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Gratitude Conversations: An Experimental Trial of an Online Parenting Tool

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Abstract

Gratitude is associated with a host of positive outcomes; yet, little is understood about the ways in which parents may foster gratitude in their children. The current study allows for the examination of one possible mechanism, namely parent-child conversations, that may be used to encourage gratitude in children. Using a rigorous experimental design, we tested whether an online program that was designed to enrich parents' skills in having conversations about gratitude with their children was effective in changing parents' socialization behaviors and children's gratitude. Results demonstrated that parents can successfully utilize an online program to enhance their gratitude-related communication. This training permeates other aspects of how parents socialize gratitude in children and positively impacts children's gratitude moments. Implications for program development and understanding the role of parents in the development of children's gratitude are discussed.

Keywords

Gratitude; parenting; gratitude intervention; communication

Children's gratitude is a topic of renewed interest in both developmental science and in the popular literature. In adults, gratitude is linked to a variety of positive outcomes including better physical and mental health outcomes (e.g., Wood, Froh, & Geraghty, 2010), higher life satisfaction (e.g., Emmons & McCullough, 2003), and stronger relationship functioning (Algoe, Haidt, & Gable, 2008; Algoe & Stanton, 2011). Similar links between gratitude and positive outcomes are emerging in studies of adolescents (e.g., Froh et al., 2011; Froh, Yurkewicz, & Kashdan, 2009; Park & Peterson, 2006). An effort to understand how gratitude develops in children, what we can do to cultivate it, and how it relates to other indices of positive development (in part fueled by the John Templeton Foundation and the Greater Good Science Center at UC Berkeley) generated a nexus of studies on gratitude in children. Within this literature, most studies focused on socioemotional correlates of gratitude (Nelson et al., 2013), cultural variation in gratitude (Mendonça, Merçon-Vargas, Payir, & Tudge, 2018), or cultivating gratitude through school-based intervention (Froh et al., 2014). However, little is understood about how parents foster gratitude in children. In the current study, we build on prior work by the Raising Grateful Children project (Hussong, Langley, Rothenberg, Coffman, Halberstadt, & Costanzo, 2018a) to examine one mechanism

through which parents may encourage moments of gratitude in children; namely, through conversations. Using a rigorous experimental design, we tested whether enriching parents' skills in having conversations about gratitude with their children changed parent socialization behaviors and, in turn, children's gratitude.

Children's Gratitude

Not surprisingly, gratitude is defined in varying ways across not only discipline but also scholar and context (see Tudge & Freitas, 2018 for a discussion). Our view of gratitude draws on common elements of gratitude as a character trait (Froh, Sefick, & Emmons, 2008) or emotion (McCullough, Emmons, & Tsang, 2002; Wood et al., 2010) in social psychological studies of adults and on results of focus groups with parents (Halberstadt et al., 2016). We define gratitude as "a cognitively-mediated, socio-emotional process that results in a sense of appreciation, happiness, or joy due to the appraisal of having received something, which is not due to personal effort but to a benefactor's free and unrestricted intentions to give" (Hussong et al., 2018a). Gratitude as a process unfolds in moments marked by (a) noticing what one has or has been given (i.e., what we NOTICE), (b) making attributions of beneficence about the giver's intent (i.e., what we THINK), (c) having positive feelings connected to this experience of receiving (i.e., what we FEEL), and (d) displaying expressions of appreciation (i.e., what we DO). We posit that as children mature, these elements of the gratitude moment deepen, become more interconnected, and for some, more frequent and intentional.

Parents' daily reports of their children's displays of gratitude (i.e., defined via the four elements of notice-think-feel-do) showed significant individual differences, but not gender or age difference, in a relatively privileged sample of 6–8 years-olds (Hussong et al., 2018b). Moreover, parent-reported daily gratitude was related to parent- and child self-report of children's trait gratitude and with gratitude displayed in an observational lab task (Hussong et al., 2018c). Thus, the definition of gratitude moments as comprised of notice-think-feel-do elements can be reliably measured in a way that captures individual differences, is correlated with widely-recognized measures of trait gratitude from multiple reporters, and is associated with gratitude acts observed in vivo. In the current study, we adopt this definition of gratitude to test whether changing parent behaviors may increase engagement in these moments among children aged 9–13. We target this age period given (a) suggestions in the literature that gratitude traits may be more evident in those aged ten and above (Gleason & Weintraub, 1976), (b) an increase in self-referential behaviors coinciding with the beginning of autonomy striving in early adolescence (Steinberg, 1990), and (c) the related challenges of maintaining positive parent-child connections during this period of transition (Robin & Foster, 2002).

