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# Parental emotion socialization in clinically depressed adolescents: Enhancing, and dampening positive affect

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#### **Abstract**

This study compared parental socialization of adolescent positive affect in families of depressed and healthy adolescents. Participants were 107 adolescents (42 boys) aged 14 - 18 years and their parents. Half of the participants met criteria for major depressive disorder and the others were demographically matched adolescents without emotional or behavioral disorders. Results based on multi-source questionnaire and interview data indicated that mothers and fathers of depressed adolescents were less accepting of adolescents' positive affect and more likely to use strategies that dampen adolescents' positive affect than were parents of healthy adolescents. Additionally, fathers of depressed adolescents exhibited fewer responses likely to enhance the adolescents' positive affect than were fathers of healthy adolescents. These findings build on those of previous work in examining parental responses to adolescent emotions, focusing on positive emotions and including both mothers and fathers.

#### **Keywords**

Emotion Socialization; Depression; Adolescence; Positive Affect; Parents

The role of parents in helping children learn to express and regulate their emotions is well established (e.g., Morris, Silk, Steinberg, Myers, & Robinson, 2007). Parental behaviors that support children's understanding of emotions are associated with greater emotional competence on the part of the children. For example, children of mothers who use more frequent or sophisticated language about emotions, or who are more accepting of their children's emotions, are better able to regulate their emotions (Gottman, Katz & Hooven, 1997). On the other hand, children whose mothers respond to their emotions with minimizing or punitive reactions are less likely to use constructive behavioral-regulation strategies (Eisenberg, Fabes, & Murphy, 1996).

Relatively few investigations of parental emotion socialization have been conducted in adolescent samples (Morris et al., 2007). This is notable given that adolescence is a high-risk period for the emergence of depressive disorder (Lewinsohn, Rohde, & Seeley, 1998), and

that depression is, at least in part, a disorder of emotion regulation. Nonetheless, initial findings do indicate that parents' coaching responses to adolescent affect are associated with less internalizing symptomatology (Katz & Hunter, 2007; Stocker, Richmond, Rhoades, & Kiang, 2007) and conversely, that parents' punishing and neglectful responses are associated with emotional and behavioral problems (Klimes-Dougan et al., 2007). These findings suggest that despite adolescents' greater independence, peer focus, and regulatory capacity, parental emotion socialization continues to be associated with adjustment.

Most studies of parental socialization of emotion have focused on responses to children's negative affect, with socialization of positive affect (PA) receiving less attention (c.f., Lunkenheimer, Shields, & Cortina, 2007). To our knowledge, there is only one study of the role of parents in socializing and regulating adolescent PA (Yap, Allen, & Ladouceur, 2008). This omission constitutes a significant gap in efforts to understand socialization processes relevant to adolescent depression. In addition to being a high-risk period for the emergence of depressive disorder, adolescence is also a period of lessened positive emotionality relative to middle childhood (Larson & Sheeber, 2008). This shift in affective tone is potentially important given evidence that depression is characterized by disturbances in the experience of PA (Joiner, Catanzaro, & Laurant, 1996; Sheeber et al., 2009) and reward-related neural processes (Forbes & Dahl, 2012). Additionally, levels of temperamental positivity appear to be associated with risk for affective symptoms or disorder, and may buffer children from developing depressive symptoms such as anhedonia (Compas, Connor-Smith & Jaser, 2004; Durbin, Klein, Hayden, Buckley, & Moerk, 2005). Hence, understanding relations between parenting behavior and adolescents' experience of PA may have important implications for understanding affective disturbances during this critical developmental period.

Based on previous findings on parental socialization of emotion, we reason that poor parent socialization of PA may lead to poor regulation of PA in adolescents, which in turn may create risk for depression. This conceptual framework served as a guide for the current research, which focuses on the narrower question of whether there are differences between parents of depressed and healthy adolescents in the socialization responses that would be expected to enhance (i.e., increase duration or intensity) or dampen (i.e., reduce duration or intensity) PA.

Several types of parenting responses may influence youth PA. Parents' philosophy and attitudes about emotion – what has been termed their "meta-emotion philosophy" (MEP; Gottman et al., 1997; Katz & Hunter, 2007) – may influence how they respond to their child's affective expression. Parental MEP includes parents' awareness and acceptance of emotion as well as their ability to coach children during emotional moments. Parents who are aware of their children's emotions are easily able to recognize affective expression in their child, and parents who are accepting of emotion convey that children's feelings are welcome and important. Parental coaching includes validation of child affect, using emotional moments as an opportunity for intimacy, and engagement in child-directed problem solving to deal with difficult emotion situations. Parental awareness, acceptance and coaching of children's emotions may enhance children's experience and expression of PA.

Findings from the positive psychology literature suggest additional behaviors that may enhance positive moods. For instance, the capacity to "savor" a positive event, that is to intensify and prolong enjoyment through volitional thoughts and actions, is inversely related to symptoms of depression such as hopelessness and anhedonia (Bryant, 2003; Feldman, Joormann, & Johnson, 2008). Similarly, capitalizing on a positive event by sharing the news with others or celebrating it, leads to greater increases in PA than are associated with the

positive event itself (Langston, 1994). This effect is greater if those with whom the news is shared respond actively and constructively (Gable, Reis, Impett, & Asher, 2004). These findings have implications for identifying parental behaviors that would likely enhance their children's experience of PA. Broadly, parents may help their children to enhance positive emotional states by sharing in their positive events and emotions in ways that generate continued PA. For example, they may show interest in the events that lead to their child's PA, reciprocate their child's positivity with their own, or increase engagement by sharing a joint positive activity. Adolescents who are not regularly exposed to such socialization responses fail to learn skills for maintaining or amplifying positive affective states.

