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ESTUDIOS

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Building a Bridge Among Unspoken Words: The Use of Drawing According to the IARA Model to Trigger Communication in Children and Adolescents Who Stutter

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ENG Abstract: Stuttering is a speech disorder characterized by difficulties in maintaining fluent speech. Individuals who stutter often have negative attitudes towards their own communication abilities, which may be influenced by high expectations placed on them by their parents. When the demands for fluent speech exceed their capabilities, stuttering episodes can occur, leading to further frustration and avoidance behaviors. Consequently, people who stutter often avoid discussing their experiences and feelings related to stuttering. Stimulating communication is essential during speech therapy, but encouraging communication is far from simple. In an attempt to facilitate communication and foster a more effective relationship between persons who stutter and their parents, we implemented the so-called awareness drawing according to the IARA model. Fourteen children (M=10; F=4; mean age=10.42; SD=1.65) and eight adolescents (M=6; F=2; mean age = 15.25; SD=1.03) diagnosed with stuttering were involved in the study along with their relatives (28 parents; M=10; F=18; mean age=31.14; SD=4.66 years). Results revealed that the awareness drawings can offer valuable insights into experiences and perceptions of stuttering both in children and adolescents and their parents. In particular, the former expressed a desire for acceptance and a wish to be recognized beyond their stuttering, depicting solutions that encompass the involvement of both parents and speech therapists. Therefore, the awareness drawing during the stuttering assessment session, could provide a valuable insight into the emotions, thoughts of person who stutter, as well as the experiences of their parents. This, in turn, can enhance the design of therapeutic intervention.

Keywords: stammering; stutter; speech therapist; emotion; awareness

ENG Tender puentes entre las palabras no dichas: El uso del dibujo según el modelo IARA para estimular la comunicación en niños y adolescentes que tartamudean

ES Resumen: La tartamudez es un trastorno caracterizado por problemas en la fluidez del discurso Las personas que tartamudean suelen tener actitudes negativas hacia sus propias capacidades comunicativas, que pueden estar influidas por las elevadas expectativas puestas en ellos por sus padres y que conducen a frustración y a conductas de evitación. Las personas que tartamudean suelen evitar hablar de sus experiencias y sentimientos relacionados con la tartamudez. Con el propósito de facilitar

la comunicación y promover una relación más efectiva entre las personas que tartamudean y sus padres, implementamos el llamado dibujo de concienciación según el modelo IARA. Catorce niños (M=10; F=4; edad media=10,42; SD=1,65) y 8 adolescentes (M=6; F=2; edad media = 15,25; SD=1,03) diagnosticados de tartamudez participaron en este estudio, junto con sus familiares (28 padres; M=10; F=18; edad media=31,14; SD=4,66 años). Los resultados revelaron que los dibujos de concienciación pueden ofrecer información valiosa sobre las experiencias y percepciones de la tartamudez tanto en niños y adolescentes como en sus padres. En particular, los primeros expresaron el deseo de aceptación y de ser reconocidos más allá de su tartamudez, representando soluciones que abarcan la implicación tanto de los padres como de los logopedas. El dibujo de concienciación durante la sesión de evaluación de la tartamudez podría proporcionar una valiosa visión de las emociones, pensamientos de la persona que tartamudea, así como las experiencias de sus padres. Esto, a su vez, puede mejorar el diseño de la intervención terapéutica. **Palabras clave:** tartamudez; logopeda; emoción; conciencia

Sumario: Introduction. Materials and Methods. Discussion. References

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Introduction

Stuttering is a disorder in the rhythm of the word flow due to motor initiation problems with extremely subjective characteristics and for this reason, researchers agree on its multifactorial nature, including factors associated with linguistic, sensory, and emotional processes which are involved in its development and/or maintenance (Anderson & Ofoe, 2019; Iverach & Rapee, 2014; Usler & Weber, 2021). Typically, person who stutter (PWS) manifests repetitions of syllables or words, repetitions of sounds, or have speech blocks or prolonged pauses during their narrative (Prasse & Kikano, 2008). There are also reported secondary behaviors associated with stuttering, such as involuntary movements, blinking, and jaw jerking. It seems that these behaviors are enacted to minimize the increasing severity of stuttering, leading, on the other hand, to embarrassment and fear of speaking (Prasse & Kikano, 2008). Children and adolescents who stutter reported peer victimization, social isolation, and rejection, resulting in being less popular in their peer group (Blood et al., 2011), and for this reason stuttering has been associated with social anxiety (Iverach & Rapee, 2014). Some PWS, in particular adolescents and adults, develop several behaviors to hide the stuttering, such as word substitutions, use of interjections, and sentence revisions (Prasse & Kikano, 2008). PWS perceive themselves as bad communicators and develop negative speech attitudes. As a consequence, they tend to use different kinds of avoiding and escape behaviors and do not like to talk about it and their feelings. Vicious cycle is so generated, leading to shame, embarrassment, low self-esteem, lowered school performance, and even withdrawal from school (Langevin & Prasad, 2012).

