The Role of Family Civic Context in Character Development across Childhood and Adolescence

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Abstract

Parents promote character development in many ways: by cultivating a supportive relationship, modeling the strengths they hope to cultivate, and through the ideas they communicate to their children. Given the need for developmentally sensitive assessments of contexts that facilitate character development, this study examined the role of a family civic context by examining associations between psychological needs support, parental modeling, and communication and character across elementary-, middle-, and high school ages. Using a diverse, cross-sectional sample of 2,467 youth ages 9-19, bifactor models were estimated across age groups to examine age differences in associations between parenting practices and character. Psychological needs support and communication predicted global character across age groups. At older ages, parenting practices evidenced greater specificity in promoting character strengths. Results provide insights into the distinct ways parenting strategies are associated with the development of general and specific character strengths and how these associations vary with age.

Keywords: character strengths, positive youth development, parenting, civic socialization, character education
The Role of Family Civic Context in Character Development across Childhood and Adolescence

Across childhood and adolescence, parents provide guidance, socialization, and settings that foster positive development and character (Lerner et al., 2012). Recognizing the conceptual link between character and civic engagement (Oosterhoff & Metzger, 2015), there are reasons to expect that practices that emphasize civic socialization may cultivate character strengths. Parents create a civic context by communicating about social issues, modeling positive contributions to individuals and the community, and supporting young people’s psychological needs for autonomy, belonging, and competence. Indeed, evidence from character research (e.g., Lickona, 1996) and moral development (e.g., Berkowitz & Grych, 1998) support the idea that civic socialization practices such as communication, modeling community involvement, and fostering intrinsic motivation are central tenets of character development.

Notably absent from the research on parenting practices and character strengths is consideration of whether civic parenting practices operate uniformly across development. Recent work suggests both general and specific components of character become increasingly differentiated across childhood and adolescence (BLINDED FOR REVIEW), and associations between parenting practices and character may become more complex as well. This study extends the literature by: (a) examining associations between psychological needs support, parental modeling of community involvement, and communicating about social issues with general and specific aspects of character, and (b) investigating age differences in associations between parenting practices and character strengths. Generating new knowledge on age-specific links between parenting practices and character strengths can contribute more precision to character development theory and inform character development practices in family contexts.

Conceptualizing Character
Although there is no single agreed-upon definition of character, character is generally considered to be a composition of psychological strengths (Berkowitz, 2012; Peterson & Seligman, 2004). Many have attempted to articulate the strengths that comprise the meta-construct of character, and empirical studies demonstrate considerable heterogeneity in the dimensions and specific strengths indicative of character (e.g., Josephson, 2014; Lickona & Davidson, 2005; Peterson & Seligman, 2004; Seider, 2012; Shields, 2011). Debates are ongoing regarding the conceptual taxonomies of existing character frameworks. Moreover, taxonomies such as the Values in Action Framework (Peterson & Seligman, 2004) and the increasingly popular moral, performance, civic, and intellectual model of character (Shields, 2011) articulate a mature structure of character strengths that may not capture the dynamic process of changes in character structure across childhood and adolescence. Perhaps due to the complexities of defining character, empirical work rarely, if ever, bears out conceptually derived dimensions of character strengths. As a result, researchers suggest the need for broader categorizations of strengths (e.g., McGrath & Walker, 2016; Park, Tsukayama, Goodwin, Patrick, & Duckworth, 2017).

Intrapersonal and interpersonal categories are broad heuristics that are useful for the study of character (McGrath & Walker, 2016; Park et al., 2017), and guided our selection of specific character strengths. For this study, we drew from a diverse set of character frameworks to derive a smaller subset of intrapersonal and interpersonal strengths relevant to civic engagement and positive youth development (e.g., Baehr, 2017; Peterson & Seligman, 2004; Seider, 2012; Wang et al., 2015). Interpersonal strengths reflect a broad collection of capacities that facilitate positive interactions with other individuals, groups, and the community (Baehr, 2017; Peterson & Seligman, 2004). Four interpersonal strengths – leadership, teamwork, respect,
and gratitude (see Table 1) – were selected given work suggesting these strengths promote prosocial behaviors (Froh, Bono, & Emmons, 2010), volunteering (Scales, Benson, Leffert, & Blyth, 2000), and political behaviors (Christens & Dolan, 2011; Flanagan, 2004) as well as a number of indicators of positive youth development such as life satisfaction (Proyer, Ruch, & Bushor, 2012), well-being (Park & Peterson, 2006), and academic achievement (Froh et al., 2010). Leadership, teamwork, and gratitude have been reliably assessed in youth as young as 10 (Froh et al., 2010; Proyer, et al., 2012; Weber & Ruch, 2012), whereas respect is common in character education programs designed for elementary through high school ages (Josephson, 2014; Scouting.org, 2016; WWC, 2006).