Conversely, parental socialization responses may also dampen youth PA. Literature on the socialization of negative affect points to the fact that punishing or invalidating responses are associated with greater difficulty regulating negative affect as well as with behavioral and emotional disorder (Eisenberg, Cumberland & Spinrad, 1998). We anticipate that those responses would also serve to dampen PA. In this regard, initial evidence indicates that adolescents whose mothers respond to PA in an invalidating manner, displayed more emotionally dysregulated behaviors and reported both greater frequency of maladaptive emotion regulation strategies and higher levels of depressive symptoms (Yap et al., 2008).

Though studies of emotion socialization have largely focused on mothers, fathers' parenting behavior may have significant associations with adolescent emotional development. In studies of young children, fathers' emotional expressions and responses to their children's emotions have shown unique and sometimes stronger links to children's regulation (Carson & Parke, 1996), competence (Roberts & Strayer, 1987) and peer acceptance (Isley, O'Neil, & Parke, 1996) than has mothers' behavior (cf., Denham & Kochanoff, 2002). Studies of older children and adolescents have also revealed that fathers' emotion socialization behaviors are associated with child well-being (Lunkenheimer et al., 2007; Stocker et al., 2007). Additionally, evidence suggests that the quality of father-child relations is strongly related to adolescent depression. For example, children of fathers who display authoritative parenting styles experience lower levels of depressive symptoms than those of fathers with more permissive or neglectful parenting styles (Milevsky, Schlechter, Netter, & Keehn, 2007). Sheeber, Davis, Leve, Hops, and Tildesley (2007) reported that support and conflict in the father-child relationship was more strongly associated with adolescent depressive symptoms than were mother-child relationship qualities. Finally, Allen, Kuppens, and Sheeber (2012) reported that adolescents had differential heart rate responses to maternal and paternal affective behavior, and that the nature of these responses was associated with the adolescents' depressive status. These findings suggest the potential importance of examining both mothers' and fathers' emotion socialization processes.

In this study, we examined mothers' and fathers' emotion socialization of PA (i.e., happiness) in a sample of depressed and healthy adolescents. More particularly, we examined parental behaviors hypothesized to either dampen or enhance PA. We also examined sex differences given evidence both that parent responses to emotions may differ as a function of child sex (Garside & Klimes-Dougan, 2002), and that girls may be more vulnerable to depression than boys as a function of family processes (Compton, Snyder, Schrepferman, Bank & Shortt, 2003). We hypothesized that parents of depressed adolescents would be less likely to display behaviors that enhance PA and more likely to display behaviors that dampen PA as compared to parents of healthy participants. Given the lack of available data, no specific a priori hypotheses were made regarding differences between mothers and fathers behaviors.

#### Methods

#### **Participants**

Participants were 107 adolescents (42 boys) and their parents, selected from a larger sample of families participating in a study of adolescent unipolar depressive disorder (N=152; Sheeber et al., 2009). Of participating parents, 93% of mothers and 74% of fathers were the child's biological or adoptive parent; the remaining were step-parents (5% mothers; 23% fathers) or grandparents/permanent guardians. Because we were interested in comparing relations between emotion socialization and depression as a function of parent sex, only two-parent families, in which both parents participated, were included. Of two-parent families in the larger study, both parents participated in 93% of families. Relative to the larger study, the subsample had higher family income,  $\chi^2$  (n=152) = 21.52, p<.001, more boys  $\chi^2$  (n=152) = 5.74, p<.05, and fewer depressed  $\chi^2$  (n=152) = 4.24, p<.05 participants.

The adolescents were between the ages of 14 and 18 and met research criteria for placement in one of two groups (Depressed, n=47 or Healthy, n=60). Depressed adolescents met DSM-IV (American Psychiatric Association, 1994) diagnostic criteria for current Major Depressive or Dysthymic disorder (n=1) based on the K-SADS diagnostic interview (Orvaschel & Puig-Antich, 1994). Healthy adolescents had no current or lifetime history of psychopathology based on the K-SADS, and no history of mental health treatment. Depressed adolescents were excluded if they evidenced current comorbid externalizing or substance dependence disorders, or were taking either Serotonin Norepinephrine Reuptake Inhibitors (SNRIs) or Tricyclic antidepressants because of their potential to influence psychophysiological measures collected as part of the larger investigation. Demographic information is provided in Table 1.

### **Screening and Recruitment**

Families were recruited using a two-gate procedure consisting of an in-school screening and an in-home diagnostic interview. In order to facilitate recruitment of a representative sample of students, we used a combined passive parental consent and active student assent protocol for the school screening (Biglan & Ary, 1990). Active parent consent and adolescent assent for the full assessment were obtained prior to the diagnostic interview. The study was conducted with approval of the appropriate IRB and in accordance with American Psychological Association ethical standards.

**In-School Screening**—High school students (N = 4182) completed the Center for Epidemiological Studies-Depression Scale (CES-D; Radloff, 1977) and a demographic data form during class. Approximately 70% of enrolled students participated in the screening (12% declined; 18% absent). The CES-D is a widely-used, self-report measure that has a well-established record as a screener for depressive symptomatology in adolescent samples (e.g., Sheeber et al., 2007). The CES-D cut-off scores for selecting potential participants represented the  $93^{rd}$  percentile in the distribution of scores obtained in an earlier screening of high school students (N = 4495) in the same area (Sheeber et al., 2007). Relatively high scores (> 31 for males and > 38 for females) were selected to maximize the positive predictive power to identify adolescents experiencing depressive disorder. Approximately 8% of students in the current sample scored above these cut-offs. The pool for the healthy group was defined as students not more than .5 SD above the mean in the earlier sample (< 21 for males and < 24 for females). The mean score in the current sample was 16.04 (SD = 11.4; range = 0-59).