Furthermore, a central role is played by negative beliefs about one's stuttering which lead the subject to anticipate communication failures and speech difficulties. So, the moment he perceives the occurrence of disfluencies he struggles in an attempt to avoid them (Iverach & Rapee, 2014). Therefore, the development of a negative communicative attitude could be related to the expectations and high demands made by parents on the child's fluency (Starkweather, 1987). When these exceed the child's abilities (cognitive, motor, linguistic, and emotional) to produce fluent verbality, a stuttering episode occurs which is perceived by the subject as a communicative performance not adequate to the requests. Moreover, it has been demonstrated, that caregivers who frequently interrupt or speak quickly can increase their child's dysfluency (Prasse & Kikano, 2008). Stuttering is therefore configured as a problem affecting not only the PWS, but also their caregivers, friends, and peers (Prasse & Kikano, 2008). Considering the high emotional reactivity that can be achieved, both people who stutter and their relatives have difficulty talking about stuttering (Sheehan, 1953). As a result, the cognitive, emotional, and behavioral reactions from both the stutterer and the listeners can have a significant impact on social relationships (Beilby et al., 2013; Erickson & Block, 2013; Langevin et al., 2010).

These results have led many clinicians to take into consideration the importance of the family and social environment, as well as the modification of the communicative attitude, as an integral part of the treatment. In this regard, the role of the speech therapist is pivotal (Uysal et al., 2023) and the clinician should accompany and puts the PWS at the center of the entire treatment path by asking him to describe what the disorder means in terms of emotions, feelings, associated thoughts, and every aspect of life that involves communication as well as the communicative attitude (Clark et al., 2012; Vanryckeghem et al., 2017). It is also helpful to rely on parents among other caregivers, to help manage the disorder. Moreover, to achieve successful therapy, the clinician must bring out emotions, feelings, and associated thoughts also from parents/caregivers to make them fully aware of what stuttering is and what it represents (Nonis et al., 2022; Rustin & Cook, 1995). All the protagonists' acquired awareness can lead to the PWS achieving the autonomy required to overcome the disorder, and the parents/caregivers to become full allies in the therapy (Sønsterud et al., 2019).

Awareness can be achieved through i) performing home exercises; ii) realizing how PWS actively can become an effective communicator; iii) changing its disfluency and communication skills; iv) having people aware of the disorder and precious allies (Onslow & O'Brian, 2013). The literature has already shown that even young children can express their feelings and emotions (see e.g., Boland et al., 2003; Reese & Newcombe, 2007), but these descriptions are usually brief (Pipe & Salmon, 2009) and adult support is necessary (Nelson & Fivush, 2004). For these reasons, researchers have tested new interview techniques to increase the information children give about emotions, feelings, and thoughts in clinical settings. One of these techniques is drawing, which received particular attention (see e.g., Willcock, 2004) and can be used in two ways: as a projective test (see e.g., Machover, 1949) or as an informal assessment tool useful to facilitate verbal reports with clinicians (see e.g., Bekhit et al., 2005). In the projective test, therapists are more interested in the child's drawings than in what they say. On the other hand, drawings used in the informal assessment allow therapists to focus on the child's experience without analyzing anything about the child's personality (Pipe & Salmon, 2009). Furthermore, the literature has already highlighted how drawing can also regulate emotions such as anxiety (Guner Onur et al., 2020; Gürcan & Atay Turan, 2021) and depression (Weßollek et al., 2021). Indeed, drawing can transform the inexpressibility and invisibility of inner experiences into a visual in an expressible language that can be narrated and communicated to the outside world. As already affirmed by (Stewart and Brosh, 1997): "[thanks to the drawing] the child takes control for what is portrayed, it is the child who is empowered to set the agenda, and a picture can emerge [characterized by] concerns and feelings that are different from what he reports verbally".

