I’m Like a River: a Health Education Instrument for Stuttering

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Resumo
A terapia da fala usa os recursos de educação em saúde como meio de aumentar a consciência e a promoção de conhecimento da gaguez psicossocial – uma condição que se manifesta em períodos de difluências involuntárias, enquanto perturbação da fala. Desenvolveu-se um recurso: um instrumento (um livro de literatura infantil) destinado a crianças entre o 1º e 4º anos do ensino primário. O livro consiste em 17 páginas de uma pequena história ilustrada por crianças. O objetivo deste artigo é promover um conhecimento mais amplo da gaguez através do uso de livros especializados e artigos científicos (publicados entre 1978 e 2011) que abordam temas específicos da terapia da fala. Este tipo de intervenção precoce irá fornecer a crianças pequenas, informação e conhecimento para comunicar e interagir com crianças com gaguez. Uma intervenção em terapia da fala atempada irá ainda restabelecer a fluidez verbal fornecendo, assim, experiências de comunicação interpessoal eficazes.

Palavras-chave: Gaguez; Educação para a Saúde; Terapia da Fala.

Abstract
Speech therapy uses health education resources as mean to increase awareness and to promote understanding of psychosocial stuttering – a condition that manifests as periods of involuntary disfluency – as a speech disorder. One resource was developed: an instrument (a children’s literature book) aimed at children attending grades 1 to 4 of elementary school. The book consists in a 17-page short story, illustrated by children. The aim of this paper is to foster a broader knowledge on the subject of stuttering through the use of specialised books and scientific articles (published between 1978 and 2011) that tackle specific issues on speech therapy. This kind of early intervention will provide young children information and knowledge on how to communicate and interact with children affected by this speech disorder. A timely speech therapy intervention will also lead to re-establish verbal fluidity, thereby promoting experiences of effective interpersonal communication.

Key-words: Stuttering; Health Education; Speech Therapy.

The precise definition of stuttering has always involved conceptual difficulties, for the only person who truly knows what “their stuttering” is the individual who experiences it in everyday situations (Andrade et al., 2008). Other authors add that the definition of stuttering extends beyond speech behaviours, for having impact in occupational, social, emotional and academic performances (Dehghan et al., 2008): a more severe stuttering can be seen in particular circumstances – e.g., speaking on the telephone, or speaking before a large audience (NIDCD, 2010).

The vast majority of stuttering cases tend to appear sometime during the course of childhood. The first symptoms emerge with noticeable frequency from the age of 2 years old onwards (NIDCD, 2010; Barbosa & Chiari, 2005). Pre-existing genetic predispositions to stuttering, associated both with the subject’s gender (twice as high in males than in females), and with the presence of diagnosed cases within the subject’s family (Andrade, 2010), are also taken into account. It is also well established that, throughout their growing and development stages in the vital cycle, the number of males
that continues to stutter is three to four times higher when compared with that of females (NIDCD, 2010).

Currently, the notion that parents and educators play a fundamental role in the health status of stuttering children is undisputed (Dias et al., 2010); children are able, since a very early age, to collaborate with healthcare practitioners who intervene in the field of stuttering (viz., speech therapists and psychologists) to overcome or mitigate the difficulties associated to this particular speech disfluency. Corroborating evidence support the notion that early intervention on this speech disorder leads to swift and effective results in terms of recovery. The orientation itself, centred on the family system, becomes, at this intervention level, a low cost procedure, for it maximises the child stutterer’s recovery potential within the family setting. Negative reactions displayed by the interlocutors of children who speak with a stutter, both at verbal and non-verbal levels, may result in children developing low self-esteem, and a belief in their articulatory inability. Occasionally this leads the child to flight from, or avoid, situations that require engagement in interpersonal communication (Oliveira et al., 2010).

