J. Behav. Ther. & Exp. Psychiat. 42 (2011) 233–239

Contents lists available at ScienceDirect

Journal of Behavior Therapy and Experimental Psychiatry

journal homepage: www.elsevier.com/locate/jbtep

Cognitive-evaluative features of childhood social anxiety in a performance task

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ARTICLE INFO

Article history:
Received 30 November 2009
Received in revised form
7 December 2010
Accepted 13 December 2010

Keywords:
Social phobia
Social anxiety
Cognitive bias
Social performance
Cognition
Childhood

ABSTRACT

Using an experimental design, we analysed differences in the occurrence of cognitive-evaluative distortions and performance deficits across children with social anxiety disorder, with subclinical anxiety and without any anxiety symptoms.

Twenty-one children with full syndrome social phobia, 18 children with partial syndrome social phobia and 20 children without any symptoms of social phobia were compared with respect to their degree of anxiety, negative thinking and task performance during two social-evaluative tasks. In addition, self-ratings of task performance, performance estimations for other children and objective behavioural ratings by two independent observers were obtained.

Children with social anxiety disorder and subclinical social anxiety showed higher degrees of experienced anxiety and negative thinking than healthy control children. There was no group difference in respect to actual task performance. Findings are discussed with regard to the continuum assumption of childhood social anxiety disorder and the need of well-adapted early interventions.

1. Introduction

The core feature of adult social phobia, also referred to as social anxiety disorder (e.g. Liebowitz, Heimberg, Fresco, Travers, & Stein, 2000), is the fear of negative evaluation, which is often associated with distortions and biases in the processing of social information (e.g. Clark & Wells, 1995; Rapee & Heimberg, 1997). Despite some specific aspects concerning childhood social anxiety disorder in the DSM-IV (e.g. anxiety may be expressed by crying, tantrums or freezing), childhood and adult social anxiety disorder are assumed to be similar (American Psychiatric Association, 1994). Thus, recent models of childhood social anxiety disorder have mainly been adopted from adult models (e.g. Alfano, Beidel, & Turner, 2002).

In cognitive models of adult social anxiety disorder, cognitive biases and distortions in social-information processing as well as fundamental attitudes and beliefs concerning social situations are assumed to elicit negative thinking and thus trigger and maintain social phobic affect and behaviours (e.g. Clark & McManus, 2002; Clark & Wells, 1995; Heinrichs & Hofmann, 2001; Hirsch, Clark, Mathews, & Williams, 2003; Rapee & Heimberg, 1997; Schlenker & Leary, 1982). There is indeed some evidence that negative thinking may also be relevant in childhood social anxiety disorder (Barrett, Rapee, Dadds, & Ryan, 1996; Bögels & Zigterman, 2000; Muris, Merckelbach, & Damsma, 2000; Rapee & Spence, 2004; Rheingold, Herbert, & Franklin, 2003; Spence, Donovan, & Brechman-Toussaint, 1999). Children with social anxiety disorder have been found to report more negative cognitions during a social-evaluative task than children without social anxiety disorder (Spence, Donovan, & Brechman-Touissant, 1999). Similarly, Cartwright-Hatton and colleagues (Cartwright-Hatton, Hodges, & Porter, 2003; Cartwright-Hatton, Tschernitz, & Gomersall, 2005) found that children with subclinical social anxiety disorder rate themselves as appearing less skilled and more nervous in behavioural-evaluative tasks, such as holding a speech in front of a camera or talking to an unfamiliar adult. Muris et al. (2000) instructed children to interpret stories of social situations and asked them how they would feel in such situations. Here, children with subclinical social anxiety disorders perceived threat more frequently and reported a higher degree of negative cognitions while listening to the stories than non-anxious children (concerning threat perception bias for social anxiety see also Barrett et al., 1996; Rheingold et al., 2003). Interpreting ambiguous situations, children with anxiety symptoms reported more negative cognitions and lower self-efficacy beliefs in coping with danger (Bögels & Zigterman, 2000). These studies clearly support the relevance of cognitive aspects, such as negative thoughts, increased threat perceptions and poor performance

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0005-7916/$ – see front matter © 2010 Published by Elsevier Ltd.
doi:10.1016/j.jbtep.2010.12.005

expectations and perceptions, in childhood social anxiety disorder. However, it remains unclear whether such negative thinking increases with levels of anxiety, reflecting more a continuum of social phobic symptoms rather than distinct categories (e.g. Rapee & Spence, 2004).