Bothe and collaborators (2006) reviewed 162 articles and identified a range of stuttering treatments that met speech-related and/or social, emotional, or cognitive outcomes criteria. However, none of these used drawing in stuttering. In literature is emerging the IARA model (De Giorgio et al., 2017a; 2017b; Barattucci et al., 2019; Padovan et al., 2018a, 2018b; Maulini et al., 2021), a person-focused care that – briefly, since widely demonstrated and described elsewhere – consists of a model that uses both some specific tools (i.e., awareness drawing, qualities, imagery, counseling, "3A rules") especially designed for the issue to be addressed.

As aforementioned, among these tools, there is the awareness drawing (AD) which is characterized by three specific and ad hoc questions, tailored to the issue to be addressed, used to stimulate the creation of an equal number of drawings: i) how would you draw your illness? ii) What would be the solution for your illness? iii) What would your life be without your illness? Due to its characteristics, the AD has been already proven useful to ameliorate communication among therapists and adulthood in several illnesses (Gulotta et al., 2015; De Giorgio et al., 2017a; 2017b; Padovan et al., 2018a, 2018b; Viglino et al., 2022). We chose the AD in order to verify if it could also stimulate and improve communication in children/adolescents who stutter and among them and their parents. Therefore, the aim of this study is to explore whether the use of the AD may bring out from children and adolescent new themes not known/explored by speech therapists and parents. Our hypothesis is that the AD may provide valuable insights into the experiences and emotions of children and adolescent who taken part of this study.

Materials and Methods

Speech therapists' boundaries

As previously mentioned in the Introduction, we would like to emphasize that AD was not developed with therapeutical/psychological purposes in mind, but rather as a tool to elicit new narratives. In relation to this, speech therapists underwent a one-year course relating to the IARA model. This course included, among other tools, the training about AD. We want to highlight that during this process speech therapists: i) did not stimulated the child to draw something particular; ii) did not mediate any discussion with them; iii) did not offer a guidance; iv) merely reported back to the parents what issues are most important to the child in order to understand if the parents were aware of them. Therefore, the AD serves as a facilitative tool, designed to create a link between unexpressed emotions/thoughts and verbal communication. It is devoid of any psychological connotations and does not involve any interpretive interventions by speech therapists.

Design

During the first meeting – i.e., the stuttering assessment – the AD was used. The standard speech evaluation was conducted during this visit, along with a test to determine the impact and severity of stuttering. Parents were not allowed to participate during both the assessment and the AD. In the second stage, the speech therapist shows the PWS drawings to the parents, either in their absence if the child is younger than 14 years old or in their presence if the child is older so that they can express their opinions.

Preliminary assessment

First of all, both the child neuropsychiatrist and the phoniatrician evaluated children and adolescents in order to exclude any speech/language disorders, intellectual disability and/or any comorbidities. If the evaluations are negative, the physicians send children and adolescents to a speech therapist in order to assess the presence of stuttering. The speech therapist, to test the presence and the severity of the stuttering, used Riley's Stuttering Severity Instrument (SSI-4; Riley, 1972, 2009). This test measures three

parameters: i) stuttering frequency; ii) duration of selected stutters; iii) observed physical concomitants (e.g., distracting sounds, facial grimaces, etc.). The minimum rank percentile is 1-4 which corresponds to a severity equivalent to very mild; this parameter defines if a person stutters or not. Children and adolescents who fall into this percentile were involved in the study. Otherwise, were re-sent to the phoniatrician for further investigation.

Participants

Twenty-two participants (M = 16; F = 6; mean age = 12.18; SD = 2.77) were involved in the study: fourteen children (M = 10; F = 4; mean age = 14.42; SD = 1.65) and eight adolescents (M = 6; F = 2; mean age = 15.25; SD = 1.03). Moreover, were involved also their twenty-eight parents (M = 10; F = 18; mean age = 31.14; SD = 4.66 years). We made sure that the families consisted of both parents and that they were not divorced. Not all parents participated in the study for work demands. Considering that the World Health Organization defines an adolescent to be a person between the ages of 10 and 14, we used the mean age within this range to differentiate between children and adolescents in our study.

