

CLINICAL CASE ROUNDS

I think I'm Going to be Sick: An Eight-Year-Old Boy with Emetophobia and Secondary Food Restriction

Sarabpreet Dosanjh MD¹; William Fleisher MD, FRCPC¹; Diana Sam MD, FRCPC¹

Abstract

We present a case of an eight-year-old boy with a specific phobia of vomiting who developed subsequent food restriction and weight loss. Our case report includes a review of treatment modalities for specific phobias including cognitive behavioural and exposure therapy in young children and the importance of parental involvement in the treatment process. After an initial assessment and diagnosis of this boy with emetophobia, treatment took place over ten subsequent visits, one hour each in duration. His treatment included a cognitive approach utilizing exposure therapy to re-introduce foods to his diet, working through a fear hierarchy, addressing cognitive distortions/misconceptions and psychoeducational supports. Intermittent reinforcement was applied to help extinguish what we believe was an associatively learned fear of vomiting. Outcomes of the treatment were measured by changes in behaviour and overall increase in food intake reported by the patient's parents. On completion of treatment, the family was no longer concerned with the amount and variety of food he was eating, the patient reported less nausea, and he was more likely to eat in public. A post-treatment three-week telephone follow-up showed continued gains. Congruent with reported literature, this case confirms and highlights the efficacy of exposure therapy and age-appropriate cognitive treatment adaptations in treatment of emetophobia. In addition, parental education and participation is recommended in treatment of child cases.

Key Words: *emetophobia, specific phobia, child CBT interventions*

Résumé

Nous présentons un cas d'un garçon de 8 ans ayant une phobie de vomir spécifique et qui a développé subséquemment une restriction alimentaire et une perte de poids. Notre étude de cas comprend une revue des modalités de traitement pour les phobies spécifiques, dont la thérapie cognitivo-comportementale et la thérapie d'exposition chez les jeunes enfants, et l'importance de la participation parentale au processus du traitement. Après une évaluation initiale et un diagnostic de ce garçon souffrant d'émétophobie, le traitement a eu lieu en 10 visites subséquentes, d'une heure chacune. Son traitement comprenait une approche cognitive qui utilisait une thérapie d'exposition afin de réintroduire la nourriture dans son alimentation, de travailler à la hiérarchie des peurs, d'aborder les distorsions/méconnaissances cognitives et les soutiens psycho-éducatifs. Le renforcement intermittent a été utilisé pour aider à éteindre ce que nous croyions être une peur de vomir apprise par association. Les résultats du traitement ont été mesurés par les changements de comportement et par l'augmentation globale de l'apport alimentaire rapportée par les parents du patient. Au terme du traitement, la famille n'était plus inquiète de la quantité et de la variété des aliments qu'il mangeait. Le patient déclarait moins de nausées, et il était plus susceptible de manger en public. Un suivi téléphonique à 3 semaines après le traitement confirmait des gains continus. Conformément à ce que rapporte la littérature, ce cas confirme et souligne l'efficacité de la thérapie d'exposition et les adaptations appropriées à l'âge du traitement cognitif pour le traitement de l'émétophobie. En outre, l'éducation et la participation des parents sont recommandées dans le traitement des cas d'enfants.

Mots clés: *émétophobie, phobie spécifique, interventions de TCC pour un enfant*

¹Department of Psychiatry, Max Rady College of Medicine, Rady Faculty of Health Sciences, University of Manitoba, Winnipeg, Manitoba

Corresponding E-Mail: wfleisher@hsc.mb.ca

Submitted: June 19, 2016; Accepted: April 6, 2017

Introduction

Emetophobia is a relatively under-studied specific phobia (Maack, Deacon, & Zhao, 2013; Veal & Lambrou, 2006). It is characterized as an unnecessarily overstated response and irrational reaction to vomiting. Like other specific phobias, it goes beyond a biologically and developmentally appropriate fear reaction with the potential to reach significant levels of impairment (Lipsitz, Fyer, Paterniti, & Klein, 2001; Veal & Lambrou, 2006; Maack et al., 2013).