Parenting and Children's Gratitude

Given our view of gratitude as a complex socio-emotional process, we adapt Eisenberg's theory of parent emotion socialization to inform our model of parenting and children's gratitude (Eisenberg, Cumberland, & Spinrad, 1998). In this model, we articulate four aspects of parenting that may shape children's gratitude. These include parent modeling of

gratitude and niche selection (e.g., the extent to which parents select activities and experiences for their children with at least part of the goal being to foster gratitude). Rothenberg et al. (2017) showed that parents who reported greater trait gratitude in themselves expressed stronger goals to engage in gratitude niche selection for their children. In turn, these parents followed through. They reported more engagement in gratitude niche activities by their children and, finally, more frequent displays of gratitude in their children.

Two additional forms of parent gratitude socialization include how parents respond to children's missed opportunities to display gratitude (marked perhaps by entitlement or assumption) and how parents talk to their children about times when they do display gratitude. Hussong et al. (2018a) reported that parents who "give in" to their children's entitlement during missed opportunity moments tended to have children with lower gratitude. Other negative parental responses to these missed opportunities (distress and self-blame) were associated with higher gratitude in children, but only for families with more grateful parents. However, these findings are cross-sectional and based on parent-reported reactions to children's entitlement. No prior studies have directly examined parents' conversations with children about gratitude (and missed opportunities for gratitude) nor the aspects of successful conversations in fostering children's gratitude.

Studies of parent-adolescent communication distinguish between messages that are conveyed in conversations and strategies that define how those messages are conveyed (Robin & Foster, 2002). Moreover, the initial goal of successful communication is typically to achieve mutual understanding; that is, for each conversational partner to understand the other's perspective. Drawing on this literature, we selected parent-adolescent conversations about gratitude and missed opportunities as a salient intervention target, with a specific focus on gratitude messages and conversational strategies. Although parents may have various goals in these conversations, we focused on promoting parent and child understanding of how each experienced children's gratitude and missed opportunity moments.

More specifically, we targeted messages about gratitude moments involving each of the notice-think-feel-do elements. In a daily diary study, we found that parents were more likely to deliver messages to their children about manners and compliance than about the notice-think-feel-do elements of gratitude moments (Hussong et al., 2018a). In addition, parents focused more on what their 6–8 year-olds should do (beyond manners) to express gratitude than on how children actively receive something from others through noticing, thinking and feeling. In turn, they reported that children similarly engaged in displays of manners more often than the elements of gratitude moments, followed by gratitude 'do' expressions over notice-think-feel elements. In the current study, we posit that conversational messages that incorporate more elements of the gratitude moment are more likely to scaffold recurring gratitude experiences than are those that contain fewer elements.

We also posit that such messages will be most successful when delivered by parents using a *CARE* and *SHARE* approach. The *CARE* and *SHARE* approach is a set of conversational strategies based on parent-adolescent communication skills (Robin & Foster, 2002) and on prior literature on strategies that parents use to enhance recall of salient material in

reminiscing conversations with children (Fivush, Haden, & Reese, 2006). The guiding principle is that parents and children are more likely to understand one another's experiences in recalling gratitude and missed opportunity moments if parents lead a child-focused conversation and if they share their own experiences in ways that make them easily heard by children. More specifically, **CARE** strategies include remaining Child-oriented (in body language and focus), Asking open-ended questions (to encourage child participation), Relating what children say to their past experiences (to reinforce messages), and Expressing pleasure (at prior behavior or current engagement, to reward children). **SHARE** strategies include Sharing parents' own thoughts and feelings (to help children engage in perspective taking), Hearing parents' own words (to make sure they are appropriate in tone and developmental level so children can understand them), Avoiding pitfalls (such as shaming, blaming, accusing, and punishing children when mutual understanding is the goal), Resisting the urge to talk for children (to allow children to explain their own experiences), and Exiting the conversation (to avoid lecturing).

In sum, although there are multiple ways in which parents may cultivate gratitude in children, in the current study we focused on gratitude and missed opportunity conversations. In these conversations, the goal was mutual understanding of gratitude and missed opportunity moments. We posited that by teaching parents to use more notice-think-feel-do messages about gratitude and missed opportunity moments and to use CARE and SHARE strategies in those conversations, our program could enhance parenting socialization behaviors as well as children's gratitude moments.

The Gratitude Conversations Program

The Gratitude Conversations program is an online parent training tool that uses a cognitive behavioral change model. The program includes psychoeducation, parental reflection and goal setting, modeling of appropriate and inappropriate gratitude conversational skills with critique, and planning for successfully employing key features of the program that appeal to the participating parent. The program is approximately 45 minutes long (30 minutes without the embedded assessment material included for program evaluation) and includes an explanation of (a) why gratitude is important, (b) what elements comprise the gratitude moment, (c) why it is hard for children to be grateful, and (d) the CARE and SHARE strategies for parent-adolescent communication. It also includes videos from three parent-youth dyads who in turn demonstrate poor and exemplary gratitude and missed opportunity conversations. After each, parents are invited to reflect on what they liked and did not like in these conversations, followed by a critique of the dyads' conversations in terms of their use of CARE and SHARE strategies. At the end, parents select a specific goal for change (1–2 strategies they want to employ), reflect on barriers to meeting that target and potential ways to overcome those barriers, and complete a program evaluation.