Intrapersonal strengths are theorized to reflect a sense of accountability, excellence in performance, and recognition of one’s own potential in the future (Baehr, 2017; Duckworth & Seligman, 2005; Lickona & Davidson, 2005; Shryack, Steger, Krueger, & Kallie, 2010). Five intrapersonal strengths – future orientation, optimism, perseverance, responsibility, and thrift (see Table 1) – were also included in the current study. These strengths were selected because of previous work establishing associations with a range of indicators of positive youth development including academic performance (Snyder et al., 2002), self-esteem (Mergler, Spencer, & Patton, 2007), and self-regulation among youth (Schmid, Phelps, & Lerner, 2011). Intrapersonal strengths may also enable youth to positively contribute to their contexts as these strengths allow young people to envision and carry out civic actions that benefit society (Metzger et al., 2016).

Drawing on work in both positive psychology and positive youth development, future orientation, optimism, and perseverance have been reliably measured in youth as young as 10. Although there are fewer established measures or empirical studies of thrift and responsibility, Q-sort methodology has suggested that youth as young as elementary ages are capable of
understanding these strengths (Metzger et al., 2016, Shubert et al., 2017).

**Age Differences in Character Structure**

Character is theorized to include a global aspect that involves a general orientation towards positive behavior to oneself and others (Aristotle, trans. 1925; Blasi, 2005) and specific character strengths that represent particular positive qualities. From a developmental perspective, character begins to develop as a relatively global construct defined by positive character strengths and becomes more differentiated into a set of specific character strengths with age (Lerner & Callina, 2014; Wang et al., 2015). Indeed, previous work has shown that character follows a developmental progression, in late childhood a relatively few number of strengths are differentiated from the general aspects of character, but at successive ages, a greater number of specific strengths are evident (BLINDED FOR REVIEW). Although few studies have systematically addressed questions of developmental change (Lerner & Callina, 2014), existing cross-sectional work on the Values in Action framework provides similar insight into the developmental progression of character, as factor analyses of youth samples consistently yield fewer dimensions (e.g., Park & Peterson, 2006) than those of adults (e.g., Peterson, Park, Pole, D'Andrea, & Seligman, 2008). As character structure becomes increasingly complex with age, it is imperative to be open to different factor structures among different age groups (Lerner & Callina, 2014); thus, we used exploratory models to ensure we were capturing developmental differences in character structure across childhood and adolescence.

**Parenting Practices**

Parents are an important social influence, providing guidance, socialization, and creating contexts that foster positive development, value formation, and contribution (Lerner et al., 2012; Parke & Buriel, 2006). Literature in character education (e.g., Berkowitz & Bier, 2014; Lickona,
2004; Seider, Gilbert, & Gomez, 2013) and moral development (e.g., Berkowitz & Grych, 1998; Walker, Hennig, & Krettenauer, 2000) have identified a number of practices that are linked broadly to character development in youth, including communication, modeling, and supportive relationships. This study examined three parenting practices focused on civic socialization – communication about social issues, modeling community involvement, supporting psychological needs – believed to foster character development in youth.

Modeling and communication are widely considered central socialization practices in character education (e.g., Lickona & Davidson, 2005), moral development (e.g., Berkowitz & Grych, 1998), as well as in the parenting literature more broadly (e.g., Parke & Buriel, 2006). Yet, some work has noted the difficulty in modeling character due to its often abstract nature (Sanderse, 2013). Modeling prosocial behaviors that are perceived as attainable and relevant to youth is more likely to promote prosociality (Han, Kim, Jeong, & Cohen, 2017). Likewise, although extensive work has documented cross-sectional associations between discussions about hypothetical moral dilemmas and gains in moral development (e.g., Walker, Hennig, & Krettenauer, 2000), longitudinal work has shown that discussions of real-life dilemmas, but not hypothetical dilemmas, foster moral reasoning (Walker & Taylor, 1991). Communication and modeling efforts that facilitate youth’s understanding of the broader socio-political world, fair and caring treatment of others, and commitments to improve communities may offer tangible ways for parents to promote character development.

Scholars often consider character and civic education as complementary processes; good character involves active citizenship, and active citizenship often involves participation by individuals of good character (e.g., Hoge, 2002; Musil, 2009). Others have argued that civic education (especially when construed broadly) provide varied opportunities for youth to develop
strengths of respect, responsibility, leadership, and other civically-oriented strengths, and thus fosters character development (Althof & Berkowitz, 2006). Thus, given the conceptual link between character and civic engagement, it is plausible that practices that emphasize civic socialization may also cultivate character strengths, particularly those with a clear civic application such as leadership and teamwork.

