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ORIGINAL PAPER

Natural Mentoring Processes Deter Externalizing Problems Among Rural African American Emerging Adults: A Prospective Analysis

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Abstract A 3-wave model linking natural mentoring relationships to externalizing behavior was tested with 345 rural African American emerging adults in their final year of high school. Structural equation models were executed linking multi-informant reports of mentor-emerging adult relationship quality with youths' externalizing behavior 18 months later. Consistent with our primary hypotheses, emerging adults whose relationships with their natural mentors were characterized by instrumental and emotional support and affectively positive interactions reported lower levels of anger, rule-breaking behavior, and aggression. These effects emerged independent of the influences of family support and youth gender. Two intrapersonal processes, a future orientation and self-regulation, emerged as mediators of the influence of natural mentoring relationships. The influence of natural mentors was most pronounced for emerging adults experiencing high levels of life stress.

Keywords African Americans · Emerging adulthood · Externalizing behavior · Mentors · Rural

The years following high school involve pervasive and often simultaneous contextual and social role changes for young people (Schulenberg et al. 2004). During this period, which developmental theorists call *emerging adulthood*, young people must learn to handle new social demands related to employment, romantic relationships, increased independence from the family of origin, and financial management (Arnett 2000). College-bound youth follow a structured pathway. They are counseled extensively, informed about college entry requirements, and enrolled in the requisite academic subjects (Halperin 1998). Fewer than 20% of the rural African American emerging adults who are the focus of this study, however, enter postsecondary programs (Boatright 2005). Many who do pursue higher education have difficulty in adapting to the social and academic challenges that college presents and do not complete their degree programs (Cook and Códova 2006). Thus, for most rural African Americans, emerging adulthood is unstructured and mainly left to individual initiative. Job turnover rates are high during this period, as the combined effects of poor preparation for employment and disadvantageous hiring practices make the transition to the workforce a protracted and often demoralizing process (Gore and Aseltine 2003; Holz and Tienda 1998). These challenges occur while the social controls and support that families provide to some emerging adults start to diminish (Aquilino 1997). Many rural African American emerging adults are thus confronted with challenging environments that provide minimal resources and diminishing social support to help them embark on beneficial life paths. Some who see no pathway to adequate subsistence, much less the attainment of life course goals, are at risk for increasing levels of externalizing problems, including angry and hostile emotions and rule-breaking and aggressive behaviors (Bolland 2003; Brody et al. 2006; Masten et al. 2004; Spencer and Depree 1996).

Studies indicate that powerful factors that protect African American youth from the externalizing problems that

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adverse environments can induce originate in relationships with family members and extended kin (Brody et al. 2002, 2006; Kogan et al. 2005, 2010). Although relationships with parents and other caregivers are often pivotal, reliance on extended family and non-family socialization and support systems is common in African American communities and plays a key role in positive youth development (Boyd-Franklin 1989; Taylor et al. 1993). Both extended family members outside of the household (Taylor et al. 1993) and non-family adults function as "natural mentors" (Beam et al. 2002; Rhodes et al. 1992; Zimmerman et al. 2002). Natural mentors are concerned adults whom youth encounter informally in their social networks, in contrast to volunteer mentors who are assigned to youth through programs like Big Brothers or Big Sisters. Having a natural mentor has been found to deter depression, enhance personal optimism, inhibit substance use, and facilitate persistence in career activities among adolescents (Klaw et al. 2003; Rhodes et al. 1994; Zimmerman et al. 2002).

For rural African Americans, natural mentors may provide a valuable resource for social support and socialization during the emerging adult transition. Waning institutional and caregiver support is normative, and few community programs exist that are designed to match non-college-bound young people with volunteer mentors after they leave high school. Natural mentors represent an untapped resource that could be mobilized in rural communities to counter the potential of emerging adulthood to instigate negative life trajectories among young people who had been doing well and to exacerbate problems among those already at risk (Schulenberg et al. 2004). To date, however, studies of natural mentoring during emerging adulthood in general, and those focusing on non-college-bound ethnic minority populations in particular, are scarce. This results in an insufficient knowledge base through which to verify the potential influence of natural mentors and to develop programs that capitalize on this resource. Extant mentoring research primarily focuses on younger adolescents and formal mentoring programs, the results of which are unlikely to generalize to emerging adults' natural mentors (Beam et al. 2002; DuBois et al. 2002; Parra et al. 2002; Zimmerman et al. 2002). This literature also is limited in two important ways. Although several studies indicate that adolescents with natural mentoring relationships, particularly long-term ones, had better psychosocial outcomes than youth who did not (Hurd and Zimmerman 2010; Werner and Smith 1992; Zimmerman et al. 2002), less is known about the characteristics of these relationships that confer protection. Knowledge in this area is limited to a few studies that addressed this issue with adolescent samples (Greenberger et al. 1998; Klaw and Rhodes 1995). At present, little empirical research addresses the characteristics of mentoring relationships that render them most likely to confer protective effects on young adults. Second, few studies investigate the mechanisms that explain how a natural mentoring relationship with an emerging adult may impact developmental outcomes. An illustrative exception is Klaw and Rhodes' (1995) analysis of mentoring relationships among pregnant and parenting African American teen women. They found that mentor support was associated with increased optimism, which in turn led to increased engagement in career-related activities. To our knowledge, however, no studies have examined variability in support processes and relationship quality as predictors of emerging adults' externalizing problems or the mediating factors that account for potential links. Such studies are crucial for developing interventions that target enhancement of essential mentoring relationship characteristics. The present study is designed to address these gaps.