Current Study

In the current study, we used a randomized, wait-list control design to evaluate whether the Gratitude Conversations program had an impact on proposed mediators of program effects (i.e., parents' behavioral intentions, parenting confidence and knowledge uptake) as well as

targeted outcomes (i.e., parents' use of gratitude conversation strategies, parents' socialization behaviors and children's gratitude moments). Taking advantage of power to examine both group differences and within-person change through this design, we tested the following hypotheses. First, we expected those in the program group to show improvement in program mediators relative to the control group at one-month post-test, including increases in behavioral intentions and parenting confidence (to employ gratitude parenting strategies) and in uptake of knowledge about effective communication strategies. Second, we expected those in the program group to show improvement in program targets relative to the control group at one-month post-test, including increases in parents' use of gratitude conversation strategies, parents' socialization behaviors and children's gratitude moments.

Third, we expected to see within-person improvement in program mediators from pre-test to immediate program completion across program and wait-list participants (i.e., behavioral intentions, parenting confidence, and knowledge uptake). Fourth, although these within-person improvements in program mediators may fade from immediate program completion to one-month post-test, we expected these improvements to maintain at one-month post-test relative to pre-test assessments of these mediators. Fifth, we expected to see within-person improvements in program targets at one-month post-program completion for both groups (i.e., parents' report of their socialization behaviors and children's gratitude moments) or, for indices not in the post-test assessment for controls, for the program group (i.e., parents' use of gratitude conversation strategies and child-reports of their own gratitude). And, sixth, we expected to see that greater use of gratitude messages at post-test predicted within person increases in children's gratitude when parents also used more effective gratitude conversation strategies.

Method

Participants

Participants in the experimental trial were recruited from 104 parent-child dyads from the Raising Grateful Children (RGC) longitudinal study. RGC parent-child dyads were recruited through mass emails to faculty, staff, and students at an affiliated university, fliers distributed through public and independent schools in 1st-3rd grade classrooms, and community postings. Eligibility requirements were that the family had a child aged 6–9 who was not diagnosed with a serious developmental delay and English fluency. Dyads completed a wave 1 assessment, when children were aged 6–9, comprised of a parent survey, child interview, parent-child observation task, daily diary and one-month online parent-follow up survey. Eighteen months later, 100 parents (95%) completed an online wave 2 survey.

At three years post-wave 1, when children were aged 9–12, we attempted to recruit all 104 dyads for this experimental trial. Of these families, 92 (or 88%) participated in the pre-test assessment (44 out of 53 randomly assigned to the program condition and 48 out of 51 randomly assigned to the wait-list control condition). Children in the sample were 50% female with a mean age of 10.8 years ($SD = 1.17$). Parents were predominantly female (86% mothers, 14% fathers), with a mean age of 40.8 years ($SD = 5.18$), and self-identified as 80% White, 5% Latinx, 5% African American, 9% Asian, 1% American Indian or Alaska Native, and 5% Middle Eastern. In terms of yearly family income before taxes, 12% earned

\$0-\$49,999, 21% earned \$50,000-\$99,999, 50% earned \$100,000-\$199,999, and 20% of families earned more than \$200,000. In addition, most parents were highly educated: 5% completed high school or some post-high school training, 24% completed college, 8% completed some graduate school or professional school, and 62% completed a graduate or professional degree.

Participant retention throughout the study was high (see Figure 1). Families completed a one-month post-test (99%; 43 in the program condition, 48 in the wait-list control condition), pre-test families participated in the online parenting program (96%; 42 program and 46 wait-list control participants), and wait-list control families participated in a one-month post-program completion online survey (83%; lower rates for wait-list control follow-up were likely due to few reminders and a shorter completion window for this assessment.) Families who attrited (n=13) versus participated (n=91) in the program evaluation did not differ on child age, child gender, parent age, parent gender, family income, parent education, or parent race/ethnicity.

Procedure

Prior to participation, families were randomly assigned to complete the online parenting program immediately after pre-test or after a one-month delay. During the lab-based **pre-test session**, both program and wait-list control families provided consent/assent. Parents and children completed computerized surveys in separate rooms in addition to a parent-child observation task. Pre-test sessions lasted about two hours and families received \$50. Immediately following completion of the pre-test session, we sent program families an email with a link to the online parent program and asked them to complete the program within the week. Reminders were provided after delays of 1, 3, 7, and 8 days. Participation in the online program lasted about 45 minutes and parents received a \$30 amazon gift card for completion. We embedded an **immediate post-program assessment** in the online program that included survey questions completed by parents. Five weeks after the pre-test session, both program and wait-list families completed a **one-month post-test** lab-based session like the pre-test session (about an hour and with a \$20 participant incentive). After the post-test session, we sent wait-list control parents an email with the link to the online program and asked them to complete the program within the week. After an additional one-month delay, we sent wait-list control parents another email with a link to complete an online survey (**control post-test**). Program families did not complete a control post-test survey. Participation in the control post-test lasted approximately 30 minutes and parents received a \$25 amazon gift card for participating.