Parental communication about social issues often involves messages of fairness and justice and youth who discuss social issues related to justice and fairness with parents have been shown to have higher levels of social responsibility values (Wray-Lake, Syvertsen, & Flanagan, 2016) and increased involvement in civic (Kahne & Sporte, 2008; McIntosh, Hart, & Youniss, 2007) and prosocial behaviors (Carlo, Mestre, Samper, Tur, & Armenta, 2011). Recent work using observational data found that nearly two-thirds of parents’ civic communication involved messages about the qualities necessary for civic involvement, including prosocial character strengths such as respect and kindness (Oosterhoff, Metzger, & Babskie, 2015), suggesting parents’ communication about social issues likely has implications for character development. Studies of character education programs that involve communication about issues of fairness and justice have demonstrated the effectiveness in promoting a general tendency towards positive behavior to others and the community (Berkowitz, 2002); thus, communication about social issues may promote global aspects of character. Likewise, communicating about social issues may encourage youth to recognize their responsibility to act and strategically plan steps to promote future change. In summary, parents’ communication may cultivate interpersonal strengths such as teamwork and leadership as well as the intrapersonal strength of future orientation.

Modeling has long been identified as an important socialization practice as it visually
conveys the worth of values and behaviors in ways that affect youths’ attitudes, behaviors, and emotional dispositions toward others (Bandura, 1986). Character education has identified modeling as a best practice and “the most important moral lesson in the character curriculum” (Lickona, 2004, p. 118), as prosocial models have powerful effects on children and promote a wide range of behaviors that are indicative of character (Sanderse, 2013). Engagement in the community offers one tangible way to promote character as these activities reflect a commitment to working with others to make positive contributions to individuals and the community. When parents engage in community activities, youth may see them acting as leaders or as agents who work collectively to address community issues. Likewise, parents’ engagement may also involve commitments to making a difference in the world, reflecting responsibility and future-orientation. Indeed, past work has suggested modeling prosocial behaviors, such as community engagement, contributes to character development as youth learn ways to interact with others and the community in positive ways (Berkowitz & Grych, 1998). Thus, strengths of teamwork, future-orientation, responsibility, and leadership are likely established through social modeling.

Fostering intrinsic motivation is an important aspect of effective character development (Lickona, 1996). According to Self-Determination Theory, environments that support psychological needs of autonomy, competence, and relatedness facilitate individuals’ natural pursuit of intrinsic motivation (Deci & Ryan, 1985). Although some scholars suggest that any character strength is mostly intrinsic in nature (Peterson & Seligman, 2004), this is an open empirical question, as it is also evident that even inherently intrinsic pursuits can be sought for extrinsic reasons (Deci & Ryan, 2000). It may be that when youth’s basic psychological needs are met, they are able to identify and integrate character strengths with a sense of self, which in turn fosters a general sense of motivation to be at one’s best. To the extent that all character
strengths are intrinsic in nature, contexts that promote internalization by supporting youths’ psychological needs may promote general aspects of character but may not be related to specific strengths.

**Variation in Parenting Practice by Children’s Age**

Although thorough examinations of age differences in associations between character strengths and parenting practices are relatively sparse, previous work suggests that parenting practices change as children get older and parent-child relationship changes (Grusec, 2011). Parenting practices likely become more complex with the child’s age, suggesting different practices may promote character at different ages. Parents’ conversations about moral issues become more sophisticated over time (Recchia, Wainryb, Bourne, & Pasupathi, 2014) and research on adolescents’ social trust has shown that more concerted messages of compassion predicted higher social trust for middle and late adolescents but not early adolescents (Wray-Lake & Flanagan, 2012). Thus, parental communication may promote a greater number of specific strengths in older age groups as these messages become more complex and may provide more scaffolding aimed at cultivating more specific strengths in youth. Parental needs support, in contrast, may decrease in salience across adolescence. Research on moral development has shown that autonomy support is positively associated with moral motivation for middle adolescents but not for late adolescents (Malti & Buchmann, 2010). Likewise, democratic parenting was found to foster social trust in early and middle adolescents but not late adolescents (Wray-Lake & Flanagan, 2012). Examining age differences in associations between parenting practices and children’s character development has important implications for theory-building and applied work by documenting how the influence of experiences and socialization practices theorized to promote character strengths might change as the developmental needs and capacities
of youth change across time.

The Current Study

Using a diverse sample of 4th – 12th graders, this study examined associations between parenting practices and different structures of character strengths across three age groups: elementary, middle, and high school. Categorizing youth into these groups is a useful heuristic for examining age differences in this cross-sectional study. Because prior work has demonstrated structural differences in character across age groups (see author publication for details), we estimated separate models of character strengths for elementary, middle, and high school-aged youth. Additionally, this psychometric work has demonstrated that bifactor models are appropriate for assessing the structure of character; thus, we used bifactor models in the present analyses. Bifactor models are especially well-suited for character research, as they can simultaneously capture globalized aspects of character as well as the specific character strengths.

Bifactor models partition variance from a set of items into a general latent variable that accounts for shared variance among items (e.g., global character factor) and a set of specific latent variables (e.g., future orientation, responsibility, leadership) that comprise unique variance over and above the general factor (see Figure 1; Chen, Hayes, Carver, Laurenceau, & Zhang, 2012). The underlying assumption of bifactor models is that constructs can be understood by integrating across dimensions, and also each dimension can be uniquely understood. Constructs including intelligence (Gignac, 2008), personality (McAbee, Oswald, & Connelly, 2014), psychopathology (Caspi et al., 2014), and civic engagement (Wray-Lake, Metzger, & Syvertsen, 2016) have been all been found to have both general and specific factors.

