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Circle of Care: Extending Beyond Primary Caregivers to Examine Collaborative Caretaking in Adolescent Development

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Abstract

In the contemporary family, which is increasingly shaped by multicultural influences, parents rarely are the sole caretakers of their children. To improve understanding of family dynamics, researchers must redefine caregiving networks to include multiple caregivers, such as extended family members. This study explored the influences of caregiving networks on youth depression by examining who youths perceived as caretakers, how many caretakers were in their networks, the youths' connectedness with adults in their network, and harmony of relationships among adults within the network. Data from an ethnically diverse, urban sample of 180 middle school youths revealed participation of multiple caregivers for all groups, but ethnic differences existed in network composition. These differences in network composition are discussed within a socio-cultural context, considering how positive relationships with specific caregivers may buffer future depression. Longitudinal analyses confirmed the importance of positive relationships with caregiving networks for youth of color when predicting future depression.

The family is a central socialization context from early childhood into adolescence (Beam, Chen, & Greenberger, 2002; Henggeler, Schoenwald, Bourdoun, Rowland, & Cunningham, 1998). Consistent with this view, the majority of developmental intervention research has targeted parents and parenting practices to prevent youth problem behavior (Henggeler et al., 1998; Johnson, Kent, & Leather, 2005; Dishion & Stormshak, 2007). Parent training interventions have been empirically linked with preventive and treatment effects related to substance use (Stormshak, Comeau, & Shepard, 2004), child problem behavior (Gavita & Joyce, 2008), and parent–child relationships (Henggeler et al., 1998).

Family management becomes more challenging for parents during the transition from middle childhood to adolescence. Typically developing adolescents experience normative transitions from elementary to middle school, such as changes in schools, peer groups, or academic programs, which when coupled with biological factors, such as the onset of puberty, can present unique challenges not only for the teen, but also in the parent–child relationship (Dodge & Petit, 2003). As such, adolescence is a time period when mental health problems, such as depression, often become exacerbated (Silverthorn & Frick, 1999). Adolescence is also a period in which youths seek more independence from their parents.

While this shift is normative, adolescents' risk for exposure to negative influences from peers and other external factors becomes more serious, all of which leads to an increased risk for developing chronic mental health problems in adulthood (Hinshaw & Lee, 2003).

Numerous studies have demonstrated the importance of family management techniques, such as parental involvement and monitoring, for buffering young adolescents from developing negative behavior patterns that often spring from individual psychopathology or negative peer influences (Dishion & Patterson, 1997; Dishion & Stormshak, 2007; Henggeler, et al., 1998). Parents can play an important protective role by supporting positive adjustment of their adolescents and ultimately helping them grow into healthy adult members of society.

Given parents' unique role in adolescent development, it is crucial to better understand the protective factors embedded in the parent-child relationship. However, limiting the concept of *primary caregivers* to *parents* may be unrealistic because changes in U.S. demographics have prompted families to undergo structural changes in child caregiving methods (Flurry, 2007). For example, the proportion of women participating in the labor force has grown exponentially during the past few decades. As a result, the number of couples who had children younger than age 18 and who both worked outside of the home grew from 59% in 1986 to 66% in 2007 (Kreider & Elliott, 2009). The number of working mothers with children under age 3 nearly doubled from 34% in the 1970s to 60% in 2006 (Bureau of Labor and Statistics, 2007; Grice, McGovern, Alexander, Ukestad, & Hellerstedt, 2011). The number of single-parent households also increased substantially between 1950 and 2007, yielding an increase from 6% to 23% in mother-only households without a spouse present and 1% to 5% of father-only households without a spouse present (Kreider & Elliott, 2009). These changes in family structure makes it more difficult for parents to supervise their adolescents and to provide positive buffering to the normative risks that youths encounter during the adolescent developmental period.

Significantly increased ethnic and racial diversity in the United States (growth from 17% non-White in 1970 to 34% in 2007; Grieco, 2010) warrants reexamination of the traditional definition of family structure. A variety of cultural, social, and historical factors influence which adults assume parenting roles, the constellation of the family, and caretaking practices of some ethnocultural groups. Racially motivated slavery laws in the United States are one example of how social-historical factors may affect caregiving in various cultural groups. Because laws prevented marriage between male and female Black slaves, children usually remained with their mother and female family leadership became the norm—a trend in family hierarchy that is often observed today (Aulette, 2010; Jones & Lindahl, 2011; Williams, 2013). Statistics from the 2007 United States Census consistently indicated that Black children were more likely to live with a sole adult parent than were Asian, Hispanic, and White non-Hispanic children (Kreider & Elliott, 2009). Yet, the percentage of children living with a sole parent increased for children across all racial groups as they became teenagers. The influence of labor opportunities has also led to structural differences in caregiving across various ethnic groups. For example, one study suggested that the number of stay-at-home mothers was proportionately greater among Hispanic and foreign-born mothers than among mothers from other racial groups (Kreider & Elliott, 2009). Although

census data provide only statistics and no context for these parenting trends, evidence suggests that racial and ethnic differences exist in the structure of the home and the caretaking system. This fact raises the question, How do these differences in family structure affect adolescents during this critical developmental period?

