Epilepsy and asthma-related anxiety in children: effects of EMDR.

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The effect of EMDR on seizure and attack-related anxiety in children with epilepsy or asthma will be examined. This group consists of children who were screened for having anxiety related to epilepsy seizures or asthma attacks in the first part of...

Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON34806

Source
ToetsingOnline

Brief title
Effects of EMDR on anxiety in pediatric chronic conditions

Condition

- Other condition

Synonym
condition-related anxiety / anxiety for seizures / asthma attacks

Health condition

Angst en trauma klachten (psychologisch) gerelateerd aan aanvallen bij kinderen met epilepsie en astma

Research involving
Human

Sponsors and support

Primary sponsor: Stichting Epilepsie Instellingen Nederland
Source(s) of monetary or material Support: KNAW;een academie-assistentschap voor uitvoerend onderzoeker. Dit is een pilot-onderzoek en gebeurt in kader van afstudeer thesis 2 voor de research master Pedagogische Wetenschappen (door Elmedina Dautovic) onder begeleiding van hoofdonderzoeker (Roos Rodenburg)

Intervention

Keyword: Anxiety, Children, Chronic Conditions, EMDR

Outcome measures

Primary outcome

See Method: Measurements in Protocol

Child

Visual Analogue Emotions Scale (VAES)

The Children*s Responses to Trauma Inventory (CRTI; Alisic, Eland & Kleber,

2006)

The Screen for Child Anxiety Related Emotional disorders (SCARED-R; Muris,

Mayer, Bartelds, Tierney, & Bogie, 2001)

The KIDS-SCREEN-27 (KIDSCREEN-27; Ravens-Sieberer et al., 2007)

Subjective Happiness Scale (SHS; Lyubomirsky & Lepper, 1999)

Secondary outcome

Zie Method: Measurements in Protocol

Parents: epilepsy group

The Parental Anxiety about Epilepsy scale (PAE; Chapieski et al., 2005)

The Hague Seizure Severity Scale (HASS; Carpay et al., 1997)

The KIDS-SCREEN-27 (KIDSCREEN-27; Ravens-Sieberer et al., 2007)

Seizure frequency

Parents: asthma group

Parental Anxiety for Asthma (PAA; adapted from the PAE; Chapieski et al., 2005)

Severity of Chronic Asthma scale (SCA; Horner, Kieckhefer, & Fouladi, 2006)

The KIDS-SCREEN-27 (KIDSCREEN-27; Ravens-Sieberer et al., 2007)

Frequency of asthma attacks

Study description

Background summary

(See Rationale in Protocol)
Children with epilepsy and asthma share the unpredictability of (paroxysmal) physical manifestations occurring by means of epilepsy seizures, asthma attacks, or wheezing. Meta-analyses show that these children are at increased risk for developing psychopathology when compared to children from the general population (Lavigne & Faier-Routman, 1993; McQuaid et al., 2001; Rodenburg, Stams, Meijer, Aldenkamp, & Dekovi*, 2005). This may be related to the generic aspects of having a chronic condition, such as unpredictability, uncontrollability, insufficient coping with the condition, medication regimen and medication side-effects, stigma, and family factors. Furthermore, meta-analyses have shown that the risk for internalizing problems (i.e. anxiety/depression, withdrawal, and somatic complaints) is higher than the risk for externalizing (i.e. rule breaking behavior and aggression) problems in children with epilepsy or asthma (Lavigne & Faier-Routman, 1993; McQuaid et al., 2001; Rodenburg et al., 2005).
In explaining the increased risk for internalizing problems, anxiety for seizures or asthma attacks may considerably account. That is, precipitants and triggers of seizures or attacks may induce anxiety in children with epilepsy and asthma (Kazak et al., 2006; Millikan Kean, Kelsay, Wamboldt, & Wamboldt, 2006; Ten Thoren & Petermann, 2000). For example, somatic sensations preceding

