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Review Article

The Impact of Tics Disorder in The Development of a Child

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Received Date: 24 October 2025 | **Accepted Date:** 10 November 2025 | **Published Date:** 22 December 2025

Citation: Carla Vale Lucas, Luísa Soares, (2025), The Impact of Tics Disorder in The Development of a Child, *Journal of Clinical and Laboratory Research*, 8(6); **DOI:**10.31579/2768-0487/196

Abstract

In In this paper, we present a clinical case of a 10-year-old boy with a chronic tic disorder, and symptoms of excessive worry and repetitive behaviours, that lead us to think in the existence of comorbid diagnoses of generalized anxiety disorder and obsessive-compulsive disorder. We reflect on the impact of having a tic disorder in the child development, and the intervention needed to promote well-being and adjustment. We also reflect on the task that clinicians have in differentiating the normal, transient and developmentally appropriate expression of fear, worry, and repetitive behaviours, from other pathological symptoms. Within the principles of cognitive behavioural therapy and narrative therapy, we will present a proposal of intervention that aims to psycho-educate about tics and emotions; help to relieve symptoms or achieve symptom control; develop strategies to cope with stress and anxiety; enhance the child sense of competence, and help parents deal with the children symptoms, promoting his development.

Keywords: chronic motor tic disorder; anxiety; worry; ritualistic behaviour; case study; cognitive-behavioural therapy; narrative therapy

1.Introduction

The impact of tics disorder in the development of a child

Tics are stereotyped, rapid, recurring motor movements and/or vocalizations that are nonrhythmic, involuntary, and sudden in onset (Coffey & Shechter, 2005; Hoekstra, Lundervold, Lie, Gillberg, & Plessen, 2013). They occur frequently in childhood and adolescence, especially from the ages of 6 to 14 years old. Children with tics often experience accompanying problems that may have more impact on their well-being and quality of life than the tics itself. The presence of tics is associated with a range of internalizing and externalizing difficulties, as well as problems in peer relationships. It has been found the existence of comorbidity between tic disorders, that are neuropsychiatric disorders, with other psychiatric disorders, as generalized anxiety and obsessive-compulsive disorder, between others (Cardona, Romano, Bollea, & Chiarotti, 2004; Hoekstra et al., 2013; Baras et al, 2018). Anxiety disorders are common among children with a prevalence of 4% and 20%. The presence of anxiety disorders in children is a strong predictor of anxiety disorders in adulthood (Peterson & Wainer, 2011; Lucas & Soares, 2013), thus needing to be carefully diagnosed and addressed. Therefore it's important to differentiate the normal, transient and developmentally appropriate expression of certain symptoms from pathological ones. For instance, during middle childhood, fear, anxiety and ritualistic behaviours are frequent experiences. They are particularly intense, decreasing most rapidly between 7 to 10 years of age. However, sometimes they become more intense, impairing the normal functioning of the child. We will present a study case of a 10 year old boy, that has a chronic motor tic disorder, with other comorbidity symptoms, as excessive worrying and ritualistic behaviours, that lead us to think in the possible comorbidity with generalized anxiety and obsessive compulsive disorder, or in the possible early onset of those. Also we will reflect on the need for an early diagnose and intervention, considering the course of some disorders, that cause impairment in the daily functioning, in mental health and child development, giving possible strategies to better intervene within this set of symptoms. The therapeutic intervention proposed is based in the cognitive-behavioural and narrative therapy principles, aimed at helping him cope with the symptoms presented and to build a new and more adaptive narrative towards the problems faced. We will underline the stories that the child has been saying to himself, before and during the therapeutic process, which has an influence in the way he sees, remembers, and faces the future.

This is the study case of Alan, who in the early beginning of the evaluation process stated needing help to achieve his three big wishes: "I have a wish to not have tics, stop worrying and never die".

Alan's history

Alan is a 10-year-old boy, shy, quiet and a good student. Lives with both his parents and his younger sister.

Alan's parents seek for psychological counselling due to several difficulties, namely lack of motivation towards school and other activities, an increase of

tics presented as well of anxiety symptoms, like worries, and also the beginning of night rituals. These difficulties appeared in the last four months. Parents also state that Alan doesn't have the confidence to defend himself, being described as an insecure child. He participates in several activities / groups. Frequently he assumes a leader position, given by the teachers, due to his calm temperament. However, he feels overwhelmed in fulfilling this position. He didn't present any particular problems in his development. Parents only reported the presence of tics since he was 7 years old. These tics often appear and disappear, changing throughout time. Also he has difficulties on sleeping when anxious. And since 3 years ago, he sleeps with his father, while his sister sleeps with the mother. From the analysis of family history, anxiety is a common feature in Alan's mother and her brother, who performs ritualistic behaviours since childhood.

