus' therapies (Venkatagiri, 2009) could be considered as one integrative approach, as is already the case in some stuttering programs, such as the ISTAR Comprehensive Stuttering Program (Langevin, Kully, Teshima, Hagler, & Narasimha Prasad, 2010) or the Acceptance and Commitment Therapy group intervention program (Beilby et al., 2012). In other words, improved acceptance and improvements in speech fluency and/or speech control could be a realistic therapy goal for the same individual as well as for different individuals within the same therapy program. Nevertheless, letting the client define individual single or multiple goals requires a high degree of clinical competence and calls for a need for more flexible therapy procedures.

#### 4.5. The importance of support and a strong working alliance

The challenge for SLPs to incorporate the clients' wishes and goals into the assessment and the therapy process is of high importance. In many ways, goal-led therapy requires a high degree of clinical flexibility and competence. Elements that are introduced and explored in therapy have to be integrated in such a way that they are meaningful for the person him-/herself. The construction of an intervention that is meaningful should be a shared task, through a dialogue between the client and the SLP, in accordance with the collaborative perspective in pluralistic therapy, articulated by for example McLeod (2018). The therapy should mirror the client's goals and values in life, and should, therefore, incorporate an evaluation of the working alliance, particularly from the perspective of the person who stutters. Incorporating considerations regarding bond (the emotional bond between the client and the clinician), goals

(agreement regarding therapeutic goals), and relevant tasks (a consensus on tasks to be utilized within therapy) at an early stage in the therapeutic process may help ensure that goals are context-sensitive and tasks meaningful for the client (Bordin, 1979; Flückiger et al., 2019).

To our knowledge, only one study, by Sønsterud et al. (2019), has investigated the working alliance in relation to a *stuttering* management trial. The study indicated that specifying and defining *goals* and *tasks* were particularly important for the development of a positive working alliance. The degree of support and help a person who stutters experiences in the working relationship may also influence the outcome, as supported by previous research (Manning, 2010; Plexico et al., 2005). Participants in the present study also highlighted the importance of help and support, which could be associated with the belief in positive outcomes and motivation for therapy. In the qualitative dataset, some participants explicitly mentioned the role of the SLP as important in identifying and defining their stuttering, improving their fluency and/or developing coping skills. We believe that clinicians are a significant factor in the client-clinician relationship, by building a trustful and supportive working alliance during the therapy process. This could be of considerable importance to achieve successful therapy outcomes (Flückiger et al., 2018; Sønsterud et al., 2019; Wampold, 2015). We therefore suggest that future research should continue to explore the relationship between the working alliance and therapy outcomes in the research field of stuttering.

Almost half of the participants in the present study had low expectations regarding the support or help they could expect during the therapy period. The present study did not investigate the reasons for these low expectations. Tentatively, this could be explained by previous negative experiences or lack of trust regarding collaboration, varying levels of stuttering severity, low positive expectations in general, previous experiences of non-helpful stuttering therapy, or lack of support in their daily or home-based settings. Future research is needed in order to shed light on whether low expectations of support from the SLP could impact on the work alliance and the outcomes of stuttering therapy.

## 5. Clinical implications

The SLP's competence and the degree of professional trust play a big part within the frame of goal-directed therapy, at least where adults who stutter are concerned. Goal-directed therapy requires high levels of clinical competence and calls for a need for more individualized and flexible therapy procedures (Baxter et al., 2015; Packman & Kuhn, 2009). As has been discussed in the study, assessments need to be sensitive to the individual's needs, goals, responses, and motivation. By including more sensitive and multi-dimensional qualitative and quantitative assessments in stuttering therapy, clinicians would be better equipped to evaluate symptoms, processes and therapy outcomes. Concepts mentioned by clients as central goals need to be defined and described in detail and within the context the term is being used. As in other areas of research, the principles of evidence-based-practice are required, and we therefore believe that treatment efficacy research should be based on multi-factor measures and should include client perspectives and functional outcomes (Baxter et al., 2015; Bernstein Ratner, 2005; Bothe & Richardson, 2011; Ingham et al., 2012). Relevant and specific assessments for measuring the working alliance, particularly from the clients' perspective, should also be considered. Instruments should assess: a) the *bond* between the client and clinician, b) the extent to which the client and clinician agree on the *goals* of treatment, and c) the extent to which the client and clinician regard the treatment *tasks* as relevant (Bordin, 1979; Flückiger et al., 2019; Horvath & Greenberg, 1989; Wampold, 2015). Including a combined set of qualitative and quantitative measurements may also enhance our understanding of the clients' individualized and context-sensitive goals and wishes. Obviously, the individual's needs and goals in therapy may change over time, as could the readiness for therapy. Thus, therapy should also include the investigation of clients' motivation, expectations and goals during the collaborative process in treatment and throughout different phases in life.

