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Motivation for stuttering therapy and its concept and other determinants

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Abstract

Purpose: The objective of this research was to determine the level of motivation for stutter treatment and its dependence on age, gender, and the conception of stuttering.

Methods: In our study, the Conception of Stuttering Scale (CSS) and the Motivation for Stutter Therapy Scale (MSTS) were used.

Participants: The research involved 297 participants, 81 women and 216 men, all aged from 18 to 54 years. All participants had started to stutter before the age of 7, they all had stutter symptoms (confirmed by an experienced speech therapist), thought themselves to be stutterers, and had undergone at least one therapy.

Results: Overall, the respondents were likely to consider stuttering a speech impediment, logoneurosis, communication disorder, or an illness. They mostly supported the idea of comprehensively diagnosing stuttering and they did not have a uniform conception of stutter therapy. They were most likely to opt for therapies based on speech practice or psychotherapy. Their motivation for speech therapy was mostly moderate. Motivation for stutter therapy was markedly higher in women than in men. A significant positive correlation was revealed between speech practice and non-acceptance of stuttering.

Conclusions: Stuttering persons have differed conceptions of the etiology, basis, diagnosis, and treatment of stuttering. Motivation for stutter therapy in adults is moderate and is not associated with their concept of stuttering.

stuttering; therapeutics; motivation; adults

INTRODUCTION

Stuttering is a speech disorder characterized by the disfluency of speech, which decreases the capacity for effective communication. The incidence of stuttering in a lifetime is estimated at about 4–5% in children and 1% in adults, the vast majority of whom are men [1). The onset of stuttering typically occurs between the ages of 2 and 5 years [2]. In approximately 80% of cases it disappears before adulthood, either spontaneously or due to therapy. However, in some children it persists and becomes chronic. Stuttering is most easily treated at preschool age; over time and when negative consequences have accumulated, treatment becomes more difficult.

Many theories of the etiology and pathomechanism of stuttering have been developed [1,3].

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Biological theories of stuttering state that it is hereditary or results from immaturity of central nervous system [4,5]. Psychological theories look for the main cause of stuttering among negative emotions and particularly point to anxiety [6,7]. Moreover, linguistic theories are focused on speech disfluency and causes of the disfluency are to be found within the speech act [8].

Evidence appeared in the mid-20th century suggesting that stuttering is a psychosomatic disorder [9–11]. This conception was revived and developed by Smith 2017 and Tarkowski 2018, who considers stuttering in systemic terms. Its structure encompasses linguistic (e.g., disfluency), biological (e.g., increased muscle tone), psychological (e.g., logophobia), and social (e.g., communication stress) factors, as well as the relationships between them [12,13].

Likewise, there are many stuttering treatments available, which can be roughly categorized as direct, intermediate, and comprehensive [14,15]. Direct methods are targeted at the very speech act and are intended to improve verbal fluency, for example, slow, extended speaking, rhythmization, the "more fluent stuttering" method, and elicitation of fluency using various devices [16,17]. Intermediate therapy methods are expected to improve verbal fluency by affecting the person and their organism. They include: drug therapy, physiotherapy, regulation of breath and phonation, biofeedback, and psychotherapy [18,19]. Comprehensive measures combine direct and indirect methods, applied in the form of a therapeutic program. The most well-known are the Lindcombe and the Camperdown Programs [20,21].

Undergoing and continuing a stutter therapy demands, above all, motivation from the stuttering patient, without which little success can be expected. Motivation is hard to conceptualize. Opinions prevail that it is relevant to all processes in the initiation, direction, and maintenance of an activity focused on a goal that has been recognized as valuable and useful [22]. When the goal is hard to achieve, the measures undertaken are considered energy wasting by the individual. Many theories and motivation models have been developed; motivation can be internal (activation occurs when a person strives to satisfy their needs) and external (a person takes action with respect to certain expected consequences) [23]. Another division envisages conscious motivation (a person is aware of it and is capable of controlling it) and unconscious motivation (a person does not realize what underpins their actions) [24].

Motivation is crucial for the type and purpose of undertaken activities, as well as perseverance in pursuance of a goal. It is also of key importance in psychotherapy, which poses a difficult challenge. Various factors motivate people to undertake or continue with psychotherapy and to make changes in their functioning. The basic ones include: being active, expectations, attitudes, hope, psychological distress associated with one's own dysfunctions or disorders, a sense of threat and helplessness, dissatisfaction with the current functioning, and readiness to incur expenses for the purpose of gaining a benefit [25].