Clinical presentation of emetophobics is often variable as is the degree of impairment. They may avoid settings where they might vomit or witness others vomiting. These situations may include ingestion of illegal substances, being around drunks, fairground rides, people who are ill, certain modes of travel, drinking alcohol or visiting hospitals (Veale & Lambrou, 2006). One case study reports a clinically significant impact of emetophobia on an adult woman who avoided getting pregnant out of fear of morning sickness (Maack et al., 2013). A further case report of an eight-year-old girl illustrates the potential severity of this disorder, where food avoidance secondary to emetophobia ultimately required insertion of a gastrostomy tube to meet nutritional needs (Williams, Field, Riegel, & Paul, 2011).

According to DSM-5 specific phobias usually develop in early childhood and if they persist into adulthood they are unlikely to remit. Specific phobias not only have an early onset, but additionally pose a risk for developing a second mental disorder (Becker et al., 2007). Emetophobia can begin in childhood with mean ages of onset reported as 9.2 (Lipsitz et al., 2001) and 9.8 (Veal & Lambrou, 2006) years. Comorbid mental disorders include anxiety and depression (Lipsitz et al., 2001). Impairment in functioning in those that suffer from emetophobia can be debilitating.

The etiology of specific phobias is theorized to fall into associative experiences learned through conditioning or/and non-associative mechanisms that lend support to biologically encoded processes (Merckelbach, 1996; Muris, Merckelbach, Jong, & Ollendick, 2002; Menzies & Clarke, 1995). A greater depth discourse regarding the theoretical causes of specific phobias is beyond the scope of this paper; however, recognizing the origins of the irrational fears in patients may help guide and individualize therapy.

Currently, there are only a handful of case reports that discuss children and adolescents with emetophobia that support the efficacy of cognitive and exposure techniques in their treatment (Graziano, Callueng, & Geffken, 2010; Whitton, Luiselli, & Donaldson, 2006; Williams et al., 2011). It is our hope that this case will add to the body of literature and further promote the understanding and effective treatment(s) of this disorder.

Case Report

DP is an eight-year old boy who lives with his biological parents and one older sister. He reportedly had been restricting food intake, complaining of nausea and had lost approximately ten lbs over a three-month period. Initial investigations included: blood work, stool culture, ova & parasites, and abdominal X-rays, with no organic cause for his nausea having been found by his pediatrician, who referred him to the Child and Adolescent Mental Health Program to further assess his difficulties.

His parents provided collateral in the initial assessment, and noted that an abrupt change in his eating habits started three months prior after a severe episode of emesis. Since then DP had become progressively more selective with his foods; only eating small quantities of Cheerios, Goldfish Crackers, apples and the occasional sandwich. During this period, he began calling his parents from school requesting to be taken home because he was experiencing significant nausea. He refused to eat in front of his classmates or at restaurants. DP was becoming concerned with germs; washing his hands multiple times a day to the point they were red. He also had started checking the expiry dates on food products prior to eating them.

DP was notably worried about vomiting again. He indicated eating too much or certain foods (and the feeling of 'fullness') made him nauseated. He especially had an aversion to hamburgers and milkshakes, the two foods he associated with getting sick. He was reluctant to speak of the events surrounding the emesis and was convinced that he almost died that day. Playing video games or watching television helped distract him from his nausea. DP's DSM-5 diagnosis was consistent with a Specific Phobia (Other) and his clinical symptoms were not better explained by another psychiatric illness.

DP's past medical history was not remarkable. He has never been hospitalized. Furthermore, there had been no previous contact with mental health services. His family medical history included PTSD in his father, depression in his mother and his sister had previously been treated for an eating disorder.