Measures

We assessed three program mediators at baseline, immediate-posttest and one-month posttest (i.e., parents' behavioral intentions, confidence, and knowledge uptake). At baseline and one-month posttest, we also assessed target outcomes (i.e., parents' use of gratitude conversation strategies, parents' reports of their socialization behaviors, as well as child- and parent-report of child gratitude moments and trait gratitude). In addition, wait-list controls completed only parent reported outcomes in the one-month control posttest.

Parents' Program Clarity and Satisfaction.—Parents completed two items developed by project staff requesting open-ended program feedback in the immediate program post-test. We also included six questions to assess program clarity (adapted from the Client Satisfaction Questionnaire; Attkisson & Zwick, 1982) in the immediate post-program assessment. Parents rated the extent to which the program was useful, and easy to understand using a 5-point rating scale ranging from 'strongly disagree' to 'strongly agree'. A mean score of the five items served as the program clarity scale ($M=4.63$; $SD=0.44$; $\alpha=.86$).

Parents' Behavioral Intentions.—Parents completed five items developed by project staff to assess the extent to which parents intended to have gratitude conversations with their children in the near future (e.g., 'I will try to have regular conversations about gratitude with my child'), using a 5-point rating scale ranging from 'strongly disagree' to 'strongly agree'. A mean score of the five items served as the behavioral intentions scale at each time point (see Tables 1 and 2 for scale means for all measures; $\alpha=.86-.93$).

Parents' Confidence.—Parents completed six items developed by project staff to assess parents' confidence in having effective gratitude conversations with their children (e.g., 'I'm nervous about having conversations about missed opportunities for gratitude with my child,' and 'I am confident I can talk with my child about times when my child was grateful'), using a 5-point rating scale ranging from 'strongly disagree' to 'strongly agree'. A mean score of the six items served as the parenting confidence scale at each time point ($\alpha=.86-.93$).

Parents' Gratitude Conversation Knowledge Uptake.—Parents completed three items developed by project staff to assess knowledge about messages, strategies, and goals for effective gratitude conversations with their children (e.g., 'What is one strategy parents can use when talking with their children about times when their children were grateful that might cultivate gratitude in their children in the future?'). These open-ended items were coded as reflecting program content (1) or not (0). Because there was limited variance in our goals item (i.e., most parents did not identify mutual understanding as the goal), a mean score of the remaining two items served as the knowledge uptake scale at each time point.

Parents' Socialization Behaviors of Gratitude Moments.—We included 20 items that captured the frequency of parents' socialization behaviors in the prior week. These included parents' attempts to foster children's notice (e.g., 'helped my child become aware of something they received that they took for granted'), think (e.g., 'asked my child to think about why someone gave them something special or why they received something or have something'), feel (e.g., 'asked my child about their feelings when they received something special'), and do (e.g., 'asked my child how they wanted to let someone know they appreciated a gift') engagement in gratitude moments. Additional items assessed parents' (a) showing positive reactions to children's gratitude expressions, (b) involving the child in activities that promote gratitude, (c) modeling gratitude, (d) sharing an experience of feeling grateful with the child, and (e) pointing out to the child his or her privilege. For each item, parents rated how often they engaged in each socialization behavior during the past week on

a 5-point response scale, ranging from ‘not at all’ to ‘11 times or more’ (Hussong et al., 2018c). Items were averaged to create indicators of parents’ socialization behaviors ($\alpha=.94$).

Children’s Gratitude (Moments and Traits).—Parents and children each completed two scales assessing children’s gratitude. The first focused on the frequency of gratitude moments in the prior week (Hussong et al., 2018c) reflecting children’s engagement in the notice (e.g., ‘My child shared an experience in which they were thankful for something’), think (e.g., ‘My child seemed to realize that a gift or object was given to them without their earning it or being owed the gift’), feel (e.g., ‘My child expressed their positive feelings when they received something special’), and do (e.g., ‘My child showed surprise and delight when they received something from someone else’) elements of gratitude. For this 14-item scale, parents rated how often their children displayed each behavior during the past week on a 5-point response scale, ranging from ‘not at all’ to ‘11 times or more’. Items were averaged to create an indicator of parent-reported child gratitude ($\alpha=.93-.94$). This measure was also adapted for children’s self-report ($\alpha=.92-.94$).