Patients may have a lower or higher motivation to start and undergo therapy at various stages [26]. Motivation for therapy affects the therapeutic relationship, which has to be taken into account when planning specific interventions [22]. In fact, it is believed to be one of the most important factors for an effective therapy. The results of numerous studies point to significant correlations between the reduction of symptoms and involvement in the therapeutic process. Therefore, the higher the motivation for the stutter therapy, the better the response to treatment, which is measured as the degree to which the symptoms are reduced [27–29].

A special role is attributed to internal motivation in long-term therapy (which must be maintained for a long time), when the reward is not easily attainable and the psychological toll is considerable. Withdrawal from the therapy can take place if no progress occurs, the patient is afraid of failure and not getting the expected reward, there are too many rewards of little value, or boredom and loss of interest set it [28,30]. This is why Rayan believes that motivation for a therapy should be considered in the treatment of all patients, not only those with evident deficits in motivation [22]. The role of motivation for stutter therapy in adults seems self-evident to many therapists [14,31]. However, research in this field has only been conducted rarely, mainly as collateral studies in wider research.

The first important question for a stuttering person to answer when starting a therapy concerns their goals. Therapeutic goals will vary according to a wide range of factors, such as: an earlier experience of therapy, the aspects of life affected by disfluency, subjective perception of physical and psychological distress related to stuttering, and knowledge and understanding of available therapeutic options. According to Ward, an individual's awareness of the therapeutic goals, and the likelihood of their attainment, is vital [15]. Sønsterud et al. showed that the majority of participants wanted to focus on both physical and psychological aspects of the therapy, and 95% acknowledged that gaining a sense of control over stuttering is important. Further, the subjects wanted to improve their verbal fluency, emotional functioning, social involvement, and understanding of stuttering [14].

Finn, Howard, and Kuala state that the stutterer's conception of their disorder at the start of therapy is also important. The researchers examined the motivation for therapy in adults who, despite their disfluency, did not think they had a stutter. Findings showed these participants did not feel they required professional help [25].

The conception of stuttering is a complex issue and relates mainly to its nature, etiology, diagnosis, and therapy. It is vital to determine whether a person considers their stuttering to be a speech impediment or logoneurosis causing a certain amount of communication disability. The person speculates about the cause of the disfluency and the possibilities of remedying it. Their conception of stuttering affects their expectations concerning the diagnosis and therapy. This leads to a general resolution of whether such measures should focus on the disfluency itself or the stuttering person. A conception of stuttering is formed probably during the preschool age, when a child develops an awareness of this disorder. It evolves in the further ontogenesis and may be changed. Knowledge of a particular patient's conception of stuttering is essential for the therapy [13,32].

Tarkowski and Góral-Półrola presented a concept of motivation for stutter therapy. It presupposes that this motivation develops only in older children, adolescents, and adults. In the presented model, four factors play a role in the motivation for stutter therapy: non-acceptance of stuttering, cost of therapy, course of therapy, and faith and support. On the basis of this model, a Motivation for Stutter Therapy Scale was developed, suitable for diagnostic-therapeutic programs and scientific research [33].

PURPOSE

The purpose of our study were to:

- Determine the level of motivation for stutter therapy.
- Establish the conception of stuttering in people with a stutter.
- Ascertain whether there are links between motivation for stutter therapy and age, gender, and conception of stuttering.

METHODS

Conception of Stuttering Scale (in Polish) – CSS.

The CSS was developed by Góral-Półrola and Tarkowski, based on the literature concerning people's prevalent opinions about their stuttering. The scale contains 20 statements, which respondents answer by ticking Yes, No, or I don't know. It consists of four scales measuring opinions on:

1. The nature of stuttering, e.g., "Stuttering is a speech impediment" or "Stuttering is logoneurosis".
2. The etiology of stuttering, e.g., "Most cases of stuttering are due to psychological problems" or "Stuttering is hereditary".
3. Diagnosis of stuttering, e.g., "Stutter assessment should focus on disfluency" or "In stutter assessment, one has to focus on the psyche of the stutterer".
4. Stutter therapy, e.g., "Stuttering will disappear without any treatment" or "In stutter therapy one has to use psychotherapy".
5. Reponses were not scored because all statements were of equal value. In individual studies, responses were used to establish the profile of an individual's conception. In group studies, selected responses were tabulated to determine the percentage of respondents with specific beliefs. In our group

research, the percentage of responses to individual statements was found.