Bifactor models also allow a test of whether parenting practices predict general and specific aspects of character. We expected communication about social issues to predict general
character as well as specific strengths of teamwork, leadership, responsibility, and future orientation, whereas modeling community involvement was expected to predict teamwork, responsibility, and leadership. Likewise, psychological needs support was hypothesized to predict general aspects of character but to show less salience for older age groups. We expected parenting practices to exhibit increasing specificity with age, with a greater number of associations between parenting practices and specific character strengths for older youth.

**Method**

Data came from a large cross-sectional survey study of 2,467 youth ages 8 to 20 ($M_{age} = 13.4, SD = 2.7$; 55.6% female) recruited from 17 socioeconomically and ethnically diverse schools in three areas: metropolitan California, urban Minnesota, and rural West Virginia. We surveyed youth in elementary school (4th-5th grades, $M_{age} = 9.7, SD = .7$, $n = 514$), middle school (6th-8th grades, $M_{age} = 12.3, SD = 1.0$ $n = 815$), and high school (9th-12th grades, $M_{age} = 15.8, SD = 1.3$, $n = 1138$) classrooms. Self-reported race/ethnicity for youth was White (50.4%), Latinx (30.2%), Black or African American (9.5%), Other (13.1%), and Asian (6.7%). Ethnicity varied across regions: Our California sample had the most Hispanic or Latinx youth, while our Minnesota sample was comprised of more Black youth or youth who self-identified as another race/ethnicity, and our West Virginia sample was largely White.

**Planned Missing Data**

A three-form planned missing data design was used, allowing for a greater number of items and constructs to be assessed without overburdening participants (Little, 2013). Planned missing designs minimize less desirable forms of missing data by increasing the likelihood of survey completion. Survey items were divided into a core set (X) that included demographic items, key dependent variables (civic engagement), and the most central independent variables.
and three additional item sets (A, B, C) that included character strengths, developmental competencies, and contextual variables. Each participant received the core items (X) and two of the three other item sets. Survey versions were evenly distributed across participants, school-level, age, site, gender, race/ethnicity, and parent education, as indicated by non-significant chi-square tests. Thus, the planned missing data could be considered to be missing completely at random (MCAR) and is presumed to have no notable impact on parameter estimates.

**Measures**

**Character strengths.** Character strengths were assessed using three items for each of the following strengths: leadership, teamwork, respect, gratitude, future orientation, optimism, perseverance, responsibility, and thrift (see Table 1). We intentionally created three-item scales, as avoiding redundancy on surveys maximizes validity (Little, 2013). All items utilized a 5-point Likert scale with response options ranging from 1 = *Not at all like me* to 5 = *Very much like me*. Short measures of each strength were derived through an iterative process. First, we selected a range of strengths that youth were capable of understanding. Second, one-on-one interviews and character Q-sorts were used to gauge how children and adolescents ($n = 90$) understood each strength. Third, based on the interviews, we compiled a list of targeted character strengths, adapting items from existing literature, and writing original items as needed. Fourth, we used cognitive interviews ($n = 16$) to ensure children and adolescents interpreted items as intended. Finally, items were adapted based on feedback from cognitive interviews and pilot tested in a sample of California youth ($n = 213$). Reliabilities were examined as were information curves. Further edits were made to arrive at the three-item measures shown in Table 1. Validity analyses found that all nine character strengths significantly and positively correlated with aspects of positive functioning, including self-reported academic grades, prosocial behavior, and purpose in
life, providing evidence of convergent validity.

**Communication about social issues.** Three items assessed parents’ communication about social issues (elementary (E) $\alpha = .65$; middle school (M) $\alpha = .81$; high school (H) $\alpha = .85$). Two items were adapted from the California Civic Index (Kahne, Middaugh, & Schutjer-Mance, 2005): “In my family, we talk about politics and current events,” and “In my family, we talk about problems facing our community.” The third item, “In my family, we talk about times when people are treated unfairly,” was written for the current study. Response options ranged from 1 = *Never* to 5 = *Very often.*

**Modeling community engagement.** Parent modeling was assessed using four items (E $\alpha = .68$; M $\alpha = .77$; H $\alpha = .75$): “My parents volunteer in our community,” was adapted from Flanagan, Syvertsen, and Stout (2007), “My parents vote in elections,” was drawn from Wray-Lake (2013), and two items “My parents follow news about politics and current events,” and “My parents are active in improving our neighborhood” were written for the current study. Response options ranged from 1 = *Never* to 5 = *Very often.*

**Psychological needs support.** Six items separately assessed parental psychological needs support (E $\alpha = .83$; M $\alpha = .89$; H $\alpha = .91$). Items for the Needs Support scales were based on Ryan and Deci’s Self-Determination Theory in order to assess support of the three basic psychological needs: autonomy, relatedness, and competence. Two items assessed each of the three basic psychological needs. Autonomy support included one item written for the current study, “My parents respect my opinions” and “My parents accept me as I am,” adapted from Armsden and Greenberger (1987). Relatedness support included “I feel close and connected to my parents,” adapted from Sheldon et al., (2001), and “I trust my parents,” adapted from Armsden and Greenberger (1987). Competence support included two items written for the
current study “My parents give me positive feedback when I do something well” and “My parents always tell me I can succeed at my goals.” Response options ranged from 1 = Strongly agree to 5 = Strongly agree.