Assessment and case conceptualization

A comprehensive, detailed history was essential to assess Alan's psychological well-being and adjustment, and to better understand the symptoms presented, as well the application of psychological diagnostic tests among other exercises and observation. We collected information from Alan's parent's though semi-structured interviews and also we got in touch with Alan's teacher. The following instruments were applied: the Child Behaviour Checklist (CBCL 4-18) for ages 4-18 (Achenbach,1991), a parent-report questionnaire on which the child is rated on various behavioural and emotional problems; the Coloured Progressive Matrices, CPM, (Raven, Raven, & Court, 2009), an instrument used to assess non-verbal intelligence and especially logical reasoning; the Family Drawing Test of Corman (1985), used to address the perception of the child about family relationships; and Roberts-2 (Roberts & Gruder, 2005), providing a measure of the child social understanding, as expressed in free narrative, reflecting both developmental and clinical concerns. The results of Alan's CBCL 4-18 were not clinically significant, although presenting some elevations in the internalization scales, as well in the thought problems scale. Parents stated that he can't get his mind off certain thoughts / obsessions, given as an example "when he gets nervous he cannot stop thinking"; and also "he repeats certain acts over and over / compulsions" (i.e. "he has to do some sequence of gestures at night, like a ritual"). The higher values achieved in the Coloured Progressive Matrices showed that Alan has very good abilities in logical reasoning. In the Corman Family drawing test, he doesn't draw himself, only his sister and parents. The mother is the character more invested, both in the drawing and in the interview. He identifies himself with the father, described as the saddest, because "he thinks his daughter doesn't like him, since she is always with the mother". The sister is negatively invested due to her bad behaviour. Alan's profile in Roberts-2 was not clinical, although with elevations in the clinical scales of anxiety, depression and rejection. Nonetheless, he has also good adaptive scales that seem to be helping him cope with these emotions. He has high abilities in identifying problems, a good indicator of his cognitive development that is congruent with the values in CPM. He seems being able to ask for help. He revels some assertiveness and auto-affirmation. He has also the ability to find age appropriate solutions for the problems, exception made to a situation related to the fear of dying. Alan's narratives are creative. He had no problem projecting himself. In the narratives he tries different scenarios until finding a solution. The narrative themes are always motives of anxiety / worries, like losing his mother; his parents getting separated; academic worries like not understanding something or losing an academic year; colleagues stop liking him, being poor; and not corresponding to the expectations of authoritarian figures, characteristics that are congruent with the high values achieved in the limit setting scale. Other exercises as drawings, games and written tasks were used to better establish a therapeutic relationship and understand his worries and other key aspects about his socio-emotional development. He showed having a stable behaviour, attention, and collaboration in the sessions, verbal understanding and expression. He is very perfectionist and rigorous in his work (i.e. drawings) and self-cautious. He doesn't present difficulties in identifying and acknowledging emotions. While expressing emotions and thoughts the tics usually arise. He cannot control touching his face and moving his neck and other superior muscles members. In other activities the tics seem to disappear. He says that when he is anxious he feels a bigger tension in his body (neck, shoulders, back, legs, foot, and wrists). He states having an intense worry and fear about dying. He has also other fears that he liked to manage such as sleeping alone, losing someone, friends making fun of him or disliking him, not having good grades or not knowing the answer to a question. The three big wishes that Alan has are: stop having tics, stop worrying about things and never die.

