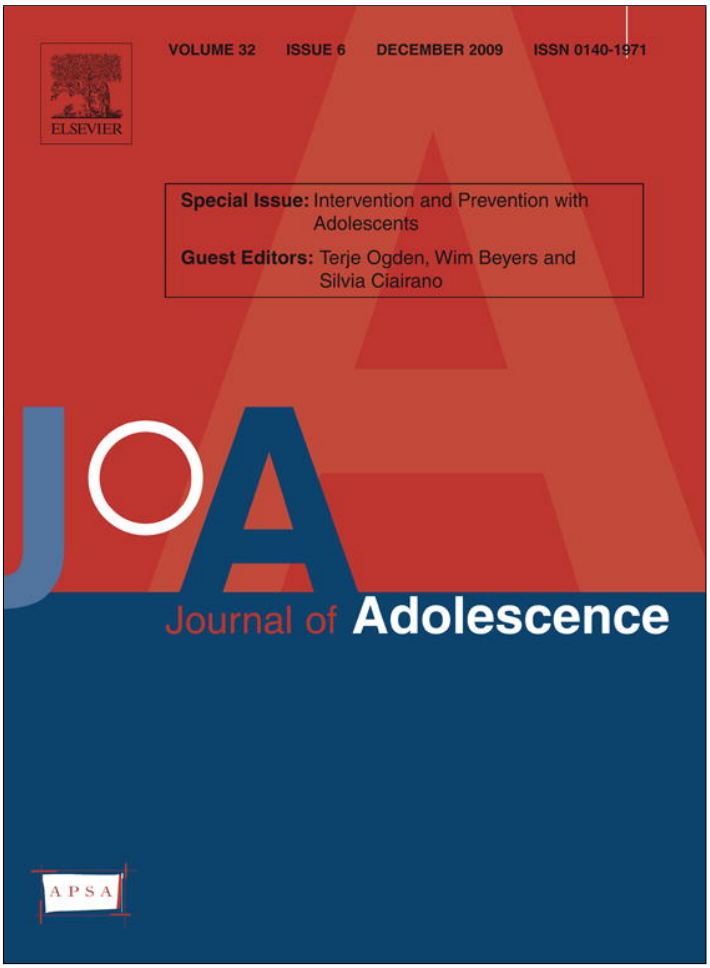

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Exploring the relevance of expressed emotion to the treatment of social anxiety disorder in adolescence

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A B S T R A C T

The role that the involvement of parents may play in the treatment outcome of their children with anxiety disorders is still under debate. Some studies dealing with other disorders have examined the role that the expressed emotion (EE) construct (parental overinvolvement, criticism and hostility) may play in treatment outcome and relapse. Given that some of these aspects have been associated with social anxiety for a long time, it was hypothesized that EE may be associated with lower treatment outcome. The sample was composed of 16 adolescents who benefited from a school-based, cognitive-behavioural intervention aimed at overcoming social anxiety. Then, parents were classified with high or low EE. The results revealed that the adolescents whose parents had low EE showed a statistically significant reduction of their social anxiety scores at posttest, as opposed to adolescents of parents with high expressed emotion. These findings suggest that parental psychopathology (parents with high EE) should be taken into consideration to prevent poor adolescent treatment outcome.

Social anxiety disorder (SAD) tends to be a chronic, stable condition that severely disrupts long-term functioning (Garcia-Lopez, Piqueras, Diaz-Castela, & Ingles, 2008). Its lifetime prevalence in adolescents usually ranges between 2 and 9% (Essau, Conradt, & Petermann, 1999; Fehm, Pélissolo, Furmark, & Wittchen, 2005), with substantially increased risks of depression, suicide attempts, substance abuse, severe social restrictions, early leave of school, lower educational attainment and victimization being found among its most negative detrimental consequences include (Beidel, Turner, & Morris, 1999; Essau et al., 1999; Essau, Conradt, & Petermann, 2002; Ranta, Kaltiala-Heino, Pelkonen, & Marttunen, 2009; Storch & Masia-Warner, 2004; Wittchen, Stein, & Kessler, 1999). Furthermore, SAD often precedes the development of other disorders, such as alcohol/substance misuse, eating, mood and other anxiety disorders (Garcia-Lopez, 2007). Despite this situation, adolescents with SAD are commonly under-detected and therefore, under-treated. Given the serious consequences of childhood anxiety, as well as the lifelong suffering usually associated with this disorder and the economic costs to society involved, it is essential to address anxiety effectively and as early as possible.

