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# A Psychoeducational School-Based Group Intervention for Socially Anxious Children

Stephanos P. Vassilopoulos
*University of Patras*

Andreas Brouzos
*University of Ioannina*

Diana E. Damer
*The University of Texas at Austin*

Angeliki Mellou
Alexandra Mitropoulou
*University of Ioannina*

*This study investigated the impact of a psychoeducational group for social anxiety aimed at elementary children. An 8-week psychoeducational program based on empirically validated risk factors was designed. Interventions included cognitive restructuring, anxiety management techniques, and social skills training. Pre- and posttest data from 3 groups conducted over the course of 3 months were combined for a total of 40 participants. Results indicate completion of the group led to a significant decrease on scales measuring social anxiety and negative interpretation of ambiguity, as well as a significant increase in children's self-reported likeability. Implications for practice and future research are discussed.*

***Keywords:*** *children; cognitive-behavioral; group counseling; social anxiety*

Social anxiety (and its overlapping construct of social phobia, see McNeil, 2010) was not an officially defined nosological category until the publication of the *Diagnostic and Statistical Manual of Mental*

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Stephanos P. Vassilopoulos, Ph.D., is an assistant professor in the Department of Primary Education at the University of Patras. Andreas Brouzos, Ph.D., is a professor in the Department of Primary Education at the University of Ioannina. Diana E. Damer, Ph.D., is a clinical psychologist and program director at the Counseling and Mental Health Center at The University of Texas in Austin. Angeliki Mellou, M.Sc., and Alexandra Mitropoulou, M.Sc., are former master students in Psychology-Counseling in the Department of Primary Education at the University of Ioannina. Correspondence concerning this article should be addressed to Stephanos P. Vassilopoulos, Department of Primary Education, University of Patras, Archimedes Street, Building 7, Rio, 26 504, Patras, Greece. E-mail: stephanosv@upatras.gr

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*Disorders, Third Edition* (*DSM–III*; American Psychiatric Association, 1980) and it has been successfully characterized as the "neglected" anxiety disorder (Liebowitz, Gorman, Fyer, & Klein, 1985). In more recent years, however, the situation has changed. It was recognized as one of the major anxiety disorders in the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (*DSM–IV*; American Psychiatric Association, 1994), resulting in a dramatic increase of systematic research into the nature and treatment of social anxiety.

Social anxiety is defined as perceived arousal, reported worry, self-critical thoughts, tension, reports of somatic symptoms, and avoidance behaviors in social situations or in anticipation of entering such situations (Rachman, 1998). The past two decades have shown an increase in the prevalence of social anxiety disorder (Heimberg, Stein, Hiripi, & Kessler, 2000). Although a relatively small percentage of the population manifests a clinically significant level of social anxiety, many more are affected by subclinical manifestations of socially anxious behavior (Henderson & Zimbardo, 2010). Social anxiety disorder prevalence estimates range from 7% to 13% of the at-risk population (those between 18 and 54 years of age) and the occurrence of subclinical forms of the disorder is at least twice that of full syndrome social anxiety disorder (Furmark, 2002; Lecrubier et al., 2000). For some time, social anxiety has been considered either less common among prepubertal children or a natural part of development that children usually "grow out of it" (Kashdan & Herbert, 2001; Lecrubier et al., 2000; Strauss & Last, 1993). Accordingly, much of the social anxiety disorder research focused on late adolescents and adults (Cartwright-Hatton, Reynolds, & Wilson, 2011). However, recent research reveals that socially anxious behaviors, as well as the risk factors associated with its development, emerge in early adolescence (Miers, Blote, de Rooij, Bokhorst, & Westenberg, 2013) and, if left untreated, can persist into adulthood or can lead to secondary disorders (e.g., depression). Concerns over negative evaluation by others and being devalued in social situations have been identified in children as young as 8 years old (Beidel & Turner, 2007).

For individuals with social anxiety, both anticipating and entering an interpersonal interaction can cause a high level of worry and physical discomfort (Clark & Wells, 1995). As a result, affected children avoid engaging in age-appropriate activities such as attending school regularly, playing with children their own age, talking to new people, or going to a birthday party (Kearney, 2005). It is no wonder these children suffer from lack of social contact, low peer acceptance, and low educational attainment (Kuhl, Bender, Kley, Kramer, & Tuschen-Caffier, 2010). The massive damage to the social, cognitive and emotional development of the children associated with social anxiety together with the frequent

persistence into adulthood of untreated problems call for the development of effective intervention programs. Despite the high societal burden of anxiety disorders, there is currently a dearth of indicated prevention interventions for anxiety (i.e., interventions targeting children who are showing low-level symptoms of the disorder) and the few existing programs have yielded mixed results (Lau & Rapee, 2011), suggesting that there is room to enhance their effectiveness. Furthermore, most studies on prevention of anxiety for children do not focus exclusively on social anxiety, and instead pool together participants with different types of anxious symptoms or anxiety disorders (e.g., Liddle & MacMillan, 2010). Thus, the aim of the current study was to develop and evaluate a social anxiety intervention group that meets the unique needs of these children.