Case Conceptualization

There are two primary factors that led to DP's development of emetophobia. We believe that DP's aversive experience was powerful enough that after one pairing he associated eating to fullness with vomiting. He was convinced that he almost died that day and that associated belief continued to provoke anxiety. Prior to this episode of vomiting there was no history of food avoidance and in fact, according to collateral he was quite fond of eating. Second, it seems that DP's experience was quite embarrassing for him. He recalled in one of the sessions how his sister reacted to his vomiting and he continues to be concerned about being

negatively evaluated by his peers if he were to vomit again. His concerned parents tried to explain to DP that he probably ate some food that had gone bad or that he had the stomach flu, which we speculate precipitated some of the obsessive compulsive safety-seeking behaviours around germs. DP was under the impression that he could prevent any future vomiting episodes. Avoidance of interoceptive cues for nausea was an importance maintenance factor, and DP believed that he could prevent further vomiting by limiting food intake and distracting himself when he feels nauseous. Essentially, DP deprived himself of the evidence he needed to break his association between eating and emesis.

Course of Treatment

Given the mechanisms (avoidance behaviours and safety-seeking) maintaining his fear we proposed an intervention to expose DP to situations associated with nausea and vomiting. This included working through an exposure hierarchy and a gradual introduction of a new food type every week that was intermittently reinforced, with the intent to break the association and facilitate extinction of this learned fear. We also challenged some of his beliefs around his ability to control future episodes of vomiting. Psychoeducation was important to explain to DP that vomiting was in fact a normal protective mechanism and not something that would cause death.

On September 30th, 2014 DP's weight at his first appointment was recorded to be at 93lbs, while on October 17th, 2014 he weighed in again at 91lbs. Records provided by his pediatrician indicated a ten-lb weight loss over the past three months prior to our initial assessment. DP was 95% on the CDC growth chart for his age even with his weight loss. After treatment began his weight stabilized and given the fact he was initially overweight we did not re-weigh him. His parents recognized that DP's weight was likely a result of poor food dietary choices.

Upon the recommendation of the outpatient psychiatry team, DP and his parents agreed to attend ten one-hour cognitive and exposure therapy sessions. For the first four sessions he was seen with his parents for the full session, whereas in the remaining six sessions he was seen individually for the first 30 minutes and then joined by his parents for the remainder of each session.

Early on in the sessions an exposure hierarchy was established with input from DP and assistance from the therapist (SSD). A list of vomit-related content and various levels of exposure were introduced to the patient. DP was asked to rank order the items, from those that caused him the greatest distress to least (Table 1). A separate food hierarchy was not created and this was in order to maximize compliance from the patient to eat a food item he had the opportunity to choose and agree upon. The choice of food that was added weekly was determined during each treatment session with

Table 1. Patient's exposure hierarchy of emetophobia

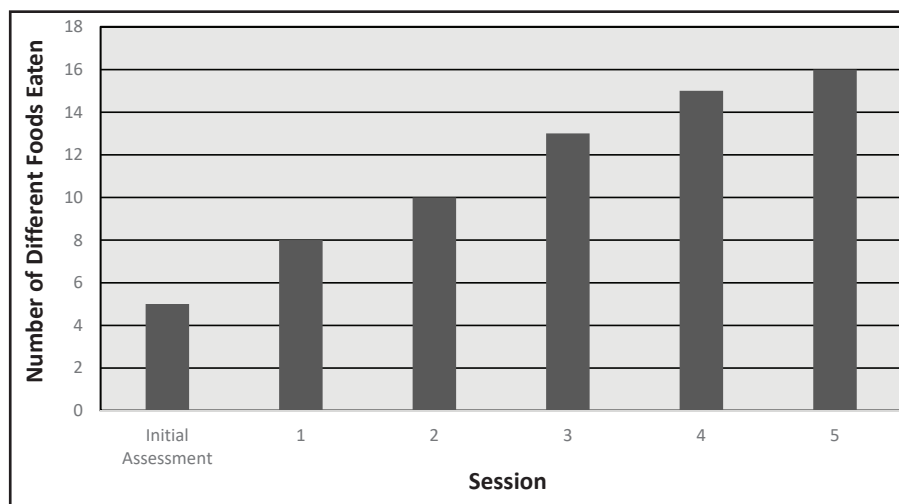
Activity	Rank
Eating a hamburger	1
Watching others eat a hamburger	2
Eat in public	3
Watch video of people vomiting	4
Listen to sounds of people vomiting	5
View pictures of real people vomiting	6
Write down in detail events of past vomiting episode	7
View pictures of cartoons vomiting	8
Use vomit, puke, throw up, barf in a sentence	9
(Rank 1 – most anticipated distress, Rank 9 – least anticipated distress)	

