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Parental Support, Partner Support, and the Trajectories of Mastery from Adolescence to Early Adulthood

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Abstract

This study examines the long-term associations among parental support, extra-familial partner support, and the trajectories of sense of mastery from adolescence to the early adulthood years. Ten waves of panel data collected over a 16-year period from the Iowa Family Transitions Project ($N = 527$) were used to test the hypotheses. Results indicated that parental support in adolescence was initially associated with higher levels of sense of mastery and with greater extra-familial partner support during the transition to adulthood. Higher extra-familial partner support was subsequently associated with an increase in sense of mastery during the transition to adulthood. Overall, our results underscore the importance of mastery in smoothing the adjustment to adulthood and the importance of supportive relationships in shaping a healthy sense of mastery.

Keywords

Parent-child relationships; Partner support; Sense of mastery trajectories

The years leading to adulthood have received attention from many scholars (e.g., Arnett, 2000; Gore, Aseltine, Colten, & Lin, 1997; Schulenberg, Bryant, & O'Malley, 2004; Tanner, 2006). Transition to leave parental home, the development of intimacy in friendships and romantic relationships, and development of the sense of efficacy and individuation are among the most salient adjustments during this period (Arnett, 2007; Scharf, Mayseless, & Kivenson-Baron, 2004). Understanding the psychological processes during these years is necessary to predict successful transitions into adulthood (Masten et al., 2004). As an important psychological resource for adaptation (Pearlin, Lieberman, Menaghan, & Mullan, 1981; Taylor & Stanton, 2007), knowledge of how the sense of mastery changes over time is crucial. A weak sense of mastery during the transition to adulthood is especially risky because it creates greater susceptibility to social and psychological problems (Repetti, Taylor, & Seeman, 2002). Unfortunately, few researchers have examined factors that influence the change in sense of mastery during the transition from adolescence to early adulthood.

Pearlin and his colleagues (1981) proposed that sense of mastery is a learned, generalized subjective expectation that one's own choices and actions determine outcomes of situations.

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People with a high sense of mastery believe they are able to influence the environment to achieve desired outcomes, whereas people with a low sense of mastery tend to believe that external forces control their lives (Pudrovskaya, Schieman, Pearlin, & Nguyen, 2005). As one dimension of self concept, sense of mastery shares conceptual ground with other related constructs that have some reference to personal control over life circumstances such as self-efficacy, internal locus of control, sense of powerlessness, fatalism, and instrumentalism (Pearlin et al., 1981; Pearlin, Nguyen, Schieman, & Milkie, 2007; Schieman, 2009). Although these constructs may have differences in emphasis, collectively they assess the same feelings of personal agency (Schieman & Turner, 1998; Turner & Roszell, 1994).

Sense of mastery has long been studied and shown to be important construct in the stress process theory, particularly in predicting the sociology of health (Pearlin et al., 1981; Pudrovskaya et al., 2005; Schieman & Meersman, 2004; Wickrama, Surjadi, Lorenz, & Elder, 2008). Prior findings have documented that sense of mastery protects individuals' well-being during times of significant adversity (Conger & Conger, 2002; Conger, Conger, Matthews, & Elder, 1999; Lipschitz-Elhawi & Itzhaky, 2005; Pudrovskaya et al., 2005). Individual differences in sense of mastery have been found to play an important mediating role between contextual variables and adaptive outcomes (Taylor & Stanton, 2007).

Mastery is a dynamic resource, subject to change over time, especially during dramatic transitions (Conger, Williams, Little, Masyn, & Shebloski, 2009). However, although the literature suggests that relationships between family members contribute to mastery (Ben-Zur, 2003), the influence of different types of relationship on changes in mastery is unknown. The salience of relationship types have been shown to differ throughout the life course (Meeus, Branje, Van der Valk, & De Wied, 2007; Seiffge-Krenke, Shulman, & Klessinger, 2001). For example, pattern of interactions with parents has been found to be important during adolescence (Cui, Conger, & Lorenz, 2005; Kim, Conger, Lorenz, & Elder, 2001) but by early adulthood, support from other extra-familial close relationships becomes a more salient predictor of young adults' emotional adjustment (Meeus et al., 2007). Similarly, parents may play a significant role in adolescents' mastery during adolescence; however, as adolescents grow into young adults, the salience of support from significant others outside the family on mastery may be greater.