In-Home Diagnostic Assessment—Interviewers conducted the Schedule of Affective Disorders and Schizophrenia-Children's Version (K-SADS, Orvaschel & Puig-Antich, 1994) with adolescents who had elevated CES-D scores in order to obtain current and lifetime diagnoses for mood, anxiety, psychotic, externalizing, eating, and substance use disorders. After each adolescent in the depressed group completed the lab assessment, a healthy comparison participant matched, to the extent possible, on sex, race/ethnicity and school was recruited from the pool of students who scored within the normal range on the CES-D. Approximately 9% of families contacted by phone were not eligible to participate as per criteria described above (e.g., not living with parent; treatment history not appropriate for condition). Of families invited to participate (N = 498), approximately 26% declined. Rates of decline did not vary as a function of pre-interview group status (i.e., elevated or healthy CES-D score), age, or race, though more males than females declined (31.6% vs. 23%),  $\chi^2$  (1, n = 498) = 4.57, p < .05. Reliability ratings were obtained on approximately 20% of the interviews, chosen at random. Average agreement on an item by item basis was  $\kappa$  = .94, across diagnoses. Agreement at the level of diagnosis for depressive disorder was  $\kappa$ = .80.

**Family-Based Lab Assessment**—Families who met criteria for the investigation after the diagnostic interview were invited to participate in the lab assessment. Approximately 4% of families declined. The decline rate did not vary as a function of group status, age, race, or sex. Components of the lab assessment relevant to this report included questionnaires and interviews. The questionnaires measured parent emotion-socialization behaviors hypothesized to either increase or dampen adolescent PA. The interviews assessed parent meta-emotion philosophy including awareness, acceptance and coaching of adolescent PA.

#### **Measures**

**Parent Meta-Emotion Interview**—(PMEI; Katz & Gottman, 1986). Mothers and fathers were interviewed individually about their feelings, attitudes and behaviors toward their adolescent's anger, sadness, and happiness. Sections of the interview addressing sadness and anger have been used successfully in research on adolescent emotional development and depression (Katz & Hunter, 2007; Stocker et al., 2007). The sections addressing happy affect, developed for the current study, were modeled on the existing interview.

The PMEI was coded using the Revised Meta-Emotion Coding System (Hunter, Hessler, Katz, Hooven, & Mittman, 2006). Scales reflecting parental awareness (7 items), acceptance (3 items), and coaching (5 items) of happiness reflected the degree to which parents were sensitive to, comfortable with, and interested in the adolescent's happy mood. Sample items include: "Parent notices that adolescent has this emotion" (Awareness), "Parent has no trouble distinguishing happiness from other emotions (Awareness), "Parent seems comfortable with adolescent's emotion and expression" (Acceptance), "Parent wants adolescent to know it's OK to have this feeling" (Acceptance), "Parent teaches strategies to induce happiness" (Coaching), and "Parent has given thought and energy to what adolescent knows about this emotion" (Coaching). Items were coded using a 5-point Likert rating. Estimates of internal consistency ranged from .48 - .75. One third of the interviews were coded by a second interviewer, and estimates of inter-rater reliability ranged from .60 - .70. These estimates of inter-rater reliability are consistent with those found in previous studies (Katz & Hunter, 2007; Katz & Windecker-Nelson, 2006).

**Child and Adolescent Meta-Emotion Interview**—(CMEI; Katz & Windecker-Nelson, 2006). The CMEI was used to obtain adolescent reports of parental coaching. Modeled after the PMEI, it includes open-ended, structured questions about the adolescents' emotions and how their parents help them with their emotions. The CMEI was coded using the Child and

Adolescent Meta-Emotion Coding System (CAME; Hessler, Hunter, Katz, & Windecker-Nelson, 2005). Adolescent report of parental coaching (5 items) tapped the degree to which adolescents reported that their parents were involved in or interfered with their experience of happiness. Sample items include: "Mother/Father helps child maintain happiness", and "Child feels good about Mother/Father's reaction to happiness". Estimates of internal consistency ranged from .72 - .73. Approximately 33% of interviews were coded by a second interviewer; inter-rater reliability was .80 and .85 for ratings mothers and fathers, respectively.

**Questionnaire Adaptation**—As noted, little attention has been paid to socialization of adolescent PA. In order to assess parental responses to adolescent happy behavior, we added new items to existing questionnaire measures of parental responses to distressed and angry affect. The existing measures, which served as the starting point were the Children's Affect Questionnaire (CAQ; Garber, Braafladt, & Weiss, 1995), and the Coping with Children's Negative Emotions Scale (CCNES; Fabes, Eisenberg, & Bernzweig, 1990). We used the presentation and response format of the original measures but the items examining responses to happy affect were developed for this project. Content was derived from four sources: 1) the small literature on interpersonal responses that maintain PA (Gable et al., 2004); 2) the literature regarding parents' socialization of negative affect, based on which we hypothesized that responses which minimized or punished PA would dampen it; 3) consultation with the developers of the original measures; and 4) responses of focus groups consisting of adolescents and parents who had participated in prior studies of adolescent depression. Two investigators used the information from these sources to rationally identify domains reflecting parental responses to PA and create items for each domain. Domains and items were then reviewed for clarity and appropriateness by the other investigators and consultants.

Draft versions of the questionnaires were administered to 58 adolescents (ages 14-18) and their parents, who were recruited from a pool of families that had participated in a previous study. Items that were left blank or marked as unclear by 10% of participants or which had item-total correlations below .20 were deleted (Capaldi & Patterson, 1989). A few additional items were added based on participant suggestions. The resulting questionnaires are described below.

