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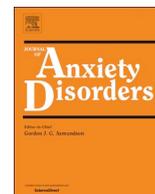
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# Therapists' characteristics associated with the (non-)use of exposure in the treatment of anxiety disorders in youth: A survey among Dutch-speaking mental health practitioners

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## ABSTRACT

**Introduction:** Although there is consensus that exposure is the key ingredient in treating childhood anxiety disorders, several studies in the USA suggest exposure to be underused in clinical practice. Previous research pointed to therapists' beliefs about exposure, their age, experience, caseload, training and theoretical orientation, as well as the level of the therapists' own anxiety as important factors in the underusage of exposure in the treatment of adult anxiety disorders. This study examined what therapist characteristics may be involved in the (non-)use of exposure in treating childhood anxiety disorders.

**Methods:** An internet-based survey among 207 youth mental health care professionals in the Netherlands and Belgium was conducted to assess therapists' beliefs about exposure, their age, experience, caseload, training and theoretical orientation, as well as the level of the therapists' own anxiety, depression and stress.

**Results:** The current survey showed that therapists used exposure in about half of their cases of childhood anxiety and that the non-use was independently associated with the relatively strong negative beliefs about exposure, therapists' age, and non-CBT orientation.

**Discussion:** Findings point to the importance of addressing negative beliefs about exposure in therapists' training and supervision to resolve therapy drift away from exposure, and consequently improve utilization and delivery of exposure-based therapy for childhood anxiety disorders.

## 1. Introduction

With a worldwide prevalence of 6.5 % (Polanczyk, Salum, Sugaya, Caye, & Rohde, 2015), anxiety disorders are globally the most common mental health problem in youth. Anxiety disorders in childhood and adolescence often interfere with social, emotional and academic development, and could lead to comorbid psychopathology when left untreated (Bittner et al., 2007; Ezpeleta, Keeler, Erkanli, Costello, & Angold, 2001). Exposure-based cognitive behavioural therapy (CBT) is an empirically supported treatment for anxiety disorders in youth (Chorpita et al., 2011), and is stated in international guidelines as first choice treatment (e.g., National Institute for Health and Care Excellence (2014). CBT for children and adolescents usually contains anxiety management strategies (AMS; e.g., cognitive or relaxation strategies), as well as exposure exercises (Ale, McCarthy, Rothschild, & Whiteside, 2015).

Although there is consensus that exposure is key for the efficacy of interventions in treating childhood anxiety (Chorpita & Daleiden, 2009), several studies in the United States suggest exposure to be underused in clinical practice. For example, therapists are found to use behavioural interventions like exposure infrequently in their care-as-usual (McLeod & Weisz, 2010) and refrain from conducting exposure exercises, even in the context of a randomized controlled trial (RCT), where only 59 % of the youth received at least one session of exposure, with a mean number just under four sessions (Southam-Gerow et al., 2010).

Even more worrying numbers come from two conducted surveys among youth anxiety therapists. A recent survey found 5% of the 331 therapists (Whiteside, Deacon, Benito, & Stewart, 2016) to use exposure, while another survey among 616 therapists found this use only in 15 % of their cases (Higa-McMillan, Kotte, Jackson, & Daleiden, 2017). Since all of these studies were conducted in the United States, it

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remains unclear whether these numbers generalize to youth mental health care practice outside the USA. In Europe, a few surveys on the use of exposure in adult mental health care have been conducted. The numbers found in three German surveys showed that exposure is only used in 33 %–50 % of adult cases seeking help for their anxiety disorder (s) (Külz et al., 2010; Pittig & Hoyer, 2018; Roth, Siegl, Aufdermauer, & Reinecker, 2004; Schumacher, Weiss, & Knaevelsrud, 2018). The only non-German survey concerning adult mental health care was conducted among 490 CBT therapists registered by the Dutch CBT association (VGcT) in the Netherlands (Sars & van Minnen, 2015). This study showed that nearly all of the therapists used exposure (97.8 %) but that exposure was mostly practiced outside the formal therapy sessions as homework assignment.

Both therapist-guided and self-guided exposure as homework have been found effective in treating anxiety disorders (e.g., Dear et al., 2016), with many internet-based CBT programs including self-guided exposure (e.g., Zhou et al., 2019). There are some indications that self-guided exposures alone are insufficient to produce treatment response in the absence of therapist-guided exposures (Franklin et al., 2011). However, in a study by Hellström and Öst (1995) the difference between therapist-guided in-session exposure and self-guided in-session exposure was not significant, although the proportion of clinically significant improved patients at follow-up was better for the therapist-guided in-session group (80 %) compared to the self-guided in-session group (63 %). It might be especially hard for children to do exposures as homework assignments without the help of a therapist or parent. Germane to this, a dose-response relationship between therapist-guided exposure and treatment outcome has been found, with more time devoted to exposure linked to better outcomes (Peris et al., 2017). Regarding parent-guidance, a recent individual patient data meta-analysis has shown that reinforcement of children's approach behaviours during exposure supports long-term maintenance of treatment gains (Manassis et al., 2014).