an epileptic seizure or asthma attack can become signs of immanent danger and induce feelings of anxiety. Furthermore, specific somatic symptoms may remind the child of a seizure or attack and this might induce feelings of anxiety too (van Rood et al., 2005). In addition, other stimuli (e.g. specific situations) may remind the child of seizures or attacks and induce anxiety as well.
Several studies report anxiety prevalence rates ranging from 15% to 33% in adults and children with epilepsy (Caplan et al., 2005; Ettinger et al., 1998; Vazquez & Devinsky, 2003; Williams et al., 2003). Regarding the prevalence of anxiety in childhood asthma mixed results have been reported. In a meta-analysis including 6 studies a small and non-significant effect size was found (McQuaid et al., 2001). Goodwin, Fergusson, and Horwood (2004) found an increased odds ratio of 1.6 for anxiety in youth with asthma and Richardson and colleagues (2006) found an anxiety prevalence rate of 16.2% in children with asthma in the state of Washington.
Based on learning theory, it is assumed that physical stimuli related to epilepsy seizures or asthma attacks, can trigger anxiety in pediatric asthma en epilepsy. For example, seizure phobia or fear for recurrent seizures in partial epilepsy might be related to auras. An aura is the first phase of the seizure, often experienced by patients as a precipitant of the seizure. In simple partial epilepsy, consciousness is not (or partly) impaired and patients are able to consciously experience their seizures. If the phenomena occurring during the seizure (e.g., contraction of muscles, fear, or pain) are experienced as frightening, the patient may become anxious about the upcoming seizure by sensing the aura and by remembering the previous frightening seizures. In addition, the experience of fear or pain during a seizure may cause anticipatory anxiety for new upcoming seizures. In case of generalized tonic-clonic epileptic seizures, a patient may experience embarrassment after consciousness is regained, because of the loss of control, the image of people watching him / her when having a seizure, or incontinence. This may induce anticipatory anxiety for recurrent seizures and in turn, may result in avoidance of social situations (Beyenburg, Mitchell, Schmidt, Elgar, & Reuber, 2005). In asthma, wheezing is often a precipitant of an upcoming asthma attack and by perceiving the wheezing, the patient may remember a previous frightening attack, inducing anticipatory anxiety. Furthermore, the fear to die, the unpredictability of seizures and attacks, and parental anxious reactions, worry, helplessness, powerlessness, stress, and vulnerability may induce anxiety in children with epilepsy and asthma as well.
Although anticipatory anxiety for seizures has frequently been mentioned in epilepsy research, seizure-related anxiety seems understudied. One case study of seizure phobia in a 26 year old woman, with generalized and complex partial seizures, and auras has been described. This woman experienced *extremely aversive physical experience of her seizures* and believed that people *would be disgusted by the sight of her having a seizure* (Newsom-Davis, Goldstein, & Fitzpatrick, 1998, p.104). She avoided (unfamiliar) situations she thought to be dangerous and became hyper-vigilant for seizure precipitants. She was successfully treated with 10 cognitive behavioral therapy sessions. Studies considering psychological treatment of anxiety for attacks in children with

asthma, to our knowledge, have not yet been conducted. However, one case-study reported about medical treatment of a panic disorder in a 6-year old boy with severe asthma since the age of 3. The boy was successfully treated with alprazolam and panic attacks stopped very soon after medication was started (Baron & Marcotte, 1994). When released from the hospital his pulmonary function was normal and within a one-year follow-up, no asthma attack occurred. Panic disorder is a frequent co-morbid condition in asthma and the accompanying hyperventilation can trigger asthma attacks (Baron & Marcotte, 1994; Feldman, Siddique, Thompson, & Lehrer, 2009; Lehrer, Feldman, Giardino, Song, & Schmaling, 2002).

Higher levels of anxiety or depression have been associated with more non-compliance to medical treatment (DiMatteo, Lepper, & Croghan, 2000; Muller, Koen, & Stein, 2005). Because of non-compliance, seizures and attacks are more likely to occur and in turn, contribute to exacerbation of the anxiety. In addition, anxiety has been found to worsen condition severity in children with asthma (Bloomberg & Chen, 2005; Wood et al., 2007) and to reduce their quality of life (Juniper, 1997). Moreover, emotional (stressful) events are related to seizure frequency (Lathers & Schraeder, 2006; Nakken et al., 2005; Sperling, Schilling, Glosser, Tracy, & Asadi-Pooya, 2008)

The clinical efficacy of eye movement desensitization and reprocessing (EMDR) in posttraumatic stress disorder treatment for adults has been well established (American Psychiatric Association, 2004; Bisson et al., 2007; Bleich, Kotler, Kutz, & Shalev, 2002; Departments of Veterans Affairs and Defense, 2004; Dutch National Steering Committee 2003; National Institute for Clinical Excellence, 2005; Sjöblom et al., 2003). Regarding children, a recent meta-analysis EMDR has shown efficacious effects on trauma symptoms. The effect size for EMDR was moderate when the effect of EMDR was compared to the effect of treatment as usual or control groups receiving no treatment. Support for incremental efficacy was found when EMDR was compared with cognitive behavioral therapy. This incremental effect has to be interpreted tentatively as it was based on two studies (Rodenburg, Benjamin, de Roos, Meijer, & Stams, 2009).