The heuristic model in Fig. 1 presents an overview of study predictions. We hypothesized that protective mentoring relationships composed of emotional support, instrumental support, and harmonious, affectively positive relationships would deter externalizing problems through associations with emerging adults' development of a future orientation and self-regulation. Protective mentoring relationships blend aspects of peer and caregiver relationships, providing youth with a unique socialization experience (Rhodes et al. 2002). Although few studies have investigated variability in informal mentoring relationships, Grossman and Rhodes (2002) found that the overall quality of youths' relationships with volunteer mentors predicted academic, social, and behavioral outcomes. Longitudinal studies of disadvantaged youth who become well-functioning adults also highlight the importance of at least one supportive adult who believed that the youth could achieve and assisted the young person in navigating the problems of adolescence (Werner and Smith 1982). Instrumental support from supportive adults includes assistance with specific problems as well as provision of material support (Dillon et al. 2003). Instrumental forms of support are most effective when they are provided in the context of an affectively positive and harmonious relationship (Brody et al. 1998). In the absence of these qualities, adolescents and emerging adults may consider adults' support or assistance to be intrusive (Green and Werner 1996).

We further hypothesized that two intrapersonal protective processes, future orientation and self-regulation, would act as mediators connecting protective mentoring relationships with externalizing problems. A future orientation locates an emerging adult's primary set of psychological influences in the temporal frame of the future (Zimbardo and Boyd 1999). Individuals with a future orientation consider the lasting consequences of their behavior, whereas those with a present orientation respond to

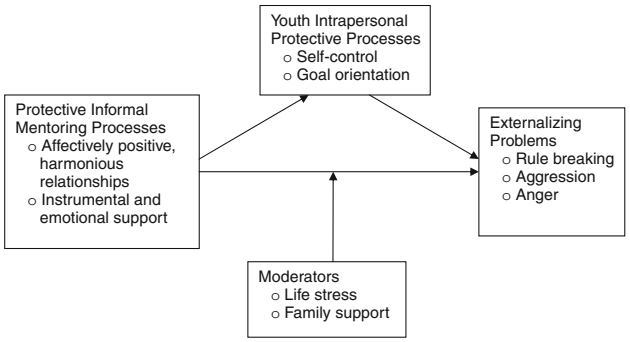

Fig. 1 Conceptual model

immediate situational factors and influences (Keough et al. 1999). Self-regulation includes the ability to set and attain goals, to plan actions and consider their consequences, and to persist (Bandura 1997). Emerging adults who develop future orientations and achieve self-regulation even though they live in challenging environments are hypothesized to be unlikely to display anger, aggression, and rule-breaking behavior.

We hypothesized that affectively positive relationships enhance youths' likelihood of developing good self-control and forming future goals. Natural mentor involvement is likely to counter self-defeating thoughts, instill hope, and reduce loneliness (Rhodes et al. 2002). Attachment theory (Sroufe and Fleeson 1986) suggests that the availability of supportive adults enhances youths' likelihood of regulating distressed feelings by seeking support rather than acting out their frustrations. As part of their positive relationships with youth, adults demonstrate task-oriented problem-solving skills (Bandura 1997). To the extent that emerging adults observe these skills demonstrated, they will be likely to approach stressful events with direct action and unlikely to cope through avoidance or anger. In addition to assisting emerging adults in coping with present struggles, mentors orient youth toward potential accomplishments and instill confidence in achieving goals (Klaw and Rhodes 1995). Accordingly, emerging adults become more future oriented. Individuals with a future orientation are more likely to consider the lasting consequences of their behavior, whereas those with a present orientation are more responsive to immediate situational factors and influences (Zimbardo et al. 1997). A future orientation is associated with fewer externalizing problems (Bolland 2003; Robbins and Bryan 2004). We thus expect effective mentoring relationships to increase emerging adults' orientation to the future, which in turn will reduce their externalizing problems.