In order to palliate this problem, both the Green Paper in Mental Health (European Commission, 2005), and the Surgeon General's report (U.S. Department of Health and Human Services, 1999), designated schools as key settings to identify and address mental health concerns in youth. Particularly for youth with SAD, who are initially reluctant to utilize mental health resources, community-based programs may represent a critical first step in acquiring the appropriate treatment. Transferring

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research-based assessment and treatments into schools and designing empirically supported school mental health services require the consideration of quality and cost, both of which are necessary for the dissemination of such treatments.

Nowadays, developmentally-adapted Cognitive Behavioural Therapy (CBT) interventions aimed at childhood anxiety disorders have been specifically designed and tested. Even though CBT approaches are indeed recognized for their efficacy in overcoming a wide array of mental disorders, as Ollendick and King (2008) have pointed out, several areas remain of concern and require further attention from researchers and clinicians alike. First, although existing psychological and pharmacological treatments hold promise, many youth do not respond completely, thus necessitating further research on augmentative treatment approaches and/or ways to improve existing interventions. Indeed, even though CBT interventions are effective, full remission rates usually range from 40% to 70% and drop-out rates are still considerable (20–30%), which results in many children remaining symptomatic despite their improvement. As a consequence, efforts are to be made to improve the understanding and treatment of childhood social anxiety disorder.

Efficacy studies have identified some treatment strategies that reduce anxiety. However, the role that parents' involvement may play in the treatment outcome of their anxious children is still under debate. In particular, while some studies have suggested better treatment outcomes for children whose parents participate in their children's treatment, others have not corroborated these findings (Garcia-Lopez, Espinosa-Fernández, & Muela, 2007; Garcia-Lopez, Muela, Espinosa-Fernández, & Diaz-Castela, 2008; Spence, Donovan, & Brechman-Toussaint, 2000).

To resolve this issue, some studies working in other psychological fields have examined the role that the expressed emotion (EE) construct (parental overinvolvement, criticism and hostility) may play in treatment outcome and relapse findings in disorders such as mood disorders (Asarnow, Goldstein, Tompson, & Guthrie, 1993; McCleary & Sanford, 2002), bipolar disorder (Honing, Hofman, Rozendan, & Dingemans, 1997), eating disorders (Butzlaff & Hooley, 1998), conduct disorders (Calm, Bolton, & Roberts, 2002; Hibbs, Zahn, Hamburger, Kruesi, & Rapoport, 1992; Vostanis & Nicholls, 1995), psychosis (Marom, Munitz, Jones, Weizman, & Hermesh, 2005) and other anxiety disorders (Chambless & Steketee, 1999; Renshaw, Chambless, & Steketee, 2006; Tarrier, Sommerfield, & Pilgrim, 1999). EE is an index of significant others' attitudes, feelings, and behaviour toward an identified patient that has been shown to predict psychiatric relapse and re-hospitalization across a wide range of mental disorders (Butzlaff & Hooley, 1998; Hooley, 1985, 2007).

EE was originally conceptualized as a dichotomous summary index. Thus, a family member is rated low or high on how much criticism, hostility, and emotional overinvolvement (EOI) s/he expresses toward an identified patient. "High EE" refers to above-threshold levels of criticism, hostility, and EOI, although confirmatory factor analyses suggest that EE is best represented by three factors: Criticism (which is often highly correlated with Hostility), EOI, and Positivity (encompassing Warmth and Positive Comments) (Chambless, Bryan, Aiken, Steketee, & Hooley, 1999).

The EE construct has also proven to be relevant to CBT treatment for adolescents with SAD for three reasons (for a review, please see Fogler, Tompson, Steketee, & Hofmann, 2007). First, adolescents with social anxiety disorder are likely to associate with a reduced number of peers with whom they feel safe, and they are therefore prone to have prolonged periods of contact with a restricted number of people. If social anxiety disorder symptoms are influenced by interactions with low- and high-EE significant others (parents mainly), these highly dependent relationships may result in negative self-attributions by adolescents. Second, childrearing practices as isolation from social events and the use of shame as a means of discipline usually associated with the construct of high expressed emotion (EE). Third, since SAD is associated with acute sensitivity to embarrassment and shame, people with the disorder may be particularly vulnerable to the effects of criticism and hostility.

Given that some of these aspects have been associated with social anxiety for a long time, it was hypothesized that EE may be associated with lower treatment outcome. For this reason, the present study intends to cover this gap in the literature by examining significant others' EE ratings as predictors of treatment outcome in SAD. We hypothesize that parents' high levels of EE will be significantly associated with children's poor treatment outcome.