Motivation for Stutter Therapy Scale (in Polish) – MSTS.

The MSTS was developed by Góral-Półrola and Tarkowski (2012), based on the literature concerning the therapy undertaken by people with various health and emotional problems [33]. The scale contains 20 items evaluated with a 5-point Likert scale (No, Not really, Hard to say, Probably yes, Yes). Responses were scored from 1 to 5 as per the attached key. The subject can gain an overall score of 20 to 100 points (overall motivation). The higher the score, the greater motivation for stutter therapy. The scale features four subscales, each scored from 5 to 25.

1. Non-acceptance of stuttering. This refers to the lack of tolerance towards pathological disfluency. It was assumed that acceptance of disfluency restricts mobilization for undertaking and continuing therapy (e.g., "I'm fine with my stutter" or "I've got used to stuttering"). Non-acceptance of stuttering prompts actions intended to reduce or eliminate disfluency symptoms by learning new reactions and behaviors, plus the willingness to get to know and test oneself (items 1–5).
2. Cost of therapy. This refers to financial, time, and psychological costs as well as the willingness to bear them (e.g., "stutter therapy should not be free" or "I can spend much time on stutter therapy"). The willingness to bear therapy costs depends on the expected benefits of a particular therapy (items 6–10).
3. Course of therapy. It was assumed that previous failed attempts lower one's motivation to make another attempt (e.g., "the stutter therapy so far has been unsuccessful"). They also inspire distrust for therapists (e.g., "those who deliver stutter therapy know little about it") (items 11–15).
4. Faith and support. It was assumed that motivation for stutter therapy depends on faith in the effectiveness of fluency training and psychotherapy, rather than quick wonder methods (e.g., "I believe there is a cure for stuttering"). Of capital importance is also social support (e.g., "I will have the support of my close ones during therapy") (items 16–20).

The MSTS is also sten-standardized for individual testing. The normalization tests were applied to individuals with a diagnosed stutter who participated in a therapeutic program based on various forms, mostly individual. The group included 456 subjects. The reliability of the scale was assessed using Cronbach's alpha, which was 0.700 for the whole scale [33].

Socio-demographic survey

A survey was taken to collect basic socio-demographic data, stuttering history, information about disfluency symptoms, and therapies to date.

PARTICIPANTS

The study was conducted in 2017–2020. The participants were volunteers, recruited with the help of the National Association of Stuttering Persons and through individual contacts. This study was approved by the Bioethical Commission of the Medical University of Lublin. It complied with the requirements of the Declaration of Helsinki.

The selection criteria were a minimum age of 12, developmental stuttering (first symptoms before the age of 7), and the presence of stuttering (confirmed by an experienced speech therapist). The subjects regarded themselves as stutterers and had undergone at least one therapy. Participation in the survey was voluntary and written consent was obtained from all participants.

The research involved 300 participants, with 297 qualified for further testing, including 81 (27.27%) women and 216 (72.72%) men, all aged from 18 to 54 years (M = 28.13; SD = 11.21). All respondents had participated in various forms of forms of stutter therapy, usually individually (76%).

Table 1. Sociodemographic Characteristics of Study Groups

Variables		N	%
Gender	Female	81	27.27
	Male	216	72.72
Marital status	In relationship	174	58.58
	Widow/Single	123	41.6
Place of residence	Village	75	25.25
	Town	122	41.07
	City	100	33.67
Education	Elementary	15	5.051
	Vocational	62	20.87
	Secondary	128	43.09
	Higher	92	30.97

Data analyses

Data were analyzed using Student's t-test for paired variables after normality of the distributions had been tested and when no statistically significant differences had been found between variances. Pearson's linear correlation coefficient was used to test for correlations between two variables. Values where $p \leq 0.05$ were considered statistically significant.

RESALTS

Motivation for stutter therapy

On average, motivation for stutter therapy in the study group was moderate, and the individual factors were equal (Table 2).