In many cases, circumstances require families to enlist the support of multiple adults to collaborate in caretaking responsibilities. Yet, most research and practice focus exclusively on parents as caregivers and ignore other adults who inevitably have an impact on youth development. It is critical to expand the concept of caregiver subsystems to include nonparent caregivers who play an important role in child and adolescent development. In doing so, the evolving notion of today's "American family" is more accurately drawn (Pew Hispanic Center, 2009).

Collaborative Caretaking Perspective: Broadening the Scope to Capture Diversity

Models of family management that include multiple caregivers are better able to capture the intricacies of the family context in which children and adolescents develop. Much of the existing research on family influences is limited to dyadic, or even triadic, family relationships; however, many other interpersonal processes must be considered to achieve a more genuine view of the family and the complexity of development (Bronfenbrenner, 1979). Researchers would do well to carefully examine collaborative caretaking, in which multiple adults work together to raise and care for a child, to accurately conceptualize youth development across diverse cultural contexts (Chamberlain, 2003; Jones, Zolot, Foster, Sterret, & Chester, 2007).

Collaborative caretaking practices are common to the cultural value system for many groups, including African American families (Jones et al., 2007), African tribal communities and African immigrant families (Obeng, 2007), Mexican immigrant families (Howes, Guerra, & Zucker, 2007), Israeli kibbutzim (Aviezer, Van IJendoorn, Sagi, & Schuengel, 1994), and Caribbean migrant families (Chamberlain, 2003). For example, in a study of African tribal immigrants, participants agreed that collectivistic childcare arrangements with extended networks promoted socialization and a more positive life trajectory for children (Obeng, 2007).

Researchers have attempted to understand which caregivers are regarded as particularly significant for youth development. In work by Rishel and colleagues (2005, 2007), youths indicated a preference for biological relatives over non-relatives. Several studies have highlighted the importance of grandmothers as caregivers, such as among African American (Jones et al., 2007), native African (Obeng, 2007), Caribbean (Chamberlain, 2003), and Latino study samples (Howes et al., 2007). Current researchers have revealed a trend for grandparents to assume the role of primary or secondary caregiver (Attar-Schwartz, Tan, Buchanan, Flouri, & Griggs, 2009; Edwards, 2009), and they play an especially salient role for Latino/a, American Indian (Kopera-Frye, 2009), and African American youths (Jones et al., 2007).

Relationships with siblings are also recognized as influential for youth development (Fosco, Stormshak, Dishion, & Winter, 2012; Stormshak, Comeau, & Shepard, 2004), yet few studies have examined the influence of sibling caregivers. Sibling caretaking is valued across many cultures. For example, siblings with values associated with *familismo* (“interdependence among family members, including familial support, obligation, and solidarity”; Soli, McHale, & Feinberg, 2009, p. 581) represented a protective factor against depression in a sample of African American youths (Soli et al., 2009). Literature about aunts’ and uncles’ impact on youth adjustment is limited despite the prevalence of this role in many cultures.

The Impact of Caretaking Networks on Youth Outcomes

Because depression has a high comorbidity rate with other developmental concerns (Rudolph, 2002), it represents a large portion of youth psychopathology. The internalizing nature of depression makes it difficult to diagnose in early and middle childhood, and when symptoms become prevalent in the adolescent years, they are highly correlated with functional impairments and disease (Lewinsohn, Rhode, & Seeley, 1998). Research indicates that girls evidence higher rates of depression, and they are at highest risk during adolescence (Rudolph, 2002). Furthermore, extant literature has linked the mental health of female youths with the quality of family relationships, and this link is stronger for them than for their male counterparts (López, Pérez, Ochoa, & Ruiz, 2008). Higher rates of female adolescent depression coupled with the highly relational nature of females suggest that relationships with a caregiver network may have a greater impact on female mental health than on male mental health.

Quality of relationships between adolescents and their caregiver network

A majority of studies of nonprimary caregiver adults suggests that youths’ positive relationships with these caregivers are linked with better outcomes. Because the majority of these findings were derived from samples of ethnic minority youths, one may conclude that a network of several caregivers working collaboratively may be particularly essential to these youths’ positive development (Botcheva & Feldman, 2004; Chamberlain, 2003; Jones et al., 2007; Kopera-Frye, 2009; Spencer & Tinsley, 2008). For example, extended-family caregivers may be especially critical to the adjustment of ethnic minorities because they help transmit cultural beliefs and values and a sense of pride about one’s ethnic identity—a protective factor for youths of color (Kopera-Frye, 2009). In this study, we explored two important dimensions: network connectedness and network harmony in relation to youth outcomes. For the purpose of this study, *network connectedness* is defined as the quality of youths’ relationships with their caregiver network as a whole. *Network harmony* is defined as adolescents’ perceptions of the quality of relationships among caregivers who youths identify in their caretaking network.