## 6. Strengths and limitations

The current study was based on a convergent mixed method design (Fetters et al., 2013), where the qualitative and the quantitative data were collected and analyzed during the same timeframe in order to be able to compare both datasets. By including a mixed method design which combined qualitative and quantitative information, we have been able to consider interactions between intra-individual factors and contexts in which the participants operate.

The current study's sample size, although large for a multiple single case design, could be seen as a limitation for the quantitative analyses. The participants made the initial contact and can therefore be seen as self-selected and assumed to be motivated for therapy. The present findings may therefore not be representative of the experiences of people who stutter in general. Nevertheless, the sample included a diverse group of participants, and may therefore still reflect those of the wider population of adults who stutter. Another limitation is that the current study is limited by reliance on self-report measures only. Further, even though participants were asked to report on other speech and language disorders during the first pretherapy session, participants were not systematically assessed for dyslexia or any other reading or writing disorders beforehand, which could potentially influence the validity of the answers. On the other hand, using written material could hold some advantages, since some of the participants clearly found it easier to express themselves in a written format.

Last, correlational analyses cannot shed light on the directionality of the relationship between variable, and longitudinal research is needed in order to disentangle associations between the multiple factors that could influence clients' motivation and/or therapy goals.

## 7. Conclusion

Results indicate that the participants' descriptions of goals for therapy were mainly based on a wish for better coping in real life settings. The individual's expectations and goals need to be investigated and expressed explicitly and in detail, in order to identify mutually agreed goals prior to therapy. This study demonstrates that people who stutter struggle with the negative emotional and social impact of stuttering and develop a myriad of social and linguistic-related avoidance behaviors. SLPs and researchers need to remain aware of this important aspect when considering stuttering and the proposed therapy outcomes in order to design more tailored individual treatment plans for people who stutter in the future. Anxiety, and in particular the concept of linguistic-related anxiety, needs to be explored further.

### Author statement

The study has not been published previously and is not under consideration for publication elsewhere. The manuscript is approved by all authors and will not be published elsewhere in the same form.

### Funding

This study was supported by Stiftelsen Dam, the Norwegian Extra Foundation for Health and Rehabilitation.

### Declaration of Competing Interest

The authors declare no conflict of interest.

### Acknowledgements

We thank the 21 participants for their engagement by sharing their thoughts and considerations in this study. The authors would also like to thank anonymous reviewers, Associate Editor and Editor in Chief for their helpful comments in improving this manuscript.