Analysis and description of the problem

Alan presents motor tics since he is 7 years old. Those tics involve multiple muscle groups (like shoulder shrugging, head turning, touching his face, moving other superior members) and also involve other movements with a purpose, like touching objects. Last year, in school, he had tics as knocking things, books, his own head and also spitting, especially when facing evaluating situations. In the current year they had disappear on this context. Other tics are still present at home, even when he is relaxed. These tics get intensify in stressful situations (i.e. new situations, moments of evaluation, or while expressing his thoughts or emotions). Sometimes Alan tends to avoid these new situations, feeling insecure (i.e. situations like meeting new people, starting new activities, sharing his opinion and asking questions). Parents often call Alan's attention for stopping the tics. Alan can hold off them for a short period of time. However, he only feels relief when he carries out these movements, thus being described as a response to an inner urge. Alan wishes the tics to stop, especially because of his colleagues. He is afraid that they start making fun of him, not respecting him. This fear is intensified since Alan is anticipating going to a new and bigger school. Since four months ago, he started feeling demotivated towards school, decreasing grades, being more worried and showing more irritable behaviour than usual, especially with the parents and sister. Also he started presenting repetitive behaviours, carried out in a rigid and compulsive-like manner (rituals). Accordingly to the parents "he does some sequence of gestures at night, as a ritual, before sleeping. He has a particular way of dressing his pyjama, he has to wash his teeth more than one time, to reassure that they are well washed; he knocks with his hand in the furniture and opens and closes plenty times the doors of the wardrobe. After that he gives a goodnight kiss to his mother, knocking her two times in the arm. He does the same with his sister, and also to his father, but with him, he says he only needs to knock one time". When he does this ritual he feels calmer, whereas when he doesn't do that he starts to feel agitated, needing to perform that sequence again. Exception was made to one time he was able to sleep away from the parents, and managed to cope with the distress felt.

Alan's symptoms in a developmental perspective

Alan, as a 10-year-old boy, started crossing the bridge between childhood and adolescence. This period is packed with physical, cognitive, social, emotional and moral changes. Logical thinking and reasoning is a hallmark on this period (Muris, Merckelbach, Meesters, & Brand, 2002; Oliveira & Soares, 2014; Leal, Vieira & Soares, 2024). Alan has very good abilities in these domains, and appears to have a big sense of justice and a strict moral