The goal of this study is to trace the trajectory of change in sense of mastery and to investigate how different types of relationships influence mastery trajectories. Specifically, we examine the influence of parental support on mastery trajectories as individuals move from adolescence into young adulthood. We further investigate whether parental support in adolescence is related to extra-familial partner support during the transition to adulthood. Finally, we examine whether extra-familial partner support relates to the changes in mastery during the transition to adulthood and early adulthood years.

Parental Support and Early Origins of Mastery

According to attachment theory, early affectional ties with parents maintain a significant influence throughout the life course (Baumeister & Leary, 1995; Bowlby, 1988; Mikulincer & Shaver, 2007). The central tenet in this theory is that caring and supportive parenting fosters the development of a child's sense of security, which is viewed as the critical foundation for healthy social-emotional development. Early experience with parents leads to the development of internal working models--cognitive representations that reflect (1) the availability and responsiveness of significant others; and (2) the worthiness and competent view of the self. Once formed, these mental representations become relatively durable templates that guide the child's thoughts, behaviors, and expectations in later relationships throughout adolescence and into adulthood (Ainsworth, 1990; Bowlby, 1982; Fraley, 2002). An aspect of internal working model is one's ability to influence the environment (i.e., sense

of mastery). In the context of caring and supportive parenting, children learn that their needs can be met and that they exert an influence on their parents. Through repeated experiences, children develop a feeling of agency in the world (Edwards, 2002). Empirical support of this proposition has been documented (Ben-Zur, 2003; Hokoda & Fincham, 1995; Spoth, Redmond, Shin, & Huck, 1999; Turner & Burke, 2003).

During adolescence, attachment to parents both enables adolescents to retain a sense of stability, especially during pubertal changes, and provides a secure base upon which to explore new social situations (Brown & Wright, 2001). Although friends and dating partner become increasingly important, early relationships with significant others outside the family during adolescence tend to be casual, less intense, and short-lived (Shulman & Scharf, 2000) and hence family remains important in the development of mastery. Recent research by Conger et al. (2009) has demonstrated how positive interactions among family members and negotiations that occur within the family foster the development of adolescents' mastery. In this paper we therefore expect that, during adolescence, parental support have an influence on both the level and changes in sense of mastery.

Parental Support, Partner Support and Sense of Mastery

Transition to adulthood marks the time when close relationships outside the family of origin become central for most individuals (Arnett, 2000; Sroufe, Egeland, & Carlson, 1999). Relationships with significant others during the transition to adulthood tend to be more enduring and are characterized by closeness, affection, and support (Seiffge-Krenke et al., 2010). Adolescents' relationship with parents has been shown to set the stage for later close relationships with peers and romantic partners (Scharf & Mayseless, 2001). The parallels between parental and extra-familial partner support have been documented in previous research. For example, earlier relationships with parents have been shown to influence young adults' ability to form close, supportive relationships both with romantic partners and best friends (Fraley & Davis, 1997; Furman & Shomaker, 2008; Seiffge-Krenke, Overbeek, & Vermulst, 2010).

In contrast to relationship with parents, relationships with best friends and romantic partners are voluntary chosen and characterized by equality/reciprocity interactions (Buhl, 2009). The link between parental support and subsequent support from significant others outside the family might be explained by several mediating pathways. First, from the attachment perspective, warm/supportive parenting shapes children's expectations and beliefs about self and others, which encourage them to seek out extra-familial relationships that are consistent with these expectations (Fraley, 2002). Second, children who experience supportive and responsive parenting develop trust in others and learn to behave in ways that elicit supportive responses from others (Helsen, Vollebergh, & Meeus, 2000; Scharf & Mayseless, 2001). Finally, supportive parenting also helps to establish behavioral standards that individuals expect from significant others. Hence, consistent with prior research and arguments, we anticipate parental support to predict extra-familial partner support during the transition to adulthood.