Method

Participants

The sample was composed of 16 adolescents (76% girls), who ranged from 15 to 18 years ($M = 16.9$, $SD = .68$), and had a primary diagnosis of social anxiety disorder according to DSM-IV-TR (APA, 2000). Exclusion criteria were current psychoactive substance abuse or dependence, active suicidal potential, or a positive diagnosis of mental retardation, psychosis, or other psychiatric conditions that would limit their ability to understand psychotherapy. Adolescents in the sample received the IAFS (Intervencion en Adolescentes con Fobia Social [Treatment for Adolescents with Social Phobia]; Garcia-Lopez, 2007; Olivares & Garcia-Lopez, 1998), that is a school-based, cognitive-behavioural intervention aimed at overcoming social anxiety in adolescents. The parents of the adolescents, or designated significant others living with them (due to parent's death or incarceration), ranged in age from 40 to 51 years, with a mean age of 46.28.

Procedure

At an initial stage, 1931 adolescents (with parents' consent form) were screened. The sample was recruited from two private and eight public high-schools in a medium size state in the south of Spain. Schools were selected by a clustered

random sampling method from the school lists of the Department of Education. Due to the clustered random sampling method, the socioeconomic status and ethnic compositions of the overall sample was representative of the community.

On phase II, those scoring higher than the established cut-off criteria (Olivares et al., 2002) participated, if consent forms signed by a parent or legal guardian were returned by the assessment date. One hundred and sixteen adolescents with a clinical diagnosis were detected and offered a cognitive-behavioural group treatment at school, the above-mentioned IFAS, which was aimed at reducing and/or eliminating their social anxiety symptomatology. Out of those, 29 adolescents and their parents signed the consent forms to go through phase III (intervention).

Consistently with literature on social anxiety (e.g., Garcia-Lopez, Beidel, Hidalgo, Olivares, & Turner, 2008; Garcia-Lopez, Muela, et al., 2008; Garcia-Lopez, Piqueras, et al., 2008), reasons for refusal to enter the trial were the lack of parent's consent form returned, parent's denial of children's social anxiety symptomatology, reported non-availability of time, transportation problems, children's allegations of interference with their academic assignments, fear of novelty and low self-perception of social phobia as a treatable condition. Nineteen parents, or significant others, attended an individual assessment so that it was possible to classify them as having high or low EE. No statistical differences on any measure for those participating in the treatment and those who do not was revealed ($p > .05$). Three adolescents (15%) dropped-out (all parents were classified with high EE).

As a result, 16 adolescents completed the treatment and youth–parent dyad attended an individual assessment so that it was possible to classify them as having high or low EE. The Five Minutes Speech Sample (FMMS) was the criterion measure employed. Parents were appointed for an individual meeting to conduct interview and clarify any issues they could have before intervention started. Two independent, blind diagnosticians with training in FMMS conducted the interviews and coded parent's language (Kappa coefficient: .85). Based on Brown et al. (1972) and Vaughn and Leff (1976)'s guidelines, a family was classified with high EE if one of the parents expressed criticism, hostility or EOI. As a result of this classification, the parents' level of EE (6 parents with high and 10 with low levels of EE) was correlated with their adolescents' levels of social anxiety. Specifically, among parent group with high levels of EE, 90% of parents expressed criticism, 36.3% exhibited hostility and 18.2% EOI.

As far as the implemented psychological treatment is concerned, the IAFS consists of 12 weekly group sessions, each 90-min in length. Techniques include social skills, exposure and Beck's cognitive restructuring techniques. In addition, treatment includes exposure to social situations using peer assistants and video-feedback. Along with group sessions, weekly individual counselling was scheduled as needed. This school-based, cognitive-behavioural intervention has demonstrated its efficaciousness at 1 and 5-year follow-ups (Garcia-Lopez et al., 2002, 2006; Olivares et al., 2002). The treatment was implemented by a child clinical psychologist with more than 10 years of experience in socially anxious adolescents (the first author, who, in fact, developed the treatment), and an advanced doctoral student (fourth author), acting as a co-therapist in all groups.

Measures

Information from our psychological assessment included: (1) identification of specific symptoms and their degree of severity; (2) the context, frequency, and degree of associated distress and functional impairment; (3) the frequency in which the child avoids the feared situation/stimuli; and (4) the adolescent's attitude and level of insight into the symptoms. For a clinical diagnosis of social anxiety disorder and in order to establish a differential diagnosis for adolescents, the *Anxiety Disorders Interview Schedule for DSM-IV, Child Version* (Silverman & Albano, 1996), which is the gold-standard for child anxiety disorders, as well as childhood social anxiety scales were administered at pretest, posttest and a 6-month follow-up.

