

Youths' Caretaking of Their Adolescent Sisters' Children: Its Costs and Benefits for Youths' Development

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This study examined how time spent caring for a teenage sister's child and experiences in providing care related to youths' young adult outcomes. Latino and African American youths (N = 108) were studied during middle and late adolescence. Results indicated that youths who provided many hours of child care were more stressed and had lower school grades but also reported a greater life satisfaction, a stronger school orientation, and were less likely to drop out of school. Negative experiences in providing care were associated with a lower likelihood of school dropout and teenage pregnancy. Findings suggest that the extent of sibling caregiving in teenage childbearing families incurs both developmental costs and benefits.

In families with a teenage childbearing daughter, where the teenager and her baby live with the teen's family of origin after the baby is born, all available family members are typically pooled to help care for the adolescent's child. Child care provided by the teenager's younger siblings is a common and adaptive practice (Burton, 1995), yet how this caretaking impacts youths within these households is virtually unknown. Like most cooperative family system practices, there are likely to be both costs and benefits to any one family member. There are concerns, for example, that sibling caregivers miss out on their own developmentally appropriate experiences, are taking on adult responsibilities too soon, and that they will have diminished schooling and career aspirations (Dodson & Dickert, 2004; Lareau, 2003). Studies also show that children's extensive kin care obligations, including high levels of sibling care, can bear psychological and educational costs, such as experiencing stress, frequent school absences, problems in school, and school dropout (Brown-Lyons, Robertson, & Layzer, 2001; Fine & Zane, 1991). Conversely, much research from anthropological and developmental studies of children's care of their

younger siblings shows that such care promotes children's empathy, perspective-taking, and social understanding (Bryant, 1989; Howe & Ross, 1990; Zukow, 1989). Sibling caregiving also provides an important context for building self-sufficiency and maturity and for teaching children to balance their self-concerns with the needs of others (Weisner, 1982, 2001; Zukow-Goldring, 1995).

The apparent inconsistencies with regard to the developmental impact of sibling caregiving may be clarified by considering the socioeconomic and cultural conditions under which care is provided. Sibling care within teenage childbearing families, for example, is often a necessary social and economic adaptation to the unique conditions such families face (Burton, 1990). Because such families are typically poor and have limited monetary resources for day care, sibling care provides a necessary and convenient economic function. With the teenage parenting sister needing to stay in school and work in order to receive governmental aid, and with the parents in the household working in order to provide the family income, younger sibling child care may be the only option that many of these families have. As such, sibling care is an essential component of a dynamic and cooperative system of care and is likely to be obligatory (Burton & Stack, 1993).

It is widely recognized that sibling caretaking socializes and prepares youth for parenting (Weisner, 1987; Zukow-Goldring, 1995). It has also been suggested that, within teenage parenting families, youths' socialization for parenthood occurs early in life by way of caring for an older sister's child (Burton, 1995). In

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thinking about younger siblings' outcomes, then, it is possible that youths' child care experience could instill a sense of parenting competence and lead them to minimize the hardships involved in early parenting. Such perceived child care competence may give rise to less diligence in pregnancy prevention and pave the way toward an early pregnancy among the younger siblings themselves (East, 1998). It is also plausible, however, that extensive time in child care leads younger siblings to fully realize the demands involved in raising a child of one's own and thwarts a desire for early parenting. This study examined the association between youths' hours of child care and their subsequent likelihood of a teenage pregnancy.

Youths' child care obligations also likely compete with their available time for school work and time with friends. Indeed, particularly for minority adolescents in working-class families, family obligations constitute a significant distraction from the time youth are able to spend on homework, in school activities, or on their own leisure, extracurricular activities (Fuligni, 2001; Larson & Verma, 1999). Given the results of several studies that show that children's extensive household labor and family care work deride youths' academic motivation (Dodson & Dickert, 2004; Fine & Zane, 1991; Gager, Cooney, & Call, 1999), we expected that youth who engage in large amounts of child care to disengage from school. Such school disengagement can take the form of low achievement aspirations, poor school grades, and, ultimately, school dropout.