input from DP, his parents and with suggestions from the therapist.

Each week the therapist and DP worked their way up the co-created hierarchy. In some sessions computer-assisted exposure techniques were used (i.e. videos, sounds, and pictures). In the earlier sessions he did quite well and was able to manage his exposure anxiety. As the treatment progressed further up the hierarchy, the therapist provided encouragement and reassurance that he was unlikely going to vomit. DP did well in his exposure therapy sessions and told the therapist on a few occasions that he had been practicing looking and drawing vomiting pictures at home. Cognitive restructuring was largely applied to DP's distorted belief that vomiting will result in death and that nausea meant imminent sickness. Towards the completion of his therapy DP was able to admit that he did not readily equate vomiting with his death anymore, and that his nausea had been potentially worsened by an inability to manage his anxiety.

Psychoeducation around specific phobias, emetophobia and treatment was provided for both parents and DP. Parental involvement was crucial in the treatment process. DP's treatment was not limited to our sessions in clinic but also required an eating plan at home. His parents took on the responsibility for positive reinforcement and monitoring DP's eating plan on a weekly basis. Every week the therapist, patient and family agreed on a new food that would be added to what DP was already eating with an understanding that completion of his meals would be rewarded intermittently. Familial enabling of DP's avoidant behaviours was overtly discouraged, most notably his asking to come home from school because of his nausea and their subsequently allowing him to distract himself from his thoughts/symptoms by playing video games. We suggested that complaints about fear of vomiting or nausea should be truncated without potentiation by his parents' anxious concern.

Figure 1. Reported number of different types of food eaten, from 1st assessment session through the subsequent next 4 sessions of treatment.



DP was adding different types of foods to his diet as we progressed into our treatment (Fig.1). The family was asked to keep an account of the number of different foods he was eating when we started sessions. As he began to eat more types of food and when they became satisfied with his progress they stopped keeping a record of what he was eating. Subjectively there were less complaints of nausea, eating greater quantity of foods during mealtimes and improved attendance at school as reported by his parents and DP himself. DP was more likely to use words like vomit in our sessions and was less distressed by clinical exposure as we neared the end of our treatment. By the last therapy session he had completed all of his fear hierarchy except eating a hamburger. His parents reported he was now frequently requesting different foods and had re-gained some of his weight. At a three-week telephone follow up his parents reported continued functional gains and were pleased with DP's progress.

Discussion

This case demonstrates a learned fear of vomiting through a classical conditioning paradigm. We have continued in using the term 'emetophobia', to describe this fear, although as a DSM-5 entity it is best classified as a specific phobia. After an aversive experience, our patient associated certain quantities and types of food with vomiting causing him to restrict oral intake resulting in subsequent weight loss. Our report reaffirms the efficacy of exposure and cognitive therapy in the treatment of emetophobia in children which included addressing safety seeking /avoidance behaviours, cognitive misappraisals, intermittent reinforcement, and family involvement.

Cognitive techniques in children require a certain degree of finesse by the therapist who must consider strategies that are developmentally appropriate. One of the earlier controlled trials of CBT in children with anxiety disorder using the Coping Cat Program showed improvement across measures in the CBT group over the control group (Kendall, 1994). A second randomized clinical trial replicated these results (Kendall, et al. 1997). Both studies demonstrated maintenance of treatment gains on follow up.