code, showed also in the narratives created: "The boy went home saying that he had won a trophy (...) Then he felt so guilty. He told to the juries the truth and then they took the trophy away from him (...). He was very sad, but he knew he was doing the right thing" (Alan's Roberts-2).In this developmental stage the world starts to be seen as a more complex place. Changing demands at school sometimes show up some of the child weaknesses. Until this year Alan perceived himself as academically competent. However he started having difficulties in addressing all the compelling demands of the present scholar year. As soon as he started having these difficulties, the anxiety and the worries increased, negatively influencing his self-image and self-efficacy. This is well expressed in Alan's narrative in Roberts-2 test: "Once upon a time, there was a boy who loved school and was very concerned about it. He never had bad grades (...) But one day he could not manage to bring the homework done. The teacher got very upset, because he usually was the best student." In this period the social relationships become also more challenging and more competitive. Alan struggles with the fear of others make fun of him, due to his tics. Since self-image is a learning product, childhood influences are very important. We continually take in information and evaluate ourselves in multiple domains such as physical appearance, performance, and relationships. For instance, parents are a mirror that reflects back an image of us. Also our experiences with others, like teachers, friends, and other family members, add more images to that mirror. Therefore, relationships reinforce what we think and feel about ourselves. With a positive self-image, we recognize our assets and potentials. With a negative self-image, we focus on our faults and weaknesses. So it's important to see what reflection is Alan getting from adults, family and friends, tic related and otherwise. Also it seems important to help him preserve his self-image and self-esteem. What he thinks about himself affects how he feels and interacts with others and the world. Alan during the last months was feeling less competent in school; physically impaired by tics; and sometimes feeling that colleagues do not respect him. Throughout this developmental stage it's expected that children wish to do things more independently. Nevertheless they face the fear of not being able to do it. Thus it is normal the tendency to check out situations, as a way to make sure they are safe. So during middle childhood, fears, worries and ritualistic behaviour are particularly intense, decreasing most rapidly between 7 to 10 years of age (Laing, Fernyhough, Turner, & Freeston, 2009; Muris, Merckelbach, Gadet, & Moulaert, 2000; Soares et al, 2012; Soares et al 2013; Pereira et al, 2014). Fears are concerns regarding danger or threat to survival. While fears with imaginary themes as ghosts and monsters prevail in early childhood, realistic fears involving bodily injury / physical danger increase with age, culminating in fears of social and medical situations (Laing, et al., 2009). In Alan the fears are about death, night and other social fears. Worrying, is much more future orientated, anticipating threats with the purpose of preparing for those threats (Verstraeten, Bijttebier, Vasey, & Raes, 2011; Soares, 2023; Soares, 2024). As children mature, the worries are increasingly overshadowed by competency and social evaluative concerns. The most common worries (harm befalling a loved one, health, social relations, and school performance) are apparent throughout childhood and adolescence (Laing, et al., 2009; Vale Lucas, Oliveira & Soares, 2018). Alan seems to have similar worries. The next narrative gives an example of one of those worries. "Once there was a family who had lost the mother. After the mother died the father of the boys started selling fabrics, but the father was not able to sell them, and they were poor. But one day the youngest son (...) started selling fabrics to people that he found in a party, thus coming back home with lots of money. Then the boy told his father what he had done and the father was very pleased". (Adapted from Alan's narrative in robert-2)The worries could have an adaptive function and resemble problem solving, directed at avoiding or coping with negative outcomes. However sometimes worrying thoughts can become excessive, with the danger constantly being rehearsed (Szabó & Lovibond, 2004, Verstraeten et al., 2011). The worrisome thoughts become prominent in children after age 7 because after this period the understanding of multiple possibilities increases and children can consider large number of possibilities via deductive reasoning (Muris et al., 2000; 2002). This can be linked to Piaget´s Theory of cognitive development. At age 7, children enter the concrete operational stage. They are now able to decentration. They can focus their attention on several attributes of an object or event simultaneously and understand the relationships among dimensions or attributes (Muris, et al., 2002, Szabó & Lovibond, 2004). Because of Alan's ability to reason about future possibilities, to consider multiple outcomes, and to elaborate potential negative consequences, worrying thoughts increased. In fact, in Alan's Roberts-2 test he rehearses possible aversive events and outcomes, and at the same time searching for ways to avoid or to face them. Its important to state that the problem solving skills are still developing until the reach of the formal-operational stage. In this period children are increasingly able to use flexible and abstract reasoning, to test mental hypotheses, and consider multiple outcomes for events (Szabó & Lovibond, 2004; Verstraeten et al., 2011). The development delays in normal problem solving or coping processes are thought to play an important role in the causality or maintenance of excessive worrying. Thus being an area that should be addressed (Szabó & Lovibond, 2004). Excessive worrying is a common feature in several anxieties and mood disorders and is often associated with other disorders (Szabó & Lovibond, 2004). It doesn't lead to engage in adaptive problem solving at the same level as individuals who worry less (Silverman, Greca, & Wasserstein, 1995). Therefore, Alan looks to be at some risk of developing anxiety disorder, due to the excessive worrying, creating non realist and catastrophic situations, that for now and due to his abilities he is managing to solve. However, worrying intensively could prevent him from deploying adaptive coping resources, which could lead to the development and maintenance of the anxiety (Szabó & Lovibond, 2004; Verstraeten et al., 2011). The behavioural etiology of anxiety disorder is based on the paradigm of learned avoidance. The cognitive etiology is based on the non-realistic perceptions and in the interpretation of the threatening facts. The self-dialogue of anxious children is full of predictions of failure and danger. Anxious children are usually pessimists about the events magnitude and normally they have an error in the information processing - catastrophization. They overestimate the external events and underestimate their abilities in confronting with them (Peterson & Wainer, 2011). Some studies suggest that anxieties are superimposed on developmental fears and contribute to a radicalization of those fears, but also that conditioning, modelling, and informational experiences contribute to the manifestations of common anxiety phenomena in childhood (Muris et al. 2000). In this way, the ritualistic behaviours presented by Alan may represent efforts to relieve tension and anxiety. The study of Laing et al. (2009) reported that worry intensity is, in fact, a stronger predictor of the propensity to perform ritualistic behaviour, more than fear. Rituals are seen as typical of childhood, decreasing significantly around age 6 and continue declining throughout childhood and adolescence (Laing, et al., 2009). Young pre-schoolers frequently demand uniformity, constancy and attention to details. Later in childhood, rituals can take more complex forms, rule-based games, or behaviours intended to ward off or "undo" negative consequences, as stated by Laing et al. (2009). Rituals have an adaptive function at this time, providing increased feelings of self-efficacy in an environment perceived as out of control, sometimes being used as a way to control anxiety (Laing, et al., 2009). However, in Alan the rituals are not yet decreasing, and instead they seem to be becoming more secretive and isolated to some contexts. Thus

attending to Alan's increased reasoning and cognitive abilities, and his greater understanding of the contingencies of daily life, the performance of ritualistic behaviours may become an increasingly maladaptive reaction to anxiety as childhood progresses, and so needing to be addressed.