The second measure assessed children’s trait gratitude and was included to make comparisons to common approaches to measuring gratitude in the literature. Parents completed the five item Child Trends’ Parent Gratitude Scale (Positive Indicators Project, 2013). Parents rated how well each statement described his/her child during the past month (e.g., ‘My child finds it easy to thank people’) using a 5-point response scale ranging from ‘not at all like my child’ to ‘exactly like my child’. An average of items was calculated as another indicator of parent-reported child gratitude ($\alpha=.88-.90$). Children completed the child self-report version of this scale, the Child Trends’ Adolescent Gratitude Scale (Positive Indicators Project, 2013; $\alpha=.72-.73$).

Parent-Child Gratitude and Missed Opportunities Conversations.—We included a parent-child gratitude conversations task (modeled after reminiscing tasks; Reese, Haden, & Fivush, 1993) to assess how parents talk with their children about previously experienced events related to gratitude and missed opportunities for gratitude. First, research assistants worked with parents to help them select two past events to discuss with their child. Parents nominated one event in which they saw some form of gratitude in their child (e.g., when child went on a special vacation; when child went to a leadership summit with 4-H; when child received a new pair of shoes) and one event during which they instead saw ungrateful or entitled behavior (e.g., when child received an undesirable Valentine’s Day gift from a grandparent; when child did not want to leave a sleepover with friends; when child did not receive dessert at dinner). All nominated events were novel, jointly experienced by the parent and child, and had occurred within the past month. After selecting events, parents were reunited with their children and instructed to talk about these experiences for approximately 10 minutes as they would naturally. Conversations were video recorded.

Trained research assistants coded videos of these conversations using a macro-coding system developed by project staff. RAs rated gratitude and missed opportunity conversations separately using 13 different codes assessing the extent to which parents’ conveyed messages aligned with each of the four elements of gratitude (i.e., notice, think, feel, do) and used each of the CARE (i.e., child-oriented, asking open-ended questions, relating child-

disclosure to prior events, expressing pleasure) and SHARE strategies (i.e., sharing thoughts and feelings, hearing your own tone and developmentally appropriate language, avoiding pitfalls like dismissing or insulting, resist speaking for your child, and exiting your point to avoid lecturing). Ratings used a 5-point scale ranging; for gratitude messages, the rating scale ranged from 1 (never present) to = 4 (repeated focus of the conversation to scaffold child insight) and for strategies the scale ranged from 1 (never present) to 4 (strategy used repeatedly with high level of skill). We double-coded 20% of conversations for reliability and found high intra-class correlations (average ICCS of .82 across codes for both gratitude and missed opportunities conversations).

Results

Program Descriptive Statistics

Of the 92 families who completed the pre-test, 88 (or 96%; 42 program and 46 wait-list participants) initiated the Gratitude Conversations program and 85 completed the full program (three only partially completed the program). Across the 88 program participants, average ratings for program clarity were high ($M=4.63$ on a 1–5 scale). Open-ended responses to a question about the program indicated that the program was positively received (e.g., ‘So helpful, the videos of the actors and the presentation of the information was fabulous, felt like I could follow it.’) though some suggestions for improvement were also noted (e.g., greater and repeated access to materials for participants and other family members).

Between-Group Differences in Program Mediators and Targets

To confirm that random assignment was successful in eliminating pre-test group differences, we performed a series of t-tests and found no differences between program and wait-list control participants at pre-test on any program mediator (i.e., parents’ report of their behavioral intentions, confidence, and knowledge uptake), target (i.e., parents’ use of gratitude conversation strategies, parents’ report of socialization behaviors, and child- and parent-report of child gratitude moments and trait gratitude), child gender, or child age (all $p>.10$).

We then performed a series of t-tests to evaluate differences between program and wait-list control participants in one-month post-test program mediators including parent-ratings of behavioral intentions, parenting confidence and knowledge uptake. We also completed t-tests to evaluate group differences in ratings of parents’ use of gratitude messages and CARE/SHARE strategies in the observational task. Given some missing data, we also conducted these analyses as a multiple outcome regression model separately for program mediators and targets using full maximum likelihood estimation within MPLUS (Muthén & Muthén, 2011; see Table 1).

Results of the MPLUS regression model (matching t-test results) showed that at the one-month post-test, those in the program group were more likely to use CARE strategies in both their gratitude ($b=.31$; $t=3.15$, $p<.01$) and missed opportunity ($b=.20$; $t=1.94$, $p=.05$) conversations with children. A marginally significant trend suggested that they may also be

more likely to reference elements of gratitude moments (i.e., notice-think-feel-do) in their gratitude conversations with children ($b=.18$; $t=1.74$, $p=.08$). After program completion, however, confidence in using gratitude conversation strategies was lower in the program than in the wait-list control group ($b=-.27$; $t=-2.73$, $p=.01$). No group differences were evident in other gratitude conversational strategies or in behavioral intentions.

