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Early Life Predictors of Adult Depression in a Community Cohort of Urban African Americans

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ABSTRACT *Depression among African Americans residing in urban communities is a complex, major public health problem; however, few studies identify early life risk factors for depression among urban African American men and women. To better inform prevention programming, this study uses data from the Woodlawn Study, a well-defined community cohort of urban African Americans followed from age 6 to 42 years, to determine depression prevalence through midlife and identify childhood and adolescent risk factors for adult depression separately by gender. Results indicate that lifetime depression rates do not differ significantly by gender (16.2 % of men, 18.8 % of women) in contrast to findings of a higher prevalence for women in national studies. Furthermore, rates of depression in this urban African American population are higher than those found in national samples of African Americans and more comparable to the higher rates found nationally among Whites. Regarding early predictors, for both men and women, family conflict in adolescence is a risk factor for adult depression in multivariate regression models. For women, vulnerability to depression has roots in early life, specifically, low maternal aspirations for school attainment. Females displaying more aggressive and delinquent behavior and those growing up in a female-headed household and a household with low maternal education have elevated rates of depression. Males growing up in persistent poverty, those engaging in greater delinquent behavior, and those with low parental supervision in adolescence also have elevated rates of depression. Effective prevention programming for urban African Americans must consider both individual characteristics and the family dynamic.*

KEYWORDS *African Americans, Depression, Gender differences, Life course, Longitudinal data, Risk factors*

INTRODUCTION

Depression is pervasive, debilitating, and costly to the individual and society.[1] At the individual level, depression is often related to increased difficulties in interpersonal

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relationships[2] and marked decline in social functioning and overall quality of life.[3,4] At the societal level, depression is associated with decreased work productivity[5] and high inpatient and outpatient healthcare costs.[6] By 2030, it is estimated that depression will be the leading cause of disability worldwide.[7]

Despite the magnitude of the problem of depression, our knowledge of its prevalence and predictors within urban African Americans remains limited. While national surveys have consistently found depression rates to be lower among African Americans compared with White populations—approximately 9–10 % for Blacks compared with 15–18 % for Whites for lifetime major depressive disorder (MDD),[1,8] others have provided evidence of more significant prevalence rates in urban African American communities,[8–10] particularly among older adults.[11,12] These studies suggest that African American depression is not captured well in national studies and that variation among communities is significant, with urban communities being particularly at risk.

Further highlighting the need to understand the rates and predictors of depression among subgroups are studies showing important racial/ethnic differences in chronicity and impact. Specifically, compared with Whites, African Americans have been found more likely to suffer from both recurrences of depression and greater functional impairment.[13,14] The more deleterious course of depression among African Americans may be partially related to trends of under-diagnosis in this population,[8,15] possibly due to limited access to and utilization of mental health services in urban centers.[16,17]

Most studies report higher rates of depression for women. The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), for example, shows lifetime rates of MDD at 17 % for females compared with 9 % for males.[1] Among African American adolescents, Grant and colleagues found that girls were more likely than boys to report depressive symptoms.[18] Despite African American females having potentially higher rates of depression and depressive symptoms than their male counterparts, studies of gender-specific risk factors for depression in African Americans are rare.

To prevent depression among urban African Americans, it is critical to understand risk factors early in the life course; however, previous research has noted the paucity of studies on depression etiology among African Americans.[19] Multiple studies suggest that exposure to psychosocial risk factors and adversities, both chronic and acute, throughout the life course may increase individuals' chances for developing depression.[20–22] However, existing literature suggests that mental health disorders have a fairly strong genetic component[23–25], and individuals with a high genetic risk for depression are likely to develop episodes of the disorder even without experiencing notable environmental stress.[26]

Longitudinal studies have identified some early risk factors as being predictive of later depression in general populations, including low socioeconomic status, family history of depression, family conflict, early depressive symptoms, conduct problems, substance use, delinquent behavior, and negative life events.[27–35] Research among predominantly White populations has also identified gender differences in risk factors with low birth weight, family composition (e.g., larger families, older parents), parental death, teen pregnancy, and childhood academic achievement problems important for women and childhood health problems and poor peer relationships important for men.[31,36,37]