Diagnostic hypotheses

Alan presents motor tics, anxiety symptoms, as worrying (excessive concerns about different life aspects), and obsessive-compulsive symptoms / rituals (repetitive behaviours that are carried out in a rigid and compulsive-like manner). These symptoms are causing clinically significant distress and are accompanied by lack of motivation. There is enough evidence to support a chronic motor tic disorder diagnose. Also, attending to the symptoms of excessive worrying and rituals we could think in generalized anxiety disorder and obsessive-compulsive disorder as comorbid diagnostic hypotheses or the early onset of them.

Chronic motor tic disorder

Accordingly to DSM-IV-TR (2000), Alan presents a chronic motor tic disorder, with multiple motor tics - sudden, rapid, recurrent nonrhythmic, stereotyped motor movements. It does not fill the criteria for Tourette's disorder. Alan's tics occur many times a day, nearly every day, or intermittently throughout a period more than one year. He didn't had a period of more than three consecutive months without tics, which excludes the transient tic disorder diagnose. Alan presents the tics at least 3 years long, which is causing marked distress and some impairment in important areas of the functioning (i.e. school relationships), criteria aligned with DSM-IV-TR (2000). Tics occur frequently in childhood and adolescence, especially from the ages 6 to 14 years old (Cardona, Romano, Bollea, & Chiarotti, 2004). Accordingly to Coffey and Shechter (2005), males are at least three to four times more likely than females to manifest tics disorders. The tics are sometimes enhanced by stress and excitement. The tics are experienced as irresistible, but can be suppressed for varying periods of time..The findings of Cardona et al. (2004) suggest that an elevated percentage of individuals could present a tic disorder (and some obsessive compulsive symptoms) without any clear pattern of comorbidity. However, other studies have suggested a wide range of behavioural and emotional disturbances co-occurring with tic disorder, also in children with milder tic symptoms, such as attention deficit hyperactivity disorder, obsessive compulsive disorder, mood disorders as separation anxiety disorder and generalized anxiety (Cardona et al., 2004; Coffey & Shechter, 2005). Accordingly to the findings of the same study some types of behaviours and psychopathologies seem to be related to the duration of the tic disorder, instead of the tic disorder itself or the children's age (Cardona et al., 2004)].

Generalized anxiety disorder (GAD)

Excessive and uncontrollable worrying was introduced in the DSM-IV (1994), as the cardinal diagnostic feature of generalized anxiety disorder, in both adults and children. To be diagnosed with GAD the child or adolescent must experience excessive worry that impair daily functioning and continues for at least six months (Donnelly, & McQuade, 2005), time criteria not entirely filled in Alan's case. Pathological worries of children with GAD tend to include more domains of concerns (such as family members health, school performance, social relationships), be associated with a greater distress, more difficult to control, and occur more frequently than those of healthy children (Donnelly, & McQuade, 2005; Silverman, Greca, & Wasserstein, 1995), which seems to be Alan's case.

Obsessive-compulsive disorder (OCD)

The essential feature of OCD includes the recurrence of obsessions and or compulsions severe enough to be time consuming (more than an hour per day) and cause marked impairment or significant distress. Obsessions are recurrent and persistent thoughts, urges, impulses, or images that are experienced as intrusive and inappropriate and which cause anxiety and distress. Compulsions are repetitive behaviours or mental acts that the person feels driven to perform in response to an obsession. Those compulsions are aimed at preventing some feared event or situation, or in order to get something "just so" (Donnelly, & McQuade, 2005). To hypothesize the OCD diagnose, firstly it is important to verify if the behaviours presented are whether a ritual or a complex motor tic. Tics are usually not heralded by preceding thought or obsession (Donnelly & McQuade, 2005). In Alan's we verify preceding thoughts / worries, that lead us to think in this diagnose. Also to think in this diagnose it's important to distinguish between ritualistic behaviours non associated with compulsions that are common in young children (Donnelly & McQuade, 2005), from those associate with compulsions, that are accompany by the experience of anxiety or distress while performing them. In Alan's case the ritualistic behaviours are accompanied by feelings of distress. Tic-related OCD occurs more often in males than in females, with males outnumbering females by 3:2 ratio. It has an earlier age at onset than non-tic-related OCD, especially a pre-puberal onset. The mean age of onset is 10.3 years. The symptoms are presented 5-8 years before they come to clinical attention (Cardona et al., 2004; Donnelly & McQuade, 2005; Hanna, Piancentini, Cantwell, Fischer, Himle, & Etten, 2002).. Genetic studies have shown a shared underlying susceptibility between tics and childhood-OCD (Hoekstra et al., 2013).