As individuals orient themselves toward peers and intimate relationships, social support from significant others outside the family becomes more important (Seiffge-Krenke et al., 2001) while emotional support from parents becomes relatively less salient (Ainsworth, 1990; Wilkinson, 2004). Therefore we further anticipate that the influence of parental support on changes in sense of mastery will decline over time. Previous studies have also documented the importance of partner support on individuals' sense of mastery in adulthood. In general, for both men and women, support from significant others outside the family was found to predict greater sense of mastery (Gadalla, 2009; Martire, Stephens, &

Townsend, 1998). Thus, in this study we examine whether partner support will influence changes in sense of mastery during the transition to adulthood and in early adulthood.

In summary, this study extends previous research by tracing the trajectories of sense of mastery from adolescence to the early adulthood. Tracing the trajectories of change in mastery is a way to first describe and then explain why some individuals begin with a higher sense of mastery in adolescence than others, and why some have greater changes in mastery from adolescence to early adulthood. Building on previous literature, we propose that a significant portion of changes in mastery can be attributed to the pattern of relationships with parents and partners. Specifically, we hypothesize that (1) parental support in adolescence will influence both the level and changes in the sense of mastery, (2) parental support in adolescence will influence partner support during the transition to adulthood, (3) the influence of parental support on the changes in mastery will decline over time, and (4) partner support will influence the change in sense of mastery during the transition to adulthood and in early adulthood.

In this study we use a combination of target, mother, observer, and partner reports to record support. Having multiple individuals reporting on the same behaviors helps to validate the study's findings (Barber, Maughan, & Olsen, 2005). This approach provides a more balanced--if not less biased--measure of support by reducing the effects of method variance that often result when all information is obtained from a single source (Campbell & Russo, 2001; Lorenz, Conger, Simon, Whitbeck, & Elder, 1991).

Methods

Sample and Procedures

The sample for this study comes from the Family Transitions Project (FTP), an ongoing study of 559 adolescents who originally participated in either the Iowa Youth and Families Project (IYFP) or the Iowa Single Parent Project (ISPP). These two earlier longitudinal studies were designed to study family functioning during the economic downturn that affected rural Iowa in the 1980s. Because of the homogeneous ethnic composition in the area at that time, all families were of European origin. The IYFP was initiated in 1989 and involved two-parent families with adolescent children from rural counties in Iowa. Families selected to participate in the study included a target seventh-grade child who lived with his or her two biological parents and had a sibling within four years of the target child's age. The ISPP began two years later when most target adolescents were 15 years old. Families recruited into the ISPP had target adolescents the same age as the target IYFP adolescents, at least one sibling, and a mother who had experienced divorce within two years of the beginning of the study. The IYFP and the ISPP used identical measures and procedures. When the target child reached the age of 18, the IYFP and the ISPP samples were combined to form the FTP.

Ten waves of the combined data representing a 16-year period beginning when participants were 15 years old were used for the present analyses. At ages 15, 16, and 18, adolescents and their families were assessed in their homes. In addition to a set of questionnaires, observational ratings of family members' behaviors toward each other were videotaped and coded by trained observers using the Iowa Family Interaction Rating Scales (Melby & Conger, 2001). Before rating the videotapes, all observers received 200 hours of training and had to pass extensive written and viewing tests. In addition, coders underwent ongoing training sessions and reliability checks. Inter-rater reliability was estimated for 20–25% of the observational data. At ages 19, 21, 23, 25, 27, 29 and 31, the target adolescents were interviewed with their significant other (a romantic partner, or--in some of the earlier waves--a best friend). Both questionnaires and observational data were gathered using

similar procedures as those used in previous years of data collection. Additional information regarding the study procedures is available from Conger and Elder (1994) and Conger and Conger (2002).

To date, nearly 90% of the original FTP participants continue to participate in yearly assessments. As some cases were unavailable for a specific wave of data collection, the present study utilized information from 527 target adolescents (46% males) who participated in at least five waves of data collection between ages 15 and 31. Eighty-two percent of the sample came from two-parent families (i.e., the original IYFP participants). Preliminary analysis suggests that no significant difference occurred in any of the present study variables between the former IYFP and ISPP participants. All hypotheses in this study are analyzed using Mplus 5. Missing data on specific items among those who were eligible to be included in the analyses were treated using Full Information Maximum Likelihood (FIML), a feature available in Mplus 5. Previous literature has indicated that FIML allows researchers to obtain efficient estimates of parameters by using all available data in the analysis (Enders, 2001; Enders & Bandalos, 2001).