### References

- Albrigtsen, A., Stauri, T., & Wright, M. A. (2017). *Ord til besvær: Livet med stamming*. Oslo: Abstrakt forlag.
- Alm, P., & Dahlin, K. (2015). Hög eller låg evidens, vad betyder det? Tankar om riktlinjer för logopediskt arbete inom stamning och andra diagnoser. *Tidskriften Logopeden*, 4, 20–23.
- Baxter, S., Johnson, M., Blank, L., Cantrell, A., Brumfit, S., Enderby, P., et al. (2015). The state of the art in non-pharmacological interventions for developmental stuttering. Part 1: A systematic review of effectiveness. *International Journal of Language and Communication Disorders*, 50(5), 676–718. <https://doi.org/10.1111/1460-6984.12171>.
- 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(4), 289–299. <https://doi.org/10.1016/j.jfludis.2012.05.003>.
- Berg, K., Askim, T., Balandin, S., Armstrong, E., & Rise, M. B. (2017). Experiences of participation in goal setting for people with stroke-induced aphasia in Norway. A qualitative study. *Disability and Rehabilitation*, 39(11), 1122–1130. <https://doi.org/10.1080/09638288.2016.1185167>.
- Bernstein Ratner, N. (2005). Evidence-based practice in stuttering: Some questions to consider. *Journal of Fluency Disorders*, 30(3), 163–188. <https://doi.org/10.1016/j.jfludis.2005.04.002>.
- Bloodstein, O., & Bernstein Ratner, N. (2008). *A handbook on stuttering* (sixth edition). Clifton Park NY: Delmar.
- Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research and Practice*, 16(3), 252–260.
- Bothe, A. K., & Richardson, J. D. (2011). Statistical, practical, clinical, and personal significance: Definitions and applications in speech-language pathology. *American Journal of Speech-Language Pathology*, 20(3), 233–242. [https://doi.org/10.1044/1058-0360\(2011/10-0034\)](https://doi.org/10.1044/1058-0360(2011/10-0034)).
- Boyle, M. P., & Fearon, A. N. (2017). Self-stigma and its associations with stress, physical health, and health care satisfaction in adults who stutter. *Journal of Fluency Disorders*. <https://doi.org/10.1016/j.jfludis.2017.10.002>.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp0630a>.
- Bricker-Katz, G., Lincoln, M., & Cumming, S. (2013). Stuttering and work life: An interpretative phenomenological analysis. *Journal of Fluency Disorders*, 38(4), 342–355. <https://doi.org/10.1016/j.jfludis.2013.08.001>.
- Bricker-Katz, G., Lincoln, M., & McCabe, P. (2009). A life-time of stuttering: How emotional reactions to stuttering impact activities and participation in older people. *Disability and Rehabilitation*, 31(21), 1742–1752. <https://doi.org/10.1080/09638280902738672>.
- Cahana-Amitay, D., Oveis, A. C., Sayers, J. T., Pineles, S. L., Spiro, A., & Albert, M. L. (2015). Biomarkers of “Linguistic Anxiety” in aphasia: A proof-of-concept case study. *Clinical Linguistics & Phonetics*, 29(5), 401–413. <https://doi.org/10.3109/02699206.2015.1014572>.
- Cheasman, C., Simpson, S., & Everard, R. (2013). *Stammering therapy from the inside: New perspectives on working with young people and adults*. Guildford: J & R Press.
- Cooke, K., & Millard, S. K. (2018). The most important therapy outcomes for school-aged children who stutter: An exploratory study. *American Journal of Speech-Language Pathology*, 27(3s), 1152–1163. [https://doi.org/10.1044/2018\\_ajslp-odc11-17-0195](https://doi.org/10.1044/2018_ajslp-odc11-17-0195).
- Cox, W. M., & Klinger, E. (2004). *Handbook of motivational counseling: Concepts, approaches, and assessment*. John Wiley Sons, Ltd.
- Craig, A., & Andrews, G. (1985). The prediction and prevention of relapse in stuttering: The value of self-control techniques and locus of control measures. *Behavior Modification*, 9(4), 427–442. <https://doi.org/10.1177/01454455850094002>.
- 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(2), 61–71. <https://doi.org/10.1016/j.jfludis.2009.05.002>.
- Craig, A., & Tran, Y. (2014). Trait and social anxiety in adults with chronic stuttering: Conclusions following meta-analysis. *Journal of Fluency Disorders*, 40, 35–43. <https://doi.org/10.1016/j.jfludis.2014.01.001>.
- De Nil, L. F., & Kroll, R. M. (1995). The relationship between locus of control and long-term stuttering treatment outcome in adult stutterers. *Journal of Fluency Disorders*, 20(4), 345–364. [https://doi.org/10.1016/0094-730X\(95\)00024-2](https://doi.org/10.1016/0094-730X(95)00024-2).
- DeVore, K., & Cookman, S. (2009). *The voice book. Caring for protecting, and improving your voice* (1st ed. ed.). United States of America: Chicago Review Press, Incorporated.