Stuttering is a speech disorder (Newbury & Monaco, 2010) characterised by involuntary disruption is speech fluency and which prevalence in world population is 4%. However, only a quarter of those 4% is prevalent (Barbosa & Chiari, 2005) in adults, usually characterised by silent pauses, or blocks, repetitions and prolongations of sounds (Buchel & Sommer, 2004). Alterations to the rhythmic quality of words or sentences is also observable: the syllable in the word and the word in the sentence evidence substantial differences in rhythmicity, due to the presence of “stronger” and “weaker” syllables (Juste & Andrade, 2010).

Stuttering also presents a considerable variability inter- and intra-individual (Dworzynski, Remington, Rijsdijk, Howell, & Plomin, 2007) and its etiology is nowadays still unclear and under debate. However, recent evidence seems to suggest atypical cerebral functioning in stutterers: uncommonly used brain areas are activated when a stuttering individual speaks (Boberg, 1993; Jaramillo & González, 2009). Presently, the theoretical-practical perspective points towards a multifactorial etiology for stuttering, leading to an interaction among environmental and intrinsic factors, of genetic, organic, emotional, cognitive and linguistic nature (Smith, 1999).

One should note that this particular impairment in speech fluency can be found in most cultures and natural languages (Andrade, 1997). Such observation makes it feasible to hypothesise that the type of blocks seen in stutterers may be primarily caused by changes in those linguistic and cognitive processes involved in language formulation during speech planning (Boshhardt, 2010).

On this issue, several authors have found that stuttering subjects require longer latencies to prepare their speech, when compared with non-stuttering subjects, varying idiosyncratically among subjects (Boshhardt, 1995; Starkweather, 1995), and that stuttering subjects’ production occurs in a progressive fashion – sounds of the final words are planned and sounds of the initial words are articulated, which could help explain the fact that blocks occur, essentially, in the beginning of a word (Barbosa & Chiari, 2005). Empirical studies showed that those blocks occur mostly in words with which the subject is less familiar (Juste & Andrade, 2010).

Studies conducted with children, aimed at determining chronological age interference on disfluency, showed that most variables under analysis (disfluency types, location and semanticity of the disfluencies) did not vary significantly in function of age; frequency of interjections, on the other hand, did significantly increase with the increase in chronological age (Enger, Hood & Shulman, 1988).

Apart from the speech alterations mentioned earlier, stuttering subjects tend to often present related symptoms, which include: paracinesis, anomalous movements in the face and neck musculature, and in those body extractions (or in the entire body) associated with speech production; avoiding eye contact with the interlocutor, so as to shun themselves from their reaction to the stuttering; embolophasias, introduction of parasite sounds or useless words as a means to fill in the silences; use of circumlocution and of rich and infrequent vocabulary, as a consequence of substituting for words the stuttererforesse/s/he may have difficulty in uttering; resorting to a starter, a word or word segment s/he utters effortlessly and most times with no flaws; stop-go symptomatich mechanisms, where speech is disrupted after a block, and then resumed with the same or with a new word; and a change in breathing pattern (Mendes, Carvalho & Martins, 2010; Sousa, 2007).

Typically, there are two types of stuttering: developmental and neurogenic. The first, most common of stuttering types, occurs in children at that time when speech and language are developing. Some clinicians admit that this type of stuttering may be due to the feeble ability that the child possesses to express her/himself orally, given his/her developmental stage. The second type of stuttering may occur in the sequence of cranial traumatism, or any other brain lesion, and it reveals the brain’s difficulty in coordinating the different components involved in speech production, due to miscommunication between the brain and the nerves or muscles (Buchel & Sommer, 2004).

Individuals who stutter are, since childhood and throughout their lives, a “target of teasing”, in school and academic environments and, later, in occupational contexts; the stutterer is perceived as someone who “lacks strong intellectual ability” and, additionally, as a rude and ill-mannered person (Gomes & Kerbauy, 2007). Negative sentiments, such as anxiety, tension, anger and guilt are recurrent in stutterers and, oftentimes, they develop a strategy to avoid confrontation and exchange of social interaction experiences (Dias, 1994). Considering the incidence of the disorder, and the kind of life experience that stuttering prefigures for a stutterer, it is essential to raise awareness in, and to educate, the general population to this condition; accomplishing this goal is the only way to achieve actual psychosocial integration of stutterers, and thus prevent their otherwise rather likely isolation and marginalisation (Gomes & Kerbauy, 2007). All those factors have a strong impact on the individual’s self-esteem – a variable which is a crucial psychological determinant in understanding and in developing clinical interventions for tackling stuttering (Yovetch, Leschied & Flicht, 2000).