Adolescent Happy Affect Questionnaire (AHAQ)—Modeled on the CAQ, this measure assesses the frequency with which parents demonstrate various responses to their adolescents' PA. Parallel forms were created for parents and adolescents. The item prompt for the parent version of this scale is: "Imagine that your adolescent is going out for the first time with someone she or he is really into; in this situation, how likely are you to do each of the following". This prompt was selected because dating, though often positive, is an area about which parents may not share the adolescents' enthusiasm and thus face challenges in responding in mood-enhancing ways. Items are rated on a 4-point scale from *very unlikely* to *very likely*. Each family member reported on each parents' behavior.

Scales were created to represent parents' enhancing (i.e., Capitalize; Increase Engagement; Encourage Fun Activities) and dampening (i.e., Minimize; Punish) responses to adolescent happy affect. As described below, scales from the questionnaire measures were combined into constructs for use in analyses. The constructs are described below, with construct reliability data presented in Table 2. For the complete AHAQ measure, see Appendix A in Supplementary Material.

**Responding to Adolescents' Happy Affect Scale (RAHAS)**—Modeled on the CCNES, this measure consisted of 13 item stems, each of which described a situation in

which an adolescent would likely experience happy affect (e.g., doing well in a sporting event; getting good grades). Parallel forms were created for parents and adolescents. A sample prompt for the parent version is: "If my child was thrilled about making a team, I would..." Participants used a 7-point scale ranging from *very unlikely* to *very likely* to rate the likelihood that the parent would engage in each of ten responses. Each family member reported on each parents' behavior.

Scales were created to represent parents' enhancing (i.e., Capitalize; Increase Engagement; Facilitate Positive Activities) and dampening (i.e., Passive Negative; Punish; Interfere with Positive Event; Raise Concerns) responses. RAHAS and AHAQ scales were combined into constructs for analysis. The constructs are described in more detail below, with reliability data presented in Table 2. For the complete RAHAS measure, see Appendix A in Supplementary Material.

#### **Questionnaire Construct Development**

To form constructs reflecting mother and father socialization behaviors, we averaged scales from the two questionnaires. Because inter-reporter correlations (i.e., mother-, father-, adolescent-report) were low (range r = .12-.40), constructs were created within reporter. Hence, for each type of parental behavior, six variables were constructed (i.e., mother-, father-, and adolescent-report about mothers' as well as fathers' behavior). The constructs are described below, grouped relative to their hypothesized function as enhancing or dampening adolescent PA. As noted, all analyses were conducted at the construct level.

Parent Enhancing Responses to Youth Happiness—Three constructs reflecting enhancing behaviors were created for each parent (i.e., mothers and fathers separately) by reporter. *Mother/Father Capitalize* included the Capitalize scales on the AHAQ and RAHAS. Items on these scales reflected each parents' expressed pleasure or interest in the adolescent's positive experience or mood (e.g., Mother/Father "Shares excitement; Acts Happy for adolescent"). *Mother/Father Increase Engagement* comprised the Increase Engagement scale of each questionnaire and reflected the parent's tendency to spend time with the adolescent when he or she was happy (e.g., Mother/Father "Stops to listen to adolescent"; "Spends time talking with adolescent"). *Mother/Father Encourage Positive Activities* was composed of the AHAQ and RAHAS Facilitate Positive Activities scales, and AHAQ Encourage Fun Activities scale. Items on these scales reflect encouragement of or support for the adolescent to engage in fun activities (e.g., Mother/Father "Offers a ride"; "Encourages adolescent to do something fun").

Parent Dampening Responses to Youth Happiness—Two dampening responses were examined. The *Mother/Father Minimize* construct included the AHAQ Minimize scale and the RAHAS Passive Negative scale. Items on these scales reflect the likelihood that parents would ignore or minimize the circumstances leading to the adolescents' happy affect or the affect itself (e.g., Mother/Father "Doesn't acknowledge adolescent mood"; "Doesn't say anything about event"). *Mother/Father Negative Response* comprised the Punish scales of the AHAQ and RAHAS, the RAHAS Interfere with Positive Event scale, and Raise Concerns scales. Items on these scales reflect parental disapproval of, irritation with, or anxiety about the adolescents' affect or the eliciting event, as well as parental interference with the adolescent's enjoyment (e.g., Mother/Father "Get irritated at adolescent's excitement").

<sup>&</sup>lt;sup>1</sup>For complete correlations of all measures and composites, see Appendix B, Table S1, in Supplementary Material.

#### Results

Repeated-measures analyses of variance (ANOVAs) were conducted with a between-subjects factor of group (depressed vs. healthy adolescents) and within-subjects factors of parent (mother behavior vs. father behavior) and reporter (mother vs. father vs. adolescent). Adolescent sex was also included as a between-subjects factor to examine its potential moderating effect. Significant group by parent interactions were followed by between group ANOVAs for each parent. Analyses were conducted on the MEI scales and the questionnaire constructs. MEI variables were Acceptance, Awareness, and Coaching. Only parents reported on Acceptance and Awareness, and all three respondents reported on Coaching. On the MEI, each parent reported only on their own behavior and the adolescent reported on each parents' coaching. Questionnaire constructs tapping behaviors hypothesized to enhance PA were: Capitalize, Increase Engagement, and Encourage Positive Activities. Constructs hypothesized to dampen PA were: Minimize and Negative Response. On the questionnaire measures, each respondent reported on both mother and father behavior. Means and standard deviations are presented in Table 3 by group, parent, reporter, and adolescent gender.<sup>2</sup>

#### **Parent Enhancing Responses to Youth Happiness**

The first set of analyses focused on the MEI scales. A significant group main effect emerged for parent acceptance of youth happiness, F(1, 98) = 9.23, p < .01. Mothers and fathers of depressed youth were significantly less accepting of youth happiness than were parents of healthy youth. A significant group by adolescent sex by reporter emerged for parent coaching of youth happiness, F(1, 98) = 3.90, p < .05. Subsequent ANOVAs indicated that parents of depressed boys reported (Mother M = 19.05, SD = .90; Father M = 18.32, SD = 2.18) coaching significantly more than parents of healthy boys (Mother M = 18.13, SD = .2.01; Father M = 17.49, SD = 2.18), F(1, 38) = 4.02, p < .05. The group effect was not significant for girls. There were no significant group effects for parent awareness of emotion.