**Analytic Plan**

Separate models were estimated for each age group: elementary, middle, and high school. Given the nature of our design, individuals were clustered within school (n = 17). Maximum likelihood estimation with robust standard errors (MLR) was used due to clustering. Geographic site and age were used as controls across models. First, bifactor models were estimated in Mplus version 7.2. The structural composition of character models for each age group has been established in other work (see author publication for details) and was therefore used in the current study as well. Following model identification in all three age groups, invariance testing was conducted to examine differences in character structure across groups. While structural models may not be fully comparable statistically, comparable aspects of the model (i.e., general factors and equivalent specific factors) can be tested for invariance in order to provide statistical tests of differential associations between parenting and character by age. In other words, factors that shared the same items in at least two age groups could be examined for invariance across groups. Factors that shared different items or factors that were not identified in at least two groups were not comparable. For example, in all three age groups, all items were allowed to load on the general factor, meaning that invariance could be examined across age groups. In order to test for invariance in equivalent aspects of the model, we followed a stepwise procedure to establish metric invariance (i.e., equivalence in factor loadings), scalar invariance (i.e., equivalence in item intercepts), and invariance in latent means. These tests were done first for the general factor and then only for the specific factors with configural invariance (i.e.,
equivalent structures) across age groups. Change in CFI of .01 or greater indicated non-invariance across models, as chi-square difference tests have been found to be too liberal in determining invariance for large samples, and CFI change can be considered a measure of effect size for invariance tests (Cheung & Rensvold, 2002; Little, 2013). Modification indices were inspected to identify differences and parameters were freed until partial invariance was achieved. As recommended by Little (2013), individually freed parameters were evaluated using the Satorra-Bentler scaled chi-square difference tests with a Bonferroni correction of \( p < .002 \). After invariance was established, we estimated structural equation models with parenting practices and control variables predicting general and specific aspects of character, separately for each age group.

### Results

**Character Bifactor Models**

The bifactor models for each age group are identical to (see author publication for details) and thus only briefly described. In the original analyses, bifactor exploratory factor analyses (EFAs) were first estimated separately for each age group using a bifactor geomin oblique rotation method (Jennrich & Bentler, 2012). Solutions with a general factor and 1 to 9 specific factors were iteratively compared to establish a final bifactor structure. For each solution, all items loaded first on the general factor and then were allowed to load on all specific factors to allow for different factor structures to be identified for each age group.

For the elementary age group, a bifactor model with a global factor (\( \lambda s = .36 \) to .71) and three specific factors provided the best fit to the data, \( MLR \chi^2 (313) = 581.28, p < .001, \) RMSEA = .04, CFI = .90. The first factor of *Optimistic Future Orientation* was defined by considering the impact of decisions on the future, being hopeful about the future, and seeing the positive side of
things ($\lambda_s = .17$ to .80). The second specific factor of Thrift was comprised of being careful with money and saving money for the future, two of the three original thrift items ($\lambda_s = .55$ to .56). The final specific factor was comprised of six items: suggests activities to peers, peers consider me leader, good at leading, good at working together, do my part to help team, and think about what is best for my team ($\lambda_s = .29$ to .47), and was labeled Civic Strengths. One item, seeing the positive side of things, significantly cross-loaded onto Civic Strengths, yet loaded more strongly and fit better conceptually with the Optimistic Future Orientation factor, and so was retained there. The remaining 16 items loaded solely on the global character factor for elementary youth.

For the middle school age group, a global character factor ($\lambda_s = .46$ to .77) and five specific factors provided the best fit to the data, $MLR\chi^2 (309) = 683.62, p < .001$, RMSEA = .04, CFI= .94. Perseverance ($\lambda_s = .35$ to .45) and Respect ($\lambda_s = .31$ to .72), which loaded only on the general factor in the elementary group, were identified as specific factors in middle school. Although leadership and some teamwork items loaded together for elementary, they factored separately as Leadership ($\lambda_s = .46$ to .57) and Teamwork ($\lambda_s = .41$ to .54) in middle school. Optimism was also identified as a distinct specific factor ($\lambda_s = .32$ to .47). Although some thrift and future orientation items loaded on specific factor for elementary youth, for middle school youth, they loaded only on the general factor. Similar to the elementary structure, responsibility and gratitude items loaded only on the general factor. There were no significant cross-loadings for any items in the final model.