We also advanced a moderational hypothesis regarding the influence of life stress on the effectiveness of protective mentoring processes (see Fig. 1). Emerging adulthood among rural African Americans holds the potential for increased stress. In their families and communities, leaving high school often marks a youth's transition to adult status. This new status removes many of the protective factors in family relationships and school participation that buffered them from the hardships of life in impoverished communities (Biafora and Zimmerman 1998). Young adults may become more aware of family financial hardships and encounter new expectations to contribute to the family's subsistence. In addition to these stressors, we have found that experiences with racial discrimination escalate as rural African American adolescents mature (Gibbons et al. 2004). Emerging adults therefore may face considerable stress in transitioning to adult roles. Consistent with Rutter's (1985) observation that the influences of protective processes are strongest under conditions of highest risk, we hypothesized that protective mentoring would have its strongest impact for youth experiencing the most life stress. Emerging adults who encounter little life stress are unlikely to need the additional support and socialization that protective mentoring confers. In contrast, young people under stress who do not develop externalizing problems are likely to have sources of support available to them.

We explored two additional hypotheses in the present research. The first addressed the co-occurring influences of protective family and informal mentoring relationships. It is not known whether protective mentoring influences emerging adults' externalizing problems independent of the influence of parental support. To the extent that protective mentoring exerts an independent effect, identifying supportive sources of informal mentoring is useful for young people who have more or less family support. A second question involves the relative influence of mentoring support based on the emerging adult's relationship to the mentor. Natural mentors may be extended family members or community members, older cousins or young adults in the community, or non-family individuals such as teachers, coaches, and pastors. Potentially, young adult mentors could provide both prosocial and antisocial socialization; thus, they may not be ideal choices. There is also the potential for mentoring relationships with teachers, coaches, and pastors to be qualitatively different than those with extended family or fictive kin. We therefore explored potential effects of the source of mentoring on the link between mentoring relationship quality and emerging adults' externalizing problems.

Summary of the Present Research

Using a three-wave prospective research design that spanned the last year and a half of secondary school and the first year after leaving school, we advanced and evaluated

predictions about the influence of natural mentor relationships on changes in emerging adults' externalizing problems. We predicted that variation in the quality of the relationships between emerging adults and their self-identified natural mentors would influence changes in emerging adults' externalizing problems during the transition, and that this link would emerge independent of family support. We further hypothesized that two intrapersonal processes, self-regulation and future orientation, would mediate this association. We also investigated the moderating effect of life stress on the link between informal mentoring and externalizing problems and the possibility that emerging adults' relationships to their natural mentors would influence the strength of the association of relationship quality with externalizing problems. A multi-informant measurement plan included (a) reports of mentoring processes from both emerging adults and their identified mentors, (b) parents' reports of mediating processes, and (c) emerging adults' reports of externalizing behavior. This measurement strategy is an advance over previous research because it reduces the potential for report bias to affect model estimates.

Method

Participants

Study participants included 345 African American emerging adults, their primary caregivers, and natural mentors whom the emerging adults identified. They lived in six rural counties in Georgia in which poverty rates are among the highest in the nation and unemployment rates are above the national average (Proctor and Dalaker 2003). Although the youths' primary caregivers worked an average of 38.5 h per week (SD = 11.1), 41.8% of their families lived below federal poverty standards and another 15% lived within 150% of the poverty threshold. Youths' families were representative of the areas in which they lived (Boatright 2005); they are best described as working poor. Of the youth in the sample, 58.5% were female; a majority, 63.6%, lived in single-parent households. A majority of the students' caregivers, 78.7%, had completed high school or earned a GED; the median family income of $1,948.25 per month was representative of the sampled population (Boatright 2005). The informal mentors included grandparents (15.4%), other adult relatives such as aunts and uncles (47.5%), young adults who were usually cousins or older friends (11.3%), and unrelated adults such as coaches, pastors, and teachers (25.8%). A majority of the mentors were female (76.8%), and their modal level of education was a high school diploma or GED (31.0%). An additional 17.3% did not complete high school, and the remaining mentors (51.7%) had attended or graduated from college.

Youth were recruited initially with their primary caregivers to participate in a randomized prevention trial of a family-centered substance use prevention program. Of the families screened for participation, 52% enrolled in the study, a rate similar to those of similar studies (Brody et al. 2004). At enrollment, each youth nominated an informal mentor who (a) resided in the community, (b) was at least 5 years older than the youth, (c) did not live with the youth, (d) was not the youth's parent, (e) had regular contact with the youth, and (f) was a person to whom the youth could "go for advice and support." If the nominated mentor could not or declined to participate, the youth was asked for a second choice. Of the first-choice mentors contacted, 78.8% agreed to be in the study; based on the goals of the parent study, 33% of the mentors enrolled in the study were randomly selected to participate in a 4-h workshop to improve their relationships with the youth. Of the mentors selected for the workshop, 58% participated. Because the present study does not focus on the efficacy of either the family-centered intervention or the mentor workshop program, we controlled for youths' participation in the intervention (number of sessions, 0–6) and mentors' participation in the workshop (yes or no) in all tests of study hypotheses.

Procedures

The parents and youth were contacted initially by Center for Family Research staff via letter and phone call, with follow-up contacts from community liaisons who resided in the counties in which the participants lived and maintained connections between the research group and the communities. Families were initially recruited into the overall project but were informed that they could be assigned to an intervention condition. Informal mentors were recruited in a similar fashion after nomination by the enrolled youth.