Measures

Parental support—The latent constructs of parental support were created from three indices—target report, mother report, and observer report—at age 15 and 18. At each wave the target adolescents were first asked to rate eight items regarding the frequency (1 = always, 7 = never) of their mothers' supportive and warm behaviors toward them. The questions began with an introductory clause "During the past year when you and your mom have spent time talking or doing things together, how often did your mom..." followed by specific items. Sample items included "let you know she really cares about you," "listen carefully to your point of view," and "help you do something that was important to you." All items were coded and averaged so that high scores represented high target reports of parental warmth and support. Internal consistencies for the target report of parental support scales at age 15 and 18 were .92 and .94.

Second, mothers were asked to rate four items regarding the frequency (1 = always, 7 = never) of their supportive and warm behaviors toward the target adolescent. The mothers' questionnaire began by asking "During the past year when you and the target child have spent time talking or doing things together, how often did you..." The mothers' questionnaire items included "let your child know you really care about him/her," "act loving and affectionate toward your child," "let your child know that you appreciate him/her, his/her ideas, or the thing your child does," and "help your child do something that was important to him/her." These items were coded and averaged so that high scores represented higher levels of mothers' self-reported warmth and support. Internal consistencies for the mothers' report of parental support scales at age 15 and 18 were .87 and .89.

Finally, observer reports of parental support were obtained by averaging scores in five categories of behavior: (1) warmth: the extent to which the mother expressed care, concern, support, or encouragement toward the target adolescent; (2) assertiveness: the extent to which the mother expresses herself to the target adolescent in a neutral or positive way; (3) listener responsiveness: the mother's nonverbal and verbal behaviors that validate and indicate attentiveness to the target adolescent verbalizations; (4) communication: the mother's ability to promote rather than to inhibit the exchange of information; and (5) prosocial: the extent to which the mother demonstrated helpfulness and sensitivity toward the target adolescent (Melby et al., 1998). Observer ratings of these five behaviors ranged from 1 (no evidence of the behavior) to 9 (the behavior is highly characteristic of the parent). Internal consistencies for the observer report of parental support scales at age 15 and 18 were .86 and .85.

Partner support—The latent construct of partner support was created from three indices—target report, partner report, and observer report—at age 19. Participants' partner (romantic partner or best friend) represented the closest extra-familial relationship that the target participants had at that time. To assess relationship support, the target participants were first asked to rate eight items regarding the frequency (1 = always, 7 = never) of their partners' supportive and warm behaviors toward them. The questions began with the phrase, "During the past year when you and your partner have spent time talking or doing things together, how often did your partner..." followed by specific items. Sample items included "act supportive and understanding toward you," "let you know he/she really cares about you," "listen carefully to your point of view," and "help you do something that was important to you." All items were coded and averaged so that high scores represented high target reports of partner warmth and support. Internal consistency for the targets' report of partner support scale was .88.

Second, partners were asked to rate four items regarding the frequency (1 = always, 7 = never) of their supportive and warm behaviors toward the target participants. The partner questionnaire began with the phrase, "During the past year when you and your partner have spent time talking or doing things together, how often did you..." The partner questionnaire items included "let him/her know you really care about him/her," "act loving and affectionate toward your partner," "let your partner know that you appreciate him/her," and "help your partner do something that was important to him/her." These items were coded and averaged so that high scores represented higher levels of partners' self-reported warmth and support. Internal consistency for the partners' report of partner support scale was .83.

Finally, observer reports of partner support were obtained by averaging scores in five categories of behavior: warmth, assertiveness, listener responsiveness, communication, and prosocial behaviors of partner toward the target participants (descriptions for each of these items are similar to the observer reports of parental support). Observer ratings of these five behaviors ranged from 1 (no evidence of the behavior) to 9 (the behavior is highly characteristic of the partner). Internal consistency for the observer reports of partner support scale was .87.

Sense of mastery—Pearlin et al.'s (1981) measure of mastery was administered to the target adolescents at ages 15, 16, 18, 19, 21, 23, 25, 27, 29, and 31. This measure includes seven items. Respondents were asked to rate each item on a 5-point Likert-type scale, ranging from "strongly agree" to "strongly disagree", in response to statements such as "there is really no way I can solve some of the problems I have," "sometimes I feel that I'm being pushed around in life," "I have little control over things that happen in my life," and "what happens to me in the future mostly depends on me." Responses were coded so that higher scores indicated a higher sense of mastery and were averaged. Across the 10 waves of measurements, the internal consistency of mastery scale ranged from .78 to .84.

