Maladaptive and Protective Parenting Behaviors in the Context of Exposure for Youth with Social Anxiety Disorder

Scholar of the College Project

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Abstract

Prior research has demonstrated that parental control, parental criticism, and parental acceptance are associated with social anxiety in youth (Wood, McLeod, Sigman, Hwang, & Chu 2003). However, researchers have not examined how these parenting behaviors might impact youth treatment responses. Research in this area has also relied almost exclusively on self and child-report measures. The current study used a newly developed behavioral observation coding system to observe: (1) parental control; (2) parental criticism; (3) quality of parent-child interaction (parental acceptance); (4) parental monitoring of youth anxiety; and (5) discussion of emotion in the context of a public speaking exposure therapy for socially anxious youth (n=39) ages 8-16 years (M = 10.82, SD = 1.94). It was hypothesized that (1) parents of socially anxious youth would exhibit higher levels of parental control, parental negativity, and parental monitoring of youth anxiety, (2) that the quality of interaction would be lower in socially anxious parent-child dyads, and (3) that parents of socially anxious youth would be less likely to discuss emotions with their children. Results demonstrated that parents of socially anxious youth offered significantly more praise than parents of non-socially anxious youth, \(F(1, 33) = 5.662, p = 0.023\). Parents of socially anxious youth also offered higher levels of directive help \(F(1, 33) = 3.713, p = 0.063\), although this finding was only trending towards significance. Potential explanations for these findings are discussed and directions for future research are offered.
Introduction

Social phobia is one of the most prevalent pathologies for youth, with an estimated lifetime prevalence rate of 12.1% (Ruscio et al., 2008). Social phobia in youth is associated with social isolation, academic impairment and truancy, and the development of depression and substance abuse (Beidel, Turner, & Morris, 1999). If left untreated, the disorder continues to impair functioning into adulthood across both social and academic domains (Beidel, Fink, & Turner, 1996).

The chronic course of the disorder and its significant associated impairment highlights the importance of the development of effective treatment programs for anxious youth. Several treatments have been developed to date. The most common treatment for youth anxiety is child-focused Cognitive Behavioral Therapy (CBT), which is classified as a “probably efficacious” treatment for childhood anxiety disorders (Albano and Kendall, 2002). However, there is considerable variability in treatment response rates to CBT across studies (Barmish & Kendall, 2005). Therefore, factors associated with treatment response rates must be identified in order to enhance treatment efficacy. Parenting may be one such factor.

Several studies have supported the intuitive hypothesis that parent behaviors are associated with youth treatment outcomes. For example, Crawford & Manassis (2001) found that child perceptions of high family dysfunction predicted poor treatment outcome. Berman et al. (2000) found that parent psychopathology differentiated positive and negative treatment responders. These findings suggest that including a parental component in treatment for youth may enhance maintenance of treatment gains and treatment generalizability (Barmish et al., 2005).

According to a recent meta-analysis, nine randomized controlled trials of CBT including
a parent component have been conducted (Barmish et al., 2005). The results of the nine randomized controlled trials were mixed, with some studies reporting enhanced treatment outcomes for treatments including a parent component and other studies reporting no effect of an additional parent component. Cobham et al. (1998), for instance, found that inclusion of a parental anxiety management (PAM) component improved treatment outcome for children who had at least one anxious parent. However, in the only long-term follow-up study conducted on parent involvement in CBT to date, Barrett, Dadds, & Rappe (1996) found that inclusion of parents had no significant impact on treatment outcome. Barmish et al. (2005) concluded from these findings that “additional comparative research is needed and that the acceptance of either approach as superior is not yet justified” (p. 579).

The current study hopes to add to this body of literature by focusing on parent behaviors in the context of a critical component of CBT for anxious youth – the exposure (Kendall, Robin, Hedtke, & Suveg, 2006). An exposure begins with the development of what is called a “fear hierarchy” (Hambrick et al., 2003). A fear hierarchy is an ordered list of the child’s anxiety-provoking situations. Children agree to expose themselves to each situation on the hierarchy, beginning with the least feared situation and gradually working up towards the most feared situation. Children are asked to remain in each exposure setting until their fear subsides. Public speaking tasks are at the top of most socially anxious youth’s fear hierarchies, which is why a public speaking task was selected for the current study.

Exposures may mitigate anxiety in several ways. First, anxious individuals often avoid anxiety-provoking situations, such as a speech in class, because they are anxious about the consequences of being in these situations. During an exposure, the individual learns that being in the anxiety-provoking situation will not lead to the imagined catastrophic outcome. The anxiety
is consequently reduced through natural conditioning mechanisms. Second, successful completion of an exposure provides information that contradicts catastrophic cognitions, such as “everyone will laugh at me if I give this speech.” A successful exposure provides evidence to the contrary (Hambrick et al., 2003).

Very little research has been conducted to date on the involvement of parents in this critical component of CBT. Despite the lack of research, parents are often involved in facilitating youth exposures in real-world contexts, as children undergoing treatment are not yet self-sufficient. For instance, the parent may be involved in encouraging the child to participate in the exposure and rewarding the child following successful completion of an exposure. Consequently, research on how parent behaviors may mediate youth response to exposure is important in order to optimize youth treatment outcomes.

The parent variables of interest in this study are parental control, parental criticism, parental monitoring of youth anxiety, discussion of emotion, and quality of the parent-child interaction. Parental control, parental criticism, and quality of the parent-child interaction are three parenting constructs that have received particular attention in the literature (Wood et al., 2003). Parental monitoring of youth anxiety and discussion of emotion are novel parenting constructs that have not been examined by past researchers. Parental monitoring of youth anxiety and discussion of emotion are valuable constructs to examine because they are particularly relevant in the context of exposures and have been observed in clinical settings during exposure therapies.

Quality of parent-child interaction corresponds with parental acceptance, which has received much empirical attention in the literature on youth anxiety disorders. Parental acceptance is characterized by parental warmth, responsiveness, and positivity towards the child.
Many studies have supported the association between high parental acceptance and low childhood anxiety. Scott, Scott, & McCabe (1991), for instance, asked adolescents from around the globe to fill out a questionnaire on parental acceptance. The parents and teachers of each adolescent also filled out a questionnaire indicating the adolescent’s anxiety levels. The study found that adolescents who self-reported higher levels of parental acceptance were rated as less anxious than adolescents who self-reported lower levels of parental acceptance. In another study, Whaley, Pinto, & Sigman (1999) developed an observational coding system to assess the warmth of mothers as they discussed anxiety-provoking topics with their children. Mothers of anxious youth were rated as less accepting than mothers of non-anxious controls.

Parental control is on the opposite end of the spectrum as parental acceptance. Parental control is defined as “a pattern of excessive regulation of children’s activities and routines, autocratic parental decision-making, overprotection, or instruction to children on how to think and feel” (Wood et al., 2003). Many studies have supported the relationship between parental control and youth anxiety. For instance, Hudson & Rapee (2001) observed mothers and children as they completed two cognitively taxing tasks. Mothers of clinically anxious youth were significantly more controlling than mothers of non-anxious children. A recent meta-analysis also analyzed studies examining the relation between parental control and youth anxiety. Results across all the studies included in the meta-analysis cumulatively demonstrated a “substantial association” between parental control and childhood anxiety (van der Bruggen, Stams, & Bogels, 2008).

Researchers have also found that parental negativity is correlated with youth anxiety disorders. Ginsburg, Grover, & Ialongo (2005), for instance, observed mothers and their children participating in a challenging task. Coders rated these interactions along several dimensions,
including parental criticism/negativity. The researchers then followed up with the families six years later. Results showed that higher levels of parental criticism during the challenging task were associated with higher levels of child anxiety at the six-year follow up. Whaley et al. (1999) also found that mothers of anxious children were more critical than mothers of non-anxious children.