Youths' experiences in child care and their willingness to provide care are also important in assessing its impacts. Is care provided willingly and spontaneously, or begrudgingly and resentfully? Positive experiences would support the prosocial and altruistic role of youth cooperating and helping their family in ways in which they are able (Bryant, 1992). However, resentful care (siblings arguing about it, feeling mad about it) may indicate coercion on the part of family members and foreshadow developmental costs (Dodson & Dickert, 2004). Indeed, others have also noted that adolescents report feeling exploited or harassed when asked to help with household or family work, and show evidence of stress and fatigue when family demands become overly burdensome (Larson & Verma, 1999). Certainly, the experiences youth have in various contexts can affect their development by promoting opportunities for skill building and identity consolidation, or for promoting stress and maladaptation (Theokas & Lerner, *this issue*). This was our intent here, to determine not only how much time youth engage in care within their family context but also to examine their experiences in the context of child care and its ramifications for development.

All families involved in this study were either Latino (Mexican American) or African American. Cooperative kin-based child care strategies are typically

stronger in African American and Latino families relative to Anglo American families (Burton, 1996; Uttal, 1999), and sibling care is more common and is a more significant family obligation among Latino and African American adolescents than among White adolescents (Fuligni & Pederson, 2002). In Latino and Black families, then, sibling care may be an accepted and expected response to a teen's child's care. However, many current-day Mexican American families are "divided between borders," with some key family members living in Mexico and some family members living in the United States (Buriel & DeMent, 1997). Having key child care providers residing in Mexico would likely boost the levels of sibling care within Latino families relative to African American families, where kin are generally in closer proximity and more able to care for relatives (Burton & Stack, 1993). In this study, we examine the levels of sibling care by race/ethnicity and whether many hours of caretaking is more likely to be associated with unfavorable outcomes for Latinos or for African Americans.

This Study

This study examined youths' involvement in the caretaking of their teenage sister's child and how these experiences were associated with their adjustment as young adults. A previous article using the data presented in this report showed that girls who provided many hours of child care during middle adolescence (12 hr or more a week) reported pessimistic school aspirations, positive intentions to have a child right away, and permissive sexual behavior (East & Jacobson, 2001). In this study, we ask how the extent of child care provided during middle adolescence is related to youths' outcomes as evidenced during young adulthood. Study outcomes were felt stress, life satisfaction, school grades, school orientation, school dropout, and teenage pregnancy. Some of the study participants had experienced a teenage pregnancy themselves or had dropped out of school at follow up. Were these the individuals who provided more or less child care at middle adolescence? We also attempted to uncover the extent to which youths' positive and negative experiences in providing care were related to their young adult functioning. Such experiences may be more meaningful than the amount of time spent in child care. Finally, we examined whether high levels of child care were more likely to be associated with unfavorable outcomes for Latinos or African Americans and for girls or for boys. Girls may value and desire greater participation in child care than boys based on gender role expectations and socialization (Kroska, 2003). Thus, high levels of child care involvement may not be as detrimental for girls' outcomes as for boys.

Method

Participants

Participants were part of a longitudinal research study investigating the developmental trajectories of the younger siblings of childbearing teens (East & Jacobson, 2001). The study involved 146 early adolescents (55% girls) who were coresiding with an older teenage childbearing sister. Sixty-four percent of participants identified themselves as Latino (Mexican American), and 36% self-identified as African American. Almost all youth were from low-income or working-class families, and all lived in or around San Diego, California.

Youth were recruited into the study by first identifying eligible older sisters. Primigravida 15- to 19-year-old women were recruited during their pregnancy or immediately postpartum from a university hospital Teen Obstetric Clinic (35%), four nearby Planned Parenthood Clinics (24%), and by snowball sampling (41%). Research staff screened patients in clinic waiting rooms prior to their prenatal or postpartum appointments. If the teen and her family qualified for the study, they were asked to participate. Ninety percent of all eligible families invited to participate did so.

Families were eligible for the study if (a) there was an 11- to 15-year-old younger sibling and a primigravida 15- to 19-year-old older sister; (b) they were either Latino or African American; (c) both the younger sibling and the older sister were currently living together with their (biological) mother, and they had lived together for at least the last five years; and (d) no other child within the family (or within the household) had become pregnant or fathered a child as a teen. Thus, in all families, only one teenager was either currently pregnant for the first time or parenting her first child.