Because of reliance in the literature on cross-sectional work and a focus on White or racially/ethnically heterogeneous populations, it is unclear how well these risk

factors predict depression among African American men and women specifically. Urban African Americans are disproportionately burdened by psychosocial factors that may relate to increased risk for depression.[15,38–40] For example, family poverty, which is disproportionately high among urban African Americans, is strongly related to later depression.[41–43] However, it is unclear if this association stems from early childhood disadvantage or whether it reflects more persistent conditions. Previous work suggests that family factors, including family conflict and laxity in parental monitoring, may be particularly important predictors of depression in urban African American populations.[44]

Our major objective is to enhance the literature base on the complexity of factors that increase the vulnerability to adult depression among urban African American men and women and ultimately inform effective prevention efforts. To this end, we examine the prevalence of lifetime depression in a community cohort of urban African American men and women followed from childhood (age 6 years) to midlife (age 42 years) and explore risk factors in childhood and adolescence that predict adult depression. This longitudinal design provides a significant advantage in identifying early contextual and individual factors that may increase the risk of later depression. We hypothesize that the impact of early risk factors differs for males and females.

METHODS

Description of the Woodlawn Study

The Woodlawn study is an epidemiological, prospective study of a cohort of urban African American children ($N=1242$). All children entering first grade in one of the nine public or three parochial schools in the Woodlawn neighborhood community on the South Side of Chicago in 1966 were asked to participate in this research study. Only 13 families declined participation, allowing for the study of virtually the entire population of first grade students. Woodlawn, one of 76 defined community areas in Chicago, was characterized by overcrowding and poverty when the study began. It was one of the five poorest areas in Chicago, with high rates of unemployment and welfare participation—23 % of Woodlawn families were receiving aid in 1969 compared with 7 % for the city of Chicago as a whole.[45] Despite high rates of poverty, there was economic variation in the community as racial segregation kept African Americans of different income levels together.

In first grade, teachers and mothers (or surrogates) reported on the children's social adaptational status, mental health, and the family and classroom contexts. In adolescence, the children and their mothers were reassessed. Mothers (or surrogates) were interviewed in 1975 ($N=939$), providing details on themselves, their families, and the study child. Teenagers were assessed in 1976–77 ($N=705$, mean age, 16 years) using questionnaires presented on slides and audio tape to control for reading differences.[46] Adolescents reported on their psychological well-being, substance use, delinquency, family and peer relationships, and their participation in school, church, and other activities. In 1992–93, the adult children were located and re-interviewed at ages 32–33 years ($N=952$). They reported on mental health, substance use, family relationships, education and employment histories, health, social support, participation in associations, and criminal activities. In 2002–03, we re-interviewed the cohort at ages 42–43 years, using an assessment very similar to the one in 1992–93 ($N=833$). Together, 1,054 of the original 1,242 were reinterviewed in adulthood and completed the module on depression (85 %).

Attrition analyses show no differences on variables such as gender, mothers' education, or early childhood behavior between those with and without an adult interview. Individuals who participated in at least one of the adult interviews are less likely to have grown up in poverty and more likely to have graduated high school. Mothers who were not interviewed for the adolescent assessment are more likely to have been teenage mothers and had greater residential mobility before the child's first-grade year. Mothers did not differ in other major aspects of family background (poverty, welfare receipt, mother-headed household, anxious or depressed mood) or first-grade teachers' ratings of classroom behavior. Adolescents who were missing also did not differ by gender or first-grade family poverty, family type, or teachers' ratings of classroom behavior or psychological characteristics. Additional details on the study and attrition are presented elsewhere.[47–49]

Measures

Depression. The early adult interview includes a module from the Michigan version of the Composite International Diagnostic Interview to diagnose lifetime major depressive disorder according to *DSM-III-R* criteria.[50] The mid-adult interview includes the CIDI depression module for generating a lifetime diagnosis of major depressive disorder as defined by the *DSM-IV.*

Childhood Risk Factors. Using mothers' reports of birth weight, those less than 5.5 lbs at birth were categorized as *low birth weight*. Mothers also reported their *age* at the time of the child's birth, whether the child experienced the *death of a biological parent,* the number of *children in the household*, the number of *years of schooling* she completed, and her *aspirations* for the child's educational attainment (1=beyond college, 2=finish college, 3=some college, 4=finish high school, 5=some high school). In the mother's symptom inventory (MSI), mothers assessed 35 psychological symptoms in their first-grade children indicating signs of anxiety, depression, bizarre affect, and bizarre behavior using a scale of 0=not at all to 3= very much (α=0.83).[51] We use the sum of these items to assess the presence of early indications of *psychological distress*. We include teachers' rating of children's level of *aggressiveness, underachievement,* and *shyness* in the classroom (0=adapting to 3= severely maladapting) and standardized intelligence quotient (IQ) scores.[52]