Parents and youth provided data three times: at a baseline assessment (Wave 1; youth M age = 17.0), approximately 7 months later (Wave 2; youths' M age = 17.6), and 18 months post-baseline (Wave 3; youth M age = 18.5). Informal mentors provided data at Waves 1 and 2. All data were collected in participants' homes by African American field researchers. At each data collection point, one home visit lasting 2 h for families and 1 h for mentors was made. At the home visits, self-report questionnaires were administered to participants in an interview format that eliminated literacy concerns. Each interview was conducted privately, with no other family members present or able to overhear the conversation. Informed consent or assent forms were completed at all data collection points. At each data collection, participating families were paid

$100 and informal mentors received $60.00. The University IRB reviewed and approved the study protocols.

Measures

Externalizing Problems

Emerging adult externalizing problems was modeled as a latent construct at Waves 1 and 3. Three scales indicated this construct. Emerging adults completed the rule-breaking (15 items, $\alpha = .85$ at Wave 1 and .86 at Wave 3) and aggression (13 items, $\alpha = .63$ at Wave 1 and .75 at Wave 3) subscales of the Adult Self-Report (Achenbach and Rescorla 2003). The ASR is a widely used instrument with well-established psychometric properties. Emerging adults also completed the State Anger Scale (Spielberger 1999). Participants responded to 15 items describing angry emotions, such as furious, annoyed, and wanting to break things, to indicate how often during the past 3 months they felt those ways. The response scale ranged from 1 (*always*) to 4 (*rarely*). Cronbach's alpha exceeded .90 across waves.

Protective Mentoring Processes

This latent construct was indicated by measures from the emerging adults' and the mentors' perspectives. At Waves 1 and 2, emerging adults reported on affective involvement and positivity in their relationships with their identified mentors using a modified version of the Interaction Behavior Questionnaire (IBQ; Prinz et al. 1979). The 18-item scale was internally consistent at both waves, $\alpha = .88$. Example items include, "You listen when [mentor] gives you advice," and "[Mentor] doesn't understand your feelings" (reversed scored). Items were rated on a scale ranging from 1 (*really false*) to 4 (*really true*). The scores for this measure at Waves 1 and 2 were averaged to index *relationship quality* across this time period. Using a 6-item measure that we developed for this project, emerging adults also reported on the amount of instrumental support and assistance their mentors provided to them in dealing with problems. Example items included, "Talked to you about how [s/he] has overcome problems in [his/her] own life," "Helped you learn from a mistake you had made," and "Helps you deal with your problems." The response set for these items ranged from 1 (*often*) to 4 (*never*). Cronbach's alphas were .72 at Wave 1 and .78 at Wave 2. Scores at Waves 1 and 2 were averaged to index *instrumental support* across this period. A mentor-reported support index was created with three measures obtained at Waves 1 and 2. Mentors reported on the quality of their relationships with emerging adults on a parallel version of the IBQ ($\alpha = .88, .89$). They also completed the emotional support subscale of the Family Support Inventory (e.g., "[Youth] can share his/her feelings with me"; $\alpha = .82, .87$), and the four-item Carver Social Support Scale (e.g., "[Youth] gets sympathy and understanding from me"; $\alpha = .83, .86$). Each of these measures was averaged across Waves 1 and 2. A *mentor relationship* index was formed from these measures after standardization; it was internally consistent ($\alpha = .72$).

Youth Intrapersonal Protective Processes

Mediators of the association between protective mentoring and externalizing behaviors were assessed from parents' perspectives at Waves 1 and 2. Parents reported on their youths' good self-control with a subscale from the Children's Self-Control Scale (Humphrey 1982), which we have used extensively with African American children and youth. The five-item subscale is rated on a response set ranging from 0 (*never*) to 4 (*almost always*). Example items include, "thinks ahead of time about the consequences of his or her actions," "plans ahead of time before acting," and "works toward goals." Cronbach's alphas were .81 at Wave 1 and .80 at Wave 2. Parents reported on their youths' goal setting and planning for the future on a five-item scale developed for this project. Using a response scale ranging from 1 (*not true at all*) to 5 (*very true*), parents responded to items such as, "[Youth] has ideas about what kind of career would fit [him/her]" and "[Youth] has goals for what [he/she] wants to accomplish in the first year or two after high school." Cronbach's alpha for this scale was .81 at Waves 1 and 2. The good self-control and future planning subscales were standardized and combined at each wave to create an index of intrapersonal protective processes ($\alpha > .65$).

Life Stress

The life stress construct was composed of negative life events and perceived racial discrimination. Youth indicated on a 12-item checklist (Ge et al. 1994) the negative stressful events that had happened to them during the previous 6 months. The items on the checklist focused on events that the youth experienced directly, such as having a serious accident, ending a relationship with a romantic partner, or getting in trouble with the police. Because this instrument is an index rather than a psychometric scale, internal consistency could not be computed. Instances of perceived racial discrimination were assessed with the Racist Hassles Questionnaire, an 8-item measure that our research group developed in cooperation with focus groups of African Americans. The items were based on experiences that rural African Americans had identified as common forms of discrimination in their communities.