At intervention level, it is acknowledged that continuing sessions with a speech therapist tend to amplify the chances of success in overcoming the speech disfluencies presented by stuttering individuals (Gomes & Kerbauy, 2007). In line with this evidence, the timely referral to a speech therapist is recommended for children since the age of 3 years old, depending on the severity of the particular case. The relation between speech and language pathologist and child should foster an interaction which is to be, essentially, founded on basic trust and confidence (Dias, 1994). In fact, the main point of engaging in preventive interventions conducted by a speech therapist is that of re-establishing speech fluency before language structures are shaped by an existing disfluency (Jones et al., 2005). It falls thus upon the speech and language pathologist to help the patient, namely by minimising the psychological impact of their stuttering in specific contexts (e.g., school, social gatherings) (Yaruss, 2010).

The first contact established with child is a crucial moment in the development of a therapeutic relation (Silva & Ferreira, 2011). Every practitioner working with children acknowledges that interpersonal communication becomes more rewarding when supported by ludic activities (Oliveira & Friedman, 2006). The instrument developed for the present health education campaign is a children’s literature book, which narrative portrays “speech fluency” changes via introduction of a symbolic equivalent, viz. that of the “flowing of a river”. Several authors highlight the fact that books, as objects of ludic activity, provide an opportunity for, and facilitate, the acquisition of new intra-psychic dynamics, which in turn contribute to the development of the child’s self-esteem, imagination, confidence, and creativity, as well as intra- and inter-psychic perception and relation (Oliveira & Friedman, 2006; Lebovici & Diatkine, 1988).

Despite the emancipation of the current means of communication, our society continues to regard books as indispensable means for communicating and transmitting/acquiring culture (Santos, 2004). The “symbolic character of play” stimulates children to develop strategies that enable them to deal with reality – a reality that oftentimes includes intimidating or stressful situations (Dias, Cardoso & Soares, 2006). The use of ludic instruments enables the child, when in face of such situations, to ascribe them meaning, and to proceed to their symbolic reintegration, thus creating the conditions for her/him to embark on a “voyage into
The proposed health education instrument intends to create and implement a learning resource that mediates and amplifies the relational and pedagogic communication established between the healthcare professionals and the child in the therapeutic setting, thereby fostering clinical best practices in contexts of therapy visits.

Method

Aims

In light of the facts just stated, the present article’s purpose is to bring to the attention of the public the availability of an early speech therapy intervention resource which promotes a learning resource, that mediates and amplifies the relational and pedagogic communication established between the healthcare professionals and the child in the therapeutic setting in the form of a children’s literature book.

The type of instrument developed – a children’s literature book –, aimed at children attending grades 1 to 4 in elementary school, making possible to present information in a simultaneously pedagogic and ludic method (Garcia, 2008). This will promote interaction moments between parents and children, as well as between children and educators.

Additionally, the fact that the story features a character who struggles with stuttering creates a crucial point in demystifying this speech disorder. By presenting stuttering as a metaphor for children’s speech fluency, the narrative allows the child to identify with elements s/he encounters in the story through her inter- and intra-personal experiences, thus helping her to put her stuttering into perspective attributing a non-pathologic meaning (Oliveira & Friedman, 2006).

The development of this children’s literature book is, we believe, relevant and pertinent, for the sooner one learns to understand the complexities of this type of disorder, the better one will know how to act when faced with the several situations that are associated with it and which require a fair amount of sensibility and interaction. Furthermore, the process of reading and writing acquisition begins at six years old, when the child first enters school (1st grade), and it is at this stage of the vital cycle that social interactions outside one’s family environment increase (Merçon & Nemr, 2007).