Prior to developing an effective intervention program, it is essential to identify and target specific risk factors that influence the onset of the disorder (Zvolensky, Schmidt, Bernstein, & Keough, 2006). Based on accumulating empirical evidence, the majority of anxiety prevention groups address common risk factors such as shy or withdrawn/inhibited behavior, being a child of an anxious parent or of divorce, and anxiety sensitivity (Rapee, Schniering, & Hundson, 2009). With respect to social anxiety specifically, social skills deficits, maladaptive anxiety management strategies, and biased social information processing have all been shown to be correlated with the development of social anxiety disorders (Miers, Blote, & Westenberg, 2011; Spence, 2003; Vassilopoulos, 2008a), and interventions that have targeted these factors (or a combination of them) have been found to be quite efficacious (Olatunji, Cisler, & Deacon, 2010; Spence, Donovan, & Brechman-Toussaint, 2000). Therefore, addressing deficits in social skills, negative coping strategies and maladaptive cognitions is a promising way to intervene in subclinical, mild, and/or moderate childhood social anxiety.

Of relevance to the current study also are the results of recent research which examined developmental trajectories of social anxiety in a non-clinical sample aged 9 to 17 years at initial phase of assessment (Miers et al., 2013). It was found that a burst in social anxiety levels occurs in children around the ages of 9 to 10 years, providing further indication that intervention strategies should be implemented before pre to early adolescence. Crucially, social competence (observer rated social skills) and the tendency to negatively interpret ambiguous social cues were more strongly related to trajectories of social anxiety compared to temperamental variables (e.g., behavioral inhibition). These results highlight the need to improve a child's actual social competence as well as modify dysfunctional cognitions in intervention programs (Miers et al., 2013).

## Cognition and Social Anxiety

Contemporary conceptualizations of social anxiety suggest that cognition plays an important role in the maintenance of the disorder (Clark & Wells, 1995; Hofmann, 2007). In addition, results from a range of studies consistently demonstrate that when presented with ambiguous social information, socially anxious children and adults will often interpret it in an anxiety-provoking fashion (Cartwright-Hatton et al., 2011). For example, a socially anxious person who sees a companion yawn is likely to interpret this yawn in a negative self-confirmatory light, "I am boring" compared to a less anxious person who might interpret it as showing that his/her companion simply had a hard day. Moreover, during the last decade, innovative interpretation training programs have been developed that proved to be successful in modifying negative interpretations for ambiguous cues. In one of them reported by Vassilopoulos, Banerjee, and Prantzalou (2009), children (aged 10–11 years) high in self-reported social anxiety received three brief sessions in which they were presented with a series of ambiguous scenarios (e.g., "During arts education, you ask your classmate for one of his/her crayons but s/he refuses") followed by a benign (e.g., "S/he needs the crayon to finish his/her painting") or negative interpretation (e.g., "S/he dislikes you"). After the children had indicated which interpretation described how they would think in that situation, they were given feedback on what was the "correct" (always benign) interpretation. It was found that the training not only reduced the negative interpretations of the children, but also reduced their social anxiety. The trained group also showed lower anxiety about an anticipated social encounter. Other researchers using computerized interventions have arrived at similar results (e.g., Muris, Huijding, Mayer, & Hameetman, 2008). These findings suggest that negative cognitions in children are malleable, and that interpretation training has a beneficial effect on important aspects of social anxiety. Given that negative cognitions have been identified as a risk factor for social anxiety (Miers et al., 2013), incorporating interpretation training procedures into prevention programs might improve their efficacy.

One strategy for teaching positive thinking is the use of a psychoeducational, problem-focused group counseling model. In classical interpretation training programs, participants work on their own with a series of hypothetical scenarios and it is the experimenter who provides feedback on the "correct" response (for a review, see Hertel & Mathews, 2011). However, these training procedures have been somewhat problematic in that both adolescent and adult participants experience them as extremely boring, cumbersome, meaningless, or

strange (Beard, Weisberg, & Primack, 2012). Moreover, it is the standard procedure in these experimental programs that no explanation for the "correct" response is given, leaving thus some of the participants puzzled about the validity of the feedback provided. To address these, children in the current study are encouraged to work together in small groups to produce and challenge interpretations by critically analyzing information that is presented in a problem scenario. Thus, during cognitive restructuring, students are presented with a problem scenario that reflects an ambiguous social interaction. The students first identify the facts in the scenario or what they know, hypothesize possible interpretations for the described situation, and determine which interpretation is the most helpful or rational one. Finally, students are encouraged to role play the scenarios and apply the knowledge and skills they have acquired in real-life social situations. In that way children are not only passive recipients of experimenter-provided interpretation training but active problem-solvers, and their communication skills, complex reasoning, and critical thinking are enhanced. Moreover, the whole procedure is more enjoyable, intuitive, and engaging. Problem-focused group interventions have been successfully applied to help students overcome negative peer pressure (Hall, Rushing, & Khurshid, 2011) or deal effectively with bullying (Hall, 2006). In general, they are considered to be one of the most effective group counseling strategies with children and adolescents (Gerrity & DeLucia-Waack, 2007; Hall et al., 2011).