The second set of analyses focused on the questionnaire constructs. Significant group by parent interactions emerged for parent capitalize, F(1, 103) = 6.59, p < .05, increase engagement, F(1, 103) = 7.71, p < .01, and encourage positive activities, F(1, 103) = 5.61, p < .05. The subsequent ANOVAs revealed that fathers of depressed youth were significantly less likely to capitalize, F(1, 103) = 6.03, p < .05, increase engagement, F(1, 103) = 5.54, p < .05, and encourage positive activities, F(1, 103) = 5.50, p = .05 than were fathers of healthy youth. There were no significant group differences for mothers' enhancing behaviors.

## **Parent Dampening Responses to Youth Happiness**

Significant group by parent F(1, 103) = 4.29, p < .05 and group by reporter F(2, 206) 24.75, p < .001 interactions emerged for parent minimize. A group by parent by reporter interaction emerged for parent negative, F(2, 206) = 4.63, p < .05. The subsequent ANOVAs revealed that according to adolescent reports, both mothers, F(1, 106) = 20.28, p < .001 and fathers, F(1, 106) = 25.39, p < .001 of depressed youth were significantly more likely to exhibit minimizing reactions to youth PA than were parents of healthy youth, with the effect being stronger for fathers than mothers, F(1, 46) = 8.69, p < .01. Mothers of depressed youth were also significantly more likely than mothers of healthy youth to display negative behaviors and reactions in response to youth happiness, as reported by the adolescents, F(1, 106) = 17.63, p < .01. Fathers of depressed youth were significantly more

<sup>&</sup>lt;sup>2</sup>For complete results of all analyses, see Appendix B, Table S2, in Supplementary Material.

likely than fathers of healthy youth to display negative reactions in response to youth happiness as reported by both the adolescents, F(1, 106) = 20.06, p < .001 and their mothers, F(1, 106) 6.87, p < .01.

#### **Discussion**

Disruptions in PA have been observed in children and adolescents with depressive symptoms (Blumberg & Izard, 1985; Sheeber et al., 2009). Although parents play a large role in socialization of affect, little is known about parental socialization of PA, or its association with depression in youth. One aspect of emotion socialization examined in this study was parents' ability to respond in ways that enhance adolescent PA. Mothers and fathers of depressed adolescents were less likely to be accepting of youth PA than were parents of healthy adolescents. In previous work, we have reported that parental acceptance of youth negative affect was particularly important during adolescence (Katz & Hunter, 2007). The current results suggest that the importance of parental acceptance applies as well to adolescents' PA. By displaying acceptance of adolescents' feelings, parents create an emotional climate wherein adolescents feel comfortable sharing both positive and negative feelings and experiences with their parents. It is possible that an atmosphere of acceptance may also convey confidence in the adolescent and support for their choices, thereby also encouraging psychological autonomy (Hare, Marston & Allen, 2011). Parents of depressed adolescents who are less accepting of their children's emotion may dampen their children's experience of positive events.

In addition to conveying less acceptance of PA, fathers, but not mothers, of depressed youth were also reported to be less likely to exhibit responses hypothesized to help maintain or amplify adolescents' PA. In particular, fathers of depressed adolescents were less likely to respond to PA by: 1) suggesting that the adolescent do something fun; 2) showing interest in spending time with the adolescent; or 3) capitalizing on the adolescent's PA by showing pleasure or interest in the adolescent's news or mood. Parents of depressed adolescents have been found to be generally less supportive of their adolescents than parents of non-depressed adolescents (Sheeber, Hops, & Davis, 2001), and the reduced frequency of these enhancing behaviors may, in part, reflect this general lack of supportiveness. Nonetheless, the absence of specific behaviors likely to help the adolescent enhance PA may have important implications for the youth's depressed state. Langston (1994) suggests that capitalizing on PA involves interpreting positive events in a beneficial way. Because depressed individuals engage in negative cognitive distortions, youth with depression may interpret positive events in a way that minimizes their positivity. To the extent that parents show interest and pleasure in the adolescent's positive experience, this may help the depressed adolescent think about a positive event in a more constructive manner.

Parents of depressed youth were also more likely than parents of healthy youth to display behaviors hypothesized to dampen adolescent PA. Both mothers and fathers of depressed youth were more likely to minimize or ignore their children's PA. They were also more likely to express negative feelings by, for example, showing disapproval or irritation, or by being more cautious and discouraging than parents of healthy youth regarding the circumstances eliciting the adolescent's happiness. These responses appeared to convey that the adolescent might, in fact, have something about which to worry rather than about which to be happy. In addition, parents of depressed youth tended to interfere with positive events by telling their adolescent they should be engaging in behaviors other than the ones generating the PA.