Examples include being treated rudely or disrespectfully and being the target of racial insults. Respondents indicated the frequency of discriminatory experiences during the past 6 months on a scale ranging from 1 (*never*) to 4 (*several times*). Coefficient alpha for the scale exceeded .85. The negative stressful events measure and the instances of perceived discrimination measure were standardized and summed to form the life stress construct.

Family Support

A family support index was developed from emerging adults' and parents' reports on parallel versions of the Family Support Inventory (Wills et al. 1996) at Waves 1 and 2. The 10-item measure assesses instrumental and emotional support (e.g., "I can share my feelings with this parent"/"My [son/daughter] can share his/her feelings with me"). Participants rated items on a scale ranging from 1 (*not at all true*) to 5 (*very true*). Alphas exceeded .90 for both participants at both waves. The family support index was formed by first averaging scores within reporters across Waves 1 and 2 and then averaging these scores. Emerging adult and parent reports were correlated at $r = .30$, $p = .001$.

Relationship to Emerging Adult

Emerging adults reported on how they were related to or otherwise knew their mentors. Based on examination of the distribution of responses, this variable was coded as one of 4 categories: grandparent, adult relative (mainly aunts and uncles), young adult mentors (primarily cousins), or non-family mentors.

Contact Frequency

Contact frequency was assessed with three items. The first two measured the number of days in the past month on which the target youth saw his/her mentor or communicated by phone or email. The response scale for these items ranged from 1 (*none*) to 5 (*21–30 days*). The third item concerned the number of hours during the past month that youth spent with their mentors, ranging from 1 (*less than 1 h*) to 5 (*more than 20 h*). These items were internally consistent (Wave 1 alpha = .79 and Wave 2 alpha = .81). Waves 1 and 2 were aggregated to form a contact frequency score.

Control Variables

Gender was recorded as a dichotomous variable. The number of family-centered intervention sessions (0–6) each emerging adult attended was recorded. Whether or not the informal mentor attended the 4-h workshop was recorded as a dichotomous variable. Whether or not an emerging adult's informal mentor was his or her first nominee was recorded as a dichotomous variable.

Plan of Analysis

Tests of direct effect, mediating, and moderating hypotheses were conducted with structural equation modeling (SEM) in AMOS 17.0 with full information maximum likelihood estimation (FIML). Model fit was assessed using χ^2, χ^2/df, the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). Measurement models were confirmed prior to hypothesis testing. Mediation was examined with indirect effects, the significance of which was determined with a Sobel (1982) test. Moderational analyses were conducted with multigroup SEM (Byrne 2001).

Results

Preliminary Analyses: Emerging Adults with No Mentors or Non-Participating Mentors

Of 469 emerging adult participants, 375 (80.1%) reported that they had a natural mentor. Study mediator and outcome variables were compared for emerging adults who did or did not report having an informal mentor. At Waves 1 and 2, parents' reports of youth intrapersonal protective processes differed significantly ($p < .05$) between youth who did or did not report having a mentor. Emerging adults who nominated a natural mentor were perceived by their parents to have less self-control and less of a future orientation than were those who did not nominate a mentor. Full data were obtained from 345 of the 375 nominated mentors. No significant differences emerged on study variables based on mentors' lack of participation. Of the 345 mentors participating at Wave 1, 323 (93.6%) provided data at Wave 2. Of the youth participating at baseline, 308 (89.2%) participated at Wave 3. Of the 345 parents participating at Wave 1, 299 (86.6%) participated at Wave 2. Attrition was not associated with any study variables, supporting the missing-at-random assumption on which FIML analyses are based.

Correlations and Measurement Model

Table 1 presents the correlation matrix, means, and standard deviations for all study variables. We executed a measurement model to confirm the hypothesized latent constructs, externalizing problems at Wave 1, externalizing problems at Wave 3, and protective mentoring processes.

At Waves 1 and 3, we specified the Rule-Breaking and Aggressive Behavior subscales and the State Anger scale as indicators of latent constructs. Error terms for each measure from Wave 1 were correlated with their respective error terms for Wave 3. We used the relationship quality, instrumental support, and mentor relationship indices to indicate a latent construct of Protective Mentoring Processes. A confirmatory factor model indicated an adequate fit to the data: $\chi^2(21) = 39.78$, $p = .008$; $\chi^2/df = 1.89$; CFI = .98; RMSEA = .05 (.03, .08). All factor loadings were significant and in the expected direction. The loading of the mentor relationship index on protective mentoring processes was somewhat low ($\lambda = .24$). We judged this to be acceptable, however, for the following reasons. First, the factor loading was significant ($p < .001$). Second, high factor loadings are unlikely to occur on scores from different reporters, and this measure represented the mentor's rather than the emerging adult's perspective. Third, retaining this indicator enabled us to address the influence of measurement bias that arises when predicting an outcome with measures from only one reporter.