Furthermore, results are ambiguous with respect to whether social anxiety is associated with poorer social performance. Social performance may be affected by impaired social skills, skill deficits and/or increased levels of visible fear responses (e.g. trembling, restlessness, physical tension). Social skill deficits usually appear not to be associated with adult social anxiety disorder (e.g. Rapee & Lim, 1992; Stravynski & Amato, 2001). Adults, in contrast to children, might have learned a range of compensating skills that allow them to cope with challenging social situations (e.g. Rapee & Spence, 2004). Children, however, might not yet have learned such compensating skills, resulting in poorer performance. There is indeed some evidence that children with full or subclinical social anxiety disorder show performance deficits in social situations. Spence et al. (1999) found that these children have a shorter response length in response to prompts and initiated social interactions less frequently than children without social anxiety disorder during social-evaluative tasks, as indicated by behavioural observations. In contrast, Cartwright-Hatton et al. (2003, 2005) found that independent observers were unable to distinguish between children with high and low levels of social phobia based on their actual social skills, even though children with high levels estimated their own performance to be poorer. Besides differences in the applied experimental tasks, conflicting outcomes of the mentioned studies might be due to different levels of psychopathology (full syndrome vs. partial syndrome/subclinical social anxiety disorder). Based on the continuum assumption of social fears (e.g. Rapee & Spence, 2004), one could assume that cognitive distortions would already be present with subclinical levels of social anxiety disorder whereas an impaired task performance and increased visible fear response would be associated only with high levels or full syndrome social anxiety disorder. Besides the continuum assumption, however, there are distinct criteria for the diagnosis of social phobia in the DSM-IV. Therefore, a combined strategy assessing group differences was applied, comparing children meeting all criteria of social anxiety disorder (full syndrome social anxiety disorder, SAD), children meeting some, but not all criteria of social phobia (subclinical partial syndrome social anxiety disorder, SSA) and children meeting no criteria of any anxiety disorder (healthy control group, CG).

It is hypothesized that during different social-evaluative tasks SAD report higher levels of experienced anxiety and negative thinking than SSA, who report higher levels than CG. Further, SAD is assumed to show more visible fear responses and a more impaired performance than SSA and CG.

2. Method

2.1. Participants

Participants were recruited by letters to parents of children between grade three and six in primary and secondary schools in Germany, by advertisements in local newspapers and by leaflets in medical and social institutions. Sixty-seven children and their parents responded and were informed about the general aim and the procedure of the study. After receiving written informed consent, children were invited individually to participate in one diagnostic and one experimental session, taking place in a lab of the psychology department. During the diagnostic session, one of two trained advanced students of clinical psychology conducted a semi-structured diagnostic interview with the child after he or she had filled two questionnaires. Seven children were excluded because of a reading disorder (DSM-IV, American Psychiatric Association, 1994) and one child because of an unclear diagnosis. The final sample therefore consisted of 59 children with 36% boys and 64% girls, all born and raised in Germany. Age ranged between eight and twelve years (mean age: 10.7 years).

Based on the diagnostic interview, children were divided into three groups. The full syndrome social anxiety disorder group (SAD) consisted of 21 children with the diagnosis of social phobia according to DSM-IV criteria (American Psychiatric Association, 1994). The partial syndrome social anxiety disorder group (SSA) contained 18 children, who reported some symptoms of social anxiety disorder, but did not meet the full criteria. SSA included children who reported fear in at least one social or performance situation, but either (a) only in interactions with adults, (b) only with mild fear responses or avoidance tendencies or (c) with fear lasting considerably less than six months. The healthy control group (CG) consisted of 20 children without any diagnosis of a psychological disorder. Groups did not differ regarding age or gender distribution (age: $F(2,58) = .004$; $p = .996$; gender: $\chi^2(2, N = 59) = 1.07$; $p = .586$). 71% of SAD had at least one comorbid disorder, which were obsessive-compulsive disorder (5%), separation anxiety (5%), oppositional defiant disorder (5%), depression (11%), attention deficit hyperactivity disorder (16%) and specific phobia (58%). 28% of SSA met criteria for a specific phobia.

2.2. Diagnostic instruments

2.2.1. Semi-structured clinical interview

A semi-structured clinical interview (Kinder-DIPS; Unnewehr, Schneider, & Margraf, 1995) was used to determine the diagnostic status of each child, as it is less susceptible to reporting biases than self-report measures. The clinical interview is a modified and extended German version of the Anxiety Disorders Interview Schedule for children (ADIS-C; Silverman & Nelles, 1988). The interview allows to assess frequent psychological disorders (according to the DSM-IV, American Psychiatric Association, 1994) of children and adolescents (age 6–18). Reliability and validity of the diagnostic interview are satisfactory (Unnewehr et al., 1995).

2.2.2. The social anxiety scale for children – revised (SASC-R; La Greca & Stone, 1993)

For the assessment of symptoms of social anxiety in children, the SASC-R self-report measure (La Greca & Stone, 1993; German version: Melfsen, 1998) was used. The instrument consists of two subscales, assessing fear of negative evaluation (SASC-FNE) and social avoidance and distress (SASC-SAD). The test-retest reliability and the internal consistency of the SASC-R are satisfactory (La Greca, Kraslow Dandes, Wick, Shaw, & Stone, 1988; Melfsen, 1998). In the present study, Cronbach's alphas were .83 (FNE) and .74 (SAD).

2.2.3. Social phobia and anxiety inventory for children (SPAI-C-D, Beidel, Turner, & Morris, 1995)

The SPAI-C-D (Beidel et al., 1995; German version Melfsen, Florin, & Walter, 1999) is a valid and reliable self-report inventory to assess social anxiety and social phobia in children. Internal consistency (.92–.95) and retest reliability (.84 after 4 weeks) are high, substantial correlations with other self-report measures and discriminative validity have been established, while no correlations were found with teacher ratings of social anxiety (Melfsen et al., 1999). In the present study, Cronbach's Alpha was high with $\alpha = .94$.