Parental monitoring of youth anxiety has not been researched extensively, but it is hypothesized that this behavior may be associated with youth anxiety. Parental monitoring of youth anxiety is defined as the amount that the parent attends to and monitors physical/behavioral signs of the child’s anxiety. A parent high in monitoring is hyper-attuned to his or her child’s anxiety. This attention to the child’s anxiety often manifests in continual reference to the child’s anxiety symptoms. For example, the parent may say, “I can tell you are nervous” or point out the child’s behaviors that indicate nervousness (e.g. fiddling with glasses, shaky hands, trembling, blushing, fidgeting, sweating etc.). High levels of parental monitoring may heighten the child’s anxiety by 1) indicating to the child that his or her feelings of anxiety are highly noticeable, 2) causing the child to pay increased attention to feelings of anxiety, (3) indicating to the child that the parent is anxious and (4) modeling anxious behaviors to the child.

Parental discussion of emotion has also not been researched extensively, but it is hypothesized that this behavior may be associated with youth anxiety, as well. Parental discussion of emotion is defined as the extent to which the parent is comfortable discussing the child’s emotion, particularly the child’s feelings of anxiety. The parent’s comfort demonstrates to the child that discussion of emotion and emotion more generally is natural. The parent’s willingness to discuss emotion further indicates to the child that his/her emotional experience is not a scary topic to be avoided, but rather one that he or she should feel comfortable discussing.
Most studies have relied on self-report and child-report measures to measure specific parenting behaviors. However, there are several limitations to these paper-pencil measures. For one, due to the social desirability bias, parents often under-report negative parenting practices (Schwarz, Barton-Henry, & Pruzinsky, 1985). There is also low agreement between parents self-reported parenting and child report of specific parenting behaviors (Caster, Inderbitzen, & Hope, 1999), making it difficult for researchers to disentangle which report is more reliable. This has led many researchers to call for increased use of behavioral observation methods in the study of parenting behaviors (e.g., van der Bruggen et al., 2008).

The current study used a novel behavioral observation coding system to measure parenting behaviors in the context of an exposure to an anxiety-producing situation, i.e., a public speaking task. Several dimensions of parental behavior were assessed, including parental control, parental negativity, quality of interaction, parental monitoring of youth anxiety, and discussion of emotion. It was hypothesized that parents of socially anxious youth would exhibit higher levels of parental control, parental negativity, parental monitoring of youth anxiety. It was also hypothesized that the quality of interaction would be lower in socially anxious parent-child dyads and that parents of socially anxious youth would be less likely to discuss emotions with their children.

**Method**

*Participants:*

Participants were thirty-nine youth (13 boys, 26 girls) ages 8 to 16 years ($M = 10.82, SD = 1.94$) and their primary caregiver. Participants were assigned to either the youth with social phobia group ($n=20$) or control group ($n=19$) on the basis of a diagnostic interview conducted
during the lab visit (Anxiety Disorders Interview Schedule – Child and Parent Report Version; Silverman & Albano, 1996). Caregiver-child dyads were recruited via flyers posted throughout the community, recruitment events in Boston, and online listservs (e.g. Craigslist).

The sample was 35.9% Caucasian, 17.9% multiethnic, 17.9% African American, 5.1% Hispanic, 15.4% Asian/Asian American, and 7.7% did not indicate an ethnicity. Socioeconomic status was also measured, and it was demonstrated that 15.4% of participants made $0-15000 annually, 17.9% made $5-30000, 5.1% made $30-45000, 5.1% made $45-60000, 5.1% made $60-75000, 10.3% made $75-90000, 33.3% made more than $90000 and 7.7% of participants did not indicate an annual income.

Participants in both groups were excluded if the child had a current psychological disorder other than an anxiety disorder. Participants were also excluded if the child was currently in Cognitive Behavioral Treatment or taking any psychological medications.

Study measures:

Anxiety Disorders Interview Schedule – Child and Parent-report Version (ADIS-C/P; Silverman & Albano, 1996). The Social Anxiety Disorder (SAD) module of the ADIS-C/P was administered to both caregiver and child at the start of the lab visit. Children who met diagnostic criteria for SAD were assigned to the social phobia group. Children who did not meet diagnostic criteria for SAD were assigned to the non-anxious control group.

Procedure:
Youth were asked to participate in a modified version of a public speaking task called the Trier Social Stress Test (TSST; Kirshchbaum et al., 1994). The TSST consisted of four phases. All four phases were videotaped.

During the first phase (preparation), the child and caregiver were informed that the child would be asked to give a five-minute speech in front of an audience of two to three people. The child chose a speech topic and then the child and caregiver were left alone for five minutes to prepare the child’s speech. Caregivers were instructed to help the child with speech preparation as much or as little as they saw fit.

During the second phase (practice speech), the child gave a five-minute practice speech in front of one of the audience members. The audience member was a gender-matched confederate who was instructed to maintain a neutral to positive expression throughout the speech and to prompt the child with standard probes (e.g. “please tell me more about your topic”) if the child paused for more than ten seconds. The caregiver watched the child’s practice speech through an iPad in another room.

During the third phase (speech), the child gave the same speech in front of an audience of two to three people. Audience members were instructed to maintain a neutral to positive expression throughout the speech and to prompt the child with standard probes (e.g. “you still have a little time left”) if the child paused for more than ten seconds. The caregiver watched the speech through an iPad in another room.

During the fourth phase (debrief), the child and caregiver were left alone in a room to discuss the child’s experience giving both speeches. Caregivers were instructed to discuss and process the speeches with the child as they “normally would” in other anxiety-provoking situations.
Coding procedures:

Coders coded the preparation and debrief phase of the TSST using a novel observational coding system developed for this study (see Appendix 1). Coders rated videos of caregiver-child interactions using five scales: (1) control, (2) criticism/negativity, (3) parental monitoring of youth anxiety, (4) discussion of emotion, and (5) quality of interaction. The control scale consisted of two subscales: (1) directive help and (2) global control. The quality of interaction scale consisted of five subscales: (1) collaboration, (2) suggestive help, (3) autonomy granting, (4) global positivity of interaction and (5) praise.

Each scale was rated along a 5-point Likert scale. A score of 1 indicated that the behavior was not present at all during both interactions. A score of 3 indicated that the behavior was present to a moderate degree during both interactions. A score of 5 indicated that the behavior was present to an extreme degree during both interactions.

A primary coder coded all videos and a secondary coder coded 20% of the videos to establish inter-rater reliability. Both coders were blind to condition. Coders coded the videos independently, but the coders met twice to discuss questions related to specific videos.

Scale definitions:

Directive help was defined as the degree of caregiver help offered in the form of directions. For example, a caregiver who scored high on the directive help scale might consistently give commands to the child during speech preparation, such as “do this in your speech” or “say this during your speech.” Such commands were also typically given in an authoritative manner.
Global control was defined as caregiver regulation of the child’s behaviors and instruction to the child concerning how to think and feel. Regulation and instruction had to be both excessive and unnecessary. For example, a caregiver who scored high on the global control scale might not allow the child to prepare the speech independently or force the child to give the speech on a topic that he or she believed was best.

Criticism/negativity was defined as how often the caregiver expresses dissatisfaction with the child’s abilities/performance. For example, a caregiver who scored high on the criticism/negativity scale might criticize the child’s speech performance. The caregiver might also roll his or her eyes every time the child presents an idea during speech preparation.

Parental monitoring of youth anxiety was defined as the amount that the caregiver attended to and monitored physical and/or behavioral signs of the child’s anxiety. For example, a caregiver who scored high on the parental monitoring scale might continuously reference the child’s physical symptoms of anxiety, saying things like “I can see your hands or shaking!” or “you’re turning bright red!”

Discussion of emotion was defined as the extent to which the caregiver was comfortable discussing the child’s emotion, particularly the child’s feelings of anxiety. For example, a caregiver who scored high on the discussion of emotion scale might ask the child repeatedly to talk about his or her feelings during the speech.