Prognostic

Accordingly, to Coffey and Shechter (2005), tics may persist into adulthood. Nevertheless, the tics severity often decreases significantly in adolescence. This doesn't mean full remission and well-being. However, is not the severity of tic disorders, but the comorbid between tic, OCD and other psychopathologies that could influence the development of emotional and behavioural difficulties in childhood / adulthood, thus leading to an enhance of distress, maladjustment, as well as problems in peer relationships (Cardona et al., 2004; Hoekstra et al., 2013). Most patients with very mild symptoms need only monitoring, education, guidance, and support. Moderate to severe symptoms usually should be treated with medication, especially if the symptoms significantly interfere with adaptation to family, school, peer relationships, or interfere with the developmental progress (Coffey & Shechter, 2005)]. If needed and if there is impairment in school or with academic performance, clinicians should be available to provide consultation, guidance, and education to teachers. As described by Laing et al. (2009) young children reporting high levels of anxiety, excessive worry, and ritualistic behaviours may be more likely to remain susceptible to these experiences throughout ontogeny. Hence when left untreated, the presence of anxiety is associated with later mental health difficulties (adult anxiety disorders, depression, substance use problems), as stated by Kendall, Settipani and Cummings (2012). Thus is crucial to early intervene.

Therapeutic Intervention

The majority of tics do not need treatment. The treatment of tic disorder justifies it self when it has consequences at social level and personal level. Still, Alan is facing some other difficulties managing symptoms of anxiety and others. Those difficulties are a risk factor for the early onset of other psychopathologies. Also Alan has other risk factors, like behavioural inhibition; shyness; perfectionism; lack of confidence, between others. Nevertheless, he has also protective factors such as his cognitive abilities,

the problem-solving ability that is still developing, and the family support. Likewise he is willingly to participate in the therapy activities; he self-disclosed about his worries and is mentally engaging with the therapeutic materials, which are good variables to the coping process. Therefore it's important to exist a psychological intervention, and only if needed add some medication. Therefore, Alan's therapeutic intervention should aim at psychoeducating about tics and emotions; helping him relieve symptoms or achieve symptom control (such as worry and obsessive compulsive symptoms); developing strategies to cope with stress and anxiety; enhancing Alan's developmental progress and his sense of competence; helping him to construct a new narrative that enable him to face the problems faced. Also the intervention should aimed at helping parents to deal with the symptoms, promoting Alan's development and self-efficacy, and helping parents cope with their own biases cognitions that are feeding Alan's anxious symptoms. Psycoeducating the child and family about tic disorders is essential, as also to psychoeducate teachers and peers, when possible. Accordingly to Antunes (2009), tics are not the true problem, thus the problem is in the people who berates the tics, the colleagues that make fun, the family members that say "stop with that". It's urgent to provide patients and parents with current information about the causes of tics (genetic factors and brain neurochemical imbalances) and emphasize that they are not signs of psychological or emotional illness, a common misperception. Learning about the importance of genetic factors and clarifying that the patient's symptoms are not voluntary often relieves a sense of guilt in both patient and parents (Coffey & Shechter, 2005; Shprecher & Kurlan, 2009). This is especially important since Alan's parent often ask him to stop the tics. The best way to deal with the tics is ignoring them (when socially acceptable). Also it is important to recognize the moments when the tics appear mostly, as a way to better find strategies to cope with them. Psycoeducating about anxiety and teaching how to recognise the signs of anxiety, is another step in the process. Other will be to teach strategies to manage anxiety in different situations, and also to diminish the tendency to worry. The reduction of anxiety symptoms is associated with decrease in negative automatic thoughts and increase of anxiety control, accordingly to Kendall, Settipani and Cummings (2012). Worried children may benefit from a focus on increasing positive problem-solving skills (generating alternative solutions to problems, playfulness, and effectiveness of solutions) and problem-solving beliefs, like confidence and perceived control (Broeren, Muris, Bouwmeester, Heijden, & Abee, 2011; Parkinson, & Creswell, 2011; Verstraeten et al., 2011). Since we cannot forget that patients with tic disorders have some personal and emotional vulnerability (Coffey & Shechter, 2005), helping Alan restore or maintain his self-esteem and promote his self-efficacy in coping with emotions are core elements of the intervention. Thus the reduction in negative self-talk is crucial, mediating treatment gains (Kendall, Settipani, & Cummings, 2012). Also it's important to promote Alan's autonomy at different levels (i.e. sleeping), helping him to continue his normal course of development.