The Local Ethics Committee approved all procedures on February 13, 2022 (id. 0003/2022) in accordance with the 1975 Declaration of Helsinki ethical principles for scientific investigations involving human participants and its subsequent amendments. After being properly informed of the experimental procedures, parents gave both their approval to participate and signed informed consent for their sons. During the experimental stages, each participant had the complete right to withdraw from the study at any moment. Finally, parents given their approval to the publication of this article and, in particular, to the possible publication of their sons' drawings.

Awareness drawing procedures

During the stuttering assessment, the PWS was then given a set of 12 colored felt, pens, and an A4-sized piece of paper while being introduced to the AD. First of all, the PWS is asked to draw freely with pencils what stutter is for him through the following question: *How would you draw your stuttering?* Once the drawing is finished, the PWS is invited to look at it and to explain what he drew freely sharing his reflections, thoughts, and emotions. The PWS is now requested to offer a potential solution and to draw a second drawing to reflect it by posing the following question: *What would be the solution for your stuttering?* Also, in this case, the PWS is invited to share his reflections, thoughts, and emotions. The PWS is then asked to illustrate how his life may differ and how he would feel without stuttering. The third question was: *What would your life be without stuttering?* The speech therapist was under the supervision of a psychologist, who did not provide comments or suggestions while the patient was drawing.

In the second stage, the speech therapist showed the drawings done by PWS to the parents (the child was absent if younger than 14 years old) so they could share their reflections, thoughts, and emotions. The responses of participants with stuttering to the questions and reflections of the parents were audio-recorded, then faithfully transcribed, and finally subjected to content analysis.

Content analysis

After transcription, general coding categories and indicators were identified. The transcription, coding, and content analysis were subjected to the critical judgment of three experts to verify and share the comprehensiveness and consistency with the objective of the study and to avoid subjective, biased, or arbitrary tendencies in selecting and interpreting the data (Auerbach & Silverstein, 2003; Guba & Lincoln, 1982). Content analysis was carried out using the paragraph as the textual unit of analysis. From the literature and content analysis, we developed a specified category system (Table 1):

| Categories | Indicators Cognition | | |
|--|---|--|--|
| Personal Emotions/Feelings | | | |
| Feelings are mental experiences of body states, the latter are the emotions (Damasio & Carvalho, 2013) | The mental process with people acquiring knowledge and understanding through thoughts, experience, and the senses (Norenzayan et al., 2007) | | |
| Social Emotions/Feelings | Self-Esteem | | |
| They depend upon the thoughts, feelings, or actions of others such as the individual who experienced, recalled, anticipated, or imagined them (De Giorgio et al., 2022; Burnett et al., 2009). | It is an individual assessment of self-regard, self-worth, and self-competence (Bandura & National Inst of Mental Health, 1986) | | |

Table 1. System of categories and indicators resulting from content analysis

3. Results

We evaluated the results according to the content analysis of the recurring themes described in the previous paragraph (Table 2).

Table 2. Summarized contents emerged from the drawings and parents' comments. It also highlighted the distribution of the answers of recurring themes (chosen if higher than fifty percent) given by children and adolescents.

| | How would you draw your stuttering? | What would be the solution for your stuttering? | What your life would be without stuttering? | | | |
|-------------------------------------|---|--|--|--|--|--|
| PWS < 14 age | Obstacles, teasing, stuttering is only a problem when it occurs, embarrassment | External [emotional] support | The same, freer to express as I wish | | | |
| Distribution of the answers | Obstacle: 11/14 Teasing: 8/14 Problem/occurs: 10/14 Embarrassment: 11/14 | External [emotional] support: 11/14 | The same: 11/14 Freer: 8/14 | | | |
| PWS > 14 age | Obstacles, monster, stuttering as a global problem, social withdrawal- exclusion, shame | External [emotional] support, exercises for speaking slowly, awareness exercises | More sociable and serene, freer to express as I wish, more proactive | | | |
| Distribution of the answers | Obstacle: 6/8 Monster: 5/8 Global problem: 7/8 Exclusion: 6/8 Shame: 6/8 | External support: 5/8 Exercise: 6/8 | Sociable/Serene: 6/8 Freer: 6/8 Proactive: 6/8 | | | |
| What do you think of the drawing? | | | | | | |
| PWS parents (PWS < age 14) comments | Obstacles, disaffection, mockery, impaired learning, stuttering as a global problem | Lack of responsibility, delegation, support, negative feedback | Serenity, self-esteem, happiness | | | |
| PWS parents (PWS > age 14) comments | Socially and professionally inadequate, obstacles, disaffection, bullying, stuttering as a global problem | Lack of responsibility, delegation, support, maintain awareness | Serenity, self-esteem, happiness | | | |

Regarding the Personal Emotions/Feelings category, the qualitative analysis demonstrated how AD stimulates new insights from PWS. These explicative sentences evidenced this:

- By looking at the drawing, I understand how stuttering affects my life. I perceive myself in front of a tall, solid wall (Fig. 1A);
- My stuttering is like an open bridge between me and others (Fig. 2A);
- Stuttering is something that conflicts within me and does not allow me to communicate (Fig. 3A).