Why do therapists not adhere to evidence-based therapy techniques? Waller (2009) coined the term *therapist drift* to refer to this particular situation, in which clinicians fail to deliver the optimal evidence-based treatment despite having the necessary resources. The latter implies that therapists drift from exposure can only occur when clinicians learned to do exposure with fidelity in the first place. Therapist drift is seen as an important factor in why evidence-based therapies are commonly less effective than they could be in routine clinical practice (Waller & Turner, 2016). In the case of exposure, suboptimal delivery might be due to the belief that exposure is potentially too stressful for both the child and the clinician. Therefore, the therapist might prefer to drift away from exposure and shift from 'doing' to 'talking' (Waller, 2009). In line with this, it tends to be the behavioural methods that clinicians fail to use in therapy, often leaving them out or limiting it to homework exercises (McLeod & Weisz, 2010; Sars & van Minnen, 2015; Waller & Turner, 2016). A strong belief in the relevance of anxiety management strategies, like the use of relaxation and cognitive techniques, may emphasize those over the use of exposure and devote more time to these in the expense of doing exposure exercises (Deacon, Farrell et al., 2013; Deacon, Lickel, Farrell, Kemp, & Hipol, 2013).

It has been suggested that in the treatment of adults with anxiety disorders, therapists' beliefs about exposure, their age, level of experience, caseload, training and theoretical orientation, as well as the level of the therapists' own anxiety play an important role in the drift away from using exposure during treatment sessions (Gunter & Whittal, 2010; Külz et al., 2010; Meyer, Farrell, Kemp, Blakey, & Deacon, 2014; Pittig & Hoyer, 2018; Sars & van Minnen, 2015; Schumacher et al., 2018). Therapists' beliefs may include concerns about the ethicality, safety, and tolerability of exposure therapy. These concerns are common among mental health practitioners (Deacon, Farrell et al., 2013; Deacon, Lickel et al., 2013). Therapists with relatively strong negative beliefs about exposure tended to exclude patients from exposure

therapy relatively often. In addition, therapists who were older, with less treatment experience or a caseload with a smaller number of anxiety disordered patients used exposure less frequently. Moreover, that those who primarily prefer a non-CBT theoretical approach, who received less training or education (e.g., up to a masters' degree) or who were more anxious themselves were less likely to seek training in and provide patients with CBT-based anxiety treatments (Meyer et al., 2014).

In a recent survey it was assessed whether the same barriers may stand in the way of using exposure in youth (Whiteside et al., 2016). In line with the findings in adults, endorsing a non-CBT theoretical approach, holding only a master's degree in psychology as well as relatively strong negative beliefs about exposure were associated with making less use of exposure. In this survey, therapists age, experience, caseload, and the therapists' own anxiety were not assessed. However, the majority of evidence from recent years relating clinicians' emotions to therapists' drift away from exposure has stressed the role of the clinicians' own anxiety (Waller & Turner, 2016), as well as other emotions like feeling depressed (Waller et al., 2013) or stressed (Schumacher, 2018). As the only non-USA surveys about the use of exposure were conducted among adult mental health practitioners (Külz et al., 2010; Pittig & Hoyer, 2018; Roth et al., 2004; Sars & van Minnen, 2015; Schumacher et al., 2018), it remains unclear to which extent these findings generalize to youth mental health practitioners.

The first goal of the current internet-based survey among youth mental health care professionals in the Netherlands and Belgium was to replicate the survey by Whiteside et al. (2016). Replication of this survey is important, as it provides the opportunity to assess generalizability of the findings over time and to other countries than the USA. Youth mental health care might be organised differently in different countries, and certain theoretical orientations might be of more importance in one country compared to another. In line with this, we expect the use of and beliefs about exposure to be different in the Netherlands compared to the USA, because in the Netherlands CBT is the dominant theoretical orientation whereas in the USA it is not. This is reflected by the fact that the Dutch Association for CBT (VGcT) has more than 5600 members (on 17 million inhabitants), where the American equivalent (ABCT) has 5100 members (on 327 million inhabitants). We approached both professionals with a CBT orientation as well as professionals with other backgrounds, in order to recruit a diverse sample. In addition, we aimed to extend the previous literature by adding age, experience, caseload, and the therapists' own feelings of depression, anxiety, and stress as variables that have been found to be associated with exposure (non)use in adults. Moreover, we zoomed in on which negative beliefs were most strongly associated with refraining from using exposure, to get an idea about what beliefs need to be addressed in the supervision and training of therapists working with anxious youth. By this means, we can work towards a better utilization and delivery of exposure-based therapy.

With this goal in mind, we investigated how often therapists use therapist-guided, self-guided and parent-guided exposure, also compared to other techniques in the treatment of childhood anxiety disorders. In addition we tested the following hypotheses: i) Therapists who are older, who endorse a non-CBT orientation, who have a smaller caseload, who received less training and/or are less experienced than their colleagues, use exposure relatively infrequently; ii) Therapists with stronger negative beliefs about exposure use exposure relatively infrequently; iii) The higher the therapists' levels of anxiety, depression or stress, the less frequently they will use exposure.

## 2. Methods

### 2.1. Participants

Youth mental health professionals were recruited via Accare, a large youth mental health facility in the Netherlands. Professionals who

**Table 1**  
Sample characteristics of youth mental health care professionals.

Characteristic	Total (N = 207)
<b>Gender, n (%)</b>	
Female	192 (92.8)
Male	15 (7.2)
<b>Age, n (%)</b>	
20–29 years	30 (14.5)
30–39 years	79 (38.2)
40–49 years	47 (22.7)
50–59 years	34 (16.4)
60–69 years	17 (8.2)
<b>Profession, n (%)</b>	
Clinical psychologist or psychotherapist*	26 (12.5)
Psychiatrist*	7 (3.4)
Health care psychologist**	71 (34.3)
Psychologist with CBT specialization***	24 (11.6)
Psychologist not specialized	60 (29)
Social worker or nurse with CBT specialization***	22 (10.6)
Social worker not specialized	26 (12.6)
Family therapist	11 (5.3)
Other therapist (psychomotor-, drama-, hypnotherapy)	7 (3.4)
Coach	6 (2.9)
Clinical psychology intern	2 (1.0)

\* Registered academic professional with at least four years of post-master education.