Control variables—Gender, parental education, and partner type were included as control variables. Although previous studies have indicated mixed results in regard to gender with support and sense of mastery, we included this variable to account for its potential influence on the proposed hypotheses. Gender (0 = females, 1 = males) was included as a control variable based on literature that suggests females generally report more social support (Furman & Buhrmester, 1992) and lower perceived control than males (Lewis, Ross, & Mirowsky, 1999). However, Helsen et al. (2000) suggested that--although girls report more social support from friends than boys--no significant gender difference exists in perceived parental support. Results from other studies indicated that--although gender is marginally associated with the level and change in mastery for younger adolescents--no significant gender difference in mastery exists for older adolescents (Conger et al., 2009). Parental

education, measured by the number of schooling years completed by mothers at age 15, was included as another control. Parental education has been found to influence sense of mastery (Conger et al., 2009; Lewis et al., 1999). Finally, to account for potential differences in partner support due to the type of relationship, we included partner type (0 = best friend, 1 = romantic partner) as control variable.

Results

Table 1 presents the means and standard deviations for the main study variables. Forty six of the participants were males and, on average, mothers had 13.42 years of formal education ($SD = 1.70$). At age 19, 72% of the participants participated with a romantic partner. The correlations among different reporters of parental and partner support at all measured waves were significant and in the expected directions. At age 15, the correlation between target report and mother report of parental support was .39 ($p < .01$), the correlation between target report and observer report of parental support was .16 ($p < .01$), and the correlation between mother report and observer report of parental support was .28 ($p < .01$). At age 18, the correlation between target report and mother report of parental support was .36 ($p < .01$), the correlation between target report and observer report of parental support was .27 ($p < .01$), and the correlation between mother report and observer report of parental support was .33 ($p < .01$). The correlation between target report and partner report of partner support was .58 ($p < .01$), the correlation between target report and observer report of partner support was .27 ($p < .01$), and the correlation between partner report and observer report of partner support was .19 ($p < .01$).

Description of Change over Time

The patterns of change in sense of mastery over time were first obtained by estimating univariate linear growth curve across all 10 waves of data. The purpose of this model was to investigate whether mastery changes systematically with time. We next elaborated the linear model to compare two alternative growth curves: the quadratic and piecewise models. The quadratic growth curves examines whether the rate of change in mastery is best described as continuous whereas the piecewise modeling investigates whether change in mastery can be better described by a succession of separate and distinct linear components during different developmental stages. An advantage of the piecewise model is for testing the hypothesis that a covariate predicts change during one period of time but not during another (Flora, 2008; Li, Duncan, Duncan, & Hops, 2001).

In the growth curve models, intercepts were defined to be the first year of measurement, when most adolescents were 15 years old. To evaluate the overall model fit, we use a combination of chi-square test statistic, the root mean square error of approximation (RMSEA) and the Akaike information criterion (AIC). In general, smaller chi-square values represent a closer fit between the sample variance-covariance matrix and the proposed model. However, because the chi-square statistic is known to be sensitive to the sample size, alternative fit indices such as the RMSEA and the AIC are also presented. A value of less than .05 for RMSEA typically indicates a good model fit, whereas values between .05 and .08 indicate reasonable error of approximation (Byrne, 2010; Kline, 2005). The model with the lowest AIC value is typically judged to fit the data better than competing models (Brown, 2006; Byrne, 2010). The AIC is particularly useful in the comparison of non-nested models (such as comparing the quadratic and piecewise growth curves) as it takes into account both the model fit and each model complexity (Brown, 2006).