The data presented in this report were gathered at a first and second follow-up of the initial intake. (The primary variable of interest—i.e., siblings' time in child care—was not assessed at intake.) Follow-up 1 was conducted 1.5 years after the initial intake, and Follow-up 2 occurred 3.3 years after Follow-up 1. Of the 146 younger siblings of pregnant and parenting teens who participated at intake, 140 were relocated at Follow-up 1 and reinterviewed (or 96%). Of these, 135 were still living with their teenage sister and her child and provided information on the number of hours of child care. At Follow-up 2, 118 youth were relocated and reinterviewed (or 84% of those who participated at Follow-up 1). Of these, 108 younger siblings were found to be still living with their older sister and her child. These 108 younger siblings comprise the primary participants for this study.

Younger sibling participants were an average age of 13.6 years at intake ($SD = 1.9$), 15.1 years at Follow-up

1, and 18.5 years at Follow-up 2. Youth who participated at Follow-up 2 did not differ significantly in background characteristics (e.g., race/ethnicity, age, family income, mothers' educational level, etc.) from youth who did not participate at Follow-up 2. Sixty-three percent of the 108 participating youth were Latino ($n = 68$), and 37% were African American ($n = 40$).

Fifty-three percent of study families were receiving some form of governmental aid at Follow-up 1 (e.g., food stamps; Medi-Cal; or Women, Infants and Children services), and 37% were receiving some form of aid at Follow-up 2. About two thirds of teenage parenting sisters were receiving Temporary Assistance for Needy Families (TANF) at Follow-up 1, and slightly less than half were receiving TANF at Follow-up 2. Follow-ups 1 and 2 were conducted after 1996 (subsequent to welfare reform) and, thus, teenage parenting sisters needed to participate in high school or equivalent training and live at home in order to receive cash aid. At both study time points, approximately 40% of older (parenting) sisters and half of youths' mothers were working outside the home. The average total annual family income was approximately \$14,000 for an average family of five.

The older sisters' children were, on average, 15 months old at Follow-up 1 (age range: 6 months to 19 months) and 4.6 years at Follow-up 2 ($SD = 1.5$). Fifty-three percent of teenagers' children were boys. Older sisters were an average age of 17.6 years at delivery ($SD = 1.4$), 19.8 years at Follow-up 1, and 23.2 years at Follow-up 2 ($SD = 1.6$).

Procedure

At each assessment, two female research assistants (who were fluent in Spanish) visited the younger siblings at their homes where they completed a short face-to-face interview and a self-administered questionnaire. The home visits lasted about 1 hr. All participants were paid \$10 at each assessment and all were assured of the confidentiality and anonymity of their responses.

Measures

The study questionnaire contained 192 questions at Follow-up 1 and 271 questions at Follow-up 2, with several skip patterns so that most participants did not complete all questions.

The questionnaires at both times of assessment had an approximate 4th-grade reading level (as ascertained by the Flesch-Kincaid readability method). Scale scores were formed by averaging all of the items unless otherwise noted. All indicators of youths' young adult outcomes were drawn from Follow-up 2. The mean

scores and standard deviations of all scale scores are shown in Table 1.

Extent of child care. The number of hours per week that youth cared for their teenage sister's children was asked by interview at both follow-ups. After the appropriate sister and child had been identified, the interviewer asked younger sibling participants, "How many hours a week do you take care of or look after your teenage sister's child (even in the presence of others)?"

Experiences in providing care. Youths' experiences in providing child care were operationalized in terms of positive experiences and negative experiences. Positive experiences were assessed by averaging youths' responses to the two items "I learn a lot about parenting by caring for my niece or nephew" and "I learn a lot about children by caring for my niece or nephew." Negative experiences were assessed by four items that asked how often the youth argued with his or her sister about having to provide care, felt mad about having to provide child care, felt that providing care interfered with the things they wanted to do, and did not like providing care. Response options ranged from 1 to 5, with high scores of positive experiences indicating learning a lot (Cronbach $\alpha = .87$), and high scores of negative experiences indicating frequent arguing, interfering, and feeling mad about (Cronbach $\alpha = .71$). These items were included on the study questionnaire at Follow-up 2 only.