## The Current Study

In an elementary school setting, groups can be used effectively for remedial and prevention purposes (Akos, 2000). The group counseling format also provides a means of learning and practicing the social skills necessary to function in close relationships (Corey & Corey, 2006; Vassilopoulos, Koutsopoulou, & Regli, 2011). Based on the recommendation that primary prevention programs should focus on empirically validated risk factors (Zvolensky et al., 2006), a social anxiety group was created, which capitalized on the recent finding that negative cognitions and lack of social competence are risk factors for the development of social anxiety in preadolescent children (Miers et al., 2013). The school-based intervention was designed to be comprehensive, relatively short in session length and overall time and to be delivered in a group format to provide a minimally resource-intensive program (Gerrity & DeLucia-Waack, 2007). The content topics of the program include anxiety management, cognitive restructuring, and social competence. In order to include a cognitive restructuring component, interpretation training was adopted as an important part of the group.

By working actively on specific hypothetical scenarios, socially anxious children have the opportunity to identify and evaluate negative cognitions by examining the evidence for and against and search for alternative explanations. The main purpose of this article was to describe an eight-week group intervention program for childhood social anxiety and to conduct a preliminary investigation of its efficacy using a one-group pre- and posttest design. It was hypothesized that pre–post intervention results would indicate a decrease in social anxiety, comorbid depressive symptoms and negative cognitions, as well as an increase in social skills.

## METHOD

### Participants

Participants were Greek elementary children ($N = 40$) enrolled in the fourth through sixth grades in a suburban, public school in north-western Greece. All children were fluent in Greek. No exact information was obtained on the socio-economic background of each individual child, but it should be noted that the school on which the study was carried out was attended by children from a middle- to upper-high class background.

Identification of appropriate children for intervention through children's self-reports has been considered advantageous compared to other methods (e.g., on the basis of parent or teacher nomination) because it allows greater access to internal processes (Lau & Rapee, 2011). Therefore, to include students with medium to high levels of social anxiety, only children scoring at or above the mean on the Social Anxiety Scale for Children–Revised (SASC–R; La Greca & Stone, 1993), a self-report measure of child social anxiety, were selected for participation. There were 13 male and 27 female participants—all of whom were Caucasian. There were 18 participants in the fourth grade, 13 participants in the fifth grade and 9 participants in the sixth grade. Age ranged from 9 years to 11 years. The participants were randomly assigned to three groups, each consisting of 9 to 16 members. For administrative reasons, we combined students from different grades in the groups, with the exception of the third group which consisted exclusively of sixth graders. In combining the age groups, we also hoped to enhance the opportunity for therapeutic factors such as interpersonal learning, universality, and imitative behavior (Yalom, 2006) to emerge. Parents were fully informed of the extent and nature of the study and completed permission form to allow their children to participate, in line with the best practice guidelines of the Association for Specialists in Group Work (1998).

## Instrumentation

*Social anxiety assessment.* Participants' social anxiety was measured with the Greek version of the SASC–R, a 22-item scale that assesses children's subjective feelings of social anxiety during various social situations and its correlates, including avoidance and inhibition. In the present study a 3-point scale (0 = *never true*, 1 = *sometimes true*, 2 = *always true*) was used instead of the original 5-point scale to make it more straightforward and simple for the children. A threshold of 12 (see Vassilopoulos, 2008b) was used as a cutoff for the initial identification of children with moderate and high levels of social anxiety. For the present study, Cronbach's alphas were .69 at preassessment and .70 at postassessment.

*Depression assessment.* Participants' depression was measured with the Greek version of the Children's Depression Inventory–Short Form (CDI; Kovacs, 1992). The CDI is a 10-item questionnaire designed to assess the presence of depressive symptoms in children and adolescents aged between 7 and 17. The standard response scale (1 = *absence of symptom*, 2 = *mild symptom*, 3 = *definite symptom*) was used. For the present study, Cronbach's alphas were .65 at preassessment and .72 at postassessment.

*Interpretation bias assessment.* This test was based on a measure of interpretation biases developed by Vassilopoulos and colleagues (2009). A series of 18 ambiguous social scenarios were presented which reflected events that commonly occur and are relevant for the age group in question, such as inviting classmates to your birthday party some of whom do not reply, approaching a group of peers who stop talking upon seeing you, and going to your classmate's home to play together where nobody opens the door for you. Each description was followed by two thoughts which sometimes occur to people in these situations. One interpretation always involved a negative judgment about oneself and the other interpretation involved a benign judgment of oneself or the situation. For example, the interpretations in response to the above mentioned situation "You go to your classmate's house to play together. You ring the bell, but nobody opens the door" could be: (a) S/He doesn't want to open the door because I'm boring (negative interpretation); and (b) The classmate is not at home (benign interpretation). Participants rated the explanations in terms of the extent to which they would be most likely to come to their mind if this event had happened to them, using a five-point Likert scale ranging from 1 (*I would not think of it at all*) to 5 (*I would think of it immediately*). Negative and benign interpretations per situation were shown in a

fixed random order. Half of the event descriptions were presented at preassessment and the other half of the descriptions were presented at postassessment. For the current sample, Cronbach's alphas were .72 and .78 (for negative and benign interpretations, respectively) at preassessment, as well as .86 and .80 (for negative and benign interpretations, respectively) at postassessment.