Acknowledging that positive parent–child relationships are significant to positive development (Peterson & Zill, 1986), we anticipated that positive relationships with extended family caregivers would constitute a protective factor for youths and buffer them from exposure to adolescent-specific risk factors, such as isolation and hopelessness, that

can lead to depression (Lewinsohn et al., 1998). For example, positive relationships with relatives have been found to weaken the relationship between harsh parenting and youth depression (Botcheva & Feldman, 2004), and to promote adaptive coping and prosocial behaviors (Attar-Schwartz et al., 2009).

Harmony of relationships among caregivers in network

In families with several caregivers, the network harmony, or the quality of relationships within the caregiver network, is an essential contextual variable for understanding youth outcomes. In keeping with a spillover perspective (e.g., Erel & Burman, 1995), conflict among caregivers may lead to increased parent–child conflict and diminished parent–child relationship quality, both of which are linked to negative child adjustment. Studies have shown an indirect effect of conflict among caregivers and youth outcomes; however, these studies focused almost exclusively on conflict between parents (DeBoard, Fosco, Raynor, & Grych, 2010; Erel & Burman, 1995; Fosco & Grych, 2010). Spillover processes may also be expected to occur within broader caregiver networks; however, this hypothesis is relatively untested.

Exposure to conflict among caregivers can also be a direct stressor that undermines many facets of youth adaptation, including emotional insecurity (Davies, Harold, Goeke-Morey, & Cummings, 2002), cognitive appraisals and emotional distress (Fosco & Grych, 2008; Grych & Fincham, 1990), and global indices of maladjustment (Cummings & Davies, 1994; Emery, 1999). It is possible that youth perceptions of discord in the broader caregiver network would place them at greater risk for maladjustment, whereas perceived network harmony would function as a source of security and stability. Consistent with this view, limited available research has found that network harmony is related to positive youth outcomes for African American youths (Jones et al., 2007) and youths from Israeli kibbutzim (Aviezer et al., 1994). Although evidence for the effects of collaborative caretaking is still accruing, its correlation with cultural beliefs and links with positive youth outcomes support inclusion of all caregivers into intervention to achieve higher levels of treatment effectiveness with families from diverse cultural groups (Huey & Polo, 2008).

This Study

This study was conducted with a sample of early-adolescence middle school students followed from sixth through eighth grade. During this developmental period, relationships with caregivers are particularly valuable in terms of youths' well-being (Hafen & Laursen, 2009), yet the role of extended caretaking networks in adolescent adjustment remains relatively unexplored. Our study focused on youth depression because of its prevalence among adolescents, its cost to society and individual well-being, and the cultural disparities between ethnic minority youths and European American youths relevant to internalizing problems (McLaughlin, Hilt, & Nolen-Hoeksema, 2007; Mrazek & Haggerty, 1994). Furthermore, the rate of depression among adolescent females compared with the rate among their male counterparts is disproportionate. This disparity, coupled with differences in family structure that exist between White and non-White families, raises a question about how quality of relationships with caregivers affects depression in female youths of color, a

chronically marginalized group in U.S. society. Investigations of caretaking networks among various ethnic and gender groups may reveal information about how these networks function as a salient protective factor against youth depression, especially within certain ethnic and gender subgroups (Botcheva & Feldman, 2004).

Studies of extended caretaking networks have been limited by the use of parent-report assessments and of monocultural samples, which has precluded comparison and generalizability across groups. Evidence suggests that family structure differs across racial groups, but a dearth of research has examined how various ethnocultural families may be differentially affected by network connectedness or network harmony. Furthermore, despite the high prevalence of depression among adolescent females and the tendency for girls' adjustment to be linked more commonly to family relationships, limited research has examined the impact of extended caregiving networks on depression in females. Finally, evidence strongly supports the link between parent-child relationships and depression and the spillover process of interparental conflict on child adjustment, yet findings are limited by the narrow view of parents as a two-adult system.

In our study we sought to address these gaps in the literature by providing descriptive, youth self-report data from multiple gender and ethnocultural groups, including youths of color, multiethnic youths, and European American youths, and using longitudinal methods to examine the impact of caretaking networks on future depression. Research questions were (a) who do adolescents perceive as adult caregivers?, (b) how many adults comprise caretaking networks?, and (c) in what way is youth depression affected by the size of the caretaking network, the network connectedness, and the network harmony? On the basis of existing literature that indicates difference in how depression presents according to gender and ethnicity, we hypothesized that network harmony and connectedness would significantly be associated with future depression for females and youths of color in the sample.