\*\* Registered academic professional with at least two years of post-master education.

\*\*\* Registered professional with at least one post-master or post-bachelor training in CBT.

approached the last author at Accare for a copy of the Dutch exposure-based Coping Cat program (CBT) in the period between March 2011 – March 2017, gave their passive consent to be approached for participation in scientific research regarding Coping Cat or related topics. When receiving the program, they were asked to fill in the current survey in return. Professionals who filled in the 2018 Accare survey on the treatment of ADHD and behavioural problems, were asked to fill in the current survey as a supplement. Because the link to this combination of surveys was included in internal newsletters, the number of non-responders is unknown. The final sample consisted of 207 Dutch-speaking youth mental health care professionals. As the survey was filled in anonymously we cannot track back which part of the participants filled in the survey via Coping Cat and who filled it in via the ADHD survey. See Table 1 for sample characteristics. Professionals could state more than one profession.

Of the 207 participants, the clinical psychologists, psychotherapists, health care psychologists and psychiatrists, form a group of 104 (50.2 %) professionals who received at least two years of post-master training after obtaining their master's degree. A little over half of the participants reported to endorse a CBT orientation in their work ( $n = 110$ , 53.1 %), a family/system focused approach ( $n = 12$ , 5.8 %), a client-centered/solution focused approach ( $n = 11$ , 5.3 %), a psychodynamic/psychoanalytic orientation ( $n = 2$ , 1.0 %), or an eclectic orientation ( $n = 44$ , 21.3 %), respectively. Twenty-eight participants did not report their orientation (13.5 %). Of all 207 practitioners, about a quarter ( $n = 53$ , 25.6 %) followed training in CBT as part of their registration via the Dutch Association for Behavioural and Cognitive Therapies. The participants reported to spend on average one-third of their week working with anxious youth ( $M = 32$  %,  $SD = 21.2$ ). A group of 37 participants reported to spend at least half of their week working with anxious children and adolescents (18.0 %). Participants seemed to spend almost half of their time on children younger than 12 ( $M = 45.0$  %,  $SD = 26.7$ ), and about the same time on adolescents from 12 years and older ( $M = 41.3$  %,  $SD = 25.4$ ). The participants had respectively 10 years or more of experience in working with anxious youth ( $n = 68$ , 32.9 %), 5–10 years ( $n = 53$ , 25.6 %), 2–5 years ( $n = 54$ , 26.1 %), or only 2 years or less ( $n = 30$ , 14.5 %). Two participants did not report their experience (1%).

## 2.2. Procedure

All participants received the invitation for our internet-based survey by e-mail between March 16, 2017 and November 16, 2018. By following the link to the survey, participants were presented our policy statement on confidentiality, indicating that their responses would be stored and processed anonymously, after which they were given the choice to provide informed consent and proceed or not. Following the procedure adopted by Freiheit, Vye, Swan, and Cady (2004), we tried to minimize response bias by avoiding characterizing exposure-based therapy as being 'evidence-based' or 'empirically supported' in the survey. After receiving the link to the survey, participants were allowed to fill in the questionnaires until November 2018. A total of 207 participants completed the survey and were included in the current study. Eighty participants were recruited after requesting the Coping Cat manual, and 127 participants were recruited via the Accare survey for mental health care professionals.

## 2.3. Material

### 2.3.1. The use of exposure and other strategies

In line with the Whiteside et al. (2016) survey, participants were asked to retrospectively estimate how often they used different CBT techniques. Contrary to the Whiteside et al. (2016) survey, we only assessed participants' use of exposure, cognitive and relaxation strategies, as these are the most common used elements in the treatment of childhood anxiety disorders (Chorpita & Daleiden, 2009). Participants rated their use of exposure in the treatment of anxiety disorders in youth on three visual analogue scales from 'not at all' (0) to 'in all my patients' (100). The first scale reflected therapist-guided in-session exposure, the second scale self-guided out-session exposure as homework, and the third scale parent-guided out-session exposure as homework. Furthermore, participants were asked about the use of anxiety management strategies besides exposure. They had to rate on two visual analogue scales from 'completely useless' (0) to 'completely useful' (100), how useful they consider cognitive and/or relaxation strategies to be in exposure-based treatment of anxiety in youth. Additionally, they were asked to retrospectively estimate how often they used cognitive and/or relaxation strategies in the exposure-based treatment of youth anxiety disorders, on two visual analogue scales from 'not at all' (0) to 'in all my patients' (100).

### 2.3.2. The therapists' beliefs about exposure

The translated and adapted Dutch child-version of the Therapists Beliefs About Exposure Scale (TBES) (Deacon, Farrell et al., 2013; Deacon, Lickel et al., 2013) was used to assess participants' beliefs about exposure therapy, in line with the Whiteside et al. (2016) survey. The original TBES consists of 21 negatively stated beliefs about the safety, tolerability, and ethicality of exposure. The TBES was developed to systematically assess therapists' negative beliefs about exposure, which have in several cases also shown to be not just negative but also incorrect. The questionnaire has previously demonstrated good internal consistency ( $\alpha = 0.95$ ), test-retest reliability ( $\alpha = 0.89$ ), and good construct validity (Deacon, Farrell et al., 2013; Deacon, Lickel et al., 2013). With permission of the author, this questionnaire has been translated into Dutch and adapted to therapists treating children (de Jong, Lommen, van der Meer-Hallonova, & Nauta, 2017). Participants scored all items on a 5-point Likert scale (0 strongly disagree – 4 strongly agree) to indicate their agreement with statements illustrating potential therapist concerns about exposure (f.e., "Most children perceive exposure therapy to be unacceptably aversive"). Higher scores indicate stronger negative beliefs about using exposure therapy to treat anxious children. A Cronbach's alpha of 0.93 in the current sample indicated that the internal consistency of the TBES was good.