For the high school age group, a global character factor ($\lambda_s = .33$ to 67) and seven specific factors provided the best fit to the data, $MLR\chi^2 (301) = 1029.55, p < .001$, RMSEA = .05, CFI= .92. As with the middle school model, Leadership ($\lambda_s = .25$ to .68), Optimism ($\lambda_s = .39$ to .60), Teamwork ($\lambda_s = .41$ to .48), and Respect ($\lambda_s = .26$ to .66) loaded onto specific factors.
Responsibility items, which loaded onto a specific factor in middle school group, loaded with perseverance items for the high school group ($\lambda_s = .21$ to $.52$) and was labeled *Integrity*. *Future Orientation* ($\lambda_s = .24$ to $.53$) and *Thrift* ($\lambda_s = .40$ to $.75$), which were present in elementary but not middle school, loaded onto distinct specific factors. As with the elementary and middle school models, gratitude loaded only on the general factor.

**Measurement Invariance**

Model fit for each step of invariance testing is shown in Table 3. The separate bifactor models were used as the baseline configural invariance models for each age group. High school was the baseline comparison group; constraints were placed on the elementary and middle school-aged models and compared to the high school model (see Figure 1). Differences between ages that emerged in the separate bifactor EFAs were carried over to the multigroup models by constraining loadings, latent means, and variances to zero for factors not present for a given group and adding a group-specific path where needed. First, we tested invariance in the general factor, as all items loaded on the general factor for all three age groups. To test for metric invariance, the factor loadings on the general factor (i.e., all items) were constrained to be equal across groups and compared to the configural model where factor loadings were free to vary. Constraining the general factor loadings across groups did not result in a significant decrease in model fit ($\Delta$CFI = .001), indicating metric invariance for the global character factor across groups and achievement of the minimum requirement for comparing constructs across age groups (Cheung & Rensvold, 2002).

**General factor.** To test scalar invariance in the general factor, the metric invariance model from the previous step was compared to a model with intercepts constrained to be equal across groups. A decrease in CFI of .021 suggested non-invariance. General factor intercepts
were successively freed based on modification indices, resulting in seven intercepts constraints relaxed in the middle school group, eight intercepts relaxed in the elementary group, and four in the high school group.

Elementary youth were higher on two items—being thankful and think about people who helped me—followed by middle then high school youth. Conversely, elementary-aged youth were lower on two items—consider the impact of decisions and good manners—followed by middle then high school youth. Middle school youth were lowest on one item, reuse items, but highest on two other items: keep trying and see the positive side. One additional item, treat others with respect, was freed in elementary school only; elementary were lower than middle and high school youth. High school youth were lower than elementary and middle school youth on three items—hard worker, find something good, and careful with money—but higher on the item who I will be.

The latent mean of the general factor was then compared across groups. Freeing the latent means of the general factor did not significantly change model fit (ΔCFI = .001), and the $\chi^2$ difference test ($SB\chi^2 (2) = 5.08, p > .05$) indicated no latent mean differences between groups.

**Summary.** Invariance testing suggested the factor loadings of all items on the general factor did not differ across age groups, meaning that the general character factor holds the same meaning to participants across age groups. Tests of scalar invariance indicated the intercepts of some items differed across groups suggesting developmental differences in the ways that participants responded to specific items but comparisons of the latent mean of the general factor indicated no differences between elementary, middle, and high school groups.

**Specific factors.** After metric and partial scalar invariance was achieved on the general factors, specific factor measurement invariance was tested using the same steps for leadership,
optimism, respect, and teamwork, as these were the only specific factors with the same structure (i.e., the same items loaded on distinct specific factors) across age groups. The four specific factors displayed the same pattern of loadings across middle and high school but not elementary school; thus invariance was only tested for the older two age groups. The configural model included the invariance constraints described above for the general factor; all other parameters were allowed to vary. Changes in CFI of .00 and .00 indicated metric and scalar invariance, respectively.

In testing for latent mean differences in the specific factors across middle and high school, $\chi^2$ difference tests indicated no differences between groups on leadership ($SB\chi^2 (1) = 1.20, p = .27$), teamwork ($SB\chi^2 (1) = 2.42, p = .12$), or optimism ($SB\chi^2 (1) = 2.85, p = .09$) but middle school youth were lower on respect ($M_{\text{diff}} = .17; SB\chi^2 (1) = 9.12, p = .003$).

**Summary.** Bifactor models reflected differences in the structure of character across ages, with an increasing number of specific factors for each successive age group. Invariance testing suggested leadership, optimism, respect, and teamwork had the same meaning across middle and high school age groups and that both middle and high school youth responded to items on these factors in similar ways, given metric and scalar invariance.