Method

Participants

The study comprised an ethnically diverse sample of 180 participants who were involved in a family-centered intervention in middle school. Originally, 377 families in a larger sample of 593 had been randomly assigned to receive the intervention (the Family Check-Up; Dishion & Stormshak, 2007). Of those families, 180 participated in the intervention, and youths completed interviews in the home that included a measure of caretaking networks (Stormshak & Dishion, 2006). Families were followed at three annual time points: in sixth grade (mean age = 11.88 years), seventh grade (mean age = 13.01 years), and eighth grade (mean age = 14.12 years), with 80% participant retention. In this sample, youth gender was nearly equally distributed (46% female). Participants' self-reported ethnicity was European American ($n = 64$; 35.6%), Latino ($n = 37$; 20.6%), African American ($n = 29$; 16.1%), Asian/Pacific Islander ($n = 8$; 4.5%), American Indian ($n = 3$; 1.7%), multiple ethnicities ($n = 38$; 21.1%), and Unknown ($n = 1$).

Assessment Procedures

Students were surveyed annually from sixth through eighth grade during the spring, using a questionnaire derived from the Oregon Research Institute that measured a variety of youth outcomes (Metzler, Biglan, Rusby, & Sprague, 2001). Surveys were conducted in school classes, and if students were absent they received assessments by mail. Youth participants received \$20 for completing each annual assessment.

Measures

Youths' perceived caretaking networks—Youths completed a self-report measure referred to as “Circle of Care” (Stormshak & Dishion, 2006), a measure that was developed for the first author's intervention research, after their families participated in the intervention but prior to the seventh grade assessment. It used an open-response format to assess whom youths perceived as their caretakers, by providing instructions (“I know you live with ___ and ___. There are often other adults who help take care of young people, like moms, dads, stepdads, grandmothers ... sisters. Can you tell me the adults who you feel help take care of you?”) and allowing youths to list up to five adults who cared for them, which could have included primary caretakers. For each caretaker listed, youths provided demographic information (e.g., who the adult was in relation to them, age, ethnicity) and relationship information.

Network connectedness—This variable refers to the quality of the relationship between each youth and his or her entire caretaking network. The variable was computed by creating a score for the quality of relationship between individual caretakers and the child. Ten items were used to measure relationship quality relevant to each caretaker. Two of the items were measured on a reverse scale, and the scoring was transformed for this study. Items were measured using a 9-point scale ranging from 1 (*low quality*) to 9 (*high quality*), and a mean score was computed to determine the relationship quality score (Cronbach's $\alpha = .94$). After computing quality-of-relationship scores between each child and each of his or her caretakers, the scores were averaged to create a score for the overall quality of relationship between each child and his or her entire circle of care (Cronbach's $\alpha = .87$). Sample items in this measure include “How much do you respect [caregiver] and care about what they think?” and “How much do you consider [caregiver] a role model and want to be like them when you grow up?”

Network harmony—Youths also reported about how well each caregiver they listed got along with the other listed caregivers. The items were measured on an 11-point scale ranging from -5 to 5. The item was worded as follows: “Caring Adult #1 and Caring Adult # 2: (-5) High level of conflict/dislike, (0) No contact/don't care about knowing each other, and (+5) Enjoy each other/very little conflict.” Reliability was measured and deemed appropriate (Cronbach's $\alpha = .75$). Items were coded from 0 (*high level of conflict/dislike*) to 10 (*enjoy each other/very little conflict*) and averaged to create one score per youth for data analysis.

Adolescent depression—Youths completed a 14-item scale used in previous research to assess diagnostic symptoms of depression (Metzler et al., 2001). Each year they were

asked to report on items that described symptoms in the past month, such as feeling sad or depressed, cranky or grumpy, or having sleep problems. Items were measured on a 5-point Likert scale, ranging from 1 (*never or almost never*) to 3 (*about half the time*) to 5 (*always or almost always*) and averaged together to create one depression score per youth. This item was tested and deemed a reliable measure of this construct (Cronbach's $\alpha = .95$).

Results

Analyses were conducted using SPSS 16.0 (SPSS Inc., 2007), and Mplus 7.1 (Muthén & Muthén, 2010). Preliminary data inspection revealed no problems with irregularities in the distributions, outliers, or problems with missing values. All variables were normally distributed and were retained for analysis. Given the importance of examining issues of cultural diversity, youth ethnicity was treated in two ways for the analyses.