We found no one-month post-test differences between program and wait-list control families in our other program gratitude targets, including parent and child reports of children's gratitude moments and trait gratitude. We did, however, find that parents enrolled in the program engaged in more frequent socialization behaviors than did control families ($b=.25$; $t=2.49$, $p=.01$).

Within-Person Change in Program Mediators and Targets

For within-person analyses, we pooled across assessments at the one-month post-test for program families and the control post-test for wait-list families to compare ratings on program mediators at pre-test, immediate program post-test, and one-month program completion ($n=90$; see Table 2 and footnote on sample size). Initial paired t-tests showed an increase in behavioral intentions from pre-test (baseline for program participants and the one-month follow up as a comparable baseline for wait-list controls) to immediate program post-test ($t=2.41$, $p=.02$) and a decrease in parenting confidence ($t=-2.09$, $p=.03$; see Table 2). From immediate program post-test to one-month program post-test, we found no changes in behavioral intention ($t=-1.26$, $p=.21$) and further decreases in parenting confidence as they rehearse program strategies ($t=-5.80$, $p<.001$). Knowledge uptake increased from baseline to immediate program post-test ($t=10.76$, $p<.001$) and decreased from immediate to one-month program post-test ($t=-3.62$, $p<.001$), though levels remained elevated over baseline ($t=7.22$, $p<.001$).

Within-person Change in Program Targets

For those in the program group who completed the parent-child gratitude conversations task after the program in a lab-based visit ($n=42$), paired t-tests also showed increases from pre-test to one-month post-test in the use of CARE strategies in gratitude ($t=2.41$, $p=.02$) and missed opportunity ($t=1.98$, $p=.05$) conversations (see Table 2). We also saw decreases in SHARE strategies in missed opportunity conversations ($t=-2.05$, $p=.05$) and an increase in references to elements of gratitude moments in gratitude conversations ($t=1.98$, $p=.05$). No changes were found in discussion of gratitude elements in missed opportunity conversations or use of SHARE strategies in gratitude conversations.

Using paired t-tests, within-person analyses of the pooled program and wait-list control families also showed increases in parents' self-reported socialization behaviors ($t=3.85$, $p<.001$) from pre-test to one-month program completion. We also found an increase in children's self-reported trait gratitude ($t=3.06$, $p<.001$). No changes were found in parent-report of children's gratitude moments.

Changes in Conversation Strategies, Messages, and Children's Gratitude

We tested whether increases in parents' use of gratitude messages and CARE/SHARE strategies in gratitude and missed opportunities conversations from baseline to one-month post-test predict increases in children's gratitude. We created change scores (post-test minus baseline) for each construct for those in the treatment group (the wait-list control group did not have post-test conversation data). We conducted multivariate regression analyses in MPLUS predicting changes in parent- and child-reports of children's gratitude moments from changes in gratitude messages $\times$ changes in strategies (CARE and SHARE in separate models due to limited power) and contributing main effects. We estimated separate models for gratitude and missed opportunity conversations (see Table 3). We found three interactions that trended toward significance (at $p < .10$). Results for gratitude conversations showed that changes in gratitude messages and CARE strategies predicted changes in parent-reported ($b = -.28$; $t = -1.84$, $p = .06$) and child-reported ($b = .29$; $t = 1.92$, $p = .06$) gratitude moments in children. Results for missed opportunity conversations showed that changes in gratitude messages and SHARE strategies predicted changes in children's self-reported gratitude moments ($b = .25$; $t = 1.75$, $p = .08$).

We probed interactions (following Cohen, Cohen, Aiken & West, 2003) and found that results were as predicted for the models of child-report of gratitude moments. When the use of gratitude messages increased along with CARE strategies in gratitude conversations, children reported more frequent gratitude moments; whereas increased gratitude messages without increased CARE strategies resulted in fewer gratitude moments. A similar pattern was found for SHARE strategies in missed opportunity conversations. When the use of gratitude messages increased along with SHARE strategies, children reported more frequent gratitude moments; whereas increased gratitude messages without increased SHARE strategies resulted in fewer gratitude moments. Results predicting parent-report of gratitude moments were less intuitive. Increased use of gratitude messages in post-test conversations predicted decreased frequency of parent-reported gratitude moments in children when parents' use of CARE strategies in the gratitude conversations also increased.

Discussion

The current study demonstrates that parents can utilize an online training tool to learn about communicating with their children about gratitude, that they can implement these skills after program completion, and that the training permeates other aspects of how parents socialize gratitude moments in children. Although modest, parents' uptake of these conversational strategies showed some impact on change in children's gratitude. These findings have implications not only for program development but also for understanding the role of parents in the development of children's gratitude more broadly.