Table 2. Motivation for Stutter Therapy

MSTS	M	SD
Non-acceptance of stuttering	14.57	3.63
Cost of therapy	14.40	4.16
Course of therapy	15.23	3.54
Faith and support	17.72	3.64
Overall	61.92	14.97

Conception of stuttering

Table 3. Conception of Stuttering

Nature of stuttering	Response (%)			Stutter diagnosis	Response (%)		
	Yes	Undecided	No		Yes	Undecided	No
Speech impediment	85	8	7	Disfluency assessment	48	35	17
Logoneurosis	59	31	10	Psychological examination	71	16	13
Illness	55	16	29	Brain examination	41	42	17
Communication disorder	64	16	20	Communication assessment	55	29	16
Disability	10	8	82	Articulatory ability assessment	63	7	30
Etiology of stuttering	Response (%)			Stutter therapy	Response (%)		
	Yes	Undecided	No		Yes	Undecided	No
Psychological problems	60	22	18	Spontaneous resolution	5	12	83
Speech organ damage	19	30	51	Drug therapy and herbal medicine	9	13	78
Genetic origin	21	30	49	Speech practice	43	23	34
Unknown cause	37	31	32	Psychotherapy	26	53	21
Brain damage or dysfunction	14	45	41	Healing	5	18	77

The stutterers had varying opinions about their disorder (Table 3). They typically did not agree with the opinion that it is a kind of disability (82%). They were likely to consider stuttering a speech impediment (84%), logoneurosis (59%), communication disorder (64%), or an

illness (55%). Their views on the etiology of stuttering were also diverse. They usually attributed stuttering to a psychogenic (60%) or unknown basis (37%), and less often to heredity (21%), brain (14%), or speech organ(s) (19%) damage. They were mostly in favor of a comprehensive diagnosis of stuttering involving disfluency (48%), psychological (71%), brain (41%), communication (55%), or articulation (63%) testing. They had no uniform conception of stutter therapy. Few stated that they assume their stuttering problem will go away spontaneously (5%). Also, there was little trust in drug therapy and herbal medicine (9%) or healing (5%). They were most likely to choose therapies based on speech practice (43%) or psychotherapy (26%). It should be emphasized that more hesitant responses were given with respect to their conception of diagnosis and therapy of stuttering than its nature and etiology.

Motivation vs. age and gender

Table 4. Motivation for Stutter Therapy vs. Age

MSTS	≤36 years		>37 years		t	p
	M	SD	M	SD		
Non-acceptance of stuttering	15.08	3.50	14.06	3.76	3.267	0.012*
Cost of therapy	14.79	4.09	14.01	4.24	2.208	0.028*
Course of therapy	15.15	3.43	15.31	3.66	0.547	0.585
Faith and support	17.50	3.65	17.94	3.64	1.422	0.156
General motivation	62.52	10.71	61.32	10.52	1.341	0.181

Motivation for therapy was slightly higher in younger stutterers, but the difference was not statistically significant. Non-acceptance was significantly greater in younger persons who stutter. Moreover, younger persons declared more readiness to bear the costs of therapy. Other tested components of motivation (course of therapy, faith and support) had similar values between age groups.

Table 5. Motivation for Stutter Therapy vs. Gender

MSTS	Men		Women		t	p
	M	SD	M	SD		
Non-acceptance of stuttering	15.05	3.88	14.19	3.60	2.536	0.012*
Cost of therapy	14.93	3.99	14.05	4.26	2.294	0.022*
Course of therapy	15.28	3.34	15.24	3.40	0.132	0.895
Faith and support	18.44	3.67	17.53	3.61	2.733	0.007*
General motivation	63.70	10.39	61.01	10.59	2.782	0.0062*

Motivation for stutter therapy in women was significantly higher than in men (t = 2.278, p = 0.0062). Non-acceptance of stuttering was higher in women (t = 2.536, p = 0.012), who declare more readiness to incur the costs of therapy (t = 2.294, p = 0.022); they also count on greater social support and have more faith in the effects of therapy (t = 2.733, p = 0.007).