Although emerging evidence indicates that one's own as well as others' responses to positive events and emotions are instrumental in maintaining and augmenting positive

affective states (Gable et al., 2004), there have been few studies that have identified specific dampening behaviors in which parents may engage. The findings of the current study are concordant with those of Yap et al. (2008), who reported that maternal invalidation of adolescent PA was associated with heightened emotion dysregulation and depressive symptoms. In Yap et al. (2008), invalidation referred to self-report data indicating parental discomfort with or reprimanding of their adolescent's PA, self-report data on the degree to which parents explain the inappropriateness of the adolescent's expression of PA, and observational data indicating aggressive and dysphoric reactions to the adolescent's PA. In our data, additional dampening responses were observed, including minimizing, being cautious or discouraging regarding the basis for the adolescent's happiness, punishing, and directing the adolescent to engage in behaviors other than ones generating the PA. From the parent's perspective, dampening responses may be an attempt to be protective by discouraging depressed children from being unrealistically optimistic, inadequately cautious, or neglectful of responsibilities, any of which a parent could envision having negative consequences for an already vulnerable child. Nonetheless, such dampening responses may "take the wind out of the sails" of an adolescent who is excited about a positive experience. Such an interpretation is consistent with evidence that individuals' own dampening cognitive responses to PA have been shown to be associated with depressive symptoms (Raes, Smets, Nelis, & Schoofs, 2011). Additionally, such parental responses may also leave the adolescent feeling alone and misunderstood, which in turn can increase depressive symptoms. As parents' tendency to dampen their adolescent's PA was more prevalent in families with depressed youth, such socialization practices may be relevant to understanding the low levels of PA seen in depressed adolescents

It is also important to note that findings related to dampening were largely limited to adolescent report of parental behaviors. Depressed adolescents reported that both their mothers and fathers minimized their PA, and both depressed adolescents and their mothers reported that fathers were more likely to display negative reactions to youth PA than fathers of healthy youth. Since depressed youth are likely to demonstrate a negative bias in their perceptions of parental affective behavior (Ehrmantrout, Allen, Leve, Davis, & Sheeber, 2011), it is possible that findings related to minimizing of PA may reflect more about how the adolescent sees their parents than about actual parenting behavior. However, the corroboration between mothers and adolescents in their report of father's negative reactions to youth PA suggests that there may be some validity to the adolescent's report, although mother's own biases or a shared family perspective on individual family members may also be operative.

Overall our data are consistent with the notion that fathers play an important role in socializing the expression of PA in depressed adolescents. With the exception of parental acceptance, group differences in positive affect-enhancing behaviors were found only amongst fathers. These findings complement previous work on the important role of fathers' behavior in adolescent depression. Although fathers have been under-represented in studies of child and adolescent depression, both low levels of nurturing behavior and high levels of harsh parenting behavior in fathers have been found to relate to depressive symptomatology and disorder (McFarlane, Bellissimo, & Norman, 1995; Sheeber et al, 2007).

These results build on past research that demonstrated an association between parental responses to youth negative affect and internalizing symptomatology (Katz & Hunter, 2007; Stocker et al., 2007). In studies of responses to negative affect, it has been hypothesized that punitive reactions heighten emotional arousal and teach children to avoid rather than understand and adaptively cope with emotions (Morris et al., 2007). Conversely, accepting and coaching responses are thought to both provide youth with calming emotional support and facilitate the development of their own regulatory skills (Katz & Hunter, 2007; Shortt,

Stoolmiller, Smith-Shine, Eddy, & Sheeber, 2010). Our data indicate that punitive and minimizing responses as well as enhancing responses are also relevant to PA. Whether these behaviors have their effects on depression by disturbing regulatory processes related to PA, remains to be tested.

One exception to the overall picture that parents of depressed youth engaged in fewer positive emotion socialization behaviors related to PA than parents of healthy youth was the finding that parents of depressed boys were higher in coaching of PA than were parents of healthy boys. This result was not anticipated, but can be considered in light of findings on gender differences in emotional expression. Compared to boys, girls rate themselves as more emotionally expressive, both in general and as regards expression of PA (Larson & Sheeber, 2008). To the extent that depression reduces positive emotional expression even further, parents may be particularly concerned about depressed boys and try to respond in ways that increase their PA. This may express itself as higher levels of emotion coaching around PA for parents of depressed than healthy boys. This hypothesis is supported by the fact that differences in coaching were observed for parent report of emotion coaching but not youth report, suggesting that higher levels of emotion coaching may reflect greater parental effort about their sons' emotional expression. Additional research is needed to examine how youth sex interacts with how parents navigate their socialization efforts.

Given the cross-sectional data, we cannot speak to the extent to which parental behavior is predictive of adolescent depressive symptoms. Clearly, characteristics of the child may contribute to between group effects. In an earlier report, based on the larger study from which the current sample was drawn (Sheeber et al., 2009), participants reported that depressed adolescents evidenced less frequency and shorter durations of happy affect than did nondepressed youth, a finding consistent with evidence that depression is characterized by deficits in PA. This deficit, as well as the role that depressed adolescents have in contributing to the stress in their interpersonal relationships (Hammen, Shih, & Brennan, 2004) suggests the possibility that their affective behavior may elicit disadvantageous responses from parents. This is to say that the adolescents may contribute to creating an environment in which parents may be primed to respond negatively and may miss opportunities to respond favorably to their children's PA. It is also possible that parents' tendency to dampen the adolescent's PA may, in part, reflect discouragement of what parents' consider to be ill-advised behaviors. Because depression may be associated with comorbid behavioral problems and less healthy relationships, it may be that depressed adolescents are more likely than their healthy peers to express PA about things that parents don't consider to be in their best interests, and hence, providing the parents less opportunity to be supportive. The extent to which child characteristics influence parental emotionsocialization behaviors, as well as the prospective relations between these behaviors and adolescent depression are important directions for ongoing work.

An additional limitation of the study is that the sample was fairly homogeneous with regard to racial and ethnic characteristics, with roughly 70% of the adolescents identifying as European-American. Cultural differences in beliefs about emotional experience and expression likely influence parental socialization behavior and may moderate the association of socialization practices and child well-being (Cole, Tamang, & Shrestha, 2006). Cultural differences may also be at play in parents' perspective on adolescent dating, and future studies should include multiple domains for questionnaire stems related to adolescent PA. The inclusion of families from a broader range of cultural backgrounds is thus a direction for ongoing research.