Five Minutes Speech Sample (FMMS)

Five Minutes Speech Sample (FMMS; Magaña et al., 1986) particularly measures the EE in the family context, asking the parents to talk about the children in a non-directive way. Several studies have indicated reliability and validity of this measure (Leeb et al., 1991; Magaña et al., 1986). Parents, or designated significant others, were assessed for the presence of components of high EE (criticism, hostility and emotional overinvolvement) using this measure. One comment expressing any of these three components reveals high EE.

Anxiety Disorders Interview Schedule for the DSM-IV, Child Version (ADIS-IV-C/P; Silverman & Albano, 1996)

The ADIS-IV-C/P is a semi-structured interview that has proven useful in diagnosing children with a range of anxiety disorders, and also screens for the presence of disruptive behaviour disorders, psychosis, and eating disorders. The Social Anxiety Disorder module assesses the extent to which a child or adolescent fears and avoids various social and performance situations. In that module, 22 situations are assessed and the informant assigns a fear rating (ranging from 0 to 8) to indicate the extent to which the child or adolescent fears that situation. A diagnosis is assigned if a severity rating of 4 or greater is given, on a 0–8 rating of distress/impairment, an overall rating. This assessment procedure enables the clinician to gain precise knowledge of the child's symptoms, including the frequency, intensity, and duration. PhD level psychologists and clinical psychology graduate students were trained to reliability and served as diagnosticians for the study. Good interrater reliability (.84) was observed.

The ADIS-C/P has moderate to strong interrater reliability, adequate concurrent validity and strong retest reliability (Lyneham & Rapee, 2005; Puliafico, Corner, & Kendall, 2007; Rapee, Barrett, Dadds, & Evans, 1994; Silverman, Saavedra, &

Pina, 2001; Wood, Piacentini, Bergman, McCrackne, & Barrios, 2002). This interview has been extensively used in the assessment of children with anxiety disorders (Silverman et al., 2001; Westenberg, Siebelink, Warmenhoven, & Treffers, 1999).

Social Anxiety Scale for Adolescents (SAS-A; La Greca & Lopez, 1998)

This questionnaire is an adaptation of the Social Anxiety for Children-Revised for an adolescent population. The SAS-A contains 22 items: 18 descriptive self-statements and 4 filler items. Each item is scored on a 5-point Likert scale. The SAS-A includes three subscales and a Total score. For Spanish-speaking adolescents, Olivares et al. (2005) found excellent psychometric properties.

Social Phobia and Anxiety Inventory-Brief version (SPAI-B)

Social Phobia and Anxiety Inventory-Brief version (SPAI-B; Garcia-Lopez, Beidel, et al., 2008) is a 16-item screening, self-report inventory that assesses behavioural, physiological and cognitive symptoms of SAD in adolescents. Each item is scored on a 5-point Likert scale. A recent study has revealed that scale has good psychometric properties in Spanish-speaking adolescents (Garcia-Lopez, Beidel, et al., 2008; Garcia-Lopez, Muela, et al., 2008; Garcia-Lopez, Piqueras, et al., 2008).

Results

Non-parametric tests were used given: a) the limited number of youth–parent dyad in each condition (6 parents with high EE, and 10 parents with low EE); b) results from the Shapiro–Wilk test indicating that data are not from a normally distributed population; and c) the inequality of variance, as revealed by Mauchly's sphericity and Levene's tests.

First, between group differences were tested using the Mann–Whitney *U* test. Results revealed the absence of significant differences between the two groups on change scores ($p = .19$). Within group differences were also analyzed. Wilcoxon signed-rank test was used. Means and standard deviations (in parenthesis) for each group and measures are as follows: on the SAS-A/Total score, the group composed of adolescents with parents with low EE showed means of 66.6 (9.42), 47.7 (10.57) and 47 (12.29) at pretest, posttest and 6-month follow-up, respectively. On the SPAI-B, $M = 40.66$ (8.22), 27.96 (15.78) and 24.98 (11.96) at pretest, posttest and 6-month follow-up, respectively. For adolescents with parents with high EE, the scores at pretest, posttest and 6-month follow-up on the SAS-A were as follows: 64.16 (8.79), 50.2 (13.02) and 50 (12.67). Similarly, on the SPAI-B, the means and standard deviations were 38.61 (5.11), 26.64 (13.07) and 25.02 (12.01) at pretest, posttest and 6-month follow-up.