### 2.3.3. The therapists' depression, anxiety and stress

The Dutch translation (de Beurs, Van Dyck, Marquenie, Lange, & Blonk, 2001) of the Depression Anxiety and Stress Scale (DASS-21, Lovibond & Lovibond, 1995) was used to assess therapists' feelings of depression, anxiety, and stress. The DASS-21 consists of 21 items about negative emotions divided into three subscales with 7 items each: depression, anxiety and stress. The items are statements like "I felt life was meaningless". For each item the participant checked whether this was applicable to him or her during the last week. Each item was scored on a 4-point Likert scale (0 never applicable – 3 always applicable). Norm scores from a healthy Australian sample are available to score the DASS-21 (Lovibond & Lovibond, 1995), however these norms are based on the full DASS (42 items), so the scores have to be doubled to be able to compare them with the norm scores. Cronbach's alpha for internal consistency of the DASS-21 in the current sample was good ( $\alpha = 0.84$ ). When considering the subscales, Cronbach's alpha indicated good internal consistency for the stress subscale ( $\alpha = 0.80$ ), questionable internal consistency for the subscale of depression ( $\alpha = 0.64$ ), and poor internal consistency for the anxiety subscale ( $\alpha = 0.52$ ).

### 2.4. Statistical analysis

In this non-experimental cross-sectional design, the first research question regarding use of exposure versus other techniques as well as preferred ways of providing exposure (i.e., therapist-guided, self-guided or parent-guided) was examined descriptively (i.e., means and frequencies). To analyze whether therapists prefer other techniques over exposure, paired samples t-tests were conducted. To examine the three other research questions regarding therapists' characteristics associated with use of exposure, correlations between the use of exposure, therapists' age, years of experience, caseload, beliefs about exposure and the therapists' levels of depression, anxiety and stress were calculated using the Pearson's correlation coefficient  $r$  (in case of interval data) or Spearman's rho (in case of ordinal data). In addition, t-tests were conducted to compare mean use of exposure regarding different between group factors, i.e: theoretical orientation, caseload, and different levels of education and training in exposure. Using Pearson's  $r$ , we exploratively assessed whether therapists who received less education or who experienced higher levels of depression, anxiety, or stress tended to have more negative beliefs about exposure. To correct for multiple comparisons a Bonferroni-Holm correction was performed to adopt an alpha of 0.01.

## 3. Results

### 3.1. The use of exposure and other strategies

A total of 166 participants (80.2 %) reported to use exposure exercises when treating anxiety in youth with exposure-based CBT. Besides exposure, these participants reported to use cognitive strategies in 70 % of their childhood anxiety cases, and relaxation strategies in 60 % of those cases. In line with this, they rated the additional value of both cognitive restructuring to exposure and relaxation to exposure as fairly useful,  $M = 69.3$  ( $SD = 27.4$ ), and  $M = 60.0$  ( $SD = 29.2$ ), respectively. Zooming in on exposure use, both therapist-guided, self-guided, and parent-guided exposure were used only in about half of the cases (respectively in 54, 51 and 57 % of the cases). When comparing the use of the different strategies, exposure was used significantly less often than cognitive strategies,  $t(164) = 6.91$ ,  $p < 0.001$ , ES: Cohen's  $d = .54$ , and relaxation strategies,  $t(164) = 2.47$ ,  $p = 0.007$ , ES: Cohen's  $d = .22$  respectively. Stronger beliefs in the usefulness of cognitive strategies correlated positively with exposure use ( $r = .45$ ,  $p = .01$ ). No significant correlation between beliefs in usefulness of relaxation strategies and exposure use was found ( $r = .13$ ,  $p = .10$ ). See Table 2 for means and standard deviations.

**Table 2**

The use of exposure and other techniques (in percentage of cases).

	Mean use (in % of cases)	SD
Overall exposure use	54.1	27.0
Therapist-guided exposure	54.1	34.6
Self-guided exposure	56.9	36.0
Parent-guided exposure	50.9	33.0
Cognitive strategies	70.4	33.1
Relaxation strategies	60.8	33.5

**Table 3**

Correlations (Pearson/Spearman) for therapists' characteristics and the use of exposure.

Characteristic	Type of exposure		
	Therapist-guided	Self-guided	Parent-guided
Age <sup>S</sup> (years)	-.22*	-.34*	-.25*
Experience <sup>S</sup> (years)	-.05	.03	-.06
Caseload <sup>P</sup> (% workweek)	.01	.20	.11
Beliefs <sup>P</sup> (TBES)	-.37*	-.51*	-.41*
Depression <sup>P</sup> (DASS)	-.02	-.04	-.08
Anxiety <sup>P</sup> (DASS)	-.05	-.15	-.10
Stress <sup>P</sup> (DASS)	.06	-.11	-.05

\* = Significant at  $\alpha = 0.01$  (one-sided), S = Spearman's Rho, P = Pearson's  $r$ .

### 3.2. Predictors of exposure use

#### 3.2.1. Therapists' age

In line with our hypothesis, we found that of the therapists who used exposure, all three types of exposure (e.g. therapist-guided, self-guided, and parent-guided) were used to a lesser extent by therapists who were older. Correlational analysis within the therapists using exposure ( $n = 166$ ) indicated that older age was related to less use of all three types of exposure. See Table 3 for correlations and Table 4 for mean use of exposure per age group.