- Dures, E., Rumsey, N., Morris, M., & Gleeson, K. (2011). Mixed methods in health psychology: Theoretical and practical considerations of the third paradigm. *Journal of Health Psychology*, 16(2), 332–341. <https://doi.org/10.1177/1359105310377537>.
- Erickson, S., & Block, S. (2013). The social and communication impact of stuttering on adolescents and their families. *Journal of Fluency Disorders*, 38(4), 311–324.
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs-principles and practices. *Health Services Research*, 48(6 Pt 2), <https://doi.org/10.1111/1475-6773.12117>.
- Flückiger, C., Del Re, A. C., Wampold, B. E., & Horvath, A. O. (2018). The alliance in adult psychotherapy: A meta-analytic synthesis. *Psychotherapy*, 55(4), 316–340. <https://doi.org/10.1037/gst0000172>.
- Flückiger, C., Hilpert, P., Goldberg, S., Caspar, F., Wolfer, C., Held, J., et al. (2019). Investigating the impact of early alliance on predicting subjective change at posttreatment: An evidence-based souvenir of overlooked clinical perspectives. *Journal of Counseling Psychology*. <https://doi.org/10.1037/cou0000336> Advanced online.
- Gast, D. L., & Ledford, J. R. (2014). *Single case research methodology: Applications in special education and behavioral sciences* (2nd ed. ed.). New York: Routledge.
- Guitar, B. (2014). *Stuttering: An integrated approach to its nature and treatment* (4th ed. ed.). Philadelphia, Pa: Lippincott Williams & Wilkins.
- Hayhow, R., Cray, A. M., & Enderby, P. (2002). Stammering and therapy views of people who stammer. *Journal of Fluency Disorders*, 27(1), 1–17. [https://doi.org/10.1016/S0094-730X\(01\)00102-4](https://doi.org/10.1016/S0094-730X(01)00102-4).
- Hearne, A., Packman, A., Onslow, M., & Quine, S. (2008). Stuttering and its treatment in adolescence: The perceptions of people who stutter. *Journal of Fluency Disorders*, 33(2), 81–98. <https://doi.org/10.1016/j.jfludis.2008.01.001>.
- Helgadóttir, F. D., Menzies, R. G., Onslow, M., Packman, A., & O'Brian, S. (2014). Safety behaviors and speech treatment for adults who stutter. *Journal of Speech, Language, and Hearing Research*, 57(4), 1308–1313. <https://doi.org/10.1044/2014.JSLHR-S-13-0041>.
- Horvath, A., & Greenberg, L. (1989). Development and validation of the working alliance inventory. *Journal of Counseling Psychology*, 36(2), 223–230.
- Ingham, R. J., Ingham, J. C., & Bothe, A. K. (2012). Integrating functional measures with treatment: A tactic for enhancing personally significant change in the treatment of adults and adolescents who stutter. *American Journal of Speech-Language Pathology*, 21(3), 264–277. [https://doi.org/10.1044/1058-0360\(2012\)11-0068](https://doi.org/10.1044/1058-0360(2012)11-0068).
- Iverach, L., Jones, M., Lowe, R., O'Brian, S., Menzies, R. G., Packman, A., et al. (2018). Comparison of adults who stutter with and without social anxiety disorder. *Journal of Fluency Disorders*, 56, 55–68. <https://doi.org/10.1016/j.jfludis.2018.03.001>.
- Iverach, L., & Rapee, R. M. (2014). Social anxiety disorder and stuttering: Current status and future directions. *Journal of Fluency Disorders*, 40, 69–82. <https://doi.org/10.1016/j.jfludis.2013.08.003>.
- Karimi, H., Onslow, M., Jones, M., O'Brian, S., Packman, A., Menzies, R., et al. (2018). The Satisfaction with Communication in Everyday speaking Situations (SCES) scale: An overarching outcome measure of treatment effect. *Journal of Fluency Disorders*, 58, 77–85. <https://doi.org/10.1016/j.jfludis.2018.10.002>.
- Klein, J. F., & Hood, S. B. (2004). The impact of stuttering on employment opportunities and job performance. *Journal of Fluency Disorders*, 29(4), 255–273. <https://doi.org/10.1016/j.jfludis.2004.08.001>.
- Langevin, M., Kully, D., Teshima, S., Hagler, P., & Narasimha Prasad, N. G. (2010). Five-year longitudinal treatment outcomes of the ISTAR comprehensive stuttering program. *Journal of Fluency Disorders*, 35(2), 123–140. <https://doi.org/10.1016/j.jfludis.2010.04.002>.
- Lawton, M., Haddock, G., Conroy, P., Serrant, L., & Sage, K. (2018). People with aphasia's perception of the therapeutic alliance in aphasia rehabilitation post stroke: A thematic analysis. *Aphasiology*, 32(12), 1397–1417. <https://doi.org/10.1080/02687038.2018.1441365>.
- Lawton, M., Sage, K., Haddock, G., Conroy, P., & Serrant, L. (2018). Speech and language therapists' perspectives of therapeutic alliance construction and maintenance in aphasia rehabilitation post-stroke. *International Journal of Language and Communication Disorders*, 53(3), 550–563. <https://doi.org/10.1111/1460-6984.12368>.
- Logan, K. J. (2015). *Fluency disorders*. San Diego, CA: Plural Publishing.
- Manning, W. H. (2010). Evidence of clinically significant change: The therapeutic alliance and the possibilities of outcomes-informed care. *Seminars in Speech and Language*, 31(4), 207–216. <https://doi.org/10.1055/s-0030-1265754>.
- Manning, W. H., & Beck, J. G. (2013). The role of psychological processes in estimates of stuttering severity. *Journal of Fluency Disorders*, 38(4), 356–367. <https://doi.org/10.1016/j.jfludis.2013.08.002>.