In terms of program development, we found that parents largely enjoyed the online Gratitude Conversations program, commenting on the utility of the videos, the importance of the material, and the clarity of the presentation. Primary weaknesses identified by parents included lack of access to materials after program completion (i.e., they wanted to access the video again). All but three parents completed the full online program, suggesting that participant burden was reasonable.

As posited, the Gratitude Conversations program led to an increase in parents' intentions to have gratitude conversations with their children as well as knowledge uptake after completing the program. However, parents' confidence in having these conversations decreased with initial implementation. This may be attributed to parents' realization that parent-youth conversational skills may be more challenging than expected; though confidence often increases with skill mastery. Because our post-test was five weeks after baseline (and thus one month after program completion), parents in the program may not have had sufficient time to experience mastery of targeted skills. This would explain why parental confidence remained lower than baseline at the one-month post-test as well as, perhaps, why parental intentions to engage in challenging strategies returned to baseline. Parents remember the strategies, however, as evidenced by greater knowledge uptake at one-month post-test than at baseline.

Parents also used the conversational strategies after program completion. Results of the randomized control trial showed that program families used more gratitude messages in gratitude conversations with children and more CARE strategies in their gratitude and missed opportunities conversations. Within-person changes in these same strategies emerged in pooled analyses of the program and wait-list control group and findings were more robust. In addition, parents showed increases in SHARE strategies in missed opportunity conversations. Parents are remembering these conversation strategies (as evidenced by their knowledge uptake) but are also more able to effectively use these strategies after exposure to the Gratitude Conversations program.

Moreover, program participation more diffusely impacted parents' socialization of gratitude moments in their children. Program parents engaged in more frequent socialization behaviors than wait-list control parents in the randomized control trial. In addition, pooled analyses of the program and wait-list control group parents showed that socialization behaviors increased significantly from pre to post-program completion. Many of these socialization behaviors may include gratitude conversations, but they suggest that the program impact extends beyond helping parents and children sit down to have conversations about times when children were grateful or missed the opportunity to be so. Importantly, this also suggests that socialization strategies for children's gratitude are interconnected and salient multi-strategy styles may be an important family-centered approach to thinking about socialization, mirroring the larger parenting literature (Eisenberg et al., 1998; Morris, Cui & Steinberg, 2013).

The program, however, had little overall impact on children's gratitude. Results of the randomized control trial showed no differences between program and wait-list control families in parent- or child-reported gratitude moments or trait gratitude in children. Within-person analyses of the program families, though, showed increases in children's self-reported trait gratitude. Once again, we posit that limited effects may be due to the short one-month implementation period for parents. As parents are able to use the strategies more effectively with time and practice, larger effects on children's gratitude may emerge. Given that the conversational strategies presented in the program are appropriate across adolescence, cumulative program benefits are indeed possible.

Additional evidence that greater use of program strategies leads to increases in children's gratitude over time comes from analyses of strategy use and children's gratitude at post-test in the program group. Program families who showed greater increases in their use of gratitude messages and CARE strategies during gratitude conversations or greater messages and SHARE strategies during missed opportunity conversations also showed increases in the frequency of children's gratitude moments (child-reported). This finding is consistent with prior studies on effective parent-adolescent communication stressing the importance of both content (or messages) and style (or strategies) in obtaining mutual understanding of complex situations.

Counter-intuitively, program families who showed greater increases in their use of gratitude messages and CARE strategies during gratitude conversations showed decreases in the frequency of children's gratitude moments (parent-reported). Future work is needed to replicate these findings and, if supported, to better understand how the impact of conversations may differ from the perspective of parents and children. Given significant demand characteristics, particularly for parents, in reporting about children's gratitude moments, we may find that parents are disappointed with children's response to their increased socialization efforts. This may result in parents providing a more negative bias in reports about children's gratitude than we see in those of children themselves.

In conclusion, we find that parents can learn strategies to improve gratitude conversations with their children through a brief online program and that the skills that they learn and implement may permeate other aspects of their socialization of children's gratitude moments. We also found modest evidence that this program and the use of these conversational strategies may lead to increases in children's gratitude. Several factors may account for these modest effects and connote limitations in the study. These include the short one-month follow-up period, the modest sample size, and the lack of additional observational measures of gratitude. Nonetheless, the findings reinforce the potential salience of parents as primary socializers of moral development and prosocial behaviors such as gratitude.