#### 3.2.2. Therapists' theoretical orientation

Overall, therapists who used exposure ( $n = 166$ ) and stated to endorse CBT as their main orientation in their work ( $n = 83$ ; 50 %), used exposure in a significantly higher percentage of their anxious patients than therapists who stated not to endorse a pure CBT orientation in their work ( $n = 83$ ; 50 %),  $M = 57$ –70 %,  $SD = 31$ –32 and  $M = 44$ –45 %,  $SD = 33$ –36 for therapist-guided and both other types of exposure, respectively. In line with what we hypothesized, this difference was significant for therapist-guided exposure,  $t(164) = -3.83$ ,  $p < 0.001$ , ES: Cohen's  $d = .59$ , self-guided exposure,  $t(164) = -5.17$ ,  $p < 0.001$ , ES: Cohen's  $d = .80$  and parent-guided exposure,  $t(164) = -2.47$ ,  $p = 0.008$ , ES: Cohen's  $d = .38$ . See Table 4 for mean use of exposure per theoretical orientation.

#### 3.2.3. Therapists' training

Therapists who followed either at least two years of post-master education and/or who followed training in CBT via the Dutch Association for CBT ( $n = 77$ ), seemed to have used exposure in a higher percentage of their anxious patients ( $M = 56$ –69 %,  $SD = 31$ –33 for the three types of exposure) than therapists who lacked this additional training ( $n = 89$ ;  $M = 46$ –49 %,  $SD = 34$ –37 for the three types of exposure). However, contrary to our hypothesis, t-tests revealed that only the difference in the use of self-guided exposure was significant. When comparing therapists who followed post-master education and therapists who followed training in CBT with therapists who lack this additional training, both extra trained groups used significantly more self-guided exposure,  $t(164) = -4.13$ ,  $p < 0.001$  for post-master education and  $t(122) = 2.44$ ,  $p = 0.008$  for CBT training, respectively. See Table 4 for mean use of exposure per level of training.

**Table 4**  
Mean use of exposure (in percentage of cases) and associated therapists characteristics.

Characteristic (n)	Type of exposure		
	% Therapist-guided (SD)	% Self-guided (SD)	% Parent-guided (SD)
<b>Age</b>			
20 – 29 (24)	59.0 (33.3)	70.6 (30.7)	64.0 (31.2)
30 – 39 (62)	60.7 (32.7)	67.2 (32.3)	53.5 (31.2)
40 – 49 (42)	53.8 (36.3)	52.6 (36.9)	51.8 (32.1)
50 – 59 (23)	46.9 (33.4)	43.1 (30.7)	42.1 (30.6)
60 – 69 (15)	31.0 (34.0)	26.3 (39.7)	30.1 (39.6)
<b>Theoretical orientation</b>			
CBT (83)	64.0 (31.8)	70.4 (31.2)	57.1 (31.6)
Non-CBT			
Eclectic (36)	53.3 (29.9)	49.4 (32.3)	45.9 (28.1)
System (10)	35.4 (37.0)	29.1 (34.0)	40.0 (32.2)
Client (10)	31.0 (37.8)	18.7 (24.4)	18.9 (23.4)
PD (2)	55.0 (62.6)	12.5 (17.7)	5.0 (7.1)
<b>Training</b>			
Post-master (registered)			
Yes (77)	59.8 (30.5)	68.8 (32.9)	56.3 (30.9)
No (89)	49.2 (37.3)	46.7 (35.6)	46.2 (34.1)
CBT (Registered)			
Yes (49)	57.5 (32.6)	64.7 (31.5)	59.3 (27.4)
No (75)	47.6 (36.5)	48.8 (37.9)	47.8 (36.4)
<b>Experience</b>			
0 – 2 years (19)	47.5 (39.6)	44.1 (35.6)	52.6 (39.8)
2 – 5 years (45)	59.0 (30.3)	65.8 (31.6)	53.5 (30.9)
5 – 10 years (45)	59.2 (34.9)	52.4 (35.0)	50.1 (29.9)
10+ years (55)	48.9 (35.9)	56.5 (39.2)	48.5 (35.6)
<b>Caseload</b>			
50 % > AD (21)	45.2 (34.5)	55.1 (36.6)	58.4 (34.5)
< 50 % AD (145)	55.4 (34.6)	57.2 (36.1)	49.8 (32.7)

Total  $n = 166$ , AD = Anxiety disorder, PD = Psychodynamic.

### 3.2.4. Therapists' experience

Unlike what we hypothesized, correlational analysis showed that the therapists' years of experience were not significantly related to exposure use. See Table 3 for correlations and Table 4 for mean use of exposure per years of experience.

### 3.2.5. Therapists' caseload

Contrary to our hypothesis, correlational analysis showed that the therapists' caseload - defined as working more or less than half of the week with anxious youth - was not significantly related to exposure use. See Table 3 for correlations and Table 4 for mean use of exposure per level of caseload.