Regarding the Social Emotions/Feelings category, the qualitative analysis revealed possible solutions to overcome stuttering in PWS. These explicative sentences evidenced this:

- I need someone to give me a hammer so I can break down the wall (Fig. 1B). Thanks to this hammer, I
 can overcome the wall, and my parents will be happy (Fig. 1C);
- I should find a way to close the bridge, so I can cross it (Fig. 2B). Now, the road is clearing, and there are no more obstacles (Fig. 2C):
- I wish that people give me time to speak and look at me as a person and not by way of stuttering (Fig. 3B). I imagine myself as a company manager in a nice office where all the people listen to me and respect me (Fig. 3C).

When PWS were asked to draw what stuttering meant to them, the most common theme that emerged were blockages, obstacles, and not being able to communicate as one wants (i.e., represented by the wall, bridge interrupted, mouth closed). Feelings such as fear, judgment, time pressure, and giving attention only to the stuttering and not to the person were other themes that emerged. In younger children with positive attitudes, bright colors, flowers, meadows, and a smiling child was drawn more frequently. The PWS who draw the solution to the problem can be categorized into PWS who ask for external help from their relatives and PWS who come up with a solution themselves. Examples of external interventions were the hand holding a hammer to break down the wall or an insecticide that eliminates annoying insects.

Examples of self-resolution were the drawing of a car that does not overtake and waits in the queue which translates into the need to slow down one's thoughts and asking his listeners to focus on the content rather than the stuttering symptoms. Ultimately, all the PWS who took part in the study wished to be accepted for who they were, their qualities, and potential, rather than being defined by their stuttering.

Less concern about verbal performance, greater flexibility to express oneself, less focus on the symptom, and viewing oneself as less different, more relaxed, and cheerful are recurring themes in describing the cured condition.

Furthermore, sharing the drawings with the parents highlighted a strong difference between the children's and parents' thoughts and feelings about stuttering. Indeed, parents interpret stuttering qualitatively worse than children (i.e., display more barriers to overcome and greater discomfort), and are more focused on the symptom with methods and exercise being the primary solutions to the problem.

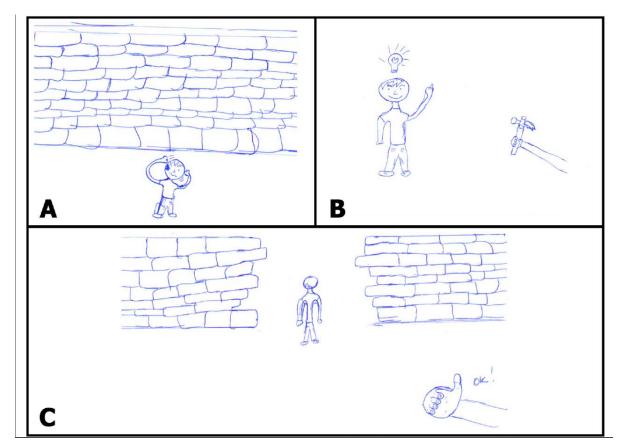


Figure 1. Awareness drawing of a 16-year-old child. A) Stuttering is like a tall and solid wall. B) The solution is a hammer given by parents. C) Life without stuttering is an open and overcoming wall.

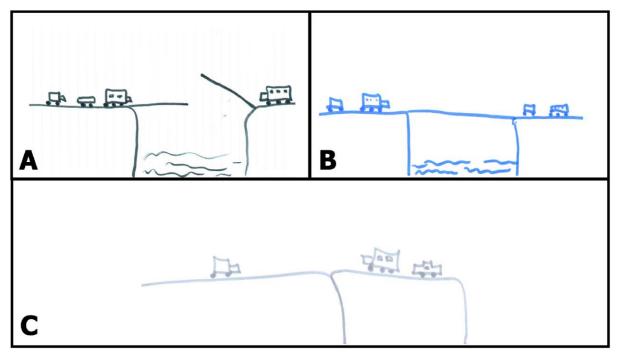


Figure 2. Awareness drawing of a 14-year-old 14 aged child. A) Stuttering is represented by an open bridge. B) The solution is a closed bridge lowered by the same PWS. C) Life without stuttering is an uninterrupted road.