Other parent and child characteristics will also be important to investigate in future work. In particular, given that parents' own PA and parental psychopathology may influence their

ability to respond in a manner that sustains or amplifies child's PA, these will be important characteristics to examine. Additionally, a growing body of research indicates that the influence of family processes is moderated by constitutional differences (Boyce & Ellis, 2005). Affective temperament is likely an important variable to consider in this regard, with children low in dispositional PA potentially being most vulnerable to adverse socialization processes and most in need of parenting that provides adequate support and scaffolding (Kiff, Lengua & Zalewski, 2011). Finally, emotion socialization is a multi-faceted construct, of which parental responses to their children's emotional behavior are but one component (Morris et al., 2007). Other aspects, such as the general emotional climate of the family, and parents' own reactivity and regulation are likely relevant to understanding vulnerability to depression.

Several strengths of the study are also worth noting. Most studies of parental socialization of emotion have focused on responses to children's negative affect, and to our knowledge there is only one other study of the role of parents in socializing and regulating adolescent PA (Yap et al., 2008) despite the centrality of deficits in PA to unipolar depressive conditions. Another strength is the use of multi-source data, which provides multiple perspectives on socialization processes within the family. The fact that cross-informant correlations were generally low highlights the unique information provided by each family member. Examining socialization processes in a sample of clinically depressed adolescents is also a strength, as most studies of emotion socialization have been conducted with normative samples and have examined variability in children's internalizing or externalizing behaviors within a normal range. Understanding how socialization processes differ between normative and disordered populations provides a fuller picture of emotion socialization within families. Finally, the current findings attest to the importance of including fathers in studies of emotion socialization.

Given the cross-sectional nature of the study, additional research is need to examine the prospective influence of parents' responses to adolescent's PA on depression. Additionally, it will be important to examine the mechanisms by which these responses may serve as risk or protective factors. In particular, it will be important to examine the extent to which adolescents' own regulatory responses to PA may mediate the association between parental behavior and adolescent symptoms. If a prospective connection is found, there may be potential implications for intervention. Parenting interventions focused on teaching parents adaptive ways to respond to their adolescents' PA may help improve adolescents' regulatory responses as well as subsequent mood and risk for disorder. An emotion-coaching intervention is currently being implemented with parents of children in middle childhood (Katz, Stevens, Hunter, Maas, & Pepin, 2009), and an emotion-focused parenting intervention has also been developed to help preschoolers as well as adolescents increase their emotional competence (e.g., Havighurst, Harley, & Prior, 2004), although these interventions are more focused on helping children reduce and regulate negative affect than enhance PA. Extending such interventions to include a focus on PA and including fathers may be particularly helpful for parents of depressed or at risk youth. Finally, continued identification of specific socialization practices that dampen and enhance PA is important for the development of interventions that teach parents of depressed youth how to respond to their children's expressions of positive affect so as to promote healthy affective functioning.

# **Supplementary Material**

Refer to Web version on PubMed Central for supplementary material.

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Table 1

Demographic Data

Demographic Category	Depressed $(n = 47)$	<b>Healthy</b> ( <i>n</i> = 60)	Test Statistic
Sex			
Male	17 (36.2%)	25 (41.7%)	$\chi^2 = 0.33$ , ns
Female	30 (63.8%)	35 (58.3%)	
Age			
Mean (SD)	16.38 (1.20)	16.15 (1.07)	t = 1.01, ns
Income			
Median	\$52,500	\$67,500	$\chi^2 = 142$ , ns
Race			
Caucasian	32 (68.1%)	46 (77.7%)	$\chi^2 = 0.60$ , ns
African American	1 (2.1%)	1 (1.7%)	
Asian	0 (0.0%)	1 (1.7%)	
Native American	0 (0.0%)	0 (0.0%)	
More than one race	11 (23.4%)	10 (16.7%)	
Ethnicity			$\chi^2 = 0.20$ , ns
Hispanic	4 (8.5%)	7 (11.7%)	
Not Hispanic	40 (85.1%)	52 (86.7%)	
Unknown	3 (6.4%)	1 (1.7%)	

Table 2 Cronbach's Alpha for Questionnaire Constructs

Construct	Mothers	Fathers
Parent Enhancing Responses to	Youth Positive Affect	ct
Capitalize		
Mother Report	0.89	0.91
Father Report	0.92	0.92
Adolescent Report	0.96	0.95
Increase Engagement		
Mother Report	0.91	0.91
Father Report	0.90	0.91
Adolescent Report	0.96	0.95
Encourage Positive Activities		
Mother Report	0.91	0.89
Father Report	0.91	0.92
Adolescent Report	0.94	0.93
Parent Dampening Responses to	Youth Positive Affe	ect
Minimize		
Mother Report	0.73	0.82
Father Report	0.77	0.81
Adolescent Report	0.92	0.92
Negative		
Mother Report	0.92	0.94
Father Report	0.91	0.91
Adolescent Report	0.96	0.95

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lable 3 Means and Standard Deviations by Group, Parent, Reporter, and Adolescent Sex