Collaboration was defined as the degree to which the caregiver was willing to be involved in the speech preparation. For example, a caregiver who scored high on the collaboration scale might work together with the child as a team to prepare the speech. This kind of caregiver might act as a resource for the child and allow the child to dictate how much he or she would be involved in preparation.
Suggestive help was defined as the degree of caregiver help offered in the form of suggestions. For example, a parent who scored high on the suggestive help scale might consistently offer suggestions during the speech preparation, such as “here’s an idea of what you might talk about, what do you think?” Suggestive help was never offered in the form of commands.

Autonomy granting was defined as the extent to which the caregiver allowed the child to direct the speech preparation. For example, a caregiver who scored high on the autonomy granting scale might consistently allow the child to come up with his or her own ideas for the speech and allow the child to control the flow of the interaction. A caregiver might say, for instance, “this is your speech, I’m going to let you prepare.”

Global positivity of interaction was defined as supportive and warm/friendly interaction between caregiver and child. For example, a caregiver who scored high on the global positivity scale might hug the child often. The caregiver and child may also make jokes and smile often.

Praise was defined as how often the caregiver expressed satisfaction/pride concerning the child’s abilities/performance. For example, a caregiver who scored high on the praise scale would give the child compliments frequently throughout the interaction.

**Results**

An inter-rater reliability analysis using the Kappa statistic was conducted in order to determine consistency between the primary and secondary coder. Results indicated that consistency between the primary and secondary coders was excellent ($\kappa = 0.936, p = 0.00$).

A one-way analysis of covariance (ANCOVA) was performed to test differences in parenting behaviors among parents with socially anxious children and parents with non-anxious
children. Family socioeconomic status (SES) was entered as a covariate, as studies have consistently shown that low SES parents exhibit qualitatively different parenting behaviors than high SES parents (e.g. DeGarmo, Forgatch, & Martinez, 1999).

Analyses demonstrated that parents of socially anxious youth offered significantly more praise than parents of non-socially anxious youth, \( F(1, 33) = 5.662, p = 0.023 \). Differences in scores on the directive help scale between parents of socially anxious youth and parents of non-anxious controls were trending towards significance \( F(1, 33) = 3.713, p = 0.063 \), with parents of socially anxious youth demonstrating higher levels of directive help than parents of non-anxious controls. There were no other significant differences in parenting behaviors between the two groups.

The mean scores for each subscale across both groups are reported in Table 1. Scores close to five indicate that the behavior measured by that subscale was present to a high degree (e.g. that parent was very controlling or offered a lot of praise). Scores close to one indicate that the behavior measured was present to a low degree (e.g. that parent was not very controlling or offered very little praise).

Correlational analyses were run in order to document the associations between the coded variables. Results of these analyses are reported in Table 2. Many of the parenting behavior variables were significantly correlated with one another.

**Discussion**

Results showed that parents of socially anxious youth praised their children more than parents of non-anxious youth. This result was not in line with the original study hypotheses, which predicted that parents of socially anxious youth would praise their children less than
parents of non-anxious youth. Parents of socially anxious youth also offered more directive help than parents of non-anxious youth, although this difference was not significant. This result was in line with the original study hypotheses. No other significant differences in parenting behaviors emerged across the two groups. These null findings were not in line with the original study hypotheses, which predicted that significant differences would emerge on measures of parental control, parental criticism, quality of parent-child interaction, parent monitoring of youth anxiety, and discussion of emotion.

The trend that parents of socially anxious youth offered more directive help was in the expected direction. Directive help, defined as help offered in the form of directions, was categorized as a controlling behavior, although it was coded separately from global control in order to capture a more concrete behavior that would be relevant in a treatment context. A parent who scored high on the directive help scale might say to the child, “you will say this during your speech” rather than “why don’t you say something like this?” Directive help like this indicates to the child that the parent, not the child, is in control of the interaction. Consequently, children may lose confidence in their ability to contribute to the discussion in a meaningful way and feel that they lack mastery over the environment. A decreased sense of mastery over the environment has been hypothesized to exacerbate, even cause, anxiety symptoms in youth (Wood et al., 2003).

The difference in directive help scores across parenting groups has important clinical implications. For one, although parental control has been consistently implicated in the development of anxiety in youth (Wood et al, 2003), specific controlling behaviors that occur in the context of treatment have not been examined. The results of this study suggest that directive help may be a particularly relevant controlling behavior for exposures with socially anxious
youth. Future treatments including a parent component might address this behavior specifically, perhaps by teaching parents how to offer help in more suggestive ways, rather than focusing on parental control more generally. This focus on a specific controlling behavior may enhance youth treatment outcomes. The findings from this study also suggest that parental controlling behaviors emerge in different ways across different contexts. Thus, for future research it will be important to examine specific controlling behaviors in addition to observing parental control more generally.

There are several possible explanations for the study’s other more unexpected findings. First, studies have demonstrated that parents of anxious youth have lower expectations concerning their children’s coping skills than parents of non-anxious youth (Kortlander, Kendall, & Panichelli-Mindel, 1997). The parents in the socially anxious group may consequently have had lower expectations concerning their child’s ability to complete the anxiety-provoking speech task. When these expectations were countered by the child’s successful completion of the task, the parents’ response may have been surprise and pride. This may have manifested itself in the observed increased levels of praise in the socially anxious group.

Second, results could be attributed to a sampling bias. Before confirming their participation, parents were warned that their child would be asked to complete a speech in front of an audience of three people during their lab visit. Several parents withdrew their children from the study promptly after hearing that their child would have to present a speech. This indicates that there may have been a sampling bias, so that parents who facilitate youth avoidance of anxiety-provoking situations were not included in the sample. Furthermore, parents who were willing to put their child through this difficult task were most likely parents who were highly motivated to improve their child’s anxiety symptoms. These parents may be unique in their
motivation to help their child and thus results of this study might not generalize to the entire population of parents of anxious youth. Other studies that have found differences in parenting behaviors across socially anxious and non-anxious groups have for the most part relied on less demanding tasks and may consequently not have suffered from a similar sampling bias.

Third, differences in parenting behaviors may have emerged between groups had the speech preparation and speech debrief been coded separately. The speech preparation was an extremely stressful situation, as the child was about to deliver a speech in front of an audience and the parent and child were given only a small amount of time to prepare. The speech debrief, in contrast, was not intended to be anxiety provoking. This interaction was also often much more positive because the child had just completed a very difficult task and both parent and child were likely feeling relieved. Stressful and non-stressful situations most likely elicit different parenting behaviors. The fact that the parents were scored only once across the two situations may have resulted in a failure to capture these differences. Future studies using this coding manual should score both interactions separately.

Fourth, parents may have been inhibited by the presence of the cameras. No attempt was made to hide the cameras and both parent and child were informed that they would be videotaped throughout the lab visit. This knowledge may have made the parents less likely to exhibit negative behaviors, such as critical or controlling behaviors, in order to appear more favorable to the experimenters. In real-world contexts, differences between the two parenting groups may have emerged. However, negative behaviors such as criticism and negativity did occur in many of the interactions. Thus, although the presence of the cameras may have inhibited some parents, it seems unlikely that the presence of the cameras can explain the study’s unexpected findings entirely.
The context of the parenting behaviors may also have influenced coding. Raters were told during training to take into account the child’s behavior when coding. This is because child behaviors may influence parent behaviors and certain parenting behaviors may be appropriate in one situation but inappropriate in another. For example, a child may have been particularly unruly during an interaction (e.g. running around and refusing to partake in the task). In order to complete the task, the parent would have to regulate and control the child’s behavior (e.g. by issuing directive commands). Raters might have given this parent a high score on the parental control scale if they did not take the child’s behavior into account. However, a key aspect of the parental control code was that efforts made by the parent to control the child’s behaviors were excessive and unnecessary. Consequently, controlling behaviors that were necessary to complete the task should not have factored into the parent’s score on the control scale. Although raters were reminded to keep the context of the behaviors in mind across all subscales, it is possible that context of the interaction biased coders in some way.