### 3.2.6. Therapists' beliefs

The overall total score on the TBES was 27.4 ( $SD = 11.6$ ; range = 0–80). Given that the TBES has 21 items, the overall absolute score is 1.3 per item (range 0–4), which is unequal to 0, ES: Cohen's  $d = 2.36$ . This means that although all stated beliefs about exposure are negative, therapists do somewhat agree with them. In line with our hypothesis, correlational analysis ( $n = 158$ , as 8 participants did not fill in the TBES) indicated that holding stronger negative beliefs about exposure was significantly related to less use of therapist-guided, self-guided and parent-guided exposure (see Table 3). Zooming in on the specific beliefs mentioned in the TBES, all beliefs were negatively correlated with the use of all three kinds of exposure. Two beliefs seem to be most strongly associated with the use of exposure in general (see Table 5). The first belief that stood out was 'Compared to other psychotherapies, exposure therapy places children at a greater risk of harm' (item score  $M = 1.18$ ,  $SD = 0.79$ ; correlation =  $-.33$  to  $-.51$ ), and the second one is 'Most children refuse to participate in exposure therapy' (item score  $M = .98$ ,  $SD = 0.70$ ; correlation =  $-.30$  to  $-.46$ ). The negative belief that was endorsed most strongly was 'Arousal

reduction strategies, such as relaxation or controlled breathing, are often necessary for children to tolerate the distress exposure therapy evokes' (item score  $M = 2.38$ ,  $SD = 0.99$ ). Therapists who followed either at least two years of post-master education and/or who followed training in CBT via the Dutch Association for CBT, held significantly less negative beliefs towards exposure compared to therapists who lacked this additional training,  $t(156) = 4.08$ ,  $p < 0.001$ , ES: Cohen's  $d = .65$  for post-master education and  $t(156) = 4.62$ ,  $p < 0.001$ , ES: Cohen's  $d = .74$  for CBT training, respectively.

### 3.2.7. Therapists' feelings of depression, anxiety and stress

Overall, the total (doubled) score on the DASS was 9.0 ( $SD = 8.5$ ). Regarding the different subscales of the DASS we found total (doubled) scores of 2.0 ( $SD = 2.9$ ) on depression, 1.4 ( $SD = 2.2$ ) on anxiety, and 5.6 ( $SD = 5.1$ ) on stress. Contrary to what we hypothesized, correlational analysis ( $n = 155$ , as 11 participants did not fill in the DASS; see Table 3) showed no significant negative relation between feelings of depression, anxiety, or stress and frequency of using exposure in treatment of anxious youth. Therapists' feelings of depression, anxiety, and stress were not significantly related to the strength of therapists' negative beliefs about exposure.

## 4. Discussion

The aim of this survey was to get insight in the usage of exposure in the treatment of youth anxiety disorders in the Netherlands and Belgium. The results from the survey showed that childhood anxiety therapists used therapist-guided, self-guided and parent-guided exposure in about half of their cases, while using anxiety management strategies (AMS) like cognitive or relaxation strategies in about two-third of their cases. Interestingly, stronger beliefs in the usefulness of cognitive strategies correlated positively with exposure use, possibly because exposure is more often viewed as a cognitive technique (Craske, Treanor, Conway, Zbozinek, & Vervliet, 2014). Contrary to Deacon, Farrell et al. (2013), Deacon, Lickel et al. (2013) we did not find stronger beliefs in the usefulness of relaxation strategies to be negatively correlated with exposure use. We could replicate that therapists' who are older, endorse a non-CBT orientation and hold stronger negative beliefs about exposure use exposure infrequently (Whiteside et al., 2016). We could, however, not replicate the finding that years of experience or caseload of the therapists seems to be related to the use of exposure (Sars & van Minnen, 2015), or the suggested finding that therapists' feelings of depression, anxiety or stress are related to exposure use (Schumacher, 2018; Waller & Turner, 2016; Waller et al., 2013). This might be due to the fact that our study focused on therapists treating anxious youth whereas the previous studies focused on anxious adults. In addition, our study differed from these studies in terms of sample size and operationalizations of variables and measures. For example, we measured caseload as % of workweek working with anxious patients, whereas Sars and van Minnen (2015) measured caseload as number of anxious patients in relation to the total number of patients. In addition, we measured feelings of anxiety, depression, and stress with the DASS, whereas Waller et al. (2013, 2016) measured anxiety and depression with the BSI. Schumacher (2018) used physiological measures to measure stress, which might be more sensitive than the stress items in the DASS. In sum, it might seem good news that exposure is used in about half of the childhood anxiety cases, as this is much more than the 5% (Whiteside et al., 2016) or 15% (Higa-McMillan et al., 2017) that was reported in the previously conducted surveys among youth mental health therapists in the USA. Nevertheless, this result also implies that exposure is still not received by about half of the children and adolescents seeking treatment for anxiety disorders in Belgium and the Netherlands.

The current study sheds some light on factors associated with this infrequent use of exposure in the treatment of childhood anxiety disorders. First of all, therapists who were older and/or who endorsed a