Instrument description

- Cover of the children’s book

The book cover attempts to introduce the story’s main characters in a typical children’s imaginary world. João (English cognate: John) and Marta (English cognate: Martha) are presented holding hands, with a joyful expression, representing the fact that the kids make fun of him! And that makes him very ashamed of himself.”

- School departure for the field trip

Figure “School departure for the field trip” in the book aims to introduce and provide context to the story. The text accompanying the image mentions the destiny of the school trip, viz. Setúbal (a fishing town), and the reason why such visit is being carried out – the field trip is a school treat in celebration of the International Children’s Day (June, 1st).

- Arrival at the fish processing plant

“Arrival at the fish processing plant” attempts to provide context to the setting where the narrative’s action takes place, introducing the fish processing plant to the reader.

- The fisherman

“The fisherman” introduces the reader to a new character – the fisherman. The fisherman is shown holding a fishing rod in one hand, and a fish hanging from a hook in the other; these elements characterize him as to his occupational activity.

In the text that accompanies the illustration, Marta inquires the fisherman on the uses and origins of fish. The question pre-introduces the scenic space where the following actions of the narrative will develop. Figure 4 also hints at the role of the teacher as educator, and as the person responsible for the class: “Marta: – (...) I will ask (permission from) my teacher, and call my friend João to come along with us”.

- Asking permission

“Asking permission” reinforces the pedagogic role of the teacher as educator. Her image is intended as reflecting a measure of responsibility and seriousness.

- João

In this drawing, the river is shown as a stream delimited by large rocks, trees and grass. This was the river spot chosen for the little chat between the fisherman and the two friends – João and Marta. While talking, the three characters contemplate the river, taking in the flowing of the stream. The image shows fish swimming in the current, an element introduced by the authors to make it appropriate including in the conversation the name of a few freshwater fish – an enumeration meant to educate the reader.

In the present scene João and the fisherman first interact with each other; it is here that João’s speech difficulties are first introduced in the narrative. (“João: – Hello, M-m-m-mister F-f-fi-fi-ffisherman.”).

- João’s embarrassment

“João’s embarrassment” of the narrative takes place within the same surroundings depicted in the previous scene. It focuses mainly on the stuttering that characterizes João’s verbal expression (“Yes-t-t-t-terday, I had s-s-s-s. s-s-s-s. (...) João: – Sometimes, I have d-d-difficulties in s-s-saying s-s-s-some words and I f-f-feel em-em-em-barrassed.”), and the fisherman appears as the motivating element concerning the child’s speech (“Fisherman: – You shouldn’t be embarrassed by your stuttering, young man.”). João is, manifestly, rather self-conscious of his speech difficulty. In this scene, reference is made to João’s mortification when at school, among his classmates, for he is often teased by his peers (“Marta: – That’s true! Sometimes he doesn’t speak up in class because the other kids make fun of him! And that makes him very ashamed of himself.”)

- The stuttering

The image points to the existing parallelism between the river’s flow and João’s speech mentioned by the fisherman, it attempts to mention stuttering in a manner appropriate to a child audience (“Fisherman: – You know, João, our speech is like this river: it flows naturally, you see, but every once in a while, it stumbles upon obstacles, such as rocks or tree trunks. And that is why you sometimes find it difficult to say some words (...)”).

The issue of stuttering is thus introduced using a symbolic language, where “speech fluctuation” is portrayed at the same level as a deviation in the river flow, and not as a disability.

In this scene a reference is made to speech therapists as healthcare professionals, trained to mitigate stuttering manifestations (“(...) You should speak to your teacher, or to your mother, to take you to someone who can help you, young man. That person is called a speech therapist. (...)”)

- João’s mother and the speech therapist

“João’s mother and the speech therapist” puts the reader into a different setting, viz. the living room in João’s home. The scene introduces a new character to the story – João’s mother –, who will be the liaison with the speech therapist. The purpose is to highlight the relevant role played by
family members in the child’s therapeutic process. The affectionate relationship that exists between mother and child is evidenced by her kissing his forehead, and also by saying the pride that her son wishes to overcome his speech limitations. The door is open, suggesting continuity, and the intention of paying a visit to a speech therapist.