Main Effects of Protective Mentoring on Externalizing Problems

In our first model, we examined the influence of protective mentoring processes on Wave 3 externalizing problems with Wave 1 problems controlled; gender, family-based intervention dose, mentor workshop attendance, and first choice of mentor were also controlled. The resulting model was an adequate fit to the data: $\chi^2(68) = 94.48$, $p = .000$; $\chi^2/df = 1.85$; CFI = .96; RMSEA = .05 (.03, .07). Protective mentoring significantly predicted externalizing problems at Wave 3 ($\beta = -.12$, $p = .04$). The control variables, however, were nonsignificant and were dropped from subsequent analyses. A final model, without the control variables, was executed. This model, pictured in Fig. 2, yielded an adequate fit to the data: $\chi^2(21) = 39.78$, $p = .008$; $\chi^2/df = 1.89$; CFI = .98; RMSEA = .05 (.03,.08). In this model, the path from protective mentoring to Wave 3 externalizing problems was $\beta = -.18$ ($p = .01$).

To test the hypothesis that protective mentoring would be associated with externalizing problems independent of family support, we executed a model with the family support index included as an exogenous variable. This model yielded an adequate fit to the data: $\chi^2(38) = 51.76$, $p = .003$; $\chi^2/df = 1.92$; CFI = .97; RMSEA = .05 (.03, .07). Family support did not significantly predict externalizing problems ($\beta = -.01$, $p = .82$), and protective mentoring remained a significant predictor in the presence of family support ($\beta = -.20$, $p = .01$). Family support was positively correlated with protective mentoring ($r = .34$, $p < .001$).

Mediational Analyses

Youth intrapersonal protective processes at Wave 2, with Wave 1 processes controlled, was specified as a mediator of the influence of protective mentoring on externalizing problems at Wave 3. The resulting model, pictured in Fig. 3, yielded an adequate fit to the data: $\chi^2(35) = 68.58$, $p = .001$; $\chi^2/df = 1.96$; CFI = .97; RMSEA = .05 (.03, .07). Protective mentoring significantly predicted youth intrapersonal protective processes ($\beta = -.20$, $p = .01$); in the presence of this mediator, the influence of protective mentoring on externalizing problems was attenuated ($\beta = -.11$, $p = .11$). The indirect effect of protective mentoring on externalizing problems through intrapersonal protective processes was significant ($p = .01$) based on the Sobel test.

Independent Effects of Mentoring Processes

The analyses described previously focused on the influence of protective mentoring operationalized as a latent construct. These analyses do not provide information on the relative importance of youth-reported relationship quality, mentor-reported relationship quality, and instrumental support. We therefore examined the direct effects of these indicators on youth intrapersonal protective processes. The resulting model, $\chi^2(41) = 102.55$, $p = .000$; $\chi^2/df = 2.85$; CFI = .94; RMSEA = .07 (.06, .09), indicated that youth-reported relationship quality was a significant, independent predictor of youth intrapersonal protective processes ($\beta = -.20$, $p = .002$), whereas the other indicators were not significant predictors.

Moderational Analyses

We conducted moderational analyses to determine whether four characteristics conditioned the paths connecting protective mentoring with youth intrapersonal protective processes and youth externalizing problems. The characteristics were youth gender, relationship to the mentor, contact frequency (high or low), and life stress (high versus low). We used median splits on the continuous variables to form the high and low groups. Due to the power-intensive nature of multigroup analyses, we examined each path in a separate model. For these analyses, we first estimated a two-group invariance model by imposing equality constraints on every estimate. We then relaxed the equality constraint on the path in question and allowed the coefficient to differ across groups, and re-estimated the model. If the coefficients differed across groups, relaxing the equality constraint would result in a significant improvement in fit. Analyses of gender, mentor relationship type, and contact frequency indicated that, in each case, the groups did not differ significantly and moderation was not present. Results

Table 1 Correlation matrix

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
Wave 1 externalizing problems													
1. Rule breaking	–												
2. Aggression	.50	–											
3. Anger	.36	.57	–										
Protective mentoring													
4. Relationship quality	−.24	−.27	−.29	–									
5. Instrumental support	−.02	−.13	−.05	.36	–								
6. Mentor relationship	−.07	−.03	.00	.17	.19	–							
7. Wave 1 youth intrapersonal processes	−.14	−.11	−.15	.19	−.03	.11	–						
8. Wave 2 youth intrapersonal processes	−.16	−.10	−.12	.24	.05	.12	.73	–					
9. Family support index	−.15	−.15	−.23	.24	.20	.07	.36	.41	–				
10. Life stress index	.23	.30	.28	−.16	.03	−.10	−.13	−.15	−.03	–			
Wave 3 externalizing problems													
11. Rule breaking	.40	.28	.28	−.19	−.08	−.12	−.22	−.25	−.16	.16	–		
12. Aggression	.33	.62	.42	−.26	−.18	−.07	−.15	−.24	−.12	.20	.56	–	
13. Anger	.31	.48	.50	−.27	−.10	−.01	−.09	−.19	−.18	.25	.40	.59	–
M	15.92	20.92	31.78	0.00	0.00	0.00	0.00	0.00	47.64	0.00	15.31	19.76	30.42
SD	2.45	4.77	10.56	1.00	1.00	0.80	0.85	0.85	5.47	1.56	2.78	4.50	11.05
95% CI	15.7, 16.2	20.42, 21.42	30.76, 32.89	−.11, .11	−.11, .11	−.08, .08	−.09, .09	−.09, .09	47.06, 48.22	−.16, .16	15.02, 15.60	19.29, 20.23	29.25, 31.59