*Social skills assessment.* Perceived social skills were measured with the Greek version of the Children's Self-Report Social Skills Scale (CS4; Danielson & Phelps, 2003). The CS4 is a brief 21-item questionnaire rated on a five-point Likert-type scale ranging from 1 (*never*) to 5 (*always*). Fourteen of the items measure pro-social skills and seven of the items measure poor social skills. Test-retest reliability was reported to be adequate-to-good and internal consistency was found to be excellent (Danielson & Phelps, 2003). Component analysis revealed three reliable components: adherence to social rules, likeability, and social ingeniousness. However, reliability analysis with the current sample revealed that the social ingeniousness subscale had unacceptable low scores (Cronbach's alphas $<.30$) and was dropped from further analyses. For the other two subscales, Cronbach's alphas were .70 and .73 (for social rules and likeability, respectively) at preassessment and .83 and .62 at postassessment.

## Procedures

Participation in the study was completely voluntary. First, 87 children from 5 classrooms in the same school completed the standardized measures during class hour (preassessment). Then, students who scored at and above the average on the SASC–R were approached by the group leaders and asked to participate in the program. The process and procedures were then described, and students were given the opportunity to ask questions or seek clarification. None of the students approached declined to participate. Consent forms were also distributed to the parents, all of whom agreed to allow their children to participate.

The first group meeting took place two weeks after the administration of the standardized measures. The three groups were led by the same co-leaders on the same day (but at different times) for 40 min per week for eight consecutive weeks. No classroom teachers were present during the group sessions; however, an independent observer (a counseling psychology trainee) attended all sessions and silently took notes on the group process. All sessions were held at the school, in a quiet, spacious and well-lit room and they followed roughly the same format from week to week. They began with a brief introduction to the topic of the session and an invitation for group members to check-in. After the check-in, the

topic of the day and group exercise were introduced. After completion of the group exercise and discussion, the remaining time was spent in further sharing and discussion followed by a brief check-out. The program was delivered in the city of Ioannina, Greece, from January 2012 to March 2012. The re-administration of the measures (postassessment) took place one week after the completion of the program.

Group co-leaders were two female masters's students from the Counseling program in the Department of Primary Education at the University of Ioannina. Both co-leaders had attended a postgraduate level group counseling course and one of them was a school teacher by profession with nine years of teaching experience in elementary schools. Co-leading a psychoeducational group for children was done in partial fulfillment of the requirements for the degree of Master of Science in School Counseling. Their leadership style combined person-centered counseling (e.g., active listening, reflection, empathy) and active teaching techniques (e.g., psychoeducation, feedback, modelling, role play, and problem solving). Co-leaders submitted weekly group plans and group summaries to the course instructor (first author) and received supervision on a regular basis.

## OVERVIEW OF THE SESSIONS

### Session 1: Breaking the Ice

To help children learn each other's names and express themselves in unique and creative ways, the leaders use an icebreaker, such as the following: All children sit in a circle and each student announces his or her name while stepping forward and striking a pose that reflects his or her personality. Then everyone else jumps forward and copies the members' voice and movement. Afterwards, the circle returns to normal and it's on to the next person. The next activity has to do with the establishment of basic ground rules for the group. Children break into smaller groups and each group works on a piece of cardboard with two small holes at each horizontal side. The leaders ask the members of each group to write on the cardboard two basic rules and then draw a relevant picture. Then all the cardboards are strung together making the "Little Rug of Rules." If children neglect to mention some basic rules, the leaders can facilitate their identification via a brief brainstorming process.

### Session 2: A Cube Full of Feelings

Identifying and exploring one's feelings is a primary concern. Elementary children in particular do not have a vocabulary for their

emotions readily available, and this must be addressed before the more difficult work of the group can proceed. This can be done by presenting a poster showing faces that express various feelings and asking students to identify the kind of emotion/feeling each face expresses. We also ask children to use a list of emotions to identify what they feel in various situations (e.g., when they have an argument with their best friend or when the teacher criticizes them in front of the class). The final activity of the session is the "Feelings cube toss," where the children with the helping hand of a paper cube showcasing a drawing of different emotions share their stories of when they have felt these emotions. At the end of the session, the experience is processed and children are helped to understand how their emotions affect their actions, which in turn contributes to their sense of commonality (Jacobs, Masson, Harvill, & Schimmel, 2012) and universality (Yalom, 2006).

## Session 3: Making and Keeping Friends

Identifying personal qualities and assisting children in making new friends and keeping them is an essential component of a group for social anxiety. Although not all socially anxious children lack social skills (Cartwright-Hatton, Tschernitz, & Gomersall, 2005), they are often so concerned with *being negatively evaluated* that they considerably restrict their social life to the point of becoming isolated. To assist children in recognizing a variety of ways to which they can develop connections with others, we first ask them to come up with definitions of friendship by completing the sentence "Friendship is . . ." Then children break into small groups or pairs and collaborate to develop a list of social skills named "Keys" for making and keeping friends (O'Rourke & Worzbyt, 1996). Time is allowed for the groups to share their "keys" with others and make a master list of "keys to friendship" to which they can refer every time they want to initiate or maintain relationships with others. For a homework assignment, children could try to try to apply these "keys" to their everyday life and briefly discuss at the beginning of the next session whether the "keys" have worked for them and in what way.