		Parents of Depressed Adolescents	essed Adolescent	S		Parents of Hea	Parents of Healthy Adolescents	7.0
Variable	Mot	Mothers	Fatl	Fathers	Mot	Mothers	Fatl	Fathers
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Parent Enhanci	ng Responses to	Parent Enhancing Responses to Youth Positive Affect	Affect					
Awareness								
PMEI	26.04(1.24)	26.09(1.16)	25.89(1.52)	25.18(2.09)	25.56(1.72)	25.37(1.42)	24.86(2.66)	25.49(1.95)
Acceptance								
PMEI	$11.78(0.40)_{\rm a}$	$11.54(0.96)_a$	$11.22(1.30)_{\rm a}$	$11.57(0.61)_a$	$11.82(0.58)_{\rm b}$	$11.97(0.52)_{\rm b}$	$11.69(0.76)_{\rm b}$	11.84(0.36) <sub>b</sub>
Coaching								
PMEI	$19.05(0.90)_{\rm a}$	18.82(1.34)	$18.32(1.50)_{\rm a}$	17.76(2.03)	$18.13(2.01)_{\rm b}$	18.59(1.64)	17.49(2.18) <sub>b</sub>	18.15(1.71)
CMEI	17.38 (3.68)	17.97(2.37)	17.51(2.31)	17.65(2.56)	18.02(1.82)	18.08(2.43)	18.67(2.06)	17.62(2.48)
Capitalize								
Mother Report	89.10(18.65)	93.97(9.52)	79.30(19.58) <sub>a</sub>	82.60(14.42) <sub>a</sub>	91.84(10.40)	91.55(7.13)	86.07(10.71) <sub>b</sub>	82.75(9.96) <sub>b</sub>
Father Report	94.41(5.82)	90.32(11.74)	81.32(12.57) <sub>a</sub>	84.06(12.63) <sub>a</sub>	91.10(9.96)	90.55(10.15)	87.25(10.68) <sub>b</sub>	85.35(10.03) <sub>b</sub>
Adolescent Report	75.57(17.28)	78.26(17.82)	$70.09(14.73)_{\rm a}$	$68.64(20.52)_{\rm a}$	78.94(18.84)	85.94(13.28)	74.44(20.09) <b>b</b>	81.20(12.67) <sub>b</sub>
Increase Engagement	ement							
Mother Report	66.02(17.15)	72.96(12.75)	$57.07(15.81)_a$	$62.32(16.70)_a$	67.20(10.17)	70.34(9.58)	64.04(10.22) <sub>b</sub>	62.48(10.30) <sub>b</sub>
Father Report	73.81(11.14)	70.87(10.53)	59.96(9.98) <sub>a</sub>	$63.52(10.21)_a$	73.34(12.35)	71.71(10.91)	70.48(11.93) <sub>b</sub>	65.81(11.66) <sub>b</sub>
Adolescent Report	62.12(16.10)	59.72(19.06)	57.65(14.99) <sub>a</sub>	54.08(20.36) <sub>a</sub>	61.77(19.72)	66.77(15.96)	58.35(21.27) <sub>b</sub>	62.05(15.38) <sub>b</sub>
Encourage Posi	Encourage Positive Activities							
Mother Report	51.39(11.92)	51.23(8.88)	$45.74(11.32)_a$	44.51(9.47) <sub>a</sub>	50.36(7.87)	50.31(9.00)	47.41(7.69) <sub>b</sub>	45.51(9.10) <sub>b</sub>
Father Report	54.78(6.81)	50.92(9.16)	46.63(8.29) <sub>a</sub>	45.67(9.84) <sub>a</sub>	54.14(8.65)	51.27(9.41)	51.54(8.87) <sub>b</sub>	48.15(9.40) <sub>b</sub>
Adolescent Report	46.12(11.11)	42.71(11.81)	$42.22(10.01)_{a}$	37.93(12.43) <sub>a</sub>	47.01(11.76)	48.65(9.95)	44.44(12.85) <sub>b</sub>	46.26(9.34) <sub>b</sub>

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	Ы	arents of Depr	Parents of Depressed Adolescents	s		Parents of Hea	Parents of Healthy Adolescents	s
Variable	Mothers	iers	Fatl	Fathers	Mot	Mothers	Fat	Fathers
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Parent Dampen	Parent Dampening Responses to Youth Positive Affect	Youth Positive	Affect					
Minimize								
Mother Report	13.97(6.98)	12.80(3.78)	14.55(5.99)	14.60(5.73)	12.72(2.42)	12.22(3.51)	13.04(2.80)	13.24(4.36)
Father Report	12.79(3.88)	13.17(3.23)	15.41(6.01)	14.07(4.74)	13.17(3.23)	14.29(4.16)	12.91(2.68)	14.13(3.86)
Adolescent Report	24.32(11.28) <sub>a</sub>	16.99(7.75) <sub>a</sub>	$23.38(10.27)_{\rm a}$	18.41(8.05) <sub>a</sub>	14.09(5.14) <sub>b</sub>	12.45(4.69) <sub>b</sub>	14.01(4.71) <sub>b</sub>	12.67(5.19) <sub>b</sub>
Negative								
Mother Report	22.89(9.88)	22.25(7.33)	25.35(11.19) <sub>a</sub>	24.64(9.28) <sub>a</sub>	20.06(5.79)	20.85(7.17)	20.34(5.98) <sub>b</sub>	20.89(7.40) <sub>b</sub>
Father Report	23.97(6.03)	21.67(6.71)	25.37(7.96)	23.49(7.66)	24.42(6.54)	23.39(7.74)	24.16(6.84)	22.09(6.77)
Adolescent Report	$38.32(14.21)_{\rm a}$	$7.72(11.24)_{\rm a}$	$35.28(12.64)_{\rm a}$	$28.70(11.35)_{\rm a}$	24.89(8.19) <sub>b</sub>	21.43(7.56) <sub>b</sub>	24.61(8.27) <sub>b</sub>	20.66(7.67) <sub>b</sub>

Note. PMEI = Parent Meta-Emotion Interview; CMEI = Child Meta-Emotion Interview. Means with different subscripts indicate group differences at p < .05.

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