**Table 5**  
Correlations (Spearman) for the different TBES items and the use of exposure.

Item (TBES)	Mean (SD)	Therapist-guided	Type of exposure	
			Self-guided	Parent-guided
1. ET evokes difficult tolerable distress	1.96 (1.00)	-.09	-.21*	-.05
2. ET does not target root cause of AD	1.38 (1.03)	-.33*	-.36*	-.35*
3. ET works poorly for complex cases	1.33 (1.05)	-.29*	-.33*	-.23*
4. ET leads to higher dropout rates	1.42 (0.81)	-.21*	-.26*	-.21*
5. ET risks unethical dual relationship	1.09 (0.72)	-.24*	-.37*	-.30*
6. ET difficult to tailor to needs of child	0.97 (0.76)	-.37*	-.37*	-.29*
7. ET associated with less strong relationship	1.01 (0.74)	-.31*	-.34*	-.35*
8. ET may re-traumatize the child	1.44 (0.98)	-.19*	-.33*	-.24*
9. Unethical for therapists to evoke distress	1.00 (0.82)	-.31*	-.44*	-.29*
10. Child at risk of decompensating	1.78 (0.83)	-.13	-.28*	-.21*
11. ET endangers child's confidentiality	1.18 (0.73)	-.29*	-.42*	-.34*
12. ARS are necessary to tolerate distress	2.38 (0.99)	-.17	-.25*	-.11
13. ET places child at greater risk of harm	1.18 (0.79)	-.34*	-.51*	-.33*
14. Child perceives ET aversive	1.17 (0.72)	-.20*	-.33*	-.44*
15. ET causes anxiety symptoms to worsen	1.03 (0.71)	-.25*	-.39*	-.43*
16. ET vicariously traumatizes the therapist	1.65 (0.92)	-.11	-.15	-.18
17. Child may experience physical harm	1.32 (0.82)	-.13	-.35	-.23*
18. Facing feared stimuli in real unnecessary	1.37 (0.91)	-.27*	-.40*	-.26*
19. ET is inhumane	0.72 (0.70)	-.34*	-.39*	-.32*
20. Children refuse to participate in ET	0.98 (0.70)	-.30*	-.42*	-.46*
21. ET risks therapist sued for malpractice	1.04 (0.77)	-.22*	-.35*	-.23*

\* = Significant at  $\alpha = 0.01$  (one-sided), ET = exposure therapy, AD = anxiety disorder.

non-CBT orientation in their work, used exposure less often than therapist who were younger and/or who endorsed CBT as their main orientation. In addition, negative beliefs about the safety, tolerability, and ethicality of exposure were strongly associated with infrequent use of exposure. These beliefs about exposure use seem to be affected by education about and training in exposure-based CBT, given that therapists who received more education or training held less negative beliefs about its use. Therefore, more education about or training in exposure-based CBT seems to benefit exposure use. These findings are consistent with previous research on factors associated with the (under) use of exposure in the treatment of anxiety disorders (Meyer et al., 2014; Whiteside et al., 2016).

It is interesting that although older therapists used exposure less often than younger therapists, exposure use appeared unrelated to years of experience. One would expect that therapists who are older are also more experienced in treating childhood anxiety disorders. This discrepancy in findings can possibly be explained by assuming that the older therapists have started working with anxious youth only later in their career. Considering that age does play a role in exposure use, the infrequent use of it by older therapists could be explained by the fact that CBT is quite a new theoretical orientation in the field of childhood anxiety disorders. Therefore, younger therapists might be more familiar with it than older therapists. In addition, a caseload of mainly anxiety disorders seemed to be unrelated to exposure use. One can imagine that caseload is closely related to experience, as working with more anxiety patients automatically makes a therapist more experienced with that patient group. As experience seems unrelated to exposure, it is not surprising that caseload was also not related to exposure use. Finally, therapists' feelings of depression, anxiety, and stress seemed unrelated to exposure use. However, reported levels of depression, anxiety, and stress were generally very low in this sample. One may doubt whether this is representative of therapists in Belgium and the Netherlands in general. Perhaps therapists who were feeling more depressed, anxious, or stressed were less likely to fill in this survey. Therefore, no firm conclusions on the association between these feelings and exposure use can be drawn from this study.

In the only other Dutch survey on this topic, Sars and van Minnen (2015) found exposure to be practiced mainly outside the formal therapy sessions as homework assignment, as about 90 % of the assessed CBT trained therapists reported frequent use. In our survey, both

in-session therapist-guided and out-session self- or parent-guided exposure were applied only in about half of the cases, and numbers were not much better for the registered therapists who received training in CBT. However, when applying out-session exposure, therapists who received more education assigned the homework exposure exercise(s) preferably to the child only (i.e., self-guided exposure), without involving the parents. This can possibly be explained by the finding that therapists who received more training hold less negative beliefs about exposure, and might therefore have more faith in the child's ability to perform the exposure(s) him- or herself after instructions given by the therapist.

#### 4.1. Implications

Our results suggest that children and adolescents in Belgium and the Netherlands receive exposure-based CBT far more frequently compared to the numbers found in the USA surveys on the use of exposure in the treatment of childhood anxiety disorders (Higa-McMillan et al., 2017; Whiteside et al., 2016). This might be because CBT is the dominant theoretical orientation in the Netherlands and Belgium, as reflected in the current survey and the fact that the ABCT has far fewer members, and therefore possibly far fewer therapists who are trained in exposure-based CBT. In addition, as the USA is much larger than the Netherlands or Belgium, there is also a much greater distance to CBT facilities.

However, despite the finding that exposure is used in about half of the cases, our survey shows that other techniques like cognitive and relaxation strategies are applied more often than exposure in the treatment of youth anxiety. This can partly be induced by the manualized approach to youth mental health care, where therapists may choose the techniques they feel most comfortable with, while leaving out the techniques that make them feel less comfortable. Therapists seem to believe that anxiety management strategies (AMS) are essential in exposure-based CBT for children, given the strong endorsement of the belief 'arousal reduction strategies (i.e., AMS) are often necessary for children to tolerate the distress exposure therapy evokes' in the current survey. However, as therapy time is often limited, using one technique often comes at the cost of another. This is in line with the finding that the use of AMS like cognitive or relaxation strategies was negatively related to exposure use (Vande Voort, Svecova, Jacobson, & Whiteside, 2010) while in turn, the use of non-exposure techniques