Felt stress. Youths responded to eight questionnaire items drawn from the Perceived Stress Scale that asked, for example, how often within the last 3 months

they felt stressed, anxious, burned out, or exhausted (Cohen, Kamarck, & Mermelstein, 1983). Response options ranged from 1 (*not at all*) to 5 (*a lot*). The Cronbach alpha of the eight items was .89.

Life satisfaction. Youths responded to four items on the questionnaire that asked how satisfied, proud, disappointed (reversed), and happy they were with the way things had turned out for them (based on the Satisfaction with Life Scale; Diener, Emmons, Larsen, & Griffin, 1985). Response options ranged from 1 to 5, such that high scores reflect a high life satisfaction. The Cronbach alpha of the four items was .76.

School grades. Youths were asked to indicate the grades they usually got in school, such that 8 = *mostly As*, 7 = *about half As and half Bs*, 6 = *mostly Bs*, 5 = *about half Bs and half Cs*, and so on. The possible score range was 1 to 8.

School orientation. Youths responded to four questions on the questionnaire that asked about the importance that he or she graduate from high school, get good grades in school, go to college, and get a good job, and to four questions about the likelihood that he or she would graduate from high school, go to college, get a good job, and how many years of education he or she would probably attain—for example, 1 (*not finish high school*) to 5 (*go to graduate school or a professional school after college*). Response options ranged from 1 (*not very important or not very likely*) to 5 (*very important or very likely*), wherein high scores reflect a high importance and likelihood placed on school and career

Table 1. Mean Scores of Study Variables

	<i>M</i>	<i>SD</i>	<i>Range</i>	<i>n</i>	%
Youths' age at FU1	15.1	1.9	13 to 17		
Youths' gender ^a	—	—	—		
Girls				59	55
Boys				49	45
Youths' race/ethnicity ^b	—	—	—		
Latino				68	63
African American				40	37
Youths' hours of care at FU1	10.6	13.4	0 to 85		
Youths' hours of care at FU2	14.0	23.5	0 to 168		
Negative experiences in care at FU2	2.3	1.1	1 to 5		
Positive experiences in care at FU2	4.1	1.1	1 to 5		
Felt stress at FU2	2.9	1.0	1 to 5		
Life satisfaction at FU2	3.4	1.0	1 to 5		
Grades at FU2	5.0	1.4	1 to 8		
School orientation at FU2	3.8	0.9	1 to 5		
School dropout by FU2 ^c	—	—	—	33	31
Teen pregnancy by FU2 ^c	—	—	—	41	38

Note: FU1 = Follow-up 1; FU2 = Follow-up 2.

^aCoded as 0 = boy, 1 = girl. ^bCoded as 0 = African American, 1 = Latino. ^cCoded as 0 = no, 1 = yes.

achievements. Using this sample, the internal reliability (Cronbach alpha) of these eight items was .83.

School dropout. Youth were asked on the interview whether they had ever dropped out of school for any period of time. This item was scored as 0 = *never dropped out* and 1 = *had dropped out*.

Teen pregnancy. Youths responded on the questionnaire whether they had ever been pregnant (for girls) or gotten someone pregnant (for boys) before their 19th birthday. Response options were 0 = *no* and 1 = *yes*.

Results

Analytic Plan

The first level of analysis involved intercorrelating all study variables to determine how, on a pairwise basis, youths' background characteristics (age, gender, race/ethnicity), youths' hours of care, youths' experiences in care, and youths' adjustment were interrelated. We next examined how youths' hours of care and their experiences in care were related to their young adult outcomes. To address this, we computed multiple regression analyses on the outcomes of felt stress, life satisfaction, school grades, school orientation, school dropout and teenage pregnancy. Logistic regressions were computed for the latter two variables given that these were coded dichotomously. Predictor variables in the regressions were youths' hours of care at Follow-up 1 and Follow-up 2, their negative and positive experiences in providing care (at Follow-up 2), and the interaction between hours of care and their positive experiences, and the interaction between hours of care and their negative experiences. The results of the interactions will indicate whether outcomes are uniquely related to many hours of care and frequent negative experiences or to many hours of care and frequent positive experiences independent of either condition alone. Participants' age, race/ethnicity, and gender were entered as controls in these equations. Finally, to determine whether many hours of care are more likely to be associated with unfavorable outcomes for girls or for boys and for Latinos or African Americans, we computed regressions and included the interaction terms between number of hours of care and gender and number of hours of care and race/ethnicity. Experiences in providing care were not included in these regression equations.