Motivation for stutter therapy vs. its conception

Table 6. Motivation for Stutter Therapy vs. Its Conception and Etiology

Conception of the basis of stuttering	Non-acceptance of stuttering		Cost of therapy		Course of therapy		Faith and support	
	r	p	r	p	R	p	r	p
Speech impediment	–0.14	0.13	0.08	0.39	–0.02	0.87	–0.10	0.28
Logoneurosis	–0.004	0.97	0.002	0.99	–0.12	0.20	–0.003	0.97
Illness	–0.02	0.82	0.18	0.06	0.03	0.78	–0.04	0.69
Communication disorder	–0.01	0.88	–0.04	0.69	0.11	0.26	0.19	0.06
Disability	0.03	0.77	0.02	0.83	–0.02	0.84	–0.08	0.42
Conception of etiology of stuttering	Non–acceptance of stuttering		Cost of therapy		Course of therapy		Faith and support	
	r	p	r	p	R	p	r	p
Psychological problems	–0.04	0.65	0.10	0.28	0.04	0.69	0.10	0.29
Speech organ damage	0.01	0.89	–0.02	0.86	–0.10	0.29	–0.07	0.50
Heredity	–0.12	0.21	–0.10	0.28	–0.06	0.53	–0.22	0.02*
Unknown cause	–0.13	0.18	–0.03	0.76	0.03	0.75	0.03	0.72
Brain damage	–0.18	0.06	0.01	0.95	–0.14	0.15	–0.13	0.19

No statistically significant correlations were found between motivation for stutter therapy and the conception of its basis and etiology.

Table 7. Motivation for Stutter Therapy vs. the Conception of Its Diagnosis and Therapy

Conception of diagnosis of stuttering	Non-acceptance of stuttering		Cost of therapy		Course of therapy		Faith and support	
	r	p	r	p	r	p	r	p
Disfluency assessment	–0.04	0.70	0.07	0.48	0.15	0.115	0.06	0.56
Psychological assessment	0.06	0.55	0.12	0.22	–0.01	0.939	0.03	0.74
Brain examination	–0.08	0.43	0.04	0.64	–0.04	0.706	–0.07	0.48
Communication assessment	–0.13	0.17	–0.03	0.75	0.10	0.298	0.11	0.24
Articulation assessment	0.09	0.34	–0.07	0.47	0.11	0.269	0.22	0.02*
Conception of stutter therapy	Non-acceptance of stuttering		Cost of therapy		Course of therapy		Faith and support	
	r	p	r	p	r	p	r	p
Spontaneous resolution	0.03	0.79	–0.16	0.09	0.04	0.64	–0.02	0.80
Drug therapy and herbal medicine	–0.21	0.03*	0.06	0.51	–0.22	0.03*	–0.32	0.001*
Speech practice	0.19	0.04*	–0.08	0.43	–0.03	0.75	–0.15	0.13
Psychotherapy	0.10	0.30	0.08	0.40	0.11	0.27	0.15	0.13
Healing	0.05	0.58	–0.04	0.69	–0.15	0.13	–0.08	0.43

No statistically significant correlations were found between motivation for stutter therapy and the conception of its diagnosis and therapy. The only negative and significant correlations occurred between drug therapy and herbal medicine and non-acceptance of stuttering ($r = 0.21$, $p = 0.03$), course of therapy ($r = 0.22$, $p = 0.03$), and faith and support ($r = 0.32$, $p = 0.001$). A significant positive correlation, however, was revealed between speech practice and non-acceptance of stuttering ($r = 0.19$, $p = 0.04$).

DISCUSSION

During adolescence or at a mature age, motivation for stutter therapy is likely to be low or average. Generally, stuttering people regard themselves to be physically and mentally fit [34]. Stuttering does not cause physical pain, it is not life-threatening, and the risk of complications is low, nor does it restrict the possibility of achieving success in private or professional spheres of life. It is probably for this reason that as many as 86% of the respondents stated they accept or are inclined to accept their stuttering; at the same time, however, they have an implicit desire for their pathological disfluency to vanish spontaneously and never come back. We may be dealing with an apparent acceptance of stuttering. Stutterers hope to receive, or even demand, social support [35]. Their stuttering-related distress (of which the scale and intensity are unknown) cannot significantly raise their motivation for therapy. Its effectiveness is commonly thought to be low, and most speech therapists and psychotherapists consider stutter therapy to be difficult to administer and of little avail [36,37]. This message is conveyed to stuttering persons and their caregivers when they come for help. Opposition to stutter therapy seems to be considerable among healthcare professionals. It has been demonstrated experimentally that changing attitudes towards stutter therapy is challenging [38]. Furthermore, various other forms of therapy are often preferred, such as autotherapy or self-help practiced by stuttering persons. They are supported by speech therapists, especially those who have not overcome their own stuttering [35]. The self-help movement teaches people how to live with a stutter based on the assumption that stuttering is incurable, which weakens a person's motivation for therapy. Repeated studies demonstrate that the social awareness of stuttering is still unsatisfactory [39,40].