Procedures

The choice of the book’s title, “The story of my best friend”, is an attempt to catch children’s attention, for at this age, children are particularly mindful of their best friend – a very important person for them.

The illustrations featured were drawn by the authors, together with children in an age-group equivalent to that of the intended readers. The motivation for developing an illustrated book was that of bringing together the child that reads the story with her inner reality.

Once drawn, the images were digitally scanned and uploaded to a computer, where they were further edited using the presentation programme PowerPoint (Office 2007; Microsoft). Editing consisted in adjusting the images’ format and layout, and in associating to them the story’s text. The resulting “digital book” was then taken to a printing centre for final printing and binding.

Pictorial representations can play several functions, amongst which to motivate the reader and to capture and sustain his/her attention – a pertinent aspect considering that the book is primarily addressed to children. This led us to develop a book containing many drawings, specifically, one per scene (Dieguez, 1978).

The typeface chosen, Monotype corsiva, closely resembles children’s handwriting, notably amongst 1st to 4th graders. Additionally, the selected font size (20) and line spacing (1.5) served the graphic purpose of prompting the reader’s visual stimulation in face of the story’s narrative.

The language used to tell the story is, throughout the entire book, accessible and easily understandable by children. The names “João” and “Marta” were chosen for being fairly common names. The option for a fisherman stemmed from the concept of establishing a parallel between the flowing of a river and the stuttering condition. The examples of fish species mentioned (sardine, carp and swordfish) instantiate some of the freshwater fish typically found in Portugal, therefore being rather familiar to the children; they serve the purpose of providing a learning aspect to the story.

Conclusion

Considering that the purposes of this health education campaign were those of (i) promoting specific knowledge on stuttering, so as to raise the general population’s awareness to this issue, and (ii) alerting to the availability of early intervention speech therapy, aimed at promoting effective communication and interaction between the stuttering child and the world that surrounds her/him, we feel confident in saying that the general goals set by this project were met successfully.

The instrument used in the campaign – a written instrument: a children’s literature book – has the advantage of being an easy-access means of conveying information, and the further advantage of being an object of widespread use amongst children.

By writing the present review paper, the authors aim at bringing the issue of stuttering forward and to provide some basic information and knowledge concerning this disorder. From the point of view of the child that struggles with stuttering, the psychic essence of her/his impairment lies in the uncertainty as to what is going to happen in her/his day-to-day life; s/he does not know whether or not s/he will be able to verbalise specific words in specific contexts and thus, “pre-emptively”, she elects to avoid speaking and interacting with those around her/him.

This aspect, more than any other, is, we believe, what makes it pertinent to develop a children’s book devoted to this issue – a book that works both as a children’s story and as a therapeutic instrument. The book attempts to illustrate the school reality of a young boy that stutters; this will allow any child to gain easy access to information on stuttering, and to enjoy an opportunity to clarify likely questions s/he may have about this disorder. It is well-known that, the earlier one is aware of what stuttering is and how it manifests, the better one will know how to communicate and interact with stutterers.

The current article also draws the readers’ attention to the role of the speech therapist. Specifically, it underlines the fact that the intervention conducted by this specialised clinician sets in motion the development of relational-communicational strategies that, when followed by the patient, result in minimising the impacts of stuttering in her/his relational world. On the other hand, the authors also emphasize the mediating role played by suitably informed family members and how they are to react in face of some specific situations. The self concept that a child dealing with her stuttering has of herself is still a sensitive issue, where the reactions displayed by those persons who are closest to her/him and with whom s/he communicates frequently are prominently displayed.

The instrument developed holds a conspicuous “clinical usefulness” in therapeutic setting; it may obviously help in simplifying and deciphering the issue of stuttering in the relational context of clinical practice with children.

The authors would consider equally pertinent to develop health education instruments targeting the adult population, for many adult stutterers struggle with limitations in their everyday relational contexts as a consequence of their stuttering.

*Pictures are attached at the end of this article.

Referências Bibliográficas