- McCauley, R. J., & Guitar, B. (2010). *Treatment of stuttering: Established and emerging interventions*. Philadelphia: Lippincott Williams & Wilkins.
- McLeod, J. (2018). Pluralistic therapy: Distinctive features. In T. F. Group (Ed.). *Psychotherapy & counselling distinctive features series*.
- Menzies, R. G., O'Brian, S., Onslow, M., Packman, A., St Clare, T., & Block, S. (2008). An experimental clinical trial of a cognitive-behavior therapy package for chronic stuttering. *Journal of Speech, Language, and Hearing Research*, 51(6), 1451–1464. [https://doi.org/10.1044/1092-4388\(2008\)07-0070](https://doi.org/10.1044/1092-4388(2008)07-0070).
- Menzies, R. G., O'Brian, S., Packman, A., Jones, M., Helgadóttir, F. D., & Onslow, M. (2019). Supplementing stuttering treatment with online cognitive behavior therapy: An experimental trial. *Journal of Communication Disorders*, 80, 81–91. <https://doi.org/10.1016/j.jcomdis.2019.04.003>.
- Messenger, M., Onslow, M., Packman, A., & Menzies, R. (2004). Social anxiety in stuttering: Measuring negative social expectancies. *Journal of Fluency Disorders: Official Journal of the International Fluency Association*, 29(3), 201–212. <https://doi.org/10.1016/j.jfludis.2004.06.002>.
- Nordbø, B., Sønsterud, H., & Kirmess, M. (2018). Norske normer for OASES-A -et kartleggingsverktøy for voksne som stammer. *Norsk Tidsskrift for Logopedi*, 64(3), 12–19.
- O'Brian, S., Jones, M., Packman, A., Menzies, R., & Onslow, M. (2011). Stuttering severity and educational attainment. *Journal of Fluency Disorders*, 36(2), 86–92. <https://doi.org/10.1016/j.jfludis.2011.02.006>.
- Packman, A., & Kuhn, L. (2009). Looking at stuttering through the lens of complexity. *International Journal of Speech-Language Pathology*, 11(1), 77–82. <https://doi.org/10.1080/17549500802630039>.
- Plexico, L., Manning, W. H., & Dilollo, A. (2005). A phenomenological understanding of successful stuttering management. *Journal of Fluency Disorders*, 30(1), 1–22. <https://doi.org/10.1016/j.jfludis.2004.12.001>.
- Plexico, L., Manning, W. H., & Dilollo, A. (2010). Client perceptions of effective and ineffective therapeutic alliances during treatment for stuttering. *Journal of Fluency Disorders*, 35(4), 333–354. <https://doi.org/10.1016/j.jfludis.2010.07.001>.
- Riley, J., Riley, G., & Maguire, G. (2004). Subjective Screening of Stuttering severity, locus of control and avoidance: Research edition. *Journal of Fluency Disorders*, 29(1), 51–62. <https://doi.org/10.1016/j.jfludis.2003.12.001>.
- Seo, M. G., Bartunek, J. M., & Barrett, L. F. (2010). The role of affective experience in work motivation: Test of a conceptual model. *Journal of Organizational Behavior*, 31(7), 951–968. <https://doi.org/10.1002/job.655>.
- Shapiro, D. A. (2011). *Stuttering intervention: A collaborative journey to fluency freedom* (2nd ed. ed.). Austin: PRO-ED.
- Shewell, C. (2009). *Voice work: Art and science in changing voices*. Chichester: John Wiley and Sons Ltd.
- Siew, C. S. Q., Pelczarski, K. M., Yaruss, J. S., & Vitevitch, M. S. (2017). Using the OASES-A to illustrate how network analysis can be applied to understand the experience of stuttering. *Journal of Communication Disorders*, 65, 1–9. <https://doi.org/10.1016/j.jcomdis.2016.11.001>.
- St. Louis, K. O. (2001). *Living with stuttering: Stories, basics, resources, and hope*. Morgantown, W. Va: Populore.
- St. Louis, K. O., Irani, F., Gabel, R. M., Hughes, S., Langevin, M., Rodriguez, M., et al. (2017). Evidence-based guidelines for being supportive of people who stutter in North America. *Journal of Fluency Disorders*, 53, 1–13. <https://doi.org/10.1016/j.jfludis.2017.05.002>.
- St. Louis, K. O., & Tellis, G. (2015). *Stuttering meets stereotype, stigma, and discrimination: An overview of attitude research*. Morgantown: West Virginia University Press.
- Swift, M. C., Langevin, M., & Clark, A. (2017). Using critical realistic evaluation to support translation of research into clinical practice. *International Journal of Speech-Language Pathology*, 19(3), 335–343. <https://doi.org/10.1080/17549507.2017.1309067>.
- Sønsterud, H. (2015). PhD-project presentation: Individualized stuttering treatment - what works for whom? *Norsk Tidsskrift for Logopedi*, 3(63), 39.
- Sønsterud, H., Howells, K., & Baluyot, C. (2017). *Individuelle ønsker for oppfølging av stamming: Et kartleggingskjema i det logopediske samarbeidet*. Oslo, Norge: Statped's læringsressurser.
- Sønsterud, H., Kirmess, M., Howells, K., Ward, D., Feragen, K. B., & Halvorsen, M. S. (2019). The working alliance in stuttering treatment: A neglected variable? *International Journal of Language & Communication Disorders*, 54(4), 606–619. <https://doi.org/10.1111/1460-6984.12465>.
- Tomaiuolo, D., Del Gado, F., Spinetti, M. G., Capparelli, E., & Venuti, B. (2015). Profiling people who stutter: A comparison between adolescents and adults. *Procedia -*