Within group differences analyses results revealed that the adolescents whose parents had low expressed emotion showed a statistically significant reduction of their social anxiety scores at posttest, as opposed to adolescents with high EE parents. Particularly, adolescents with parents with low EE reported significant differences on the SAS-A/Total score, $Z = -2.8$, $p < .05$, and the SPAI-B, $Z = -2.91$, $p < .05$. Furthermore, the effect size for these differences was high. We have adopted the criteria proposed by Cohen (1988), in which .2 means a small effect size, .5 means a medium effect size and .8 means a large effect size. A large effect size allows statistical significance with no hazard for the sensitivity of the research. Effects sizes were high: 1.81 and .97 for the SAS-A/Total score and the SPAI-B, respectively. Contrary to adolescents with parents with high EE, those with parents' low EE also scored significantly lower at the 6-month follow-up as opposed to pretest on the SAS-A/Total score, $Z = -2.7$, $p < .01$, and the SPAI-B, $Z = -2.31$, $p < .05$. No significant differences at posttest as opposed to follow-up were observed, but reduction in scores was maintained at 6-month follow-up.

Discussion

Results suggest that only adolescents with low EE parents benefited from a school-based, CBT intervention, which points out that the EE construct may act as a modelling variable for the treatment outcome. This is consistent with findings found by Chambless and Steketee (1999), who revealed that high levels of perceived criticism by parents toward their anxious children correlated with poorer treatment outcome. In addition, Chambless and Steketee (1999) highlighted that treatment outcome was poorer when parents were hostile. However, as criticism, hostility and emotional overinvolvement were taken altogether, a direct comparison between that study and ours is not feasible.

Our findings are contrary to those reported by Fogler, Tompson, Steketee, and Hofmann (2007), who suggested that criticism and EOI did not predict treatment improvement in adults with social anxiety. This discrepancy may be interpreted based on differences in the sample (adults versus adolescents), assessment procedure, and modality of psychological intervention. Another possible reason is that Fogler et al. (2007) included friends as the 'relatives' and they did not require that the patient resided with the 'relative', a variable which should be considered, since it has been revealed that the cohabitance of the patient and the relative is an important variable to observe (Renshaw, 2007, 2008). Finally, cultural differences and cross-cultural aspects could also explain this divergence of results. Future research should examine these issues.

Given that socially anxious adolescents are reluctant to ask for help due to their social fears, it is crucial to implement pro-active strategies in a context where they spend most of their time. Based on our results, these results support the efficacy of psychological interventions to be implemented in the school setting, in collaboration with school mental health providers, i.e. counsellors. School mental health providers are usually overwhelmed with administrative duties and other time-consuming

tasks. On top of that, they struggle with their time and effort to meet the needs of behaviourally disordered children and those with any internalized disorder (such as anxiety disorders), which results in the psychologists' focus on the former and somehow neglection of the latter.

A limitation of this study is the reduced sample size. This is partly due to children's reluctance to admit their symptoms, as well as parents' reluctance to be assessed. With this purpose in mind, these findings suggest that the presence of high EE in parents must be taken into consideration to prevent poor adolescent treatment outcome, although it must be noted that the greater power for the low EE group might account for the significant findings in that group. As a result, it is crucial to examine if parents with high EE may benefit from this intervention, by including parent training to reduce their levels of expressed emotion, under the assumption that it would lead to a better treatment outcome of their children. Another limitation is that assessment measures were administered only to the adolescents, which may also constitute a drawback in the light of the ongoing debate on whether the parents or the adolescents are the ones who provide more reliable information (for a review, cf. De los Reyes & Kazdin, 2005). Different studies reveal that agreement between parents and adolescents is the exception and disagreement the rule (Comer & Kendall, 2004; DiBartolo, Albano, Barlow, & Heimberg, 1998; Garcia-Lopez et al., 2007; Kramer et al., 2004). As a result, some authors have recommended gathering data from a wide range of informants for the assessment of child anxiety, since findings reveal that the parent–child agreement rates range from low to moderate. La Greca (1998) also maintained that the adolescents should be the main source of information in these cases. However, DiBartolo et al. (1998) found that, even though there was high agreement for the cognitive symptoms, there was inconsistency in avoidance symptoms; in other words, parents were the best informers about this latter area since adolescents were likely to minimize their avoidance symptoms, perhaps as a result of the desire to make a good impression on the evaluator. However, as Garcia-Lopez, Muela, et al. (2008) have reported in a pilot study, adolescents even reported higher levels of feared social situations and symptomatology than their parents did, in a study which only collected data from adolescents.

Overall, our findings seem to suggest that psychological treatments for social anxiety in adolescents result in gains that are maintained and consolidated over a 6-month follow-up interval only for adolescents with low EE parents.

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