Conceptualized models are helpful for implementing treatment via cognitive behavioural strategies specific to emetophobia. Clinicians regard this specific phobia as more difficult to treat and different in psychopathology compared to others (Veale, 2009). Like other anxiety disorders, emetophobia shows a strong association with a general anxiety-vulnerability factor; however, emetophobics are particularly vulnerable to somatic symptoms, especially gastrointestinal symptoms such as nausea (Boschen, 2007). Nausea, as an anxiety symptom, may be misinterpreted as an imminent episode of vomiting causing further symptoms in a vicious circle (Veale, 2009; Veale & Lambrou, 2006). Hypervigilance to the presence of interoceptive cues and avoidant behaviour are involved in maintenance of the disorder (Boschen, 2007). Consequently, addressing these behaviours and encouraging patients to experience intrusive thoughts and situations is the aim in therapy (Veale, 2009).

It was evident from our treatment with DP that avoidance of food and safety-seeking behaviours to avoid experiencing gastrointestinal symptoms kept extinction from taking place. Since our formulation determined this was an associatively learned fear, we employed systematic desensitization techniques to help DP reach a state of habituation through counter-conditioning. His fear hierarchy allowed

him to gradually experience nausea and conclude it did not result in vomiting. This was the evidence he needed to resume a balanced diet. Exposure outside our structured sessions was achieved through his parents' (re)introducing new foods on a weekly basis at home.

Evidence suggests that a cognitive process contributes and maintains phobic symptoms (Merckelbach, 1996). Therefore, addressing cognitive bias was part of our treatment of DP's symptoms. DP believed he could prevent himself from vomiting by restricting food intake, avoiding certain situations and distracting himself from his nausea through safety-seeking behaviours. DP exemplified catastrophic thoughts, believing that if he vomited again he would die. These misconceptions needed to be addressed in clinic and we believe that without the cognitive process it would have been difficult to get DP to co-operate with exposure otherwise. DP's cognitive misattribution was challenged by asking him how many people he had known that had died from vomiting and if eating had caused him to vomit again. Furthermore, reframing vomiting as a normal, protective physiological response to hazardous ingestion rather than a harmful symptom was an idea that DP found reassuring.

This case demonstrates the utility of active participation from parents. In a RCT trial of family management along with CBT showed greater efficacy than CBT alone on self-report and clinician ratings (Barrett, Dadds, & Rapee, 1996). More recently, studies have described the utility of parental involvement in a variety of CBT interventions in children with anxiety disorders (Manassis et al., 2014; Pereira et al., 2016). Undesired child behaviour(s) may be unintentionally reinforced by caregivers through positive or negative reinforcement (Benjamin et al., 2011). Physical complaints from children may increase caregiver attention which may reinforce symptom persistence (Klonoff, Knell, & Janata, 1984). Part of our formulation and treatment took into account parental behaviour in the maintenance of DP's phobia including enabling avoidant behaviours when he complained of nausea. Through psychoeducation and retraining we were able to use the same principles of operant conditioning which maintained undesirable behaviour to help the family support DP overcoming his vomiting anxiety. Parental involvement was also important for reporting progress during therapy and continuing exposure after sessions.

From a diagnostic perspective, consideration should be given to other key clinical features in this case. Given the patient's increased hand washing frequency and repetitive checking of expiry dates on food products, one could also consider Obsessive Compulsive Disorder (OCD) as a diagnostic consideration. Inquiry made into these behaviours revealed that DP was primarily concerned about getting an illness that could result in emesis, and we could not justify an initial diagnosis of comorbid OCD given that the compulsive behaviours were focally associated with a fear of vomiting. Notwithstanding, OCD and emetophobia may

be symptomatically related. A recent review of adult cases with Specific Phobia of Vomiting (SPOV) noted that cases with more hand washing and other repetitive behaviours were associated with higher scores on specific phobia of vomiting questionnaires with an observed comorbidity with OCD in 12% of the participants (Veale, Hennig, & Gledhill, 2015). These authors emphasized the importance of formulating and targeting OCD symptoms when present in the treatment of adult patients with emetophobia. The question remains whether obsessions and compulsive behaviours sometimes observed in emetophobia predispose patients to developing OCD in later years.