As reported in Table 2, parents' viewing of AD, and subsequent discussions with the speech therapist, highlight some discrepancies between children's and relatives' stuttering perception. For example, parents of PWS<14 perceived stuttering as a global problem, whereas for PWS<14, the problem is "only when it occurs". On the other hand, parents of PWS >14 perceived stuttering as a problem that led their child to be "socially and professionally inadequate", whereas PWS>14 cited "social withdrawal-exclusion, but nothing about specific future professional problems.

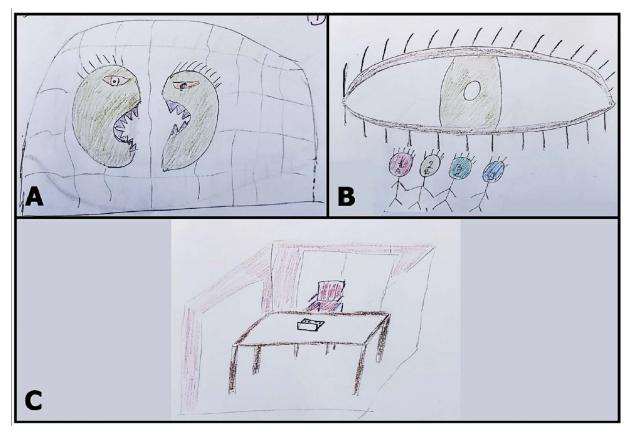


Figure. 3. Awareness drawing of a 12-year-old 12 aged child. A) Stuttering is represented by a brain in which something conflicts. B) The solution is to have big eyes which everyone to look at. C) Life without stuttering is himself as a corporate executive in his office.

Discussion

This study attempted to determine if AD might give insight into children's and adolescents' inner experiences that speech therapists and parents overlook by enabling both children's verbal reports and communication between PWS, speech therapists, and parents. We have demonstrated that AD brought out differences in thinking about stuttering between children/adolescents and their parents, ameliorating the improving understanding of the state of mind of the children/adolescents and the expectations of their parents. Stuttering treatment is now personalized – i.e., it is not standard – to the PWS according to what emerges from the evaluation. It is crucial that the evaluation, conducted via both written tests and the personal narratives of the PWS, along with the interview with the clinician (Uysal et al., 2023), captures the experiences, feelings, and attitudes towards stuttering from both the PWS and other interlocutors, such as parents.

The use of AD appears to bring out in PWS a narrative of connected feelings and ideas that are typically difficult to articulate, enhancing them with valuable details. It is worth emphasize that AD is not a free drawing and it was used without any psychological or therapeutical purposes. According to the literature (De Giorgio et al., 2017b; Maulini et al., 2021; Padovan et al., 2018a, 2018b), the AD has three precise phases so that the child can focus his responses only on illness, care pathway, and healing. Speech therapists do not intervene in the creative process, do not suggest anything, and do not explore areas of strictly psychological competence, leaving the PWS free to draw what he desires. In this way, speech therapists have a valuable tool to bring out the child's/adolescent's emotions and thoughts related to his stuttering experience.

Furthermore, the AD was also useful to the parents who have gained a new awareness of their child's/ adolescent's experience of stuttering, which was very different from what they thought it was. Therefore, AD seems to improve clinically relevant information that PWS reported to the speech therapist and parents. Achieving this result in a small sample size, in a language condition like stuttering where emotions influence each subject differently such that each instance essentially consists of an n of 1, highlights how beneficial the use of AD is (Woolford et al., 2013). In this context, our study provides preliminary support for using AD during stuttering assessment sessions alongside specific standardized tests.