It has been shown that during adolescence and adulthood, age is not significantly correlated with motivation for stutter therapy. Admittedly, when compared with adults, teenagers show a higher motivation in this respect, but the difference is not statistically significant. In general, the significance of pathological disfluency perceived as the basic symptom of stuttering decreases with age. It is interesting to note that while acceptance of stuttering increases significantly, the readiness to bear the costs of therapy (related to expenses and time spent, as well as psychological burden) reduces. Also, people become more accustomed to, and reconciled with, stuttering. At the same time, the social pressure to undertake or continue therapy is weakening and stutter therapy is being regarded with increasing skepticism. With age, defense mechanisms (denial of stuttering or attempts at rationalization) become stronger. Sometimes stuttering parents sign their children up for therapy but they do not wish to participate in it themselves, thinking they are incurable [41].

It has been shown that motivation for stutter therapy is gender dependent, with women being less prone to accept stuttering then men, and therefore more motivated to undertake therapy. Women are more willing to carry the cost of therapy, have more trust in the effects of therapy, and utilize social support. This interesting difference is probably due to the fact that women are more concerned with their mental well-being, show more sensitivity to health problems, and take greater care of their health [42]. Stuttering is a visible problem, which is hard to disguise, despite repeated efforts [34]. Pathological disfluency also adversely affects a person's image, and women tend to care about this more than men do. Women are more likely to mobilize themselves to undergo stutter therapy in order to improve their self-esteem. Although stuttering is rarer in women, women are more willing to be treated.

It has been shown that stutterers do not have a uniform conception of the nature and etiology of stuttering. They are unable to determine whether it is an illness or disorder, or whether it

affects their articulation or communication. They essentially agree that stuttering is not a form of disability, but they have different opinions about its diagnosis and therapy. Therefore, we see similar differences of opinion in the population of stuttering persons as there are among health care professionals and specialists, who are also in disagreement about the nature, etiology, and diagnostic-therapeutic model of stuttering [35].

No statistically significant correlations were found between motivation for stutter therapy and the conception of its diagnosis and therapy. Only the parameter drug therapy and herbal medicine was negatively correlated with non-acceptance of stuttering, course of therapy, and faith and social support. This means that the more importance people who stutter attribute to drug therapy and herbal medicine, the greater the acceptance of stuttering, the worse the course of therapy, and the less importance attributed to faith and social support. However, non-acceptance of stuttering is significantly correlated with attributing importance to speech training, which, combined with psychotherapy, constitutes the core of stutter therapy.

LIMITATIONS

The study must be understood in the context of its limitations. This study is limited by small sample sizes, which may have resulted in not finding statistically significant differences. Our data relies on self-reported data which can be limited by respondent bias or forgetfulness. More studies on persons who stutter on their motivation for therapy are needed.

CONCLUSIONS

Stuttering persons have different conceptions of the etiology, basis, diagnosis, and treatment of stuttering. Motivation for a stutter therapy in adults is moderate and has no connection with their conception of stuttering.

In building motivation for stutter therapy, the therapeutic relationship [therapeutic or working alliance) between the person with a stutter and their therapist is of great importance [29, 33]. Motivation for stutter therapy is a dynamic process encompassing the stages of mobilization, involvement, and continuation [33]. During the mobilization phase a decision is made about starting therapy based on the conception of stuttering that the person has. The involvement stage results from a therapeutic alliance between the stuttering person and the therapist. The continuation stage involves check-up visits or consultation. At each of these stages other goals emerge, which must be met for the therapy to continue. The patient's and therapist's involvement are both crucial. Their motivation can vary individually (from high to low) and independently; for example, the stuttering person may have low motivation, as opposed to the highly motivated therapist, or vice versa. Optimum therapeutic outcome is when both the therapist's and the patient's motivation are at a similar, at least medium, level. This calls for a changed attitude towards stuttering in general and a different model of therapist training [38]. Various methods for developing motivation for stutter therapy have been proposed (e.g., the Socratic method, selection, paradox, behavior modelling) [33].

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