alongside exposure has been found to prolong therapy and decrease its effectiveness (Adams, Brady, Lohr, & Jacobs, 2015; Ale et al., 2015; Whiteside et al., 2015). One of the explanations may be that some cognitive strategies aim at weakening the expectancy of an aversive event, whereas exposure may be most effective when the expectancy of an aversive event is at its strongest (Craske et al., 2014). In addition, our survey data showed that especially when the highly educated and/or well-trained therapists provide youth with exposure, it is most often self-guided exposure, instead of therapist-guided or parent-guided exposure. This is particularly striking given that it might be especially hard for children to do conduct self-guided exposure without the help of a therapists or parent, although this has not been studied yet. However, other factors than the education and training of a therapist might play a role here. Lack of time to prepare or conduct exposure (Farrell, Deacon, Dixon, & Lickel, 2013), logistic challenges (McAleavey, Castonguay, & Goldfried, 2014), and unavailability of resources (f.e., stimulus materials) (Ringle et al., 2015) are all factors associated with infrequent use of therapist-guided exposure that have not been assessed in the current study. If these factors play a similar role in the underuse of exposure in youth as they do in adult mental health care, then facilitating therapist-guided exposure should not only be the focus of therapists, but also of managers and policy makers in youth care. In sum, all this implies that there is still room for improvement in the manualization of, training in, utilization and delivery of exposure-based CBT in the Netherlands, Belgium, and beyond.

Our survey demonstrated that, in general, Dutch-speaking therapists (TBES score 27.4) hold slightly less negative beliefs towards exposure compared to their American colleagues (TBES score 32.5) (Deacon, Farrell et al., 2013; Deacon, Lickel et al., 2013). However, this score is far from close to zero, which implies that there is still much room for diminishing therapists' negative beliefs about exposure. Additionally, given the finding that therapists who hold more negative beliefs about exposure tend to use it less frequently, it seems important to use training and supervision of therapists to address these beliefs, especially those most strongly associated with exposure use. So far, enhanced didactic training in exposure use, involving strategies such as therapists engaging in exposure tasks themselves, as well as therapists reading patients' exposure experiences, has been shown to reduce negative beliefs about exposure (Farrell, Kemp, Blakey, Meyer, & Deacon, 2016; Harned, Dimeff, Woodcock, & Skutch, 2011). The current survey also shows that additional training can be beneficial, given that therapists who received more training in exposure-based CBT use exposure more often while holding less negative beliefs. In sum, discussion and awareness of misconceptions about exposure therapy will likely lead to more clinician learning about exposure and less therapy drift away from exposure once it has been learned, thereby possibly improving treatment outcome.

#### 4.2. Limitations

Our data relied on retrospective self-reports, which might have induced a bias due to inaccurate recall of memories as well as self-representation concerns (i.e. social desirable answers). Indeed, discrepancies between therapists' observed behavior and self-report are often found (Brookman-Frazer, Garland, Taylor, & Zoffness, 2009). In addition, asking therapists who ordered Coping Cat to fill in this survey might have induced a selection bias, because therapists working with exposure-based CBT programs like Coping Cat possibly use exposure more often than therapists not working with these protocols. Thus, the current findings may overestimate the actual frequency of exposure use in the treatment of anxiety disorders in youth within the Netherlands and Belgium. This only underlines the importance of improvement in the manualization of, training in, utilization and delivery of exposure-based CBT. Additionally, therapists rated their use of therapist-guided, self-guided as well as parent-guided exposure, which means that there might be some overlap between the different ways of providing exposure. Given that some therapists might only use one type of exposure,

whereas others might use all types of exposure, we cannot conclude which type of exposure is generally preferred by most therapists.

Our survey did demonstrate that, in general, Dutch-speaking therapists (DASS score 9.0) were experiencing much less feelings of depression, anxiety and stress than their Australian colleagues did (DASS score 18.9) (Henry & Crawford, 2005). However, it is imaginable that only therapists' who have the time and energy to fill in the survey, were those therapists who do not suffer from feelings of depression, anxiety or stress. We can therefore not draw any firm conclusions on the relation between stress, anxiety and depressive symptoms and the use of exposure. However, despite these limitations, this study managed to gather information on therapist characteristics and exposure use in a representative sample, consisting of a broad spectrum of registered and non-registered clinicians.

#### 4.3. Future research

The current study showed that AMS like cognitive or relaxation strategies were used in about two-third of the youth anxiety cases and exposure in about half of these cases. These numbers are reflected in the strongest negative belief about exposure in our study, namely that AMS are essential in exposure-based CBT. This belief is not supported by empirical evidence, though apparently widespread among therapists. As previous studies by Farrell et al. (2016) and Harned et al. (2011) show, these and other negative beliefs about exposure can be reduced through additional training. Future studies need to assess whether reduction of negative beliefs about exposure in training of therapists improves their exposure use, and most importantly, improves treatment outcome in childhood anxiety disorders. In line with this, it might be helpful to not only weaken therapists negative beliefs, but also strengthen their positive beliefs about exposure in order to prevent therapists' drift away from this useful technique. A questionnaire on positive beliefs about exposure may be a helpful tool in these future studies (Bethlehem & Biffignandi, 2011).

#### 5. Conclusions

Although (inter)national guidelines indicate that exposure is the major component in the treatment of anxious children and adolescents, youth mental health care professionals in the Netherlands and Belgium reported that exposure was used in about half of their cases, whereas anxiety management strategies were used more often (in 60–70 % of cases). Given the strong association between negative beliefs about exposure and its infrequent use, these beliefs seem to form a barrier to optimal use of exposure-based CBT. Discussion and awareness of misconceptions about exposure therapy will likely lead to less therapy drift away from exposure, thereby possibly improving treatment outcome. Future studies need to inform us about the best ways to weaken such negative beliefs and other barriers to optimal implication of exposure-based CBT during education and training of therapists, as there is still much room for improvement in the treatment of anxious youth.

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