Theoretical frame for intervention

Attending to the developmental stage of Alan, his cognitive and verbal abilities, his involvement towards the therapeutic process, it seems that cognitive-behavioural therapy and narrative therapy are appropriate choices. It's important to work both at an individual and family level. Narrative therapy aims at deconstructing the non-functional narratives of Alan and elaborate new ones, more adaptive and flexible, as stated by Gonçalves and Henriques (2005). The writing of letters is a useful tool (White & Epston, 1990). Therapeutic letters provide a bridge between sessions and a mean to anchor new stories that promote personal agency, continuing the meaning-making that occur in a therapeutic conversation (Paré & Rombach, in press). Thus the use of externalization techniques and the identification of unique outcomes constitute important elements in the narrative process. Cognitive-behavioural therapy (CBT) is an effective intervention towards anxiety and obsessive-compulsive symptoms. It's used to treat 60% to 65% of youth anxiety disorder, showing meaningful reduction in anxiety symptoms (Donnelly, & McQuade, 2005; Kendall, Settipani, & Cummings, 2012). Cognitive-behavioural therapy examines distortions in the ways of looking at the world and ourselves. It also aims to identify automatic negative thoughts that contribute to anxiety, thus developing coping mechanisms (Verstraeten et al., 2011). Also behavioural paradigms are indicated for a number of difficulties in tic disorder patients. They can be used to help "de-stimulate" and contain some of the symptoms when needed (Coffey & Shechter, 2005). Relaxation techniques, such as deep breathing, guided imagery, and use of relaxation tapes, can be useful for the anxious or stressed tic disorder patients. Habit reversal, using competing response to oppose motor tics, may have utility in the treatment. Opposing muscles are contracted following the urge to have a tic. This competing response theoretically prevents the emergence of the tic. Since emotional conflicts and stress frequently increases symptom intensity and frequency, time-limited withdrawal from stressful situations can be beneficial, as stated by Coffey and Shechter (2005).Graduate exposure and response prevention is useful in treating anxiety and obsessive compulsive symptoms. Thus, after the identification of fears, obsessions and compulsions, it will be helpful to make a stimulus hierarchy and then exposure tasks (Donnelly, & McQuade, 2005). Besides the individual intervention following these principles, it is important to intervene with family. The family system seems to have slowed or altered his development, due to the focus on Alan's difficulties (tics, worries and rituals). They are struggling with fears about Alan's future and how to help promote his development. Parent factors can influence both the development and maintenance of anxiety in youth by predicting danger, restricting independence, preventing child distress, and modelling avoidance (Kendall, Settipani, & Cummings, 2012). Alan's parents seem to be feeding the fear of night, and by doing enhancing others anxious symptoms as the night rituals, not promoting the development of Alan's coping strategies. Therefore besides the traditional parental involvement in treatment, which usually focus on parental management skills of tics and OCD symptoms and addresses family accommodation of symptoms, it is useful to incorporate cognitive approaches to parent training. This approach involves teaching parents how to identify rationale and flexible cognitive appraisals and cognitive processes, which may have an influence on the development of children's own cognitive biases and OCD severity (Farrell, Waters, & Zimmer-Gembeck, 2012). Note that Alan's mother admits being too anxious, having difficulties managing her own anxiety. So the parent involvement in the therapeutic process could augment treatment response via helping children practice their coping strategies (acquired in CBT and narrative therapy), as pointed out by Kendall, Settipani and Cummings (2012).