Generally, it has been demonstrated that drawing increases the number of minimal responses that therapists collect during the assessment (Willcock, 2004). Responses such as "Yes", "Interesting" or "Mmmhh" do not add any content to the conversation but create a sympathetic context useful for the children (Pipe & Salmon, 2009). In an interesting article, Patterson & Hayne (2011) studied the effects of drawings in nine-ty children, demonstrating that drawing increased both the number of open-ended questions and minimal responses that interviewers used when asked to draw and tell. The authors conclude that drawing also increases the number of appropriate questions that interviewers ask. While this is allowed in a psychological environment, it may be problematic when employed by therapists who, because of their lack of psychological expertise, may bring out things from the child that are not relevant for stuttering or, worse, are not psychologically tolerable. In this case, through AD, speech therapists can use three precise questions that spark narrative in PWS without further influencing the children.

Several studies have been conducted to investigate the influence of enhancing communication on the emergence of the new information from children, as well as to explore the intervention methods most commonly used in the treatment of stuttering (Rehakova Novosadova et al., 2023). For example, concerning the former, researchers (Davies et al., 2008) have demonstrated that extended rapport building could lead to less information if it is protracted in time. Other researchers failed to prove the same, contradicting these results (Teoh & Lamb, 2010). However, research has shown that enhanced communication can alter the quantity of information that children disclose (Sternberg et al., 1997). Concerning the latter, a survey was conducted among 123 speech therapists, revealing not only commonly utilized approaches but also difficulties in achieving consensus on their implementation. Therapists expressed the need for new evaluation tools and increased collaboration with educational institutions. A holistic approach to teach individuals strategies for managing fluency while accepting and coping with stuttering is recommended.

Based on our experience in this research, we would like to suggest the use of AD during the initial stuttering assessment, in addition to standardized tests.

We acknowledge that the sample used here was relatively small and had a broad age range, but it allowed us to highlight how regardless of age, children share the same concerns (i.e., obstacle, embarrassment, shame), diverging in the perceived pervasiveness of the disorder. Indeed, as described in Table 2, in PWS aged <14, stuttering is only a problem when it occurs, whereas, in PWS aged >14, stuttering becomes a global problem. It is also worth noting that for PWS <14, the eventual disappearance of stuttering would not affect the individual or the external environment (other than feeling freer to express themselves), whereas for PWS >14, living without stuttering would lead them more peaceful and proactive. Therefore, seems that the perception of the disorder worsens with age because for adolescents the social environment and peer acceptance is a particularly sensitive issue (Long et al., 2020).

Our findings contradict in part the literature, which shows that variations in perceptions of stuttering were obtained for the age comparison but not for the severity comparison (Kondrashov & Tetnowski, 2019). However, it is important to stress that standardized tests are classically unable to bring out the person's real experience (Austin & Sutton, 2014; De Giorgio et al., 2022). The use of AD - as reported in Table 2 - was useful to bring out the children's and adolescents inner experiences which did not always coincide among them and what parents thought about the stuttering. This latter point has already been emphasized by Langevin and collaborators (2010)who in their study have explored the perceptions of parents during early intervention for childhood stuttering. The researchers employed a grounded theory approach with semi-structured interviews to gather qualitative data and gain insights into the experiences and perspectives of parents. A total of 15 parents were interviewed individually. The interviews focused on various aspects related to their child's stuttering (e.g., concerns, expectations, communication strategies used at home, overall satisfaction with the intervention process etc.). While the study offers valuable insight into understanding parental perspectives, it does present two limitations when compared with our research: firstly, it does not consider the dual viewpoint of stuttering, that is, the perspectives of both the children and the parents. Secondly, it focuses on an early stage of therapy, rather than the onset of the therapeutic process. Indeed, we brought out that children and adolescents consider stuttering a problem only when it occurs, whereas from the parent's point-of-view is a global problem. Furthermore, children thought their life without stuttering was the same, only would be freer to express as they wish, whereas for their parents' life would be happier and more serene, and the absence of stuttering would increase self-esteem. Regarding adolescents, only parents referred to stuttering as professionally inadequate, suggesting that they were already projected into a future where their children had not solved their problems. These different perspectives on stuttering are critical in setting appropriate therapy from the very beginning.

The AD tool is a cost-effective, easy-to-propose, and readily available resource, mediating among PWS and parents, demonstrating different - and not always coincidental - thoughts over stuttering. Furthermore, AD is distinguished by three specific questions that can be useful to speech therapists to avoid any psychological examinations, guaranteeing that therapists can use the AD without the mandatory presence of a psychologist but would still advocate monitoring. In conclusion, this tool can lead the person to the center of interest of those who care for them and their illness.

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