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Figure 1.
Sample Description

Table 1

Comparing Program and Wait-List Groups at Post-Test on Program Mediators and Targets

	Program Mean	Wait-List Mean	STD Estimate	T-test	P-value	R-square
Program Mediators						
Behavioral Intentions	4.26	4.11	0.13	1.29	.20	.02
Confidence	4.07	4.36	-0.27	-2.73	.01	.07
Knowledge Uptake	0.70	0.43	0.38	4.12	.00	.14
Program Targets						
Gratitude Conversation						
Messages	2.30	2.13	0.18	1.74	.08	.03
CARE Strategies	2.97	2.60	0.31	3.15	.00	.10
SHARE Strategies	2.28	2.30	-0.03	-0.24	.81	.00
Missed Opportunity Conversation						
Messages	2.31	2.12	0.16	1.50	.13	.03
CARE Strategies	2.76	2.48	0.20	1.94	.05	.04
SHARE Strategies	2.38	2.43	-0.08	-0.76	.45	.01
Socialization of Gratitude Moments						
Parent-report	1.34	1.03	0.25	2.49	.01	.00
Child Gratitude Moments						
Parent-report	1.22	1.09	0.10	1.00	.32	.00
Child-report	2.47	2.29	0.10	0.98	.33	.06
Child Trait Gratitude						
Parent-report	3.72	3.79	-0.05	-0.47	.64	.01
Child-report	4.08	4.04	0.02	0.21	.83	.01

NOTE: All between-group analyses performed in M-plus for program mediators (in one model) and targets (in another) using FIML to estimate missing data. This resulted in an analysis sample of N=91 (48 in the control and 43 in the program condition). Observed sample sizes varied as indicated within group from 41–48.

Table 2

Within-Person Comparisons from Pre-test, Program Completion and Post-Test on Program Mediators and Targets

	Pre-test Mean	Immediate Post-test Mean	Post-test Mean	Pretest vs. Program Completion T-test (P-value)	Program Completion vs. Posttest T-test (P-value)	Pretest vs. Posttest T-test (P-value)
Program Mediators						
Behavioral Intentions	4.11	4.32	4.23	2.41 (.02)	-1.26 (.21)	1.40 (.16)
Confidence	4.29	4.17	3.78	-2.09 (.03)	-5.80 (.00)	-7.28 (.00)
Knowledge Uptake	0.35	0.84	0.69	10.76 (.00)	-3.62 (.00)	7.22 (.00)
Program Targets						
Gratitude Conversation						
Messages	2.15	n/a	2.30	n/a	n/a	1.98 (.05)
CARE Strategies	2.67	n/a	2.97	n/a	n/a	2.41 (.02)
SHARE Strategies	2.34	n/a	2.28	n/a	n/a	-.71 (.48)
Missed Opportunity Conversation						
Messages	2.23	n/a	2.31	n/a	n/a	.71 (.48)
CARE Strategies	2.45	n/a	2.76	n/a	n/a	1.98 (.05)
SHARE Strategies	2.50	n/a	2.38	n/a	n/a	-2.05 (.05)
Socialization of Gratitude Moments						
Parent-report	1.10	n/a	1.26	n/a	n/a	3.85 (.00)
Child Gratitude Moments						
Parent-report	1.54	n/a	1.27	n/a	n/a	-.17 (.87)
Child-report	2.36	n/a	2.47	n/a	n/a	.11 (.92)
Child Trait Gratitude						
Parent-report	3.75	n/a	3.74	n/a	n/a	-.33 (.74)
Child-report	3.84	n/a	4.08	n/a	n/a	3.06 (.00)

NOTE: All within-person analyses performed using paired t-tests using list-wise deletion. The analysis sample size was then the smallest within assessment sample size of the comparison conditions. Sample sizes varied over assessments from 82–90 for full-sample analyses and from 40–41 for program group only analyses. ¹Variable assessed in program group only at post-test.

Table 3

Gratitude Messages and Strategies Predicting Children's Gratitude Moment in Program Group

	Model 1: Gratitude Conversations		Model 2: Missed Opportunity Conversations	
	Parent-Report of Child Gratitude Moments	Child-Report of Child Gratitude Moments	Parent-Report of Child Gratitude Moments	Child-Report of Child Gratitude Moments
Changes in Gratitude Messages	-0.11 -0.66 0.51	-0.02 -0.14 0.88	-0.01 -0.05 0.96	-0.14 -0.83 0.41
Changes in CARE strategies	0.11 0.72 0.47	0.17 1.11 0.27	-0.21 -1.40 0.16	0.17 1.14 0.26
Changes in SHARE strategies	-0.03 -0.17 0.86	-0.07 -0.49 0.62	-0.20 -1.29 0.20	0.28 1.90 .06
Changes in Gratitude Messages × Changes in CARE strategies	-0.28 -1.84 0.06	0.29 1.92 0.06	-0.25 -1.67 0.11	0.13 0.81 0.42
Changes in Gratitude Messages × Changes in SHARE strategies	-0.06 -0.41 0.68	-0.15 -1.02 0.31	0.13 0.83 0.41	0.25 1.75 0.08

Note: Tabled values represented parameter estimate, test statistics, and p-value for each predictor