- Social and Behavioral Sciences*, 193, 266–273. <https://doi.org/10.1016/j.sbspro.2015.03.270>.
- Torres-Prioris, M. J., López-Barroso, D., Paredes-Pacheco, J., Roé-Vellvé, N., Dawid-Milner, M. S., & Berthier, M. L. (2019). Language as a threat: Multimodal evaluation and interventions for overwhelming linguistic anxiety in severe aphasia. *Frontiers in Psychology*, 10, 678. <https://doi.org/10.3389/fpsyg.2019.00678>.
- Van Lieshout, P., Ben-David, B., Lipski, M., & Namasivayam, A. (2014). The impact of threat and cognitive stress on speech motor control in people who stutter. *Journal of Fluency Disorders*, 40, 93. <https://doi.org/10.1016/j.jfludis.2014.02.003>.
- Van Riper, C. (1973). *The treatment of stuttering*. Englewood Cliffs, N.J: Prentice-Hall.
- Venkatagiri, H. S. (2009). What do people who stutter want-fluency or freedom? *Journal of Speech Language and Hearing Research*, 52(2), 500–515. [https://doi.org/10.1044/1092-4388\(2008/07-0019\)](https://doi.org/10.1044/1092-4388(2008/07-0019)).
- Wampold, B. E. (2015). *The great psychotherapy debate: The evidence for what makes psychotherapy work* (second ed.). Hoboken: Taylor and Francis.
- Ward, D. (2018). *Stuttering and cluttering: Frameworks for understanding and treatment* (second ed.). Oxon, New York: Routledge.
- World Health Organization (2001). *World health organization*. Geneva: World Health Organization.
- Yaruss, J. S. (2010). Assessing quality of life in stuttering treatment outcomes research. *Journal of Fluency Disorders*, 35(3), 190–202. <https://doi.org/10.1016/j.jfludis.2010.05.010>.
- 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(1), 35–52. [https://doi.org/10.1016/S0021-9924\(03\)00052-2](https://doi.org/10.1016/S0021-9924(03)00052-2).
- Yaruss, J. S., & Quesal, R. W. (2006). Overall Assessment of the Speaker's Experience of Stuttering (OASES): Documenting multiple outcomes in stuttering treatment. *Journal of Fluency Disorders*, 31(2), 90–115. <https://doi.org/10.1016/j.jfludis.2006.02.002>.
- Yaruss, J. S., & Quesal, R. W. (2010). *OASES manual: Overall assessment of the speaker's experience of stuttering*. United States of America: NCS Pearson, Inc.
- Zebrowski, P. M., & Kelly, E. M. (2002). *Manual of stuttering intervention*. Clifton Park, N.Y: Singular.