Descriptive Statistics

The mean scores and standard deviations of all scale scores are shown in Table 1. These scores indicate that

youths provided, on average, 11 hr of child care per week during middle adolescence and 14 hr of child care per week during late adolescence. There was large variability in the hours of care at both times of assessment, or between 0 and 85 hr per week at Follow-up 1, and between 0 and 168 hr per week at Follow-up 2. Most youths reported learning a lot about children and parenting by providing care (e.g., 77% responded "yes, sort of true," or "yes, really true" to both items), and most youths reported no negative experiences in providing care (e.g., 66% never or rarely argued about providing care, and 80% never or hardly ever felt mad about having to provide care). Of the 108 youths analyzed in this study, 33 indicated at Follow-up 2 that they had at one time dropped out of school (31%), and 28 girls and 13 boys reported that they had experienced (or caused) a teenage pregnancy (38%).

Interrelations Among Study Variables

Results of the correlational analysis (shown in Table 2) indicated that, at both assessment points, girls were more likely than boys to provide child care for their sisters' children. Latino youth were more likely than African American youth to provide care during middle adolescence (only). Younger aged youths were more likely to report both negative and positive experiences in providing care than older aged youths, and girls were more likely than boys to report negative experiences in negotiating care. The correlational results also showed that, although the number of hours youth spent providing care (at Follow-up 1 or Follow-up 2) was not significantly related to their adjustment outcomes during young adulthood, youths' reports of negative experiences in providing care were associated with a strong school orientation and a reduced likelihood of school dropout. Youths' positive experiences in providing care were associated with a high life satisfaction and a reduced likelihood of teenage pregnancy.

Child Care Hours and Experiences as Predictors of Young Adult Outcomes

Results of the multiple regressions (shown in Table 3) indicated that hours of child care provided at Follow-up 1 were positively related to a greater life satisfaction and a lower likelihood of school dropout at Follow-up 2. Hours of child care provided at Follow-up 2 were positively related to more felt stress, lower school grades, and a stronger school orientation at Follow-up 2. Youths' reports of negative experiences in providing care were related to a more positive school orientation and a significantly reduced likelihood of both school dropout and teenage pregnancy. Youths' reports of positive experiences in providing care were also associated with a reduced likelihood of a teenage pregnancy. There was a significant interaction between hours of

Table 2. Intercorrelations Among Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Youths' age FU1	—												
2. Youths' gender ^a	-.00	—											
3. Youths' race/ethnicity ^b	.02	.01	—										
4. Youths' hours of care FU1	-.05	.26**	.21*	—									
5. Youths' hours of care FU2	-.12	.36***	-.01	.10	—								
6. Negative experiences in care FU2	-.25*	.29**	.15	.18	.11	—							
7. Positive experiences in care FU2	-.21*	-.18	.10	.03	.09	-.05	—						
8. Felt stress FU2	.26**	.28**	-.09	.08	.14	.17	-.04	—					
9. Life satisfaction FU2	-.33**	-.33***	-.08	.17	-.03	-.06	.21*	-.32**	—				
10. Grades FU2	-.15	.16	.03	-.09	.02	.07	-.01	-.07	.20	—			
11. School orientation FU2	-.15	.04	-.23*	.02	-.02	.20*	-.07	.17	.24*	.11	—		
12. School dropout by FU2	.42***	.10	.10	-.15	.03	-.27*	-.16	-.02	-.51***	-.25*	-.33***	—	
13. Teen pregnancy by FU2	.43***	.22*	.14	-.04	-.01	-.16	-.26**	.01	-.31**	-.13	-.24*	.35***	—

Note: N = 108 youths. FU1 = Follow-up 1; FU2 = Follow-up 2.
^aCoded as 0 = boy, 1 = girl. ^bCoded as 0 = African American, 1 = Latino.
 *p < .05. **p < .01. ***p < .001.