In this sample, three ethnic groups were adequately represented for descriptive comparisons related to caregiving networks: African American, Latino, and European American. For other analyses, one group comprising all ethnic minority youths, henceforth referred to as *youths of color*, was formed because a trend in the literature indicates the substantial impact of collaborative caretaking practices on the development of youths of color (Chamberlain, 2003; Howes et al., 2007; Obeng, 2007).

The Caretaking Network

Data for the caretaking network was collected prior to 7th grade. First, frequency reports revealed which adults youths named as their caretaking networks and the frequency with which respective caretakers appeared on the lists. Biological relatives were the most frequently listed adult caretakers and no non-relative caregivers were reported by youth. Six categories were created from the top 10 ranked caretakers: biological mom, biological dad, aunt/uncle, grandparent, biological sibling, and stepparent. Next, proportion by group chi-square analyses was computed to determine whether the constellation of adults comprising the caretaking networks differed according to youth gender or ethnicity. Boys and girls did not differ in their listing of the top caregivers in their caretaking networks.

Chi-square analyses were completed to determine if there were ethnic group differences in caregiver network composition (see Table 1). First, European American youths' networks were compared with those of the youths of color in the sample. Significant differences in the rate of caregivers reported included European Americans more frequently identifying their biological father as a caregiver than did youths of color, and youths of color being more likely to identify siblings as caregivers. Chi-square comparisons of specific ethnic groups were computed and group means of significant Chi-square results were examined to determine which group had higher reports of certain caregivers. These analyses revealed that Latino youths were more likely to include their biological mother than were African American youths, whereas both Latino and European American groups more often identified biological fathers as caregivers than did African American participants. Latino youths also more frequently described aunts or uncles as caregivers than did European American youths. However, African American and European American youths were more likely to view grandparents as a part of their caretaker network than were Latino youths. Finally, biological

siblings were more likely to be considered caregivers by Latino youths than by European American youths. Interestingly, analyses of stepparents listed in the caretaking networks yielded no significant differences among ethnic groups.

Size of the Caretaking Network

As a whole, the sample reported approximately four caregivers in their caretaking network ($M = 3.76$, $SD = 1.15$) and the following breakdown for size: five caretakers ($n = 63$; 35.0%), four caretakers ($n = 46$; 25.6%), three caretakers ($n = 39$; 21.7%), two caretakers ($n = 29$; 16.1%), and one caretaker ($n = 3$; 1.7%). Then, independent sample t -tests were computed to identify any significant differences in caretaking network size across gender and ethnic groups. Gender differences revealed that females ($M = 3.86$, $SD = 1.05$) reported significantly more caregivers in their caretaking networks than did males ($M = 3.69$, $SD = 1.22$; $t = -0.98$, $p < .01$).

Then, ethnic group differences were examined. Differences in the size of youth caretaker networks were not found when comparing European Americans ($M = 3.64$; $SD = 1.15$) and youths of color ($M = 3.83$; $SD = 1.15$). Analyses of specific ethnic groups revealed some differences; specifically, Latino youths ($M = 4.12$; $SD = 1.05$) reported having larger caretaker networks than did the European American youths ($M = 3.64$; $SD = 1.15$; $t(81) = -2.09$, $p < .05$). However, the African American groups ($M = 3.79$; $SD = 1.26$) did not differ in caretaking network size compared with the European American or Latino groups.

Relationships Among Caretaking Network Dimensions and Depression

The third research question pertained to examining the relationship between information gathered using the caretaking network measure (i.e., size, network connectedness, network harmony) and youth depression. A Box's M test for homogeneity of the covariance matrix justified the examination of youth depression by ethnic groups in the sample ($M = 16.73$, $p < .05$). The Box's M test for gender group differences was marginally significant ($M = 12.81$, $p = .05$), so we proceeded with gender comparisons as well. Variables were coded for analysis as follows: gender (female = 0; male = 1) and ethnicity (Youth of Color = 0; White = 1; African American = 3; Latino = 4)

Correlational relationships—As shown in Table 2, correlations were computed among all variables. First, correlations among caretaking network dimensions from pre-7th grade reports were examined. The network harmony was associated with network connectedness ($r = .34$, $p < .01$). However, the size of the caretaking network was not related to network connectedness or network harmony.

Then, aspects of the caretaking networks were correlated with youth outcomes. Size of the caretaking networks was not associated with depression for any of the computed correlations among either the full sample or the gender and ethnic subsamples. However, youths who reported better relationships with their caretaking network also reported lower levels of concurrent depressive symptoms in sixth grade and lower levels of depressive symptoms in eighth grade. Gender correlations revealed that girls who had better relationships with their overall caretaking network had fewer symptoms of depression at sixth ($r = -.29$, $p < .01$) and

eighth grades ($r = -.32, p < .01$). These findings were not replicated for boys; network connectedness was not related to depressive symptoms in sixth or eighth grade. In addition, ethnic group differences suggested that for the youths of color in the sample, better network connectedness was correlated with less depressive symptoms in sixth ($r = -.23, p < .05$) and eighth grades ($r = -.40, p < .01$). This was not the case for the European American group, because network connectedness was not related with depression at either time point.