Table 2 presents the growth curves estimates. For the linear model, intercept of 3.898 represents estimate of the average initial levels of mastery for all participants at age 15. The significant mean for the linear slope (.024, $t = 7.07$) indicates that, on average, an overall

increasing trend emerged in sense of mastery for each additional year. The significant variance associated with the linear slope ($.003, t = 8.65$) implies significant inter-individual variability in this linear change over time. In other words, some individuals experienced an increase in sense of mastery while others experienced a decline, and some experienced a more dramatic change than others. This linear model has a relatively poor fit with the data ($RMSEA = .09$). For the quadratic model, intercept of 3.847 represents the average initial estimate of mastery for all participants at age 15. The significant mean associated with the first slope of .073 indicates that over time, there is an increasing trend of .073. A negative sign associated with the mean in the second slope indicates that the general increase in mastery slows down over time. Overall, the quadratic model provides a better fit to the data than the linear model [$\Delta\chi^2 (4 \text{ df}) = 108.99$]. However, a relatively greater improvement over the linear model was obtained by fitting piecewise growth curve model (an initial level and three segmental slopes: one for late adolescence, one for the transition to adulthood, and another for early adulthood) [$\Delta\chi^2 (9 \text{ df}) = 171.73$]. The intercept of 3.884 in the piecewise model represents the average initial levels of mastery at age 15. The non-significant mean for the first slope of .007 represents a relatively constant average level of growth in sense of mastery between ages 15–18, while the value of .057 associated with the second slope indicates an average increase in mastery from ages 19 to 25, and the coefficient of $-.023$ indicates an overall decrease from ages 27 to 31. Most importantly, variances associated with the slopes of mastery in the piecewise model are significant. That is, although most participants experienced relatively constant change in mastery between ages 15–18, increasing from ages 19 to 25 and decreasing trend thereafter, there is a significant inter-individual variability in these patterns over time. Compared to the linear model, the piecewise model provides a better reduction in chi-square than the quadratic model. Hence, the piecewise model improves the fit of the model to the data more fully than alternative models.

Testing the Hypothesized Model

To test the study's hypotheses, the piecewise growth curve for sense of mastery was integrated with parental support, relationship support, and the control variables into a single structural equation model. Error terms between the same reporters of parental support over time were allowed to correlate. Consistent with the theory of an internal working model, residuals of the target report of parental support at age 18 and partner support at age 19 was also correlated. Figure 1 presents results of the hypothesized model. Parental support at age 15 was significantly associated with higher level of mastery initially ($\beta = .495; t = 6.29; CI_{95} = .386, .604$) and parental support at age 18 ($\beta = .828; t = 9.97; CI_{95} = .749, .908$). Higher parental support at age 18 was associated with an increase in mastery from ages 15 to 18 ($r = .470; CI_{95} = .302, .637$) and with greater partner support at age 19 ($\beta = .359; t = 4.10; CI_{95} = .261, .456$). Parental support at age 18 however, was not significantly related to the change in mastery from ages 27 to 31 ($\beta = .154; t = 1.27; CI_{95} = -.085, .394$). Higher partner support at age 19 was subsequently associated with an increase in mastery from ages 19 to 25 ($\beta = .151; t = 1.97; CI_{95} = .012, .290$). The results also showed that parental support at age 18 negatively predicted the change in mastery from ages 19 to 25 ($\beta = -.273; t = -3.06; CI_{95} = -.438, -.108$) and partner support at age 19 negatively predicted the change in mastery between ages 27 to 31 ($\beta = -.354; t = -2.55; CI_{95} = -.601, -.107$). In both instances, these coefficients can be interpreted as regression to the mean; that is, parents and partners who were initially very high in support were less likely than others to report even higher levels of support in subsequent waves of data collection. A romantic partner tended to provide greater support than a best friend ($\beta = .508; t = 5.05; CI_{95} = .430, .586$). On average, females reported greater relationship support at age 19 than did males ($\beta = -.336; t = -4.41; CI_{95} = -.415, -.257$). The influence of gender on parental support, both at age 15 and 18, as well as on the level and changes in mastery was not significant. Higher parental education

was significantly associated with greater parental support at age 15 ($\beta = .123$; $t = 2.13$; $CI_{95} = .005, .241$). The overall fit of this model was adequate [$\chi^2 (187 \text{ df}) = 366.91$; comparative fit index, CFI = .95; RMSEA = .04]. We further estimated two alternative structural equation models to examine whether the correlations between parental support and partner support, each with the slope 2 and slope 3 of mastery were significantly different. Significant improvement in the model fit was obtained by allowing the correlations to be different [$\Delta\chi^2 (2 \text{ df}) = 7.56$] which indicate that the influence of parental and partner support on the change in mastery is different across the transition to adulthood and early adulthood years.

