

AUTISM SPECTRUM DISORDER AND SPECIFIC PHOBIA. TREATMENT WITH EYE MOVEMENT DESENSITIZATION AND REPROCESSING: REPORT OF TWO CASES

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INTRODUCTION

Autism spectrum disorder (ASD) is characterized by deficits in social functioning and the presence of restricted interests and repetitive behaviors (American Psychiatric Association 2013). One of the most common psychiatric comorbidities of ASD is anxiety disorder; one study has found that 40% of children with ASD also present with specific phobias (SP) (Mayes et al. 2013).

Temporary fears of animals or of supernatural phenomena are normal in children of certain ages, but when these fears are extreme, last longer than six months, are accompanied by intense physiological symptoms, and cause avoidance of the source of distress, they can be defined as specific phobias. The DSM-5 includes five main types of specific phobias: animal, natural environment, blood injection injury, situational, and other (American Psychiatric Association 2013).

Various treatment strategies can be used to reduce phobic symptoms. Most case studies support the use of eye movement desensitization and reprocessing (EMDR) and/or behavior therapy. Exposure-based therapies and cognitive restructuring have also been used to effectively treat most specific phobias. However, in vivo exposure may be a difficult treatment for certain phobias, such as flight or wasp phobias. EMDR offers a more accessible short exposure route to therapy (Jongh & Broeke 2009). In addition, people with ASD may demonstrate deficiencies in areas such as communication/language, ability to participate and stay on task, comprehension skills, and imitation skills; these abilities may be required for the most common phobia treatments (Ellis et al. 2006). Since many methods used to treat specific phobia may be challenging for individuals with ASD, EMDR may offer a viable alternative treatment.

The purpose of the present case report is to explore the viability and effectiveness of EMDR as a treatment

for two cases of patients with ASD and specific phobias. EMDR may be an appropriate therapy for patients with ASD as this treatment is largely non-verbal and can be adjusted for specific conditions, such as age and autism.

CASES

A quantitative case study design was used to examine the efficacy of age-adjusted EMDR for treating two subjects with ASD and specific phobias.

Case 1

B is a seven-year-old boy in the second grade receiving follow-up treatment for ASD. He came to our clinic due to a complaint that there were too many flies in the vineyard house where he lived with his family. He said that he did not want to go in the house and could not enter it because of the flies. In his psychiatric evaluation, he was diagnosed with ASD and specific phobia (fly phobia). He had no additional psychiatric diagnoses.

Treatment

The standard EMDR protocol was adapted for the patient's age. Two 90-minute sessions were conducted (including the evaluation). In the first session, an evaluation interview was conducted, the patient's history was taken, formulation and resource installation were performed, and the patient and his family were informed about EMDR. In the second session, a scene was created to trigger the patient's phobia. B stated that in this scene, he went to the garden of their house. While he was sitting on the porch, flies came and touched his body. This disturbed him very much because he thought the flies would get inside his body. He was asked to draw a picture of the image that frightened him the most (Figure 1). B said

that, in this picture, a fly approached him, saying “buzz”; he responded with “aaa.” When asked what kind of child would be afraid in such a situation, he said, “A cowardly child,” calling himself a coward. He believed he was cowardly and named his emotion as fear. B’s subjective units of disturbance (SUD) were evaluated as 10 out of 10. He said he felt his fear in his hands and arms. When he was asked what kind of person would not be afraid of flies, he replied, “A brave person.” He rated his belief that he could be fearless, or his validity of cognition (VOC), as 1 out of 7.



Figure 1. Case 1 Drawing the worst picture
This picture, the fly approaches him by saying “buzz” and he responds by saying “aaa” to its.

To treat B’s phobia, first, B was asked to imagine a safe place. He called it beautiful: “This is a garden without flies; there are flowers, there are insects and fresh air, and it’s very comfortable. My best friend is with me, and we can smell flowers and chewing gum.” Safe place training were applied as slow and short sets. After the safe place application, the desensitization phase began. During the desensitization phase, B closed his eyes, and his knees were tapped 20 times. He stated that, during the first set, the flies came and landed on his head. During the second set, the flies got into his hair and said, “buzz.” During the third set, the flies went through his skull and entered his brain. During the fourth set, they moved around inside his brain. During the fifth set, a protective control center in his brain threw the flies out.