We also correlated the measure of network harmony with youth depression during sixth and eighth grades. Network harmony was not correlated with depression at either time point for the full sample, or for boys or girls. However, for the ethnically diverse youths in the sample, better network harmony was correlated with less depression at sixth ($r = -.24, p < .05$) and eighth grades ($r = -.26, p < .01$). Network harmony was not correlated with youth depression at either time point for the European American sample.

Predictive relationships—Path model analyses using Mplus were conducted to examine how size of the caregiver network, network harmony, and connectedness were associated with changes in adolescent depression. A path model was estimated in which the three network variables were tested for direct effects on adolescent depression while controlling for SES, ethnicity, gender, and sixth grade depression. An advantage of path modeling is the ability to simultaneously test direct and indirect effects; therefore, we also tested network connectedness as a mechanism that might explain the association between other network characteristics with adolescent depression (i.e., spillover processes) while also examining indirect effect pathways through network connectedness and controlling for parent-report of SES, adolescent ethnicity, gender, and initial levels of adolescent depression. The model provided good fit with the data, in which $\chi^2(3) = 1.20, p = .75$; CFI = 1.00; TLI = 1.00; RMSEA = .000 (90%: .000–.086). As shown in Figure 1, there was statistically significant stability in adolescent depression from sixth to eighth grade ($\beta = .29$). Adolescent gender was significantly associated with depression, indicating that girls were more likely to experience depression than were boys ($\beta = -.26$). Above and beyond baseline control variables, adolescents who felt more connected with their caregiver networks reported decreases in depressive symptoms 2 years later ($\beta = -.16$), but network harmony and size were not associated with later depression. Consistent with a spillover effect, youths with more harmonious networks also reported feeling more connectedness with their caregiver networks ($\beta = .33$).

Tests of moderation by gender and ethnicity were conducted using multiple group invariance tests. This is accomplished by estimating path models in which structural paths are allowed to be estimated freely across the two groups and comparing the overall fit with models in which paths are constrained to be the same across groups. When chi square values reflected differences, we probed specific paths to identify moderation.

First, we examined whether the model was the same for boys and for girls. The constrained model did not differ from the freely estimated model, $\chi^2(7) = 8.17, ns$, suggesting there were no systematic differences in the overall model for boys and for girls.

Second, we examined whether the model differed for youths of color and White youths. Constraining these paths to be the same across groups yielded a marginally worse fit than the freely estimated model, $\chi^2(7) = 12.927, p = .07$, suggesting further probing for moderation of all paths was warranted, in addition to hypothesized moderation paths. Ethnicity did not moderate the path between network harmony and depression, $\chi^2(1) = .01, ns$. However, the association between network connectedness and depression was different, $\chi^2(1) = 5.255, p = .02$, indicating that network connectedness was a protective factor for youths of color ($\beta = -.31, p < .01$), but not for the White youths ($\beta = .07, ns$). In addition, the association between network harmony and connectedness also was different for these two groups, $\chi^2(1) = 3.726, p = .05$, with the youths of color yielding a stronger relationship ($\beta = .40, p < .01$) than White youths ($\beta = .26, p < .05$). This finding suggests that the link between network harmony and network connectedness is stronger for youths of color than for White youths, despite its importance for both groups. Finally, the indirect effect of network connectedness moderating the effect of network harmony on future depression was significant for youths of color ($\beta = -.13, p < .05$), but not for White youths ($\beta = .02, ns$).

Discussion

Increasing diversity in the United States and changes in family systems related to the working needs of parents challenge us to broaden our notion of the “American family” to incorporate growing complexity in the family structure. Previous research often narrowly focused on parents as the caregivers and overlooked other important figures in the lives of youths. The purpose of this study was to more broadly examine caregiving by incorporating youth perspectives about their caretaking networks and to examine the impact of collaborative caretaking networks on the risk for developing depressive symptoms by eighth grade. Youths reported their perceptions of caretaking networks by listing caregivers and evaluating their network connectedness (i.e., the overall quality of relationships with adults in their networks) and their network harmony (i.e., the extent to which adults in their caretaking networks get along with one another).