Further diagnostic consideration might also be given to the new DSM-5 category Avoidant/Restrictive Food Intake Disorder (ARFID) which replaces the previous DSM-IV diagnosis of Feeding Disorder of Infancy or Early Childhood (Katzman & Stevens, 2014). Although the ARFID category may help specialists in discriminating ARFID food refusal from eating disorders like Anorexia and Bulimia Nervosa (Fisher et al., 2014), its distinction from Specific Phobia of Vomiting is not as clear. When formulating our case, consideration was taken into this diagnosis given its overlap in criteria to Specific Phobia of Vomiting. In discussions with the child & adolescent eating disorder specialists at our institution we decided that the DSM-5 Specific Phobia (Other) diagnosis was more suitable. Our diagnostic preference/bias may be partially related to ARFID being a new diagnosis making it the less clear or familiar choice. According to the DSM-5, distinguishing between the two disorders can be difficult. A diagnosis of ARFID is favored in situations when eating problems become the primary focus of clinical attention. Food refusal and associated weight loss was an important clinical feature in this case but other behaviours such as avoiding contact with germs, hypervigilance to interoceptive cues, and distraction strategies were driven by a fear of vomiting. Furthermore, their contributions to our patient's functional impairment were significant at the time of presentation. Further research and discussion will hopefully assist in a clearer understanding of the relationship between the two diagnostic categories.

Conclusion

This case report adds to only a few others on the presentation and treatment of childhood emetophobia. Given the variable presentations and behaviours potentially associated with such problems, treatments applied in the clinical setting will often need some individualization. In our case these included age-appropriate cognitive treatment adaptations, as well as enrolling parental education and participation in the treatment of their child, which included ongoing exposure therapy outside the clinical setting, intermittent reinforcement and withdrawing support of safety seeking behaviours. Future studies and research (e.g., controlled trials, formulation around psychopathology and comparison

of individual treatment modalities for efficacy) will further add to the development of our understanding and treatment of emetophobia.

Consent

Witnessed telephone consent was obtained (SSD) on January 6th, 2015 to present this case for academic purposes.

Acknowledgements

The authors have no known conflicts of interest in this case presentation. This paper was presented in part at the Canadian Psychiatric Association 65th Annual Scientific Conference, Vancouver, BC, October 01, 2015 and IACAPAP 22nd World Congress & The 36th CACAP Annual Conference, Calgary, AB, September 24, 2016.