During the sixth set, the flies emerged from his forehead. During the seventh set, he banished the flies from the entire garden, because he had a controlling mechanism. After every three sets, B was asked to rate the intensity of his emotions. His SUD score decreased to 0 after the last set. When he was asked about his emotional status after the placement phase, he said “I may be afraid, but I have a mechanism that protects me.” He then rated his belief in this statement (VOC) as 5 out of 7. He said that after next set, he said “pişşş” to the fly, yelled at it, and flapped its wings to let it go. Then the fly left. In the last scene, he was no longer frightened. He reported that the flies were surprised by this and said, “Aaa, this boy has become so brave that we can’t do anything to him!” He then described himself as brave, giving this belief about himself a VOC rating of 7 out of 7.

B was then asked to draw another picture (Figure 2). In this picture, the flies were coming towards him, saying, “aaa,” and he was saying “pişş” to the flies. One month after the treatment, B’s family reported that he was able to stay in the yard and was no longer afraid. B reported that he simply had to say “pişş” to the flies, after which they moved away from him.



Figure 2. Case 1 Drawing the picture at the end of the treatment
If the flies come to him with a “aaa”, he says that he would repel the flies by saying “pişş”.

Case 2

K is an 11-year-old, fifth-grade boy with ASD and Tourette's Syndrome. He has previously received habit reversal therapy for his tics, which led to significant improvement. He presented at the clinic with complaints of night fears and a resulting inability to sleep alone and difficulty falling asleep.

Treatment

The standard EMDR protocol was adapted for the patient's age. A total of two 90-minute sessions were conducted, including the evaluation with K and the preparation phase. In the first session, his past history was taken, formulation and resource installation were performed, and K and his family received psychoeducation about EMDR. EMDR was conducted in the second session. K was frightened by a "cracking" sound coming from the house, sometimes upstairs and sometimes downstairs. He thought that this sound was made by a ghost that was going to come to his bedroom door and kill him. He described his emotion as fear and said that he felt it in his brain. He described himself as someone who was afraid of things that were not real and rated his SUD as 8 out of 10. When asked what he would like to be, he replied, "Someone who fears nothing: a brave boy." He rated his belief in his own bravery as 3 out of 7 (VOC value).



Figure 3. Case 2 Drawing the worst picture
He goes to bed around 1-2 at night, then hears a voice and sees a ghost at the door.

First, K created an imaginary safe place. He described an open, green area by a lake; his cousin was with him, and it was noon. He called his safe place "wonderland." He was then asked to draw a picture of the scene that

frightened him most (Figure 3). In this scene, K was in bed. It was around 1 or 2 a.m., and he heard a crack and saw a ghost at the door. During the sets, 20 tapping were made to his knees. K stated that, during the first set, the ghost appeared at the door; it was dark. During the second set, the ghost had a knife in his hand and was going to kill him. During the third set, the ghost killed him. During the fourth set, K realized that the ghost had not really stabbed him. He was asked how distressed he felt and rated his SUD as 8 out of 10. During the fifth set, the ghost stood in K's room and tried to stab him but couldn't? During the sixth set, nothing happened. K was again asked about his distress; this time he rated his SUD as 3 out of 10. During the seventh set, the ghost could not do anything; K then began to chase the ghost, and the ghost disappeared. K then rated his sense of distress (SUD) as 0.

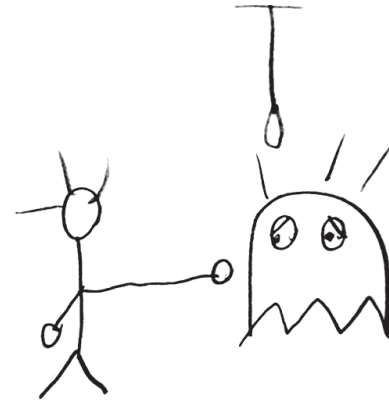


Figure 4. Case 2 Drawing the picture at the end of the treatment
If the ghost comes, He will hit its with a crack and it will disappear.