The majority of youths in this sample, regardless of gender or ethnicity, endorsed having multiple caregivers that included mothers, fathers, grandparents, aunts and uncles, siblings, and stepparents. Despite the fact that existing literature about collaborative caretaking has predominately focused on ethnic minorities, immigrants, and international samples (Chamberlain, 2003; Howes et al., 2007; Jones et al., 2007; Kopera-Frye, 2009; Obeng, 2007), results indicated that the overall caretaking network composition and the average caretaking network size did not differ between the ethnically diverse and the White youths. However, consistent with the highly relational nature of females and the Latino cultural value for “*familismo*” (i.e. the important role of nuclear and extended family in Latino culture) (López, et al., 2008; Wagner, Ritt-Olson, Soto, & Unger, 2008), females caregiver networks were larger than the males’ networks, and Latino/-a youths reported larger networks than the White youths.

It is noteworthy that youths from all backgrounds endorsed collaborative caretaking networks comprising multiple individuals; however, a closer look yielded interesting differences in network composition. The African American youths more frequently reported

that a grandparent was part of their caretaking networks than was a biological father. This finding is consistent with existing literature about the unique importance of grandmothers in African American family culture (Jones et al., 2007; Obeng, 2007). The literature documents that grandmothers provide special support to families, and especially to single mothers, by passing on cultural beliefs and by providing additional supervision and care to youths with working parents (Jones et al., 2007). Latino youths identified biological siblings as being part of their caretaking networks more frequently and grandparents less frequently than did the other youths in the sample. These findings are consistent with immigration trends that show increased likelihood that grandparents of first- and second-generation Latino youths may still reside in their country of origin (Pew Hispanic Center, 2009) and therefore may not be able to fill a caregiver role. Further, the frequent report of siblings as caregivers by Latino youths fits with the trend toward valuing *familismo* (Wagner, et al., 2008).

We then examined how the caretaking networks related to youth depression in eighth grade. Results suggest that network connectedness is associated with youth depression in eighth grade and that there is an association between network harmony and network connectedness for all youths, but that this association is stronger for youths of color. Results also indicated that for youths of color in the sample, network harmony within the caretaking network indirectly affects network connectedness, which in turn affects the rate of depression. This is consistent with the view that proximal factors may be more significant than broader, contextual factors when they are examined simultaneously (Katz & Gottman, 1996). Moderation analyses indicate that network connectedness was moderately associated with depressive symptoms for youths of color, but not for White youths in this sample. These findings suggest that the relationship dynamics of a network of caretakers are more influential on youths of color than on their White peers. In other words, negative network connectedness created more risk for depression, and conversely, positive network connectedness created more protection from depression for the youths of color in the sample. These results are consistent with those reported in the literature about nonparental adults, which have indicated that focusing on the quality of the youth–adult dyad is more important (Greenberger, Chen, & Beam, 1998; Rishel et al., 2005; Rishel et al., 2007) than focusing on other factors, such as harmonious relationships among the adults involved. Overall, these findings indicate that caregiver networks are particularly important for understanding developmental risk for depression among youths of color.

Gender comparisons for the impact of network harmony and connectedness on depression did not yield differences between males and females in this sample. However, given the females' reports of higher depression and larger caregiver networks in this research in addition to knowledge of the importance of positive parent-child relationships in buffering female depression, future research with larger samples may be needed to better understand the protective nature of caregiver networks on adolescent female depression.

Implications for Research, Practice, and Public Policy

Although researchers have done an excellent job of documenting the strengths that exist within collective-oriented frameworks of childrearing (Chamberlain, 2003; Kopera-Frye, 2007; Obeng, 2007), our mental health system continues to be defined in terms of

individualistic, Western practices that fail to capture the complex dimensions of family and culture (Jones et al., 2007; Wagner et al., 2008). Results from this study provide evidence that regardless of ethnic background, families in the United States are already relying on collaborative caretaking networks to raise their children. As such, it is essential that researchers and practitioners seriously acknowledge the need to understand broader family dynamics and their impact on youth development. Of practical relevance, our measure of collaborative caretaking networks can be used to facilitate inquiries about all the influential adults in an adolescent's life. Moreover, our study findings support the need for a broader assessment of caretaking networks than is current, standard practice (Huey & Polo, 2008). Especially for youths of color, caretaking networks may play a critical role in reducing risk for depression. Analysis of prevention efforts that target mental health outcomes can affect the manner in which the broader family structure is addressed relevant to public policy (Mrazek & Haggerty, 1994). For example, findings from this study indicated that biological siblings were often ranked as caregivers, which suggests a potential for siblings to fulfill multiple roles in influencing youth outcomes, given siblings' ability to have an impact on both the peer and the caregiver systems. Because prosocial peers help promote prosocial behavior and deviant peer association can result in iatrogenic effects (Dishion & Stormshak, 2007), practitioners and policymakers should carefully consider the extent to which older siblings are involved in interventions and the implications of potential peer and caregiver effects on younger siblings. Further research is needed to appraise the risk of iatrogenic effects of maladjusted siblings who are also caretakers (Stormshak et al., 2004).