There may simply have been no differences between the two parenting groups on measures of global control, discussion of emotion, parental criticism, global positivity of interaction, and parental monitoring. This seems unlikely, however, given the plethora of other studies that have found a difference between parents of socially anxious children and parents of non-anxious children. Instead, it seems more likely that parent behaviors associated with the development of social anxiety are not as relevant in a treatment context as they might be in other real-world situations. This is possible given the fact that no studies to date have examined the role of these parenting behaviors in the context of treatment. Furthermore, studies including a parental component in treatment have yielded mixed results. The mixed results of treatment
studies on CBT including a parent component may indicate that parents do not play as critical a role in treatment for youth anxiety as hypothesized.

There were several limitations in this study not mentioned in the above explanations for results. For one, the primary coder coded 80% of the videos alone. In future studies, it would be beneficial to have the secondary coder code 50% of the videos, rather than 20% of the videos, in order to control for any individual biases of the primary coder.

Furthermore, video codes for this study were pilot codes. Watching the videos informed a restructuring of definitions in the coding manual that could benefit the coding system in later coding sessions. For example, monitoring was conceptualized as the parent attending to the child’s physical symptoms of anxiety. However, it was noted that high monitoring might also manifest itself in the parent consistently asking the child how nervous they were feeling. Including this information in the second round of coding may reveal differences between the two parenting groups that were previously not observed.

The sample size was also fairly small and there was a wide age range (8-14 years old) of children. The small sample size may have made it difficult to detect differences between the anxious child group and the non-anxious child group. Furthermore, the sample included children at very different developmental stages. At each stage, the child spends a significantly different amount of time with his or her parents, with younger children spending more time with parents than older children. Thus, it follows that parents may have more influence on children at younger ages. However, almost all studies that have examined youth in this context have included children from similar age ranges. For instance, Hudson, Comer, & Kendall (2008) used a sample of 7-13 year old children for their observational study of parenting. Hudson et al. (2009) observed children ages 7-14, which was an even wider age range of children than seen in the
current study. Thus, it is unlikely that the wide age range of participants explains the null findings entirely.

In addition, many of the subscales were highly correlated with one another. This indicates that the different subscales might not measure distinct, non-overlapping parenting constructs. For example, most “negative” parenting behaviors were correlated with one another, while most “positive” parenting behaviors were correlated with one another. The high correlations between subscales raise questions concerning the coding manual and coding procedures. For one, the definitions of each subscale may not have been as distinct as intended. In future studies, each construct should be more precisely defined. In addition, the coding procedures were set up so that one coder coded the interaction along all of the subscales. This may account for the high correlations between variables. In future studies, individual coders may be assigned to code each subscale independently, so that there is one coder who codes parental control, one coder who codes directive help, etc. Although time consuming, this method may mitigate potential coder biases.

In order to address the high correlation among subscales, future research with larger sample sizes would allow for a factor analysis of the data. Although the goal of the current study was to examine highly specific parenting behaviors that could be addressed in the context of treatment, subsequent factor analyses with a larger sample of participants might demonstrate that the subscales converge on one or two parenting dimensions (e.g. positive and negative parenting behaviors) that may account for the variance in parenting behaviors which, when considered either alone or in combination, may be important to target. For example, there may be some parents who use primarily negative or “maladaptive” parenting behaviors, others who use positive or “protective” parenting behaviors, and still others who use a combination of the two.
These patterns would have critical implications for treatments including a parental component. For one, it may not be helpful to target specific behaviors, such as directive help or parental control. Instead, the child may benefit more if the therapist addresses protective or maladaptive parenting behaviors, and the parent-child relationship, more globally. Conversely, a factor analysis might reveal one or several distinct parenting behaviors that would be particularly important behaviors to focus on in treatment.

Despite these limitations, the current study developed a novel observational coding system that had excellent inter-rater reliability. The reliability of this observational coding system was much higher than others’ coding systems used to observe similar parenting behaviors. Once refined further following more pilot coding, this coding system can be used to reliably assess differences in parenting behaviors and be used to supplement self-report measures in future research.

Furthermore, pilot coding revealed other potential differences between the two groups of parents that have not been considered in other research studies. For instance, it was noted that certain parents were more likely to ask the child about the audience’s response to their speech and about the feedback that the child received from the audience. A defining feature of social anxiety is a concern about social evaluation. Parents may exacerbate this concern by repeatedly referencing the social evaluation component of the task, both reminding the child of their social evaluative concerns and suggesting that evaluation is important enough to warrant frequent discussion. Thus, the pilot coding in this study generated hypotheses for future studies and contributed a novel direct observation method of parenting behaviors. Both contributions might inform the development of more effective future interventions for youth with social anxiety.
Table 1: Group means on subscale scores

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<th>Subscale</th>
<th>Social</th>
<th>Control</th>
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<tr>
<td>Directive help</td>
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<td>3.10*</td>
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<tr>
<td>Global control</td>
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<td>Criticism</td>
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<td>Discussion of emotion</td>
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<td>Global positivity</td>
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<td>3.42</td>
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<tr>
<td>Praise</td>
<td>3.65**</td>
<td>2.74**</td>
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<td>Collaboration</td>
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<td>Suggestive help</td>
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<td>Autonomy granting</td>
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<td>Monitoring</td>
<td>2.05</td>
<td>2.32</td>
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</tbody>
</table>

*Note. *p<0.08 **p<0.05
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Appendix 1

Maladaptive and Protective Parenting Behaviors
Coding Manual

I. General Instructions

Two parent-child interactions are coded:
(1) Speech preparation (5 min)
(2) Parent-child debrief (8 min)

Speech preparation description:
The parent and child have just been informed about the public speaking task. The parent and child are left alone for five minutes to prepare the child’s speech. The parent is instructed to help the child as much as he or she chooses (“(P’s name), you can be involved in (C’s name) preparation as much or as little as you choose”). The parent and child can take notes on a piece of paper, although the child will not have the notes during the speech.

Parent-child debrief description:
The child has just given his or her speech to the full audience of three people and has received positive feedback from the audience members. The parent observed the child’s speech via a live video feed, although the parent did not observe the positive feedback. The parent and child are left alone for eight minutes to discuss the child’s speech performance. The parent is instructed to process what just happened with the child as he or she normally would (“Now, you two are going to have a chance to talk about the public speaking task. You’ll have 8 minutes to discuss and process what just happened with (C’s name) as you normally would with him/her about doing something scary or makes him/her feel nervous.”)

Each interaction is coded using five scales:
(1) Parental control
(2) Quality of interaction
(3) Negativity/criticism
(4) Discussion of emotion
(5) Parental monitoring

Coding procedure:
Each of the five scales is coded in terms of degree. Degree is a combination of the intensity and frequency with which each behavior is displayed throughout the interaction. Degree is scored along a 5-point likert scale.

A score of 5 indicates that each behavior is displayed to a high degree (high intensity and frequency). A score of 3 indicates that each behavior is displayed to a moderate degree (moderate intensity and/or moderate frequency). A score of 1 indicates that each behavior is not displayed (no intensity and no frequency).
In some cases, the parent behaviors may have a high intensity but a low frequency. In other cases, the parent behaviors may have a low intensity but a high frequency. If behaviors are displayed only a few times throughout the interaction but are incredibly severe (e.g. very harsh criticism towards the child), this will be coded as a 4. If behaviors are displayed continuously throughout the entire interaction but are not particularly intense (e.g. the parent continuously offers praise, but the praise is generally halfhearted) this will be coded as a 4. In general, however, a high frequency is usually accompanied by moderate/high intensity.

**Video watching procedure:**
For consistency’s sake, each coder should watch the video **exactly two times**, except in the event of technical difficulties. Coders will only rewind the video if they are unable to hear what was said and/or missed what was said. During the first pass, coders should watch the video in its entirety without coding. During the second pass, coders should watch the video again and code the video.