Table 3. *Regression Estimates of Youths' Hours and Experiences in Child Care on Their Young Adult Outcomes*

	Felt Stress		Life Satisfaction		Grades		School Orientation	
	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>	β	<i>t</i>
Age	.22	2.14*	-.27	2.74**	-.08	—	-.16	—
Gender ^a	.11	—	-.39	3.43**	.31	2.31*	-.13	—
Race/ethnicity ^b	-.13	—	-.18	—	.06	—	-.31	3.09**
Hours of child care at FU1	.02	—	.34	3.47**	-.16	—	.11	—
Hours of child care at FU2	.39	2.22*	.06	—	-.42	2.14*	.35	2.04*
Negative experiences at FU2	.18	—	-.07	—	-.01	—	.21	2.00*
Positive experiences at FU2	.01	—	.10	—	.05	—	-.11	—
Negative Experiences \times Hours of Child Care at FU2	-.17	—	.05	—	.15	—	-.25	1.98*
Positive Experiences \times Hours of Child Care at FU2	-.26	1.99*	-.10	—	.34	2.25*	-.31	2.28*
<i>F</i> (<i>df</i> = 9, 99)	2.37*		4.02***		1.20		2.61**	
Adjusted <i>R</i> ²	.11		.21		.03		.13	

	School Dropout ^c			Teen Pregnancy ^c		
	Parameter Estimate	Odds Ratio	95% CI	Parameter Estimate	Odds Ratio	95% CI
Age	.57**	1.76	1.2 to 2.5	.49**	1.64	1.2 to 2.2
Gender ^a	-.77*	0.46	0.2 to 1.0	-.55	0.58	0.3 to 1.0
Race/ethnicity ^b	-.45	0.64	0.4 to 1.2	-.30	0.74	0.4 to 1.2
Hours of child care at FU1	-.30*	0.93	0.9 to 1.0	-.01	0.99	1.0 to 1.0
Hours of child care at FU2	-.08	0.93	0.7 to 1.2	.00	1.00	1.0 to 1.0
Negative experiences at FU2	-.46*	0.23	0.1 to 0.8	-.60*	0.55	0.3 to 1.0
Positive experiences at FU2	-.13	0.88	0.4 to 1.9	-.49*	0.61	0.4 to 1.0
Negative Experiences \times Hours of Child Care at FU2	.05	1.05	1.0 to 1.1	-.03	0.97	0.9 to 1.0
Positive Experiences \times Hours of Child Care at FU2	-.05	1.00	0.9 to 1.0	.00	1.04	1.0 to 1.1
-2LL (<i>df</i> = 9) =	30.88***			30.22***		
McFadden's rho squared	0.273			0.231		

Note: N = 108 youths. FU1 = Follow-Up 1; FU2 = Follow-Up 2; CI = confidence interval; LL = likelihood-ratio statistic.

^aCoded as 0 = boy, 1 = girl. ^bCoded as 0 = African American, 1 = Latino. ^c Coded as 0 = not experienced, 1 = experienced.

p* < .05. *p* < .01. ****p* < .001.

care and negative experiences in care for youths' school orientation ($\beta = -.25$). Post-hoc analyses revealed that youths had the highest school orientation scores when they provided few hours of child care but reported many negative experiences in providing that care. There was also a significant interaction between hours of care and positive experiences in care for felt stress ($\beta = -.26$), school grades ($\beta = .34$) and school orientation ($\beta = -.31$). Post-hoc analyses showed that youths experienced the highest levels of stress and had the lowest grades when providing many hours of care and reporting few positive experiences in providing care. Youths also had the lowest school orientation scores when providing many hours of child care and reporting many positive experiences in providing that care.