Discussion

Family plays a significant role in the development of mastery during childhood and adolescence (Conger et al., 2009; Hokoda & Fincham, 1995; Spoth et al., 1999). Most children and adolescents live at home where parents still set the rules and boundaries in their daily lives (Madsen, 2008). During the transition to adulthood, individuals may live alone, in a college dormitory, or with a romantic partner (Arnett, 2007). As parents no longer have as much influence as they did in childhood and adolescence and long term obligations to a spouse and children have not yet been entered, individuals are free to explore possibilities available to them and focus on their self-development (Arnett, 2007). Indeed, emotional self-regulation and emotional well-being have been found to increase substantially during the transition to adulthood (Schulenberg & Zarrett, 2006). In early adulthood, greater financial and family responsibilities might undermine an individual's feelings of mastery. Our findings that the average trajectory of sense of mastery tend to be relatively stable during adolescence, increase during the transition to adulthood, and slightly decrease in the early adulthood years is consistent with previous literature.

Results of this study contribute to the growing body of family research that has underscored the importance of supportive relationships in maintaining individuals' psychological resources. Consistent with previous literature that has suggested earlier parent-child relationships contribute to the development of the child's mastery (Edwards, 2002; Hokoda & Fincham, 1995) and subsequent relationships (Wilkinson, 2004), we found that parental support was associated with higher levels of mastery initially and with greater extra-familial partner support during the transition to adulthood. Over time, our results indicated a decline in the influence of parental support on changes in sense of mastery. Parental support at age 18 was not significantly related to the change in mastery in early adulthood; instead, partner support influenced the change in mastery both during the transition to adulthood and in early adulthood. This growing importance of close relationships outside the family of origin is consistent with the developmental task during the transition to adulthood—namely, establishing independence from parents while experimenting with and forming intimate relationships (Arnett, 2000; Scharf et al., 2004).

The years leading up to adulthood often coincide with other life experiences outside the home, such as going away to college, living independently outside of the parental home, or moving in with a romantic partner. Tanner (2006) proposed that during the transition into adulthood, there is a shift from dependence on parents to a broader orientation toward careers, intimate partners, and the establishment of a new family. With this growing independence, parents' role in socialization tends to decline (Arnett, 2007). This does not mean that parents no longer have an influence in the lives of young adult children (Ainsworth, 1990); rather, the same motivational system involved in establishing close emotional bonds between parents and their children is responsible for the bond that develops in subsequent intimate relationships (Fraley, 2002). Young adults who have good, supportive relationship with their parents have been shown to be more capable of building

supportive relationships with friends (Helsen et al., 2000) and with romantic partners (Conger et al., 2000).

Results regarding gender differences were largely consistent with Helsen et al.'s (2000) findings. No significant gender difference was evident in perceived parental support, although females reported receiving more social support from close significant others than males. Parental education was also significantly related to parental support, which is consistent with previous findings (Conger et al., 2009; Lewis et al., 1999). Previous research indicated that in early adulthood, intimate partner relationships become more salient than those with best friends (Buhl, 2009; Meeus et al., 2007). In support to previous findings we found romantic partners to be associated with providing greater support than were best friends.

The potential limitations of this study provide suggestions for further research. First, parental support in this study was based on mothers' warmth and supportive behaviors. Traditionally, mothers' parenting behaviors have served as better predictors of child outcomes than fathers' (Ainsworth, 1990; Bowlby, 1988), yet the effects of supportive behaviors of other family members may be unique (e.g., Seiffge-Krenke, Overbeek, & Vermulst, 2010) and equally important for the development of individuals' mastery. Future studies should examine the long-term influence of warmth/supportive relationships of other familial relationships (e.g., father, siblings, grandparents). Second, the participants of this study came from rural counties in the Midwest; because of the lack of minorities, all participants in the sample were white. This may limit the generalizability of the findings. The replication of the study with more diverse ethnic backgrounds as well as participants from different geographic locations may be useful. However, several studies have applied the methods and many of the measures of this study in diverse populations and have replicated other findings obtained with this sample (Conger et al., 2002; Scaramella, Sohr-Preston, Callahan, & Mirabile, 2008; Solantaus, Leinonen, Punamaki, 2004). Finally, in this study we focused on two important predictors of mastery: parental support and relationship support. Other domains such as educational achievement and work may also influence the change in sense of mastery. Future research should consider the interplay between these different domains on individuals' sense of mastery.