## Session 4: The "Mystery" of My Stress

The goal of this session is to provide an opportunity for students to begin to identify some of their own personal stressors, analyze situational factors and identify ways they cope with their stress. One way to do this is to ask children to identify their stressors, choose one at random and begin to evaluate it by asking questions that should begin

with the words "What," "When," "Where," "Why," "Who," and "How." This procedure provides the students with necessary information to begin to unravel the "mystery of their stress" and to realize what their stress "triggers" are. Next, we give students a copy of the Stress Attitude Survey (O'Rourke & Worzbyt, 1996) and allow 3 to 5 min for completion. Sample items from this survey are: "My thoughts cause much of my stress" and "The best way to manage stress is to learn to relax." The leaders read each item of the survey out loud and encourage students to "take a stand" on the survey issues by physically moving to the sign that denotes their attitude on the particular item as it is read. A brief discussion of reasons for each position between those who agree and those who disagree can follow. In this way, children become aware of their personal attitudes and beliefs related to stress and compare them with the attitudes of others in the group.

## Session 5: The Stress Shield

This session starts with the group members being informed that "we all become anxious in certain situations; however, sometimes our anxiety feelings are so intense that they affect us negatively. For example, some children become so tense and jittery before an anxiety-provoking event (e.g., school examinations) that they experience racing heart, shaking, stomach discomfort, and sweating. The following action plan can help us remain calm and manage our stress." Then, a copy of the Action Plan for Managing Stress is handed to the children, which involves various techniques and activities they could use to control and manage their stress and anxiety. This plan consists of three steps: The *Act* step (e.g., activities that can help relieve stress such as making a call to a friend, watching a movie, going for a stroll, etc.), the *Breathe Deeply* step (e.g., various relaxation skills such as deep breathing, progressive muscle relaxation, and creative visualization—imagine you are in a beautiful place) and the *Get Out of the Anxiety Trap* step (e.g., children are taught to refrain from engaging in unproductive thoughts about an impending, anxiety-provoking situation by implementing one of the previous steps). The leaders explain each step in detail and ask children whether they had tried any of the strategies in the past and what the results were. Children also share their own personal ways to relax and these are included on the list.

The second activity involves providing children with an opportunity to identify some of the personal qualities, life skills, and coping skills that will help shield them from life stressors. Children are provided with a copy of the Stress Shield (O'Rourke & Worzbyt, 1996) and are encouraged to think about the kinds of "built in shields" against stress that are already present in their life. According to O'Rourke and Worzbyt,

these "stress shields" come in many areas, the most common being in the areas of Attitudes (beliefs that you have that help you view things in a positive manner), Life Experiences (experiences that you have had that had taught you to manage stress), School and Family Supports (people in your life that are nurturing and caring), and Personal Habits (things you do that help you release tension). Adequate time is allowed for each child to complete a "stress shield," identifying in each of the four areas the things that will protect him or her from life stressors. Finally, the leaders invite children to share their "shields" with the whole group and emphasize the differences among group members, suggesting that this is a further indication that everyone in the group is different and unique.

## Sessions 6 and 7: Looking at the Bright Side

There is increasing empirical evidence suggesting that socially anxious children tend to perceive ambiguous social information in a more negative manner than their less anxious counterparts (Miers et al., 2011). Specifically, it has been reported that socially anxious youths are more likely to endorse negative interpretations and less likely to endorse benign interpretations in response to ambiguous hypothetical vignettes (Miers, Blöte, Bögels, & Westenberg, 2008; Vassilopoulos & Banerjee, 2008). Thus, cognitive restructuring and, in particular, interpretation training is a critical factor in the success of every psychoeducational program for socially anxious children. In the current study, a problem-focused group intervention was employed in which children work actively on several hypothetical social scenarios and try to evaluate alternative (negative and more benign) interpretations by examining the evidence for and against each of them.

First we emphasize that it is the thoughts and interpretations that cause anxiety rather than the situation itself and that negative thoughts can lead to more anxiety feelings. Next, to help children realize that there are benign as well as more negative ways to see the same situation, children are presented with the following hypothetical scenario:

> You invite your classmates to a party at home on your birthday. Some children, however, haven't yet told you if they will come.

The group members discuss the scenario and make a list of possible interpretations. For example, using the above scenario, alternative interpretations may include the following; (a) They will not come because they don't like me (negative disambiguation) (b) They don't know yet if they will be able to come (benign disambiguation). The leaders record the interpretations onto a large sheet of bulletin board paper so that all group members can clearly see the possible

interpretations of the scenario. While recording the interpretations, the leaders facilitate a group discussion about the multiple ways of seeing the same thing. They could also display a coin to children to illustrate that just as every coin has two sides, there are different and often opposing views of a given situation.

Next, children work as a group to discuss the available evidence in favor or against each possible interpretation and end up with the most rational or helpful one(s). Groups leaders point out how the way we interpret an event can negatively affect our emotional state and behavior during a social interaction and create a self-fulfilling prophecy: Students who perceive ambiguous social cues as signs of negative evaluation by others may engage in counterproductive behaviors such as avoiding eye contact, talking less, or refraining from revealing much about themselves. This causes them to appear aloof or "weird" to others, which might elicit the negative social evaluation they were trying to avoid. The leaders further highlight the point that when students are faced with any ambiguous situation, it is crucial for them to focus on factual information related to the situation and not on what they assume about the situation.