Interactions Between Hours of Care and Gender and Race/Ethnicity

To determine whether many hours of care might be more strongly associated with negative outcomes for girls as opposed to boys, we computed regressions similar to those described above except using the predictors of age, gender, race/ethnicity, hours of care at Follow-up 1, hours of care at Follow-up 2, and the two interaction terms of hours of care at Follow-up 1 \times Gender, and hours of care at Follow-up 2 \times Gender. Results showed a significant interaction between hours of care at Follow-up 2 \times Gender for the outcome of school dropout ($\beta = -.13$, odds ratio = .88, *p* < .05; not shown in a table). Post-hoc analyses comparing boys and girls with high and low hours of care indicated that, for

those who provided many hours of care during young adulthood (or more than 10 hr per week), girls were significantly more likely to drop out of school than were boys. The respective dropout rates were 43% for girls and 14% for boys.

To determine whether many hours of care might be more strongly associated with negative outcomes for Latinos as opposed to African Americans, we computed regressions as described above except using the two interaction terms of hours of care at Follow-up 1 \times Race/Ethnicity and hours of care at Follow-up 2 \times Race/Ethnicity. Results of these analyses indicated a significant interaction between hours of care at Follow-up 1 \times Race/Ethnicity for the outcome of teenage pregnancy ($\beta = .07$, odds ratio = 1.70, $p < .01$). Results of post-hoc analyses comparing Latinos and African Americans with high and low hours of care indicated that, for African American youth only, providing many hours of care during middle adolescence (8 or more hours per week) was associated with a significantly greater likelihood of experiencing a teenage pregnancy as opposed to providing few hours of care. The respective teenage pregnancy rates were 57% for those in the high care group and 24% for those in the low care group.

Discussion

The results of this study begin to reveal how youths' involvement in and experiences with caring for their adolescent sister's child are associated with their young adult functioning. We suggested earlier that sibling care, like most complex family practices, is neither an unequivocally positive nor negative experience, and that both favorable and unfavorable outcomes might ensue. Such a mixed pattern was indeed found. Results indicated that youths who provided many hours of child care were more stressed and had lower school grades, but also were happier, more optimistic about their futures, and more likely to stay in school (not drop out). Extensive involvement in the care of a teenage sister's child, then, may incur some benefits while also compromising, to some extent, youths' mental health and academic performance. It may be that extensive child care involvement deromanticizes parenting and reinforces a commitment to educational goals and school completion. Thus, contrary to other studies that have found that extensive involvement in sibling care is associated with school problems (Dodson & Dickert, 2004; Fine & Zane, 1991), these results suggest that high levels of child care may motivate youth to do well in school and to stay in school. The apparent contradictory findings of high levels of child care being associated with both low grades and a strong school orientation highlights the independence of these constructs,

with school grades an objective indicator of one's academic performance, whereas school orientation (as assessed here) reflecting one's achievement motivation, values and goals (Eccles & Wigfield, 2002). Thus, although many hours of child care may impede youths' school performance, it appears to strengthen their drive to succeed.

It is interesting that the two unfavorable outcomes (high stress, low school grades) were associated with the extent of care as provided during late adolescence, suggesting that excessive time in child care may have more negative ramifications when performed later in adolescence as opposed to earlier. This may also reflect the cumulative impact of providing much care over several years. In addition, the older sisters were also older at Follow-up 2, and younger siblings may increasingly resent spending many hours caring for the children of their now adult older sisters. This resentment may take the form of high stress and burn out.

Youths' experiences in providing care were also important for their functioning as young adults. Indications of coerced care (arguing with sister, feeling mad about it) were related to several favorable outcomes, such as a positive school orientation, a lower likelihood of school dropout, and a reduced likelihood of teenage pregnancy. This suggests that youths who are striving to do well in school, to graduate, and to avoid pregnancy are most aggravated by their obligations of kin care. In this case, coercive kin care obligations may be interfering with youths' own life goals and "collude to keep particular individuals wedded to family needs" (Burton & Stack, 1993, p. 163). These results also speak to the importance of both the context within which care is provided and youths' feelings about providing care. Others have also noted that children's feelings about their work contributions to the family are more important for children's development than the actual work itself (Goodnow & Lawrence, 2001).