Correlation coefficients with an absolute value of .10 or .11 are significant at $p < .05$; coefficients with an absolute value of .12 or greater are significant at $p < .01$

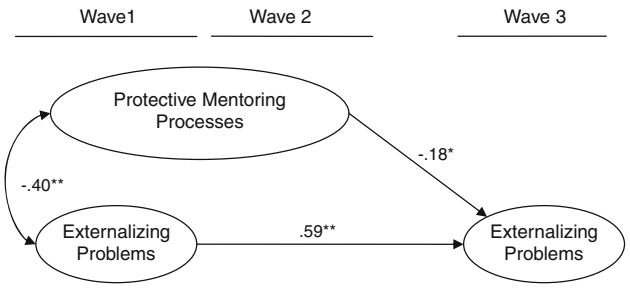

Fig. 2 Structural equation model of the influence of protective mentoring on externalizing problems. *$p < .05$. **$p < .01$

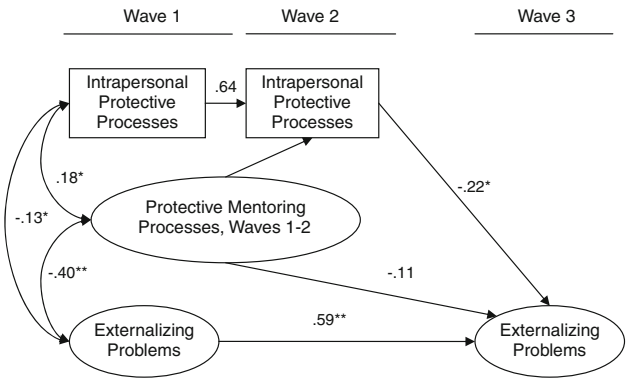

Fig. 3 Intrapersonal protective processes mediate the influence of protective mentoring on externalizing problems. *$p < .05$. **$p < .01$

regarding life stress are presented in Table 2. Examination of the separate models for high- and low-stress groups revealed significant effects on intrapersonal processes and externalizing problems for the high-stress groups but not for the low-stress groups. The difference between the constrained and relaxed models, however, indicated that the differences between the coefficients were not significant ($p = .14$, for intrapersonal protective processes and $p = .07$, for externalizing problems). We also explored the possibility that the type of relationship between mentors and emerging adults affected the strength of the path between protective mentoring and externalizing problems. Multigroup comparison procedures revealed no significant differences. Finally, we explored the possibility that gender moderated the influence of protective mentoring and externalizing problems; multigroup analyses revealed no significant differences.

Table 2 Moderational influence of life stress on the paths between mentoring and youth intrapersonal protective processes and externalizing problems

Model	β	Change in chi-square		
		$\Delta\ \chi^2$	*df*	*p* (two-tailed)
Mentoring → Youth intrapersonal		2.16	1	.142
Life stress, high	.24**			
Life stress, low	.09			
Mentoring → Externalizing		3.28	1	.070
Life stress, high	−.29*			
Life stress, low	−.09			

* $p < .05$, ** $p < .01$

Discussion

We used a longitudinal research design to test hypotheses regarding the influence of natural mentors on externalizing problems among rural African Americans during the emerging adult transition. The vast majority of rural African Americans in their final years of high school had a natural mentor who provided support and guidance and had the potential to promote positive developmental outcomes during a difficult transition. Consistent with our primary hypotheses, variability in these relationships was associated with externalizing problems as youth transitioned from high school. Emerging adults whose relationships with their natural mentors were characterized by instrumental and emotional support and affectively positive interactions reported less anger, rule-breaking behavior, and aggression. These effects emerged whether or not a participating mentor was a youth's first choice and independent of the influences of family support and youth gender.