References

- Barrett, P., Dadds, M., & Rapee, R. (1996). Family treatment of childhood anxiety: A controlled trial. *Journal of Consulting and Clinical Psychology, 64*(2), 333-342.
- Becker, E., Rinck, M., Türke, V., Kause, P., Goodwin, R., Neumer, S., & Margraf, J. (2007). Epidemiology of specific phobia subtypes: Findings from the Dresden Mental Health Study. *European Psychiatry, 22*(2), 69-74.
- Benjamin, C. L., Puleo, C. M., Settapani, C. A., Brodman, D. M., Edmunds, J. M., Cummings, C. M., & Kendall, P. C. (2011). History of cognitive-behavioral therapy in youth. *Child and Adolescent Psychiatric Clinics of North America, 20*(2), 179-189.
- Boschen, M. (2007). Reconceptualizing emetophobia: A cognitive-behavioral formulation and research agenda. *Journal of Anxiety Disorders, 21*(3), 407-419.
- Fisher, M. M., Rosen, D. S., Ornstein, R. M., Mammel, K. A., Katzman, D. K., Rome, E. S.,... Walsh, B. T. (2014). Characteristics of Avoidant/Restrictive Food Intake Disorder in children and adolescents: A "new disorder" in DSM-5. *Journal of Adolescent Health, 55*(1), 49-52.
- Graziano, P., Callueng, C., & Geffken, G. (2010). Cognitive-behavioral treatment of an 11-year-old male presenting with emetophobia: A case study. *Clinical Case Studies, 9*(6), 411-425.
- Katzman, D. & Stevens, K. (2014). Redefining feeding and eating disorders: What is avoidant/restrictive food intake disorder? *Paediatrics and Child Health, 19*(8), 445-446.
- Kendall, P. (1994). Treating anxiety disorders in children: Results of a randomized clinical trial. *Journal of Consulting and Clinical Psychology, 62*(1), 100-110.
- Kendall, P., Flannery-Schroeder, E., Panichelli-Mindel, S., Southam-Gerow, M., Henin, A., & Warman, M. (1997). Therapy for youths with anxiety disorders: A second randomized clinical trial. *Journal of Consulting and Clinical Psychology, 65*(3), 366-380.
- Klonoff, E., Knell, S., & Janata, J. (1984). Fear of nausea and vomiting: The interaction among psychosocial stressors, development transitions, and adventitious reinforcement. *Journal of Clinical Child Psychology, 13*(3), 263-267.
- Lipsitz, J., Fyer, A., Paterniti, A., & Klein, D. (2001). Emetophobia: Preliminary results of an internet survey. *Depression and Anxiety, 14*(2), 149-152.
- Maack, D., Deacon, B., & Zhao, M. (2013). Exposure therapy for emetophobia: A case study with three-year follow-up. *Journal of Anxiety Disorders, 27*(5), 527-534.
- Manassis, K., Lee, T. C., Bennett, K., Zhao, X. Y., Mendlowitz, S., Duda, S.,... Wood, J. (2014). Types of Parental involvement in CBT with anxious youth: A preliminary meta-analysis. *Journal of Consulting Clinical Psychology, 82*(6), 1163-1172.
- Menzies, R., & Clarke, J. (1995). The etiology of phobias: A nonassociative account. *Clinical Psychology Review, 15*(1), 23-48.
- Merckelbach, H. (1996). The etiology of specific phobias: A review. *Clinical Psychology Review, 16*(4), 337-361.
- Muris, P., Merckelbach, H., Jong, P., & Ollendick, T. (2002). The etiology of specific fears and phobias in children: A critique of the non-associative account. *Behavior Research and Therapy, 40*(2), 185-195.
- Pereira, A. I., Muris, P., Mendonca, D., Barros, L., Goes, A. R., & Marques, T. (2016). Parental involvement in cognitive-behavioral intervention for anxious children: Parents' in-session and out-session activities and their relationship with treatment outcome. *Child Psychiatry and Human Development, 47*(1), 113-123.
- Veale, D., & Lambrou, C. (2006). The psychopathology of vomit phobia. *Behavioral and Cognitive Psychotherapy, 34*(2), 139.
- Veale, D. (2009). Cognitive behavior therapy for a specific phobia of vomiting. *The Cognitive Behavior Therapist, 2*(4), 272-288.
- Veale, D., Hennig, C., & Gledhill, L. (2015). Is a specific phobia of vomiting part of the obsessive compulsive and related disorders? *Journal of Obsessive-Compulsive and Related Disorders, 7*, 1-6.
- Whitton, S., Luiselli, J., & Donaldson, D. (2006). Cognitive-behavioral treatment of generalized anxiety disorder and vomiting phobia in an elementary-age child. *Clinical Case Studies, 5*(6), 477-487.
- Williams, K., Field, D., Riegel, K., & Paul, C. (2011). Brief, intensive behavioral treatment of food refusal secondary to emetophobia. *Clinical Case Studies, 10*(4), 304-311.