The trend against including a broader group of caregivers in prevention and intervention programs among mental health systems may originate from constraints such as transportation and childcare issues (Jones et al., 2007). Failure to overcome this trend toward lack of inclusion of caretaking networks, however, could seriously impede our understanding of family structure and its impact on youth adjustment (Jones et al., 2007; Wagner et al., 2008). Mental health systems would do well to direct their attention to models of family management that include a broad interpretation of family and intervention participants, such as models with an ecological focus. Readers may refer to Dishion and Stormshak's EcoFIT model (2007) or Henggeler and colleagues' Multisystemic Therapy (1998) as examples of these models.

Limitations and Future Directions

Our study was limited by sample size in that it compared only African American, Latino, and European American subgroups. Working with larger samples with greater ethnic diversity would enhance understanding of caretaking networks across multicultural groups and would enable comparison among ethnic minority groups, in that our understanding of cultural processes involved in caretaking networks has been limited by grouping ethnicities together. Also, limitations in statistical power are noteworthy when testing statistical relationships. A larger sample size can help remedy having to use correlational research that limited our findings.

Another consideration to note when interpreting the study results is the disparity in youth reports of depression. Although both ethnic groups reported increased depression over time,

the youths of color in the sample exhibited higher rates of depression and a greater increase in that construct than did the White youths. The difference in reports of depression may have influenced the results; however, the trend in youths of color reporting higher prevalence of depression is a common occurrence in studies rooted in increased risk factors, such as poverty and discrimination (Anderson & Mayes, 2010).

In addition, this sample was largely focused on relative caretakers and no youth indicated non-relatives in their networks, yet nonrelative adults can also serve as caretakers (Greenberger et al., 1998; Rishel et al., 2007) and can represent an important source of resilience for youths (Beam et al., 2002; Rishel et al., 2007). Although most studies of collaborative caretaking have been limited to the participation of relative caregivers, research suggests that positive relationships with nonrelative adults play a significant role in the lives of developing youths (Grossman & Tierney, 1998; Rishel et al., 2005). More research is needed to determine the extent to which non-relative adults are incorporated into the family structure and are perceived by youths as caregivers.

This research appeared to be especially salient for youths of color. As such, further intervention research with youths of color that incorporates the perspective of a collaborative network of caretakers is encouraged. Finally, multirater reports on measures such as the measure of caretaking networks would help determine how parents' and caregivers' reports relate to youth reports in this study.

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Figure 1. Path model examining the relationship between future depression and network harmony and network connectedness.

Table 1

Percentage of Youth Who Reported Each Caregiver in Their Caretaker Network

		(A)	(B, 1)	(2)	(3)	
	Entire sample	Youths of Color	White	African American	Hispanic/Latino	χ^2 (1) $p < .05$
Caregiver	($n = 180$)	($n = 115$)	($n = 64$)	($n = 29$)	($n = 37$)	
Biological mom	90.0	88.7	92.2	86.2	100.0	$3 > 2$
Biological dad	71.1	64.3	82.8	55.2	78.4	$B > A$ $2 < 1, 3$
Aunt/uncle	37.2	42.6	28.1	34.5	54.1	$3 > 1$
Grandparent	40.6	38.3	43.8	65.5	18.9	$3 < 1, 2$
Biological sibling	20.0	26.1	9.4	17.2	35.1	$A > B$ $3 > 1$
Stepparent	16.1	15.7	17.2	13.8	8.1	
Size of network (M)	3.76	3.83	3.64	3.79	4.11	
Network connectedness (M)	7.55	7.52	7.60	7.70	7.53	

Note. Youth rated up to five caregivers. Values represent percentages of youth who listed a specified caregiver in their caretaking network. Rows and columns do not sum to 100% because this table represents the percent of the entire sample at which each caregiver appeared on their list.

Table 2

Correlation Matrix for Entire Sample

	1	2	3	4	5	6	7	8
Network connectedness (1)	—							
Network harmony (2)	.34**	—						
Network size (3)	.03	.01	—					
Ethnicity (4)	-.10	.02	-.01	—				
Gender (5)	.01	.01	.07	.02	—			
Parent SES (6)	.05	.01	-.08	-.21**	-.16*	—		
T1 depression (7)	-.18*	-.07	.02	.10	.04	-.05	—	
T3 depression (8)	-.25**	-.12	.02	.15	.26**	-.01	.34**	—
<i>M</i>	7.55	8.86	3.76	N/A	N/A	.00	1.83	1.88
<i>SD</i>	.90	1.17	1.15	N/A	3.50	.70	.79	.80

Note. *Ethnicity* refers to all ethnic groups that were included in this study and was not a measure of the groups created for subsequent analyses (i.e. “White” and “Youth of Color”; N/A = not applicable; means and standard deviations were not reported for categorical variables).

*
 $p < .05$.

**
 $p < .01$.