Next, children get into smaller groups or pairs to work collaboratively on a couple of ambiguous hypothetical vignettes. Their task is to read each vignette carefully, generate as many alternative interpretations as possible, and ultimately agree on the most rational and realistic disambiguation of the story. They then come back to the large group and present the rationale for their choice. If children are vacillating between two equally plausible interpretations, the leaders can invite them to give priority to the more benign one and spare themselves unnecessary and health-damaging worry.

In order to engage children emotionally in the stories, the seventh session involves role playing scenarios that reflect an ambiguous social interaction, with each child taking on the role of a character in the story. This provides a nice opportunity for some children to start monitoring their automatic ("on line") thoughts and to compare them with the thoughts of other children participating in the role play. Questions that assist in exploring this activity include the following: How did you feel during the event? What kind of thoughts occurred to you during the event, either positive or negative? On what evidence were they based? How did they affect you? How much did you believe in them at that time? How much do you believe in them now? (Additional training materials and group exercises are available from the first author).

## Session 8: Saying Goodbye

It is important for children to realize that, although their relationship as members of this group is coming to end, they can continue to be

friends and support each other after the termination of the sessions (DeLucia-Waack, 2006). To encourage children to reflect on their experience as group members and express their feelings about its termination, we ask them to draw a picture of a path that symbolizes their progress in the group. They are then encouraged to share their pictures with the whole group. Some questions that could be asked are as follows: Are there any important or dangerous places along this path? Where does this path lead to (please draw)? What similarities do you see between your drawing and those of other group participants? What feelings emerge for you during this drawing experience? There is also an opportunity for children to express their appreciation and positive feelings about the leaders and other members. Leaders provide links to the future by reminding children of the caring and nurturing persons in their life and the life skills they have learned for coping with stress. The session ends with a celebration of what has been accomplished in the group, during which children received a portfolio with their completed assignments and a brief summary of each group session as well as a special certificate commemorating their participation.

## RESULTS

All 40 participants finished the program, resulting in complete pre- and posttest data. Where applicable, a Bonferonni correction for multiple comparisons was used to control for the familywise error rate (Type I error) with an alpha of 0.025 (0.05/2 for two $t$-tests). Skewness and kurtosis statistics yielded non-significant results, indicating normal distribution of the data and the appropriateness of parametric statistics.

First, correlations among the variables of interest at pretest were examined. As expected, social anxiety symptoms at pretest (SASC–R) correlated significantly with negative interpretations of ambiguous events, $r = .41$, $p = .009$. Depressive symptoms (CDI) was negatively related to adherence to social rules, $r = -.43$, $p = .004$, and likeability, $r = -.40$, $\mathrm{p} = .01$. See Table 1 for a complete description of correlations at pretest.

Paired samples t-tests were performed to compare pre- and posttest ratings on SASC–R, CDI, Social Rules, Likeability, and negative and benign interpretations of ambiguous events. A significant decrease from pretest ($M = 20.22$, $SD = 4.87$) to posttest ($M = 15.66$, $SD = 4.93$) was found for SASC–R, $t(39) = 5.06$, $p < .001$. A significant decrease was also observed from pretest ($M = 3.64$, $SD = .66$) to posttest ($M = 2.78$, $SD = .87$) for negative interpretations, $t(39) = 6.38$, $p < .001$. A significant increase was also noted from pretest ($M = 3.00$, $SD = .79$)

**Table 1 Intercorrelations Between Variables of Interest at Pretest**

| | *1* | *2* | *3* | *4* | *5* | *6* |
|---|---|---|---|---|---|---|
| 1. SASC–R | — | .23 | .41** | .20 | −.20 | .02 |
| 2. CDI | | — | −.06 | −.10 | −.40** | −.43** |
| 3. Negative Interpretations | | | — | .12 | −.07 | .18 |
| 4. Benign Interpretations | | | | — | .27 | .18 |
| 5. Likeability | | | | | — | .43** |
| 6. Social Rules | | | | | | — |

*Note*. $N = 40$. SASC–R = Social Anxiety Scale for Children-Revised; CDI = Children's Depression Inventory.
**$p < .01$, two-tailed.

to posttest ($M = 3.70$, $SD = .72$) for benign interpretations, $t(39) = 3.64$, $p = .001$. The increase in children's self-reported likeability was also significant from pretest ($M = 13.62$, $SD = 3.28$) to posttest ($M = 14.92$, $SD = 2.84$), $t(39) = 2.99$, $p = .005$. The change for CDI did not reach significance from pretest ($M = 14.18$, $SD = 2.71$) to posttest ($M = 13.60$, $SD = 2.87$) but was in the direction expected, $t(39) = 1.77$, $p = .084$. Finally, the change for adherence to Social Rules did not reach significance from pretest ($M = 51.80$, $SD = 5.53$) to posttest ($M = 50.32$, $SD = 7.15$) and was not even in the direction expected, $t(39) = 1.75$, $p = .087$. Effects sizes (Cohen's $d$) were computed by dividing pre- and posttest differences by the pretest standard deviation. The analyses yielded moderate to very large effect sizes: SASC–R, $d = .93$, negative interpretations, $d = 1.11$, benign interpretations, $d = .92$, Likeability, $d = .42$.