**Associations between Parenting Practices and Character**

Next, we examined the three parenting strategies as predictors of the final character bifactor model for each age group. First, we examined confirmatory factor analysis models to ensure parenting variables evidenced acceptable fit across age groups (Elementary $MLR\chi^2 (51) = 107.71, p < .001$, RMSEA = .05, CFI = .93; Middle $MLR\chi^2 (51) = 80.52, p < .01$, RMSEA = .03, CFI = .99; High $MLR\chi^2 (51) = 420.00, p < .001$, RMSEA = .08, CFI = .95). Next, using the constrained character models, parenting practices were entered along with site and age as
covariates (see Table 4). Model fit indices were acceptable, \( MLR\chi^2 (1393) = 3508.68, p < .001, \) \( RMSEA = .04, CFI = .91. \) To provide a more rigorous examination of associations, especially given our large sample size and use of multiple tests, we used a more stringent \( p \)-value of .01 to identify significant associations between parenting practices and character.

Across all ages, communication about social issues and psychological needs support were positively associated with the global character factor. For elementary youth, no significant associations were identified between parenting practices and specific factors, suggesting civic socialization processes promote global aspects of character but not specific strengths in younger youth. For middle school youth, modeling community engagement was positively associated with leadership, whereas communication about social issues did not predict global character or any of the specific character strengths. For high school youth, communication about social issues positively predicted leadership, optimism, and integrity whereas psychological needs support negatively predicted leadership and thrift. Modeling community engagement predicted neither global nor specific aspects of character.

After freely estimating the effects of the predictors and control variables (site and age) on the character bifactor models, invariance testing was conducted to test for significant differences between groups on the predictors. Structural paths from predictors to the global character factor across all three groups and paths to leadership, optimism, respect, and teamwork in middle and high school were constrained to be equal. Constraining structural paths did not result in a significant decrease in model fit (\( \Delta CFI < .01 \)), indicating age did not moderate the effect of any predictors on character factors.

Discussion

Results offer insights into specific parenting strategies for promoting youth character
across childhood and adolescence. Addressing gaps in empirical links between parenting practices and character, we examined how three parenting practices contribute to character. Across ages, parents’ communication about social issues and psychological needs support positively predicted global character. At each successive age, parenting practices evidenced greater specificity in promoting individual character strengths as evidenced by a greater number of associations between parenting practices and specific character strengths with at each successively older age group.

**Communication about Social Issues**

The positive association between communication and global character suggests discussing politics and problems facing the community promote broad aspects of character across ages. Communication about social issues may be particularly salient for character development as parents’ messages about real problems in groups and society are among the most powerful strategies in promoting moral development (Higgins, 1980; Snarey & Samuelson, 2008). For high school youth, associations between parenting practices and specific character strengths provide evidence that communicating with parents about social issues may be especially salient for older youth as this communication promotes adolescents’ understanding of the self and the development of identity (McLean, Pasupathi, & Pals, 2007). Embedded in parents’ discussions of social issues are clear cues to their personal values, social rules, and concern for others (Oosterhoff & Metzger, 2016; Wray-Lake & Syvertsen, 2011) and may help youth to connect their sense of self with a readiness for participation and engagement in the broader community (e.g., Yates, 1998). Communication from parents about social issues may allow adolescents to consider their role as leaders capable of enacting change in the community. Likewise, previous empirical work suggests that parents’ communication about social issues
promotes a sense of social responsibility (Flanagan, Bowes, Csapo, & Sheblanova, 1998), and our results suggest this communication may promote strengths of personal responsibility and commitment, as reflected in the broader strength of integrity. Interestingly, communication predicted both intrapersonal strengths (i.e., integrity and optimism) as well as the interpersonal strengths of leadership, suggesting that communication may encourage youth to reflect on and internalize multiple dimensions of strengths necessary for becoming engaged and addressing problems facing their community.

**Modeling Community Involvement**

Our findings suggest modeling has differential effects on character development depending on age. Consistent with prior work suggesting leadership is established through social modeling (Berkowitz & Bier, 2014), we found that for middle school youth, parents’ modeling positively predicted leadership. When parents engage in community activities, youth may see them acting as leaders, which in turn, may encourage youth to engage in and cultivate their own strengths of leadership. Despite being a best practice in character education (e.g., Lickona, 1996), modeling was not positively associated with general character or with specific strengths for elementary or high school-aged youth. Given prior work highlighting the difficulties in modeling something as abstract as character, qualitative methods aimed at understanding how youth understand and internalize parental modeling of community involvement as well as other behaviors are needed to better understand the processes underlying links between modeling and character. It may be that more explicit verbalization of how character strengths are expressed in community actions is necessary for promoting youths’ character strengths (Sanderse, 2013).

**Psychological Needs Supportive Parenting**

Our results align with self-determination theory (Deci & Ryan, 1985) in demonstrating
that psychological needs support from parents was positively related to character development across ages. Past research suggests environments supporting psychological needs promote a variety of thriving and well-being indicators (e.g., Chirkov & Ryan, 2001). Parents who show respect for children’s autonomy may be fostering youth’s own intrinsic motivation to identify and utilize their character strengths. Surprisingly, however, for high school-aged youth, there was a strong negative relationship between needs support and leadership and a similar, but a non-significant pattern was found for middle school youth as well. We are unsure of the reasons underlying this pattern of findings, but one speculation is that perhaps psychological needs support is important in encouraging youth to develop broad aspects of character but may inadvertently give youth fewer opportunities for autonomous leadership at home. Or, it may be that psychological needs support provides a secure environment for youth that may lead to youth being reluctant to enact changes in their lives. Alternatively, the negative association may also be spurious due to the variance accounted for by the general factor, suggesting the need for further exploration and replication.