**Child behaviors:**
Although each scale focuses on parent behaviors, raters should also take into account the child’s behavior. This is because child behaviors may influence parent behaviors. For example, a child may be particularly unruly during an interaction (e.g. climbing on the curtains and refusing to partake in the task). In order to complete the task, the parent will have to regulate and control the child’s behavior (e.g. by issuing directive commands). Raters might give this parent a high score on the parental control scale if they do not take the child’s behavior into account. However, a key aspect of the parental control code is that efforts made by the parent to control the child’s behaviors are excessive and unnecessary. Consequently, the parent should not receive a high score, as the behaviors were necessary to complete the task. In order to rate this parent, the rater should focus instead on any parental controlling behaviors that were excessive and unnecessary and use these behaviors to inform their coding decisions.
II. Overview of scales

I. Control
   (1) Directive help
   (2) Global control

II. Criticism/negativity

III. Parental monitoring of youth anxiety

IV. Discussion of emotion

V. Quality of interaction (4 subscales)
   (1) Collaboration
   (2) Suggestive help
   (3) Autonomy granting
   (4) Global positivity of interaction
   (5) Praise
III. Control:

Coding procedures:
There are two subscales:
(1) Directive help
(2) Global control

Each subscale is rated on a 5-point Likert scale. Scale (1) will be used to code the speech preparation only. Scale (2) will be used to code both the speech preparation and the parent-child debrief.

Directive help:
This is the degree of directive help offered by the parent. Directive help is defined as the help offered in the form of directions. Directive help would include the parent instructing the child what to do without offering suggestions or asking for the child’s input. For example, a parent may say “talk about this in your speech.” This is directive help.

Suggestive help should not be captured under this code. Suggestive help is defined as help offered in the form of suggestions (e.g. “here’s an idea of what you might talk about, what do you think?”) A parent offering positive help would also ask for input from the child (e.g. “what do you think of this idea?”) This kind of help would not be classified as directive help.

Examples of unsolicited/directive help:
- “Let me just do this for you”
- “Say this”
- “Talk about this in your speech”
- The child is writing notes on the notepaper. The parent takes the paper away from the child and starts writing
- Interrupting the child to offer unrelated suggestions while the child is talking about his/her ideas
- Not listening to the child’s ideas

Coding procedures:
Directive help is defined as the help offered in the form of directions. This scale is rated on a 5-point Likert scale. The speech preparation will be coded using this scale.

<table>
<thead>
<tr>
<th>1</th>
<th>3</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help is not directive</td>
<td>Help is moderately directive</td>
<td>Help is extremely directive</td>
</tr>
</tbody>
</table>

1 = “Help is not directive” The parent does not help when the child does not indicate verbally and/or behaviorally that he or she needs help. The parent does not offer help in a directive way. All help offered is suggestive help (help offered in the form of suggestions, including input from the child) or no help is offered at all.

1-2 = “Help is Help is mildly unsolicited/directive (1-3 displays)
MALADAPTIVE AND PROTECTIVE PARENTING BEHAVIORS

<table>
<thead>
<tr>
<th>Mildly Directive</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 = “Help is moderately directive”</td>
</tr>
<tr>
<td>The parent helps several times (2-3 times) when the child does not indicate verbally and/or behaviorally that he or she needs help. The help that is offered by the parent is sometimes offered in a directive way (4-6 times) and is an even mix of positive help and directive help.</td>
</tr>
<tr>
<td>3-4 = “Help is very directive”</td>
</tr>
<tr>
<td>Help is high-moderately unsolicited/directive (6 displays).</td>
</tr>
<tr>
<td>5 = “Help is extremely directive”</td>
</tr>
<tr>
<td>The parent helps many times when the child does not indicate verbally and/or behaviorally that he or she needs help (7 or more displays). The help that is offered by the parent is always offered in a directive way. No positive help is offered.</td>
</tr>
</tbody>
</table>

Global Control

**Definition in the literature:**
Parental control has been defined in several ways in the literature. Four definitions of parental control are listed below for reference:

- Excessive parental regulation of children’s activities and routines, encouragement of children’s dependence on parents, and instruction to children on how to think or feel (McLeod, 2007)
- The pressure parents put on their children to think, feel, or behave in desired ways (Van der Bruggen, 2008)
- A pattern of excessive regulation of children’s activities and routines, autocratic parental decision making, overprotection, or instruction to children on how to think or feel (Wood, 2003)
- Excessive overinvolvement (Hudson, 2007)

**Summary definition:**
For this coding system, parental control will be defined as (1) regulating the child’s behaviors and (2) instructing the child how to think and feel. Regulation and instruction should be both excessive and unnecessary.

**General note on coding control:**
Raters should take into account the child’s behavior because certain child behaviors may elicit parent behaviors that appear controlling on a surface-level. For example, a child may be particularly unruly during an interaction (e.g. climbing on the curtains and refusing to partake in the task). In order to complete the task, the parent may have to reorient the child to the task at hand by issuing necessary directive commands. Raters might give this parent a high score on the parental control scale if they do not take the child’s behavior into account. However, a key aspect of the parental control code is that efforts made by the parent to control the child’s behaviors are excessive and unnecessary. Consequently, the parent should not receive a high score, as the behaviors were necessary to complete the task. In order to rate this parent, the rater should focus instead on any parental controlling behaviors that were excessive and unnecessary and use these behaviors to inform their coding decisions.
Examples of controlling behaviors:

- Trying to force the child to give a speech on a certain topic
- Trying to convince the child to do another speech topic
- Leaning over the child while they write and correcting what they are writing
- Taking the notes away from the child and writing notes themselves
- Talking over the child
- Not allowing the child to come up with any ideas for the speech themselves
- “You are going to say this”
- “Just listen to me”
- Suggestions given in a directive way e.g. “do this”
- “Let me just do this for you”
- “I know you were feeling nervous because you were doing that thing that you do” despite the child saying that they did not feel a certain way
- “I know how you look when you feel nervous” despite the child saying they didn’t feel a certain way

Note that the above are extreme examples. Thus, variations of these controlling behaviors to a lesser degree should still be coded as controlling behaviors. For example, a parent may allow the child to come up with 1 or 2 ideas for the speech themselves, but for the most part the parent does not allow the child to contribute. This parent would still be controlling, although to a lesser degree than a different parent who does not allow the child to come up with any ideas.

Coding procedures:

Parental control is defined as (1) regulating the child’s behaviors and (2) instructing the child how to think and feel. Regulation and instruction should be both excessive and unnecessary. The control scale is rated on a 5-point Likert scale. The speech preparation and the parent-child debrief will be coded using this scale.

1 .................................................. 3 ................................................................. 5
Not controlling                        Moderately controlling                    Extremely controlling

<table>
<thead>
<tr>
<th>1 = “Not controlling”</th>
<th>The parent displays no controlling behaviors. The parent does not give excessive and unnecessary help to the child at any point during speech preparation. The parent allows the child to participate in the parent-child debrief.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 = “Mildly controlling”</td>
<td>Minimal displays of controlling behaviors (1-2 behavior).</td>
</tr>
<tr>
<td>3 = “Moderately controlling”</td>
<td>The parent displays 3-5 controlling behaviors. The parent gives some excessive and unnecessary help (2-3 instances) to the child during speech preparation. The parent does not always allow the child to participate in the parent-child debrief.</td>
</tr>
<tr>
<td>3-4 = “Very controlling”</td>
<td>High-moderate displays of controlling behavior (6 behaviors).</td>
</tr>
<tr>
<td>5 = “Extremely controlling”</td>
<td>The parent displays mostly controlling behaviors (7 or more) and is very overinvolved. The parent gives almost exclusively excessive and unnecessary help (e.g. help that the child does not ask for or help offered when the child does not indicate behaviorally that help is necessary) to the child during speech preparation. The parent does not allow the child to participate in the parent-child debrief.</td>
</tr>
</tbody>
</table>
IV. Criticism/negativity:

Definition:
This is how often the parent expresses dissatisfaction with the child’s abilities/performance. The parent may express this dissatisfaction by critiquing the child (the criticism component of this scale) or taking a particularly pessimistic view of the child’s capabilities (the negativity component of this scale). Such criticism/negativity indicates to the child that the parent does not have confidence in the child’s abilities and/or reflects the parent’s high expectations for the child.