In order to increase statistical power, we used the combined data from the three groups to perform the initial analyses. However, to

**Table 2 Pre- to Posttest Change and Effects Sizes for Variables of Interest for the Three Groups**

| *Gender (f:m)* | *Group 1 (11:4)* | *Group 2 (11:5)* | *Group 3 (5:4)* |
|---|---|---|---|
| Change in SASC–R (ES) | 5.74 (1.18)** | 3.50 (0.68)* | 4.45 (0.91)* |
| Change in CDI (ES) | 0.13 (0.05) | 1.07 (0.37) | 0.44 (0.27) |
| Change in Negative Interpret. (ES) | 1.06 (1.66)** | 0.71 (0.82)** | 0.75 (0.93) |
| Change in Benign Interpret. (ES) | −0.72 (0.81) | −0.41 (0.63) | −1.12 (1.76)** |
| Change in Social Rules (ES) | 3.26 (0.53) | 0.25 (0.03) | 0.66 (0.10) |
| Change in Likeability (ES) | −0.47 (0.16) | 1.43 (0.42)* | −2.44 (0.83)** |

*Note*. SASC–R = Social Anxiety Scale for Children-Revised; CDI = Children's Depression Inventory.
*t-test is significant at the .05 level, two-tailed; **t-test is significant at the .01 level, two-tailed.

investigate the efficacy of the intervention for each group separately the analyses were re-examined at the individual group level. Similar effects were found with slightly less robust effect sizes due to the significantly reduced number of participants in each analysis. See Table 2 for results of each individual group.

## DISCUSSION

The results of this study indicate that participation in a psychoeducational group for elementary school students may contribute to reducing social anxiety symptoms and negative interpretations for ambiguous events and increasing benign interpretations and self-reported likeability (the latter measured by the CS4). Children's adherence to social rules, however, was not improved as a result of their participation in the group. In addition, comorbid symptoms like self-reported depression were not reduced as much as core symptoms by the intervention, suggesting that the intervention program was specific to the disorder of social anxiety.

These results are interesting for several reasons. First, this is the first intervention that targeted dysfunctional cognitions in school age children using a problem-solving group activity. Second, although most social anxiety programs are housed outside of public schools (e.g., Melfsen et al., 2011; Spence et al., 2000), this program is unique in that it was specifically designed to build upon students' current academic experience. This was important as school-based preventions are generally considered to be advantageous since they can ultimately reach a large number of children (Neil & Christensen, 2009). Finally, most school-based interventions for childhood social anxiety have been conducted with adolescents in grades 9 through 11 (e.g., Masia-Warner et al., 2005). These results, however, come from a fourth, fifth, and sixth grade cohort.

Several characteristics of this program may account for the positive results observed here. One strength is that the group was carried out with a population at-risk for developing a social anxiety disorder. The meta-analytic review conducted by Fisak, Richard, and Mann (2011) indicates that the type of prevention program utilized (i.e., universal vs. targeted) is a significant methodological factor that affects program effectiveness. Second, previous research recommends early intervention efforts (Miers et al., 2013), as school-age children may benefit from cognitive aspects of the intervention program (Lau & Rapee, 2011) and there is evidence that negative cognitive style is malleable prior to puberty (Muris et al., 2008; Vassilopoulos et al., 2009). Thus early interventions may prevent consolidation of a negative cognitive

style which marks socially anxious behavior (Beck, Emery, & Greenberg, 1985) and may help children develop cognitive skills that they will use later in life to cope with possible stressors (Lau & Rapee, 2011). The results are also in line with previous research that has shown younger children (9–10 years of age) report greater improvements in anxiety symptoms than older participants (aged 14–16) after intervention (Lau & Rapee, 2011).

Other strengths of this psychoeducational program are that it is well-structured and is easily integrated into school curriculums. Specifically, the program described in the current study was implemented mainly during the "Flexible Zone," which is a two-hr-per-week curricular innovation in Greece targeting social integration in elementary education. In FZ students and teachers can design, develop and implement projects using holistic and participatory approaches with themes and problems of everyday life, with the ultimate goal of enhancing the sense of self-trust to students and covering their needs. In addition, for some time it was thought that cognitive interventions were inappropriate for children due to their concrete thinking, time-limited perceptions and egocentrism (Melfsen et al., 2011). However, the present study demonstrated that a problem-focused group counseling activity is effective in reducing negative cognitive style in children as young as 9 years old, with the additional advantage that children have the opportunity to practice their communication skills and critical thinking. Although it is unclear which components of the group contributed to its efficacy and in what capacity these components impacted the results, this study provides further evidence for existing research supporting the use of problem-focused group counseling strategy with children (Hall, 2006; Hall et al., 2011).