Small changes in Alans' narratives during the therapeutic process

Alan's therapeutic intervention is on-going. It counts with 9 sessions, and it is being guided by the above principles. Some improvements were seen; especially in Alan's confidence and the way he faced some fears. One of the key elements of the intervention was the writing of therapeutic letters, mostly as homework. In one of the letters written he stated: "Hello horrible fears. I want to say that you don't scare me too much now, because I 'am trying to eliminate you. My psychologist and I found a way of erasing you, step by step, every day. The method is paying off (...). It is working better than I though. So I'm going to tell you about that: We fill 2 balloons and draw in them the face of the fears. After blowing up the balloons, we pick the

remaining's and glue them in a cardboard. We write by pencil the name of the fears, and every time they get less intense, I will erase letter by letter their name. So, goodbye horrible fears." In another session, Alan brought the following letter: "Hello horrible fear. You don't scare me so much now, because I'm being able to control you. For me, you are a child's fear, and I'm getting bigger. So you don't scare me as before". During one session, Alan wrote a coping card towards a fear that was not allowing him to go to the bathroom in the upper floor of the house: "To face this fear I need to disobey him. If it still stands in front of me, I need to tell him to get out of my way. Still, if he doesn't leave I can go around him, and if that doesn't work I need to tell him that if he doesn't get out of my way I will urinate there, and that definitely will put anyone away, fear or person." By the time we finish writing this article, Alan could identify his biggest achievements, since the beginning of therapeutic process. "I did it! I don't have to knock with the hand in the shoulder of my parents and sister to go to sleep! Now, I also don't fear that a creature get out from the mirror. I don't have anymore fear of water or sea creatures, and also the fear of going alone to the upper floor of my house disappear (...) I did it!" The therapeutic change is taking place. Thus our goal is helping Alan towards consolidating these changes and increasing the unique outcomes.

Final reflections

Tics are like sobs. They cannot be controlled. Alan lives constantly with tics, especially in stressful situations. Alan's biggest wish is to not have tics, because he is afraid of his colleagues making fun of him, nor respecting him. This issue must be taken into consideration and reflected about, thus being necessary to psychoeducate Alan's, his family and society towards a better knowledge about what it means to have a tic disorder. Moreover as clinicians we should be aware that young school age children with tics are more vulnerable to the development of emotional and peer problems over time. This is not due to the tic disorder itself, but the misconceptions about the disorder and also the comorbid psychopathologies, that lead to difficulties in adjusting to the environment, thus being essential to address these comorbidities. Besides the tic disorder, Alan presented intense worry and some obsessive-compulsive symptoms, which he wishes to face. Sometimes making an accurate diagnose is difficult, due to the thin line that separates normal from pathological symptoms. Accordingly to Donnelly and McQuade (2005), clinicians need to maintain a high level of suspicion for anxiety disorders when evaluating children. They have high prevalence and often mimic or are comorbid with other childhood disorders. Also children need to be evaluated within a bio psychological framework, in which genetic vulnerability, biological etiologies, life experience, social and family contexts, and developmental phase should be attended to better understand the expression of pathological symptoms. Given the uniqueness of each child and the complex interplay among the internal and external variables that drive anxiety and other symptoms, a multimodal approach to diagnosis and treatment is critical (Donnelly & McQuade, 2005). In this study case, we suggested a behavioural cognitive and narrative approach, as it has been found to be effective, especially, in anxiety disorders and obsessive-compulsive symptoms. Therefore its important to intervene in early life, as a way to develop adequate and more flexible responses to anxiety, so it can be possible to deal with the complex environmental demands of later childhood. This will result also in a decrease in ritualistic behaviour with age or other unhealthy behaviours (Laing, et al., 2009)]. Thus being said, the key aspects of the therapeutic intervention process are to help Alan to learn how to manage emotions not falling into intense worrying or avoiding situations; increase his positive problem-solving skills and believes; reduce negative self-talk; promote his autonomy and mastery. According to Bronfenbrenner, the development of a child is influenced by the varied systems of the child's environment and also by the interrelationships among those systems. The environment influences the child and the child influences the environment. So in this process, family is not the only one responsible for the "construction", but it puts "bricks that are decisive". Therefore it's crucial to have a supportive family environment in which a child can comfortably approach their parents to let them know about the problematic situations or the symptoms they face (Shprecher & Kurlan, 2009). Alan started the therapeutic process with the statement: "I have a wish to not have tics, stop worrying and never die". The process of change takes time, and is being made step by step, with many achievements and setbacks. He needs to learn how to live with tics, and how to cope with the other symptoms presented, like anxiety and obsessive-compulsive symptoms. The writing of therapeutic letters is being extremely useful in the therapeutic process, whereas he is using it to re-write his own history. Thus, Alan is creating new narratives, more adaptive and flexible, about how he feels towards himself and about the future.

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DOI:10.31579/2768-0487/196