This study's results also indicated that positive experiences gained through providing child care—or beliefs that one was learning a lot about parenting and children—were associated with a reduced likelihood of teenage pregnancy. This may reflect the increased appreciation of all that is involved in parenting a young child and serve to reinforce delayed childbearing among younger siblings. This is a critical finding that highlights the valuable lessons that can be learned through the realistic and long-term experiences of caring for an infant or small child on a daily basis. Such practical lessons are part of many pregnancy prevention programs aimed at youth and could be highly beneficial.

To our knowledge, this study is among the first to examine the child care provided by the younger siblings of teenage mothers. As a first step in a relatively new area, this study was admittedly exploratory and

had several limitations. One limitation was that it utilized self-report recall of hours of care. Youth may over- or underestimate their level of care (Dodson & Dickert, 2004), and retrospective reports may be inaccurate. Observational assessments of the care actually provided or random time sampling (Larson, 1989) would have helped verify self-reports. In addition, outcomes related to youths' maturity, empathy, and prosocial behaviors were not assessed in this study and, thus, child care impacts on these outcomes could not be addressed (Weisner, 2001).

It is also important to note that the question used to identify siblings' extent of childcare included the wording "*take care of or look after your teenage sister's child (even in the presence of others)*". We do not know, then, if older sisters or youths' mothers were absent, present, or remaining in the vicinity to oversee. This precluded a differentiation of independent sibling care versus sibling care as an ancillary back-up and the importance of this distinction for youths' young adult adjustment (Burton, 1995). This study also lacked information on the child care provided by key family members, including the teen mother herself, youths' parents (the baby's grandparents), and the baby's father (the teen's partner). The roles of these individuals likely affect overall care resources and their omission precluded a full understanding of the diversity and complexity of kin caregiving patterns within teenage childbearing families.

In addition, had we been able to do qualitative and ethnographic work with these families, or with a nested subset of them, we would have been able to speak more directly about the processes occurring within these blended kin care systems in which younger siblings participate. There are clearly strong and ongoing negotiations occurring among the teen mother, her siblings, and other household kin as they work together to raise the teen's baby. How this care is negotiated and what the sibling caretakers' roles are within this system are important questions emerging from this study that would require a "closer-in, experience-near" study of these processes (Weisner, 1982, 1996).

This sample also focused only on younger siblings who lived continuously with their teenage sister and her children across a 3-year period. Families in which sibling care is shorter lived or less continuous (in cases where the teen, her child, or the sibling move out of the household) may offer another view of sibling care that was not provided in this study. Too, the eligibility criteria specified that all families were comprised of a mother, a teenage older sister, and an (eligible aged) younger sibling. This necessitated that other family constellations (mother-absent families, families in which a grandparent or other relative is the primary parental figure) were excluded. Although such restrictive eligibility criteria limit the generalizability of findings, we believe the current results are relevant to the

families represented here or those families in which parenting teenagers remain with their family of origin. Recent national data indicate that close to 80% of teenagers continue to reside with their family of origin one year after they give birth and that most teen mothers live in households with one or more siblings (Manlove, Mariner, & Papillo, 2000).

This sample is also of young infant and toddler-age children being cared for by their teenage mothers and her family. It is currently unknown what the impacts of this pattern of care are for the teen's child, not to mention the young mother herself. Having shown the salience and rather high frequency of sibling care within teenage childbearing families, impacts on the teen mother and her child would be an important area for further study.

Despite these limitations, however, this study's findings highlight that siblings are an integral component of a dynamic and cooperative shared caregiving system within families that have teenage childbearing daughters. Sibling caregiving is clearly an important part of the family system's adaptation to the unique demands of early parenting. On a broader scope, these findings also illustrate the developmental costs and growth opportunities associated with a single social experience, that of providing family care (Youngblade & Curry, this issue). Indeed, others have also noted the apparently contradictory outcomes and experiences associated with adolescents' kin care and kin work (Brown-Lyons et al., 2001). A full understanding of the opportunities for positive change associated with kin caregiving requires a more complete understanding of the various experiences gained in this context (Theokas & Lerner, this issue), and of the complex ways in which caregiving roles are negotiated and maintained over time. Siblings as caregivers offer many potential benefits for promoting positive youth development, such as learning kindness, cooperation, and concern for others. Future youth development programs could incorporate such opportunities for promoting positive change.

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