Numerous studies support the importance of considering assets such as parenting practices in tandem, showing that the accumulation of assets is related to less risky behaviors and greater thriving (e.g., Benson & Scales, 2009; Sesma, Mannes, & Scales, 2005). It may be that parents who provide psychological needs support while regularly communicating about and modeling community involvement create a positive climate that simultaneously promotes both character and community engagement (e.g., Wray-Lake & Sloper, 2015; Zaff et al., 2010). Future research would benefit from considering the role of multiple assets in promoting community involvement and character development as a co-occurring, dynamic process.

Age Differences in Parenting Practices
Interestingly, our examination of age differences revealed some complexity in understanding developmental differences in associations between parenting practices and character. Results from invariance testing suggested age did not moderate the effect of parenting practices on global character nor specific character factors. Yet, the pattern of associations between parenting practices and character strengths appeared to show greater complexity in older age groups, as evidenced by the greater number of significant associations. Parents’ socialization goals change as children grow (Grusec & Goodnow, 1994), it may be that parents encourage more global aspects of character for younger youth (i.e., “doing your best” and “being kind towards others”) but as children develop and internalize these messages, parenting practices shift to a more targeted approach, encouraging specific character strengths. It may be that as character exhibits increased complexity and differentiation in older age groups (BLINDED FOR REVIEW), youth have more opportunities to connect parents’ actions and communication with different character strengths. Alternatively, as younger youth show a more globalized structure of character, specific parenting practices may have less opportunity to be linked to specific character strengths. That is, it may not be that parenting practices become more differentiated across time but that with development, as character becomes more differentiated, there are more occasions for parenting practices to promote different character strengths. Longitudinal examinations of the effects of parenting practices on intraindividual change in character are needed for firm conclusions on developmentally sensitive practices for promoting character.

Limitations and Future Directions

The merits of this study should be considered in light of some limitations. First, given the community involvement emphasis on parent modeling and communication, future research may benefit from examining how these parenting practices relate to a broader range of civically-
oriented character strengths (Seider, 2012). Exploring the processes that link parenting practices to specific character strengths would enrich theory on character development. Additionally, our measures of communicating about social issues were fairly broad and may have entailed a broad range of civically-oriented topics. Likewise, although the items included ask about the degree to which family discussions of social issues occur in the family, it is possible that youth may not be fully engaged in these discussions, they may simply be recipients of morally-charged messages from parents. Future research may benefit from laboratory- or observation-based tasks that can more clearly examine how specific conversations about social issues relate to character development.

Second, the character strengths included in this study represent only a subset of strengths indicative of character. It is implausible, if not impossible, to comprehensively assess all character strengths within any single study. There is considerable disagreement regarding the strengths considered ‘morally virtuous.’ Not all of the strengths chosen for this study squarely fit into a definition of character as acting virtuously, as these strengths can apply to both moral and non-moral outcomes. However, the strengths included are consistent with work positing that character need not have a virtuous quality (e.g., Nucci, 2017; Shields, 2011). Furthermore, the identified factor structures are not intended to be a definitive structure of youth character. Rather, the goal was to begin examining the developmental processes underlying character by elucidating age differences in the ways in which parenting practices promote different aspects of character. Although other empirical work provides evidence of potential developmental differences in the structure of character given evidence of fewer dimensions of character in samples of youth compared to adult samples, it is possible that there may not be a clear factor structure because character may be idiographic and vary across persons, which may explain why
some strengths (i.e., thrift) did not show clear evidence of differentiation across ages. Future work should include other strengths from different character frameworks, specifically those that identify clear conceptualizations of civic types of strengths to enrich theory on character development.

The present study is also limited by the use of cross-sectional data. Longitudinal data would allow a better test of developmental differences in associations between parenting practices and character. Likewise, examinations of time-varying effects of parenting practices in relation to character would provide more evidence of the dynamic process and temporal sequencing of these associations. Finally, the present study was limited to adolescent report of parenting practices. Future research using parent report would provide a more rigorous examination of parenting practices that cultivate youth character.

**Conclusions**

Character education practices involve a broader goal: the promotion of capacities that allow youth to function in society in ways that reflect respect for others, collaboration, concern for fairness and justice, and voluntary, active community participation (Althof & Berkowitz, 2006). The current study advances developmental theory by providing a richer understanding of civic socialization practices that support character development across childhood and adolescence. Our results suggest communicating about and modeling community involvement are two specific strategies that may promote character development by providing youth with the opportunity to see character strengths in action.
References


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