The placement phase then began. K was asked what kind of a child he saw in the scene he's imagining, he said, "A brave child who is afraid of nothing." He rated this belief as 7 out of 7 (VOC). Then he was asked to draw another picture (Figure 4); this time, he drew a picture of a child hitting a ghost. He said that if the ghost came again, he would hit it, which would make a cracking sound, and it would disappear. Before the treatment, K slept with his father at night because of his fear; after the session, he decided not to sleep with his father anymore. In the follow-up examination, K reported no problems; he could sleep alone and was no longer afraid.

DISCUSSION

This case report demonstrates the effective use of EMDR protocol, adjusted for the patients' ages and situations, to treat specific phobias in patients with ASD and specific phobia.

Although there is limited information about the medical treatment of phobias in patients with ASD, selective serotonin reuptake inhibitors (SSRI) can usually be used to treat children with developmental delay; however, they are more likely to experience intolerance than children in the same age group without developmental problems (Mukaddes 2014). A review evaluating the efficacy of various phobia treatments in subjects with ASD reports that reinforcement procedures, modeling, and exposure are empirically supported. The review also finds that interventional techniques, such as systematic desensitization, parental training, cognitive behavior therapy, and psychoeducation, are promising but lack empirical support (Lydon et al. 2015).

It is difficult for individuals with ASD to express their thoughts and feelings verbally, so EMDR has a significant advantage over other treatments because active processing is facilitated nonverbally by bilateral stimulation (BLS) (Kosatka & Ona 2014). In addition, instructions for activating trauma memories and support for the patient during desensitization and reprocessing can be individually adjusted based on the patient's age. These adjustments can also account for conditions such as autism and mental age. For example, during the III' stage of EMDR, children with a mental age of four to eight may be asked to draw the target image instead of verbalizing it (Mevissen et al. 2011b).

There are currently no published studies evaluating the effectiveness of EMDR for treating specific phobias in patient with ASD. However, previous studies report that specific phobias in children improve after a small number of EMDR sessions when the EMDR phobia protocol is adjusted for the patient's age; these studies also report that well-being continues at follow-up appointments (Kokanović & Barron 2021, Vučina 2021, Muris 1996).

There are also very few studies on the use of EMDR to treat conditions that are comorbid with ASD, and most of these examine the use of EMDR to treat adults with symptoms of post-traumatic stress disorder (PTSD).

Several case reports conclude that EMDR improves PTSD symptoms in patients with ASD and PTSD due to negative life events; this reduction in psychiatric symptoms also reduced the severity of ASD symptoms and increased patients' quality of life (Kosatka & Ona 2014, Mevissen et al. 2011a, Lobregt-van Buuren et al. 2019, Mevissen et al. 2011b, Barol & Seubert 2010). Similar results were found in case studies evaluating the effectiveness of EMDR for treating children with ASD (Mevissen et al. 2011a, Ipci 2017). These studies also emphasize the need to adjust the EMDR protocol according to each patient's condition and abilities.

Since EMDR can easily be adapted for the patient's age and for conditions such as autism and due to the non-verbal nature of this therapy, EMDR is a viable treatment method for children with ASD and specific phobias.

CONCLUSION

Treating comorbid conditions, such as specific phobias, in patients with autism spectrum disorder (ASD) can significantly improve the quality of life of both children with ASD and their families. Certain symptoms of ASD, such as difficulties expressing feelings and thoughts and increased sensitivity to drug side effects due to abnormal development, may complicate the treatment of specific phobia in children with ASD. Since EMDR does not require much verbal expression and can be adjusted for age and autism, it is a practical approach for treating specific phobias in patients with ASD. These case reports have also showed that EMDR can be used to effectively treat specific phobias in children with ASD.

Ethical Considerations: Does this study include human subjects? YES

Authors confirmed the compliance with all relevant ethical regulations.

Conflict of interest: No conflict of interest

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