Little is known about treatment interventions for children with epilepsy or asthma who are anxious for upcoming seizure or attacks. From pediatric psychology literature, it seems that tailored interventions for this specific population have still to be designed (Kean et al., 2006). That is, established interventions (e.g. cognitive behavioral therapy and EMDR) for children with PTSD should be adapted to pediatric populations with asthma or epilepsy. This study intends to address this gap by examining the effect of EMDR on children with seizures or attacks.

Study objective

The effect of EMDR on seizure and attack-related anxiety in children with epilepsy or asthma will be examined. This group consists of children who were screened for having anxiety related to epilepsy seizures or asthma attacks in the first part of the study. It is hypothesized that EMDR treatment will not only result in anxiety or PTSD symptom reduction to non-clinical levels, but

will also improve the quality of life and medical status of children with epilepsy or asthma.

Study design

See Method: design in Protocol

The EMDR treatment trial consists of 3 measurements: a pretest one week before treatment (T1), the posttest one week after closure of EMDR treatment (T2), and a follow-up measurement three months after EMDR closure (T3). Data collection is conducted by the first author of this project. Therapists are provided with intake information of the patient.

Intervention

If, during the intake, children show clinical or sub clinical levels of anxiety or PTSD symptoms which are related to having seizures or asthma attacks, they are referred to the EMDR treatment. These children and their parents are provided with an information letter, explaining that clinical anxiety or PTSD symptoms related to seizures or attacks is established and that if they wish, EMDR will be offered to treat the anxious feelings. Furthermore they are informed about the purpose of the EMDR study. Later on, the parents will be contacted by telephone and asked whether they and their child are willing to cooperate in the EMDR treatment. If so, a consent form will be signed and arrangements will be made.
Subsequently, children with clinical or sub clinical levels of anxiety or PTSD symptoms related to seizures or attacks are treated with EMDR. One EMDR session lasts for 60 minutes and the amount of sessions (3-5) is dependent on the amount of distress associated with the disturbing memories related to seizures and attacks. EMDR is given until there is no remaining distress associated with the disturbing memories related to seizures and attacks, as indicated by a child*s self-reported distress score of 0.
Before and after the EMDR treatment trial children and their parents will be asked to fill in questionnaires concerning anxiety and their chronic condition.
If a child or its parents do not wish the EMDR treatment, they will be told that they can ask for help at any time, by contacting their treating medical doctor.

Study burden and risks

It is suggested that children and parents will perceive little burden to participate in this study. Participation duration is 15 minutes in the screening study and only if children indicate a high anxiety related to seizures or asthma attacks, children and parents are invited for an intake with the child psychologist (EMDR therapist). Parents and child have a few days to decide whether they want to participate in the intake. The intake takes 90

minutes. Parents and child can subsequently decide whether they wish the child is to be treated with EMDR. EMDR sessions take 60 minutes (the number of sessions estimated: 3-5). As such, the child is treated with diagnosed anxiety and treatment is common for clinical practice.
EMDR is an established, short, psychological treatment and it generates no physical and psychological harm. No adverse effects of EMDR on epilepsy or asthma have been reported (Dommerholt & Aelen, 2008; Rodenburg et al., 2009; Schneider, Nabavi, & Heuft, 2005). Treating pediatricians and child neurologists are informed about the client*s participation in the EMDR treatment. At the treatment site a MD will be stand by to provide medical assistance if necessary. Parents can contact an independent MD (not involved in the research) for questions.

Contacts

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age
Adolescents (12-15 years)
Adolescents (16-17 years)
Children (2-11 years)

Inclusion criteria

Inclusion criteria: EMDR treatment trial
Children are included in the EMDR treatment trial if:
- The child is diagnosed with epilepsy or asthma;
- The child is aged between 8 and 18 years;
- The child is currently treated for epilepsy or asthma by a physician, pediatrician, or child neurologist;
- The child shows clinical or sub clinical levels of anxiety or PTSD symptoms;
- The child*s anxiety symptoms or PTSD symptoms are related to seizures or asthma attacks

Exclusion criteria

Exclusion criteria: EMDR treatment trial
Children are excluded from the EMDR treatment trial if:
- The child is diagnosed with both epilepsy and asthma, or another chronic condition;
- The child has psychogenic pseudo epilepsy seizures, or has a history of pseudo-seizures;
- The child shows no clinical levels of anxiety or PTSD symptoms;
- The child*s anxiety symptoms or PTSD symptoms are not related to epilepsy seizures or asthma attacks.

Study design

Design

Study type: Interventional

Masking:	Open (masking not used)
Control:	Uncontrolled
Primary purpose:	Treatment

Recruitment

NL

Recruitment status:	Pending
Start date (anticipated):	01-02-2010
Enrollment:	36
Type:	Anticipated

Ethics review

Approved WMO
Application type: First submission
Review commission: METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register	ID
CCMO	NL31057.018.09