The parent may express criticism/negativity verbally and/or nonverbally. Verbally, the parent may make critical or negative comments concerning the child’s abilities/performance. For example, the parent may say, “your ideas aren’t good” or “you’re not good at this.” These critical/negative comments must be directed towards the child and his/her capabilities, not about the task in general or an unrelated topic. For example, the parent may say, “doing this is so boring.” This statement is negative/critical, but as it is not directed towards the child, it should not be taken into account when coding.

The parent may also express criticism/negativity nonverbally. For example, the parent may roll his/her eyes or frown when the child presents an idea during speech preparation. This indicates to the child that the parent is dissatisfied, even though the parent makes no verbal indication of any dissatisfaction. Other examples of such nonverbal behaviors may include sighing when the child presents an idea and the parent shaking his/her head. These nonverbal behaviors must be directed towards the child and his/her capabilities. An eye roll, for instance, must follow the child’s presentation of an idea.

Examples of negativity/criticism pertaining to the child’s abilities/performance:
• The parent criticizes the child’s speech performance e.g. “that wasn’t your best performance, was it?” or “you didn’t do such a great job on that”
• The parent is critical of the child’s ideas during speech preparation e.g. “That would be really boring for the audience to listen to” or “I think that’s a bad idea”
• The parent rolls his/her eyes
• The parent yells at the child
• The parent frequently becomes frustrated with the child e.g. “Hurry up writing those notes, you’re taking so long!” or “we practiced your speech, why couldn’t you do it like we practiced?”
• The parent laughs at the child for doing poorly
• “You forgot what you were going to say”
• “You didn’t do it like we practiced”
• “You looked so uncomfortable”
• “I knew you were going to do a bad job”
• “Your sister would have been able to do this, why can’t you?”
• “You’re just not good at this kind of stuff”
• The child asks the parent if they liked the speech/if they did a good job, and the parent gives them negative feedback
**Coding procedures:**
Criticisms/negativities is how often the parent expresses dissatisfaction with the child’s abilities/performance. This scale is rated on a 5-point Likert scale. The speech preparation and the parent-child debrief will be coded using this scale.

<table>
<thead>
<tr>
<th>1 = “No negativity/criticism”</th>
<th>The parent does not indicate any disapproval of the child’s capabilities. The parent makes no negative or critical comments directed towards the child throughout the interaction. There are no nonverbal signs of disapproval. The general feel of the interaction is not negative/critical.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 = “Mild negativity/criticism”</td>
<td>Minimal displays of negativity/criticism (1 display).</td>
</tr>
<tr>
<td>3 = “Moderate negativity/criticism”</td>
<td>The parent indicates some disapproval of the child’s capabilities. The parent makes 2-4 negative or critical comments directed towards the child throughout the interaction. There are 2-4 nonverbal signs of disapproval. The general feel of the interaction is somewhat negative/critical.</td>
</tr>
<tr>
<td>3-4 = “High to moderate negativity/criticism”</td>
<td>High-moderate displays of controlling behavior (5-6 displays).</td>
</tr>
<tr>
<td>5 = “Extreme negativity/criticism”</td>
<td>The parent indicates extreme disapproval of the child’s abilities. The parent makes 7 or more negative or critical comments directed towards the child throughout the interaction. There are 5 or more nonverbal signs of disapproval. The general feel of the interaction is extremely negative/critical.</td>
</tr>
</tbody>
</table>
V. Parental monitoring of youth anxiety

Definition:
This is the amount that the parent attends to and monitors physical/behavioral signs of the child’s anxiety. A parent high in monitoring is hyper-attuned to his or her child’s anxiety. This attention to the child’s anxiety often manifests in continual reference to the child’s anxiety symptoms. For example, the parent may say, “I could tell you were nervous” or point out the child’s behaviors that indicate nervousness (e.g. fiddling with glasses, shaky hands, trembling, blushing, fidgeting, sweating etc.).

High levels of parental monitoring heighten the child’s anxiety by 1) indicating to the child that his or her feelings of anxiety are highly noticeable, 2) causing the child to pay increased attention to feelings of anxiety, (3) indicating to the child that the parent is anxious and (4) modeling anxious behaviors to the child.

The parent may attend to, monitor, and point out physical/behavioral signs of the child’s anxiety that are not apparent to the child/other observers. For example, the parent may tell the child that he/she “seems nervous” during the speech preparation. The child may respond with surprise, indicating that the child does not feel the anxiety that the parent suggested. In these cases, the parent is so attentive to the child’s anxiety that he/she picks up on incredibly subtle (perhaps nonexistent) physical/behavioral cues.

Conversely, a parent does not have to actually observe physical/behavioral signs for monitoring behaviors to be present. For instance, a parent may say, “I was looking for signs that you were nervous, but I didn’t see any!” The parent in this example was still attending to and monitoring the child’s anxiety, even though no symptoms were present.

Examples of parental monitoring:
- “I could tell that you were nervous”
- “Your hands were shaking”
- “You seemed nervous”
- “You seem nervous right now”
- “Are you nervous right now, you seem nervous”
- “You were blushing”
- “You wouldn’t make eye contact with anyone”
- “Your voice was shaking”
- “You were umm-ing, ah-ing, and stuttering”
- “You were doing that thing you always do when you are nervous”
- “I was looking for signs that you were nervous”
- “I was paying attention to how nervous you were feeling”
- Reaching over to stop the child’s hand from shaking without the child mentioning that his/her hands are shaking

Coding procedures:
Parental monitoring of youth anxiety is defined as the amount that the parent attends to and monitors physical and/or behavioral signs of the child’s anxiety. This scale is rated on a 5-point Likert scale. The speech preparation and the parent-child debrief will be coded using this scale.

<table>
<thead>
<tr>
<th>1 = “No monitoring”</th>
<th>The parent does not monitor signs of the child’s anxiety. The parent does not reference any of the child’s physical/behavioral symptoms of anxiety at any point during the interaction.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 = “Mild monitoring”</td>
<td>The parent monitors the child’s anxiety a very minimal amount during the interaction (1 time).</td>
</tr>
<tr>
<td>3 = “Moderate monitoring”</td>
<td>The parent monitors signs of the child’s anxiety a moderate amount. The parent references the child’s physical/behavioral symptoms of anxiety 2-4 times during the interaction. The parent may reference a symptom of anxiety that is not actually present, although this is not necessary to receive a score of 3.</td>
</tr>
<tr>
<td>3-4 = “High-moderate monitoring”</td>
<td>The parent monitors the child’s anxiety a high-moderate amount throughout the interaction (5 times).</td>
</tr>
<tr>
<td>5 = “Extreme monitoring”</td>
<td>The parent continuously references the child’s physical/behavioral symptoms of anxiety (6 or more times). A parent with this score is particularly likely to reference some symptoms of anxiety that are not actually present.</td>
</tr>
</tbody>
</table>
VI. Discussion of emotion

Definition:
This code measures the extent to which the parent is comfortable discussing the child’s emotion, particularly the child’s feelings of anxiety. A parent who is comfortable discussing emotion will ask gentle probing questions about the child’s emotions. If the child does not want to discuss emotions, the parent will give the child an encouraging push (not a shove) towards a discussion. The parent will not force the child to discuss emotions if it is intensely distressing to the child, but the parent will indicate that she is open to such a discussion.

A parent may indicate that he/she is comfortable discussing the child’s emotion in several ways:

1. By initiating a discussion of the child’s emotions. For example, the parent may ask, “how did doing that speech make you feel?” or “were you nervous?”

2. By continuing a discussion of the child’s emotions when the child initiates the discussion. For example, the child may say, “I felt very nervous.” The parent may respond by asking the child follow up questions such as “tell me more” to encourage the child to elaborate on how he/she was feeling. The alternative would be avoiding a discussion of the emotion and refusing to ask follow up questions. This parent would receive a low score on the discussion of emotion scale.

3. By discussing his or her own past experiences in order to help the child open up. For example, the parent may say, “I remember once when I was your age I had to give a speech and I was very nervous. Did you feel that way?” Bringing up past experiences will potentially facilitate a discussion of emotions.