The influence of natural mentors on emerging adults' externalizing problems is consistent with and expands a small literature on the benefits of natural mentors for adolescents (Darling et al. 2002; Hurd and Zimmerman 2010; Klaw et al. 2003; Zimmerman et al. 2002). The effects emerged with a unique sample of rural African Americans during the emerging adult transition, a time when support from family members typically begins to wane (Aquilino 1997) and young people confront significant contextual challenges, such as finding work and dealing with increased exposure to racial discrimination. The identification of alternative sources of positive socialization is key for young people who are not college bound and may have to deal with unemployment and low-wage jobs that potentially increase opportunities for affiliations with risk-taking or deviant peers (Wright and Cullen 2004). Unlike past studies, our findings indicate that the mere presence of a natural mentor is not sufficient for understanding the influence of these relationships. Variability in relationship quality and provision of support influences the extent to which mentoring relationships benefit young people. This finding suggests that interventions enhancing relationship quality in mentor-youth interactions may be useful for preventing externalizing problems during emerging adulthood. Auxiliary analyses

supported the unique importance of relationship quality, distinct from instrumental support, in enhancing youths' self-control and orientation to the future. This finding is consistent with youth reports of the importance of a warm and cohesive relationship (Masten and Coatsworth 1998) per se, independent of the influence of good advice or other forms of help a mentor may provide.

The present research also extends past findings by focusing specifically on externalizing problems during emerging adulthood. As African Americans reach the age of majority, the consequences of externalizing problems can be dire, leading to involvement with the criminal justice system and derailing aspirations for productive life trajectories (Pettit and Western 2004). Only one previous study of naturally occurring mentoring has addressed externalizing behavior as an outcome. Zimmerman et al. (2002) found that adolescents with a natural mentor were less likely to engage in nonviolent delinquent behavior than were those without a natural mentor. The present research is consistent with this finding and supports the potential for naturally occurring mentoring to influence African American emerging adults. From a social developmental perspective, externalizing problems are reduced when young people encounter prosocial influences in the community and develop bonds with prosocial individuals or institutions. Natural mentors provide a unique social bond that supports conventional attitudes and self-regulatory competencies at a critical time. Emerging adults often focus on individuating from family and family-based institutions. Natural mentors may represent self-selected social bonds that young people view as nonthreatening to their adult status. Indeed, our results demonstrated that natural mentoring influenced young people independent of their family relationships. We did not find, however, that mentoring compensated for a lack of family support, suggesting that mentoring is beneficial for young people regardless of the level of family support they receive.

The present research identified two intrapersonal processes, a future orientation and self-regulation, as potential mechanisms accounting for the effects of natural mentor relationships on externalizing problems. This finding is consistent with Klaw and Rhodes' (1995) past research with teen mothers. The influence of natural mentors on young women's career development was mediated by increases in their optimism for the future. Similarly, we found that variability in relationship quality and support facilitated increases in young adults' goal orientation, the extent to which youths think about goals and plan for the future. Future planning is linked to reductions in externalizing problems (Bolland 2003) and risk-taking behaviors (Robbins and Bryan 2004). Among adolescents, goal orientation and future planning are related to good self-regulation (Wills et al. 2001), and the combination deters externalizing and other risk behaviors. Our findings provide evidence that support from natural mentors in affectively positive relationships affects these related processes and accounts for mentors' influence. Mentor support allows emerging adults to develop and maintain plans for the future and to feel that they are in control of their lives and able to pursue their goals. Self-control and goal orientation, in turn, inhibit anger and rule-breaking behavior.

The present research also included a hypothesis regarding the potential interaction between mentoring relationships and life stress. Our assessment included a critical component of life stress for rural African American emerging adults, racial discrimination. For rural African American young people, seeking employment, leaving the parental home, and increasing engagement in the community in the year following high school contribute to potential exposure to discrimination. Consistent with past research demonstrating that direct social support from the family (Wills et al. 1992) and other sources (Werner and Smith 1992) can attenuate the influence of life stress on problem behavior, we found trend-level evidence ($p = .07$) that mentoring relationships interacted with life stress to predict externalizing problems. Mentoring relationship quality was a significant predictor of externalizing problems under conditions of high, but not low, life stress. This suggests that intervention efforts to support mentoring relationships will be most beneficial for young people experiencing high stress levels.

The present study followed emerging adults through the first year after high school and focused on externalizing problems. Further research with additional follow-up assessments has the potential to illuminate a number of important outcomes, including college matriculation and subsequent academic success and successful entry into the labor market. These developmental tasks may play key roles in emerging adult success and illuminate the role of mentoring relationships in supporting youth development.

Methodological strengths of the study include the three-wave prospective design and the use of multiple reporters. In particular, protective mentoring was operationalized as a latent construct that included assessments from both youth and their mentors. The mediating intrapersonal protective process construct was measured from the perspective of youths' parents, mitigating reporter bias that could inflate associations among mentoring, the mediators, and externalizing problems. These strengths notwithstanding, several limitations should be noted. First, it is not known whether the present results generalize to families of other ethnicities living in the same communities as the study participants or to urban families of any race. Second, although the sample is representative of African American emerging adults living in rural Georgia (Boatright 2005), it is nevertheless possible that, due to self-selection processes, the families

who took part in this study may have been functioning differently than the population at large. Because our moderational analyses found limited examples of heterogeneous response to mentoring influences, future studies with larger samples are indicated to increase the power to detect potential heterogeneity. Finally, future research would benefit from continued follow-up to determine whether mentoring relationships deter externalizing problems across the emerging adult transition.

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