We mentioned that children reported greater likeability after the prevention program was over. However, contrary to our initial hypotheses, no pre–post change in the adherence to social rules was identified, suggesting that the intervention was only partially successful in increasing social competence in children. Interestingly, the pre–post change was not even in the expected direction, with children reporting somewhat lower adherence to social etiquette after the intervention compared to their baseline scores. In retrospect, we speculate that this is probably due to the subscale's emphasis on social conventions and good manners (e.g., "I say thank you when someone does something nice for me"), whereas the program went beyond social etiquette and emphasized the establishment of authentic and intimate connections with others. Alternatively, it may be that one session on social skills may not have been enough to address all aspects of an issue. More research is needed on this point.

## Limitations

One clear limitation is the lack of a control group, introducing threats to the study's internal validity. However, the use of multiple dependent measures in the current study could help minimize threat (Coryn & Hobson, 2011). A second limitation is that the absence of a follow-up assessment makes the long-term effects of the program unclear. A third limitation is that this study relied exclusively on self-report, so it is possible that demand characteristics could have played a role in the effects of the program (although similar results were observed in each of the three individual groups). Future studies should include multi-informant and/or behavioral measures in order to evaluate the impact of the psychoeducational group on social anxiety symptoms.

We must also acknowledge the limitations of our sample. The program was implemented in a rather homogeneous sample of elementary children of Greek origin enrolled in a suburban, middle class public school. How our findings reflect the behavior of other ethnic and cultural groups is unclear. For example, in Japan social anxiety disorder is manifested as an extreme fear of offending others (a condition called *taijin kyofusho*) rather than a fear of negative evaluation by others (Kleinknecht, Dinnel, Kleinknecht, Hiruma, & Harada, 1997). Thus, a psychoeducational program designed to address social anxiety disorder in Eastern cultures may have to be adapted accordingly to capture the essence of the disorder in these cultures. A related issue is that this program was implemented in Greece at a time of great financial crisis and political instability. However, it is not clear how the current fiscal and political situation in Greece may have impacted on the implementation or the efficacy of the group. Another limitation is that this psychoeducational program was implemented by university research staff and future studies should investigate the implementation of the program by school site staff or community counselors to determine its viability as an intervention option. In particular, the use of lay providers is cost-effective and facilitates the widespread dissemination of intervention programs (Fisak et al., 2011). Another issue is that no systematic assessment of the program fidelity was carried out. However, both the co-leaders and an independent observer who was present during the sessions reported that most of the interventions were carried out as planned. A final limitation is that it remains unclear which content components of the group or characteristics of the procedure produced the significant impact that was found. However, we did utilize separate qualitative and quantitative data collection methods to capture the process of the group; these results will be reported in the future.

## Conclusions and Implications for Counselors and Mental Health Professionals

An increasing number of young children are being diagnosed with social anxiety disorders. Mental health professionals, school counselors, and educators are faced with the challenge of creating a learning environment or an intervention that addresses the special needs of these children. Within the school setting, in-class group work may prove to be valuable in the prevention of emotional and behavioral difficulties and promotion of health and well-being. Using group interventions to assist preadolescent children in coming to grips with their anxieties, fears, and concerns, while developing effective ways of challenging their negative cognitions, coping with stress and negative experiences within and outside their school environment is one possible strategy for reducing the risk of developing an anxiety disorder. It may also show these children that there are safe and positive people and experiences within the school setting, people and experiences that may empower them in their studies and social interactions. Although further investigation is needed, the present findings add to a growing body of evidence that demonstrates that psychoeducational group work is a promising intervention for school age children.

Another implication for counselors is that we can alter maladaptive patterns of interpretation in preadolescent children, thus preventing them from being consolidated during adolescence (a critical period, during which disruptions to neural circuits and associated information-processing can have long-lasting effects on emotional development, see Leonardo & Hen, 2008). Specifically the use of a problem-solving strategy and role-playing activities for altering negative cognitions was an interesting and novel part of this program and children appeared to enjoy both activities and engage in them. However, counselors are warned against encouraging the discussion of alternative interpretations regarding ambiguous vignettes with a same-gender peer, either in pairs or in small groups. It has been suggested that girls are more likely to report higher fear levels as well as endorse the more negative interpretations of ambiguous vignettes after a discussion with a same-gender peer than boys who evaluate the negativity of a situation after having talked about this with a same-gender peer (Muris & Rijkee, 2011). Therefore, if there is a need to break the whole group assembly into smaller groups during the cognitive restructuring part of the program, the formation of mixed-gender subgroups appears to be the optimal strategy.

A final implication is the issue of early prevention of social anxiety. Preadolescent children are often not considered a high priority for prevention programs, and most primary or universal prevention programs

tend to focus on older children and adolescents. (The only exception is the FRIENDS program, a widely used and well investigated universal prevention program for anxiety (Lowry-Webster, Barrett, & Dadds, 2001). However, the interventions used in the FRIENDS program do not directly address the specific nature of social anxiety, and separate analyses of those participants suffering from social anxiety disorders have yet to be conducted.) However, this may affect program effectiveness since the problematic level of social anxiety appears to develop at an earlier age. We hope that the group model presented here serves to provide school counselors and mental health professionals with intervention strategies to combat maladaptive cognitions and unhelpful coping strategies demonstrated by socially anxious children as young as 9 years old.

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