The parent’s comfort demonstrates to the child that discussion of emotion is natural. The parent’s willingness to discuss emotion further indicates to the child that his/her emotional experience is not a scary topic to be avoided, but rather one that he/she should feel comfortable discussing.

Be sure to keep the context of the parent behaviors in mind when scoring the parent with this scale. Children vary in terms of their willingness to discuss emotions. Some children will be very open to a discussion of emotion, while others will not. Focus on how often the parent attempts to allow/facilitate a discussion of emotion, not whether or not the attempts are successful.

Please also note that in order for the parent to score highly on this scale, the discussion of emotion does not have to be a “warm” affair. It could be that the parent encourages a discussion of emotion, but it still a difficult/unpleasant conversation to have given the negative emotions involved. Even if the conversation is difficult/unpleasant, the parent can still score high on this scale as long as they are helping the child process his/her emotions.

Examples of facilitating discussion:

- “How did you feel while giving the speech?”
- “Did you feel anxious?”
- “Do you feel anxious about giving your speech?”
• “Tell me how that made you feel”
• “Do you want to talk about how that felt?”
• Responding to the child’s statement of “I felt very nervous” with “tell me more, let’s talk about it”
• “I remember once when I was your age I had to give a speech and I was very nervous. Did you feel that way?”
• “I want you to feel comfortable with talking about how you feel/felt”
• “It’s ok to talk about how you felt”
• “It’s good to talk about how you felt”

Coding procedures:
Discussion of emotion is defined as the extent to which the parent is comfortable discussing the child’s emotion, particularly the child’s feelings of anxiety. This scale is rated on a 5-point Likert scale. The speech preparation and the parent-child debrief will be coded using this scale.

<table>
<thead>
<tr>
<th>1</th>
<th>No discussion</th>
<th>3</th>
<th>Minimal discussion</th>
<th>5</th>
<th>Maximum discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>“No emotion discussion”</td>
<td>The parent does not ask any questions about the child’s emotional experience. If the child attempts to initiate a discussion of his or her emotional experience, the parent will not continue the conversation. For example, the parent may ask no follow up questions and will change the subject to an emotionally neutral subject. If the child does not attempt to initiate a discussion of his or her emotional experience, the parent will not make any attempts to start a discussion.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>“Minimal emotion discussion”</td>
<td>The parent is willing to discuss the child’s emotional experience a minimal amount (1-3 displays of willingness to discuss emotion).</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>“Moderate discussion”</td>
<td>The parent asks 4-6 questions about the child’s emotional experience. If the child attempts to initiate a discussion of his or her emotional experience, the parent will almost always continue the conversation, but not extensively. For example, the parent may ask one or two follow up questions, but allows the subject to change to an emotionally neutral subject relatively quickly. If the child does not attempt to initiate a discussion of his or her emotional experience, the parent will make a few (4-6) attempts to start a discussion, giving the child a gentle push towards a discussion.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3-4</td>
<td>“High-moderate discussion”</td>
<td>The parent is willing to discuss the child’s emotional experience a high-moderate amount (7 displays of willingness to discuss emotion)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>“Maximum emotion discussion”</td>
<td>The parent asks many questions (8 or more) about the child’s emotional experience. If the child attempts to initiate a discussion of his or her emotional experience, the parent will always continue the conversation for as long as the child wants to talk. For example, the parent may ask many follow up questions, and will not change the subject to an emotionally neutral subject.</td>
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</tr>
</tbody>
</table>
the child does not attempt to initiate a discussion of his or her emotional experience, the parent will make many (5 or more) attempts to start a discussion, giving the child a gentle push towards a discussion.
VII. Quality of interaction

Definition:
This scale measures the overall quality/flavor of the parent-child interaction.

Coding procedures:
There are five subscales:
1. Collaboration
2. Suggestive help
3. Autonomy granting
4. Global positivity of interaction
5. Praise

Each subscale is rated on a 5-point Likert scale. Scales (1), (2), and (3) will be used to code the speech preparation only. Scales (4) and (5) will be used to code both the speech preparation and the parent-child debrief.

Collaboration:
This is the degree to which the parent is willing to be involved in the speech preparation, and also allows the child to guide how involved he/she will be in the preparation. In an interaction that is highly collaborative, there is a sense that the parent and child are “in it together.”

It is very important to keep the child’s behavior in mind when coding. Consider the example of a child who is particularly unresponsive and unwilling to collaborate (e.g. a child may say “I don’t want your help” or “leave me alone”). The parent may be unable to collaborate with the child. If the coder does not keep the child’s behavior in mind, the coder may give this parent a low score. However, the key to collaboration is that the parent indicates a willingness to collaborate with the child. The coder should focus on parental behaviors that indicate this willingness, even if the parent’s willingness to collaborate is not be reciprocated by the child.

It is also important to distinguish how parental controlling behaviors are different from parent attempts at collaboration. Interactions that are high in collaboration are child directed. The parent helps in a way that the child indicates would be most helpful. In some cases, this may mean that the parent will help a lot. This may seem controlling. However, parental controlling behaviors are parent directed, unlike parent attempts at collaboration. The parent disregards the child’s directions in favor of his/her own beliefs.

Examples of collaboration:
• “How much do you want be to be involved in this?”
• “I’m here to help”
• “I’m here for you”
• “Let me know whatever you need”
• “We’re in this together!”
• “Would you like me to help you?”
• “I can help with that if you need!”
• “I want to help you as much as you want me to”
Coding procedures:
Collaboration is defined as the degree to which the parent is willing to be involved in the speech preparation. This scale is rated on a 5-point Likert scale. The speech preparation will be coded using this scale.

1 = “Never attempts to collaborate”

The parent makes no attempt to collaborate with the child. The parent does not indicate that he/she is willing to be involved in the speech preparation. The parent does not allow the child to guide how involved he/she will be in the preparation. This parent may either be completely uninvolved or very controlling.

1-2 = “Minimal attempts to collaborate”

Minimal displays of collaboration (2-3 displays).

3 = “Sometimes attempts to collaborate”

The parent makes 4-5 attempts to collaborate with the child. The parent indicates some willingness to be involved in the speech preparation. The parent mostly allows the child to guide how involved he/she will be in the preparation.

3-4 = “High-moderate attempts to collaborate”

High-moderate displays of collaboration (6 displays).

5 = “Often attempts to collaborate”

The parent makes 7 or more attempts to collaborate with the child. The parent is completely willing to be involved in the speech preparation. The parent always allows the child to guide how involved he/she will be in the preparation.

Suggestive help:
This is the degree of suggestive help offered by the parent. Suggestive help is defined as help offered in the form of suggestions (e.g. “here’s an idea of what you might talk about, what do you think?”). In general, the child is leading the interaction and the parent is fostering the child’s ideas.

Suggestive help is not to be conflated with directive help. Directive help is defined as the help offered in the form of controlling directions. Directive help would include the parent instructing the child what to do without offering suggestions or asking for the child’s input. For example, a parent may say “talk about this in your speech.” Directive help should not be coded under the suggestive help rating, they should be coded separately.

Examples of suggestive help:
• “Here’s an idea of what you might talk about, what do you think?”
• “How about talking about this?”
• “What do you think about this?”
• “Would you like me to help you?”
• “How much would you like me to be involved?”
• “I think that’s great, would you like me to write that down for you?”

**Coding procedure:**
Suggestive help is defined as help offered in the form of suggestions. This scale is rated on a 5-point Likert scale. The speech preparation will be coded using this scale.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help is not suggestive</td>
<td>Help is mostly suggestive</td>
<td>Help is all suggestive help</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 = “Help is not suggestive”
The parent does not offer suggestive help. This does not necessarily mean that the parent does not offer help, although it may. The parent may be offering help, but this help is exclusively directive help.

1-2 = “Help is mildly suggestive”
The parent offers suggestive help 2 times throughout the interaction.

3 = “Help is mostly suggestive”
The parent offers suggestive help about half of the time. As a reference point, a parent with this score will typically offer suggestive help 3-5 times throughout the interaction.