In summary, this paper adds to our understanding of the importance of supportive relationships in regard to the trajectories of change in sense of mastery as individuals progress from adolescence to the early adulthood years. Because of the profound role of sense of mastery in adaptation and well-being (Pearlin et al., 1981; Pudrovska et al., 2005), intervention programs should consider ways to enhance young adults' development of mastery.

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FIGURE 1.

The Influence of Parental Support and Partner Support on the Trajectories of Mastery from Adolescence to Early Adulthood (Standardized estimates with *t*-ratios in parentheses)

Note. Partner type is assumed to influence partner support.

The paths from parental education and gender to all of the latent variables are estimated as control (see text for details).

⁺ $p < .10$; * $p < .05$; ** $p < .01$

TABLE 1

Descriptive Statistics for the Main Study Variables (N = 527)

Study Variables	Males		Females		Total Sample	
	M	SD	M	SD	M	SD
Parental Support – Age 15						
Target report	5.30	1.07	5.33	1.21	5.32	1.15
Mother report	5.29	.88	5.28	.91	5.29	.90
Observer report	5.37	1.43	5.08	1.35	5.21	1.39
Parental Support – Age 18						
Target report	5.12	1.03	5.26	1.29	5.20	1.18
Mother report	5.39	.92	5.31	.96	5.35	.94
Observer report	5.24	1.11	5.17	1.08	5.20	1.09
Partner Support – Age 19						
Target report	5.05	1.22	5.78	.99	5.45	1.15
Partner report	4.76	1.57	5.45	1.18	5.14	1.41
Observer report	4.40	1.23	4.95	1.39	4.70	1.34
Sense of Mastery						
Age 15	3.87	.60	3.90	.60	3.89	.60
Age 16	3.89	.61	3.89	.63	3.89	.62
Age 18	3.85	.67	3.88	.62	3.87	.65
Age 19	3.91	.66	3.97	.62	3.94	.64
Age 21	3.99	.61	4.02	.65	4.01	.63
Age 23	4.12	.57	4.10	.61	4.11	.59
Age 25	4.06	.53	4.06	.60	4.06	.57
Age 27	4.04	.58	4.05	.61	4.04	.60
Age 29	4.10	.53	4.06	.61	4.08	.58
Age 31	3.99	.56	4.02	.57	4.00	.57

TABLE 2
Estimates of Growth Parameters for Sense of Mastery from Age 15 to 31 (*t*-ratios in parentheses)

Model	Intercept		Slope 1		Slope 2		Slope 3		χ^2 (df)	RMSEA	AIC
	Mean	Variance	Mean	Variance	Mean	Variance	Mean	Variance			
Sense of Mastery											
Linear model ^a	3.898** (169.87)	.214** (12.49)	.024** (7.07)	.003** (8.65)					248.01 (50)	.09	6488.72
Quadratic model ^b	3.847** (154.79)	.232** (11.47)	.073** (6.93)	.026** (7.01)	-.006** (-5.30)	.001** (5.64)			139.02 (46)	.06	6387.73
Piecewise model ^c	3.884** (151.50)	.247** (10.46)	.007 (.39)	.075** (6.15)	.057** (7.28)	.015** (7.33)	-.023** (-2.96)	.008** (3.69)	76.28 (41)	.04	6334.99

Note.

^aCoding scheme for slope 1: 0, 0.5, 1.5, 2, 3, 4, 5, 6, 7, 8.

^bCoding scheme for slope 1 (linear): 0, 0.5, 1.5, 2, 3, 4, 5, 6, 7, 8; slope 2 (quadratic): 0, 0.25, 2.25, 4, 9, 16, 25, 36, 49, 64.

^cCoding scheme for slope 1 (late adolescence): 0, 0.5, 1.5, 1.5, 1.5, 1.5, 1.5, 1.5, 1.5, 1.5; slope 2 (transition to adulthood): 0, 0, 0, 0.5, 1.5, 2.5, 3.5, 3.5, 3.5, 3.5; slope 3 (early adulthood): 0, 0, 0, 0, 0, 0, 1, 2, 3.

*
 $p < .05$;

**
 $p < .01$