3-4 = “Help is high-moderately suggestive”
The parent offers suggestive help 6 times throughout the interaction.

5 = “Help is all suggestive help”
All of the help offered by the parent is suggestive. As a reference point, a parent with this score will typically offer suggestive help 7 or more times throughout the interaction.

**Autonomy granting:**
This is defined as the extent to which the parent allows the child to direct the speech preparation. A parent who scores high on this scale will encourage his/her child to make his/her own decisions. The child is given the freedom to direct how he/she will prepare. A parent may grant the child autonomy directly. For example, the parent may say, “you’re in control, let me know what you need!” A parent may also grant the child autonomy indirectly. For example, the parent may praise the child for coming up with ideas by himself/herself.

**Examples of autonomy granting:**
• “You decide”
• “It’s up to you!”
• “You’re in control”
• “I want you to come up with ideas on your own”
• “This is all you!”
• “Good, great job coming up with an idea on your own!”
Coding procedures:
Autonomy granting is defined as the extent to which the parent allows the child to direct the speech preparation. This scale is rated on a 5-point Likert scale. The speech preparation will be coded using this scale.

<table>
<thead>
<tr>
<th>No autonomy granting</th>
<th>Moderate autonomy granting</th>
<th>Maximum autonomy granting</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 = “No autonomy granting”</td>
<td>3 = “Moderate autonomy granting”</td>
<td>5 = “Maximum autonomy granting”</td>
</tr>
<tr>
<td>The parent does not grant the child any autonomy throughout the interaction. The parent does not allow/encourage the child to direct the speech preparation. This parent may be controlling and take over the interaction, or the parent may just not make any attempt to grant the child autonomy.</td>
<td>The parent grants the child autonomy a moderate amount (2-4 displays of autonomy granting behavior). The parent allows/encourages the child to direct the speech preparation most of the time. This encouragement occurs both directly and indirectly.</td>
<td>The parent grants the child autonomy completely (6 or more displays of autonomy granting behavior). The parent allows/encourages the child to direct the speech preparation all of the time. This encouragement occurs both directly and indirectly.</td>
</tr>
</tbody>
</table>
| 1-2 = “Mild autonomy granting” | High-moderate displays of autonomy granting (5 displays) | }
Global positivity of interaction:
This measures the overall positivity of the parent-child interaction. A globally positive interaction is defined as supportive and warm/friendly interaction between parent and child. There is a sense that the parent and child genuinely enjoy each other’s company and have a mutual respect for each other and strong bond. The child feels comfortable expressing themselves with the parent and looking to the parent for reassurance and the parent will readily provide this reassurance.

There are verbal and nonverbal indicators of a positive interaction. Verbally, the parent may praise the child often. The parent and child may also refer to inside jokes frequently or laugh throughout the interaction. Nonverbally, the parent and child may smile often. The parent may give the child a hug or a high-five if they are feeling nervous. It is important to keep both verbal and nonverbal behaviors in mind when coding.

Examples of positive interactions:
• Parent and child laughing together, may mention inside jokes
• Parent hugging the child
• Parent high-fiving child
• Saying “I love you”
• Lots of smiles
• The parent and child discuss and mutually respect one another’s ideas
• Child looking to the parent for support and the parent offering this support
• Parent rubbing the child’s back

Coding procedures:
A global positive interaction is defined as supportive and warm/friendly interaction between parent and child. This scale is rated on a 5-point Likert scale. The speech preparation and the parent-child debrief will be coded using this scale.

<table>
<thead>
<tr>
<th>1 = “Not positive”</th>
<th>The interaction is not supportive and warm. This does not imply that the parent is necessarily negative/critical, although this may be the case. There is just an absence of support/warmth in the interaction. There are no positive nonverbal behavioral cues (e.g. laughing, appearing comfortable with each other, etc.). The parent and child do not show signs of enjoying each other’s company, although this does not necessarily imply that there is any animosity between parent and child. The interaction is neutral to negative.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 = “Mildly positive”</td>
<td>Minimal displays of positive behaviors (1-5 displays).</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>3 = “Moderately positive”</td>
<td>The interaction is moderately supportive and warm. There are 6-9 verbal indicators of a positive interaction (e.g. praise, jokes). There are 2-3 positive nonverbal indicators of a positive interaction (e.g. laughing, appearing comfortable with each other, etc.). The parent and child seem to enjoy each other’s company.</td>
</tr>
<tr>
<td>3-4 = “Very positive”</td>
<td>High-moderate displays of positive behaviors (10-13 displays).</td>
</tr>
<tr>
<td>5 = “Extremely positive”</td>
<td>The interaction is extremely supportive and warm. There are 13 or more verbal indicators of a positive interaction (e.g. praise, jokes). There are 5 or more nonverbal indicators of a positive interaction (e.g. laughing, appearing comfortable with each other, etc.). The parent and child seem to extremely enjoy each other’s company.</td>
</tr>
</tbody>
</table>

**Praise:**
This is how often the parent expresses satisfaction/pride concerning the child’s abilities/performance. Such satisfaction/pride indicates to the child that the parent has complete confidence in the child’s abilities. Praise also acts as a positive reinforcer for good behavior (e.g. facing fears, not avoiding the situation, etc.).

The parent may praise the child in several ways:
- The parent may praise something highly specific that the child has done. For example, the parent may praise one of the child’s ideas during speech preparation or mention a specific moment of the child’s speech that he/she enjoyed watching.
- The parent may also praise the child more generally. For example, the parent may praise the child’s speech performance generally, indicating that the child did a great job overall.
- Praise may also be in reference to the child overcoming certain difficulties. For example, the parent may praise the child for recovering after he/she ran out of things to talk about during the speech.
- The parent may also praise the child by agreeing with any positive statement the child makes in reference to his/her abilities/performance. For example, the child may say, “I think I did a good job with my speech.” The parent may respond saying, “I completely agree, you did awesome!”

**Examples of praise:**
- Parent praising the child about speech performance
- Parent praising the child for his/her ideas during speech preparation (“what a great idea!”)
- Parent mentioning the child’s positive traits/skills
- “You did such a great job!”
- “You are doing such a great job”
- “I loved how you talked about ____ in your speech, it was great!”
- “I am so proud of you”
- “I knew you could do it!”
- “Your speech was so great”
- “I totally agree with you, you did great!”
- “This would have been so difficult for me, I’m so impressed you were able to do this”

Coding procedures:
Praise is defined as how often the parent expresses satisfaction/pride concerning the child’s abilities/performance. This scale is rated on a 5-point Likert scale. The speech preparation and the parent-child debrief will be coded using this scale.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No positive reinforcement/prise</td>
</tr>
<tr>
<td>1-2</td>
<td>Mild reinforcement/prise</td>
</tr>
<tr>
<td>3</td>
<td>Moderate reinforcement/prise</td>
</tr>
<tr>
<td>3-4</td>
<td>High to moderate reinforcement/prise</td>
</tr>
<tr>
<td>5</td>
<td>Maximum reinforcement/prise</td>
</tr>
</tbody>
</table>

1 = “No positive reinforcement/prise”
The parent does not praise the child and does not give any positive reinforcement. This does not imply that the parent is necessarily negative/critical. There is just an absence of praise/positive reinforcement.

1-2 = “Mild reinforcement/prise”
Minimal displays of reinforcement/praise (1-5 displays).

3 = “Moderate reinforcement/prise”
The parent expresses satisfaction/pride concerning the child’s abilities/performance 6-9 times throughout the interaction. The praise may be general or specific. The praise may also be related to the child overcoming his/her fears. If the child praises his/her performance, the parent agrees a majority of the time.

3-4 = “High to moderate reinforcement/prise”
High-moderate displays of reinforcement/praise (10-11 displays).

5 = “Maximum reinforcement/prise”
The parent expresses satisfaction/pride concerning the child’s abilities/performance 12 or more times throughout the interaction. The praise may be general or specific. The praise may also be related to the child overcoming his/her fears. If the child praises his/her performance, the parent agrees almost all of the time.