Persistent Family and Contextual Risk Factors. At both the first-grade and adolescent time points, mothers reported how often they feel sad or blue (0=never to 3=very often).[53] We dichotomize and combine items from those two time points to establish persistence of mothers' very or fairly frequent *depressed mood* (0= neither time, 1=either time, or 2=both/persistent). Similarly, *persistent poverty* based on Federal guidelines is established using reports of income and household composition for the year preceding the mothers' interviews at first grade and adolescence (0=neither time, 1=either time, or 2=both/persistent). We also include whether the first-grade child lived in a *female-headed household* (defined as no father or step-father present in the household) coded again as 0=neither time, 1= either time, or 2=both.

Adolescent Risk Factors. Standardized *reading scores* from seventh and eighth grades were assessed. Because the correlation of scores from the two grades is high (r=0.69, p<0.001), we use a mean of the scores. Mothers reported in adolescence on the *health* of their child since first grade (1=very healthy, 2=moderately healthy, 3=

not too healthy, 4=not at all healthy). *Family communication* is operationalized from adolescent reports of how often they confide in adults in the family about school, family, friends, and the opposite sex (α=0.71, mean of four items). For each item, 6=several times per week, 5=once a week, 4=every two weeks, 3=once per month, 2=every few months, and 1=less often. Using this same response format, adolescents also reported on *family conflict* (α=0.82, mean of five items), indicating how often they and adults in the family have arguments, say mean things, let out hurt and angry feelings, slam doors in anger, and yell or shout to let off steam. In adolescence, mothers reported on a four-point scale to three items assessing their level of parental supervision surrounding friends, curfew, and school. *Low parental supervision* is defined as leaving choice of friends up to child, having no weeknight curfew or curfew after 10 pm, and leaving school supervision mostly/entirely up to child.

Age of onset of marijuana use is also self-reported and coded 1=no use by age 16 years, 2=ages 13–16 years, and 3=age 12 years or younger. Adolescents self-report how many times in the last 3 years they committed each of 18 non-drug related delinquent acts (0=never, 1=once, 2=twice, 3=3 or 4 times, 4=5 or more times. By adding all of these responses, we construct an overall frequency of *delinquent behavior* (range 0–69).

From the adolescents' *How I Feel* questionnaire, we use two seven-item scales—depressed mood and anxious mood.[46] Each scale is calculated by summing response items (1=not at all to 6=very, very much over the past several weeks). Items indicating *depressed mood* (α=0.68) are: (1) I feel sad, (2) I cry and don't know why, (3) I feel hopeless, (4) I feel ashamed of myself, (5) I feel guilty, (6) I don't feel worth much, (7) people would be better off without me. *Anxious mood* (α=0.70) is the sum of responses to: (1) I feel nervous, (2) I feel under pressure, (3) I feel tense, (4) I feel tight inside, (5) I startle easily, (6) my hands sometimes shake, (7) new situations make me tense.

Analytic Plan

Because of missingness at the adolescent, young adult, and midlife interviews, we employ multiple imputations in Stata/SE 11.2 to reduce biases associated with attrition. We impute 40 datasets as recommended by Graham.[54] To ensure the proper time order between adolescent risk factors (measured at age 16 years) and depression, we exclude the three men and 11 women who report onset of depression before age 17 years, resulting in a final population of 1,228.

To identify early life risk factors for major depressive disorder, we first examine the bivariate associations by gender between childhood and adolescent risk factors and whether cohort members meet criteria for lifetime depression at either the young adult or midlife interview using the multiply imputed data. While these models do not adjust for any covariates, by virtue of the cohort design they hold constant sex, age, race, and first-grade neighborhood. To determine the relative strength of predictors, we then conduct multivariate logistic regression including all risk factors that predict depression at the $p<0.05$ level in bivariate analyses.

RESULTS

Among the Woodlawn Study cohort, depression does not vary significantly by gender (p=0.30), as 16.2 % of men meet lifetime criteria for depression compared

TABLE 1 Population characteristics: a comparison of depressed and not depressed adult cohort members by gender ($N = 1,228$)

	Females ($N = 625$)			Males ($N = 603$)		
	Not depressed	Depressed	p value (logit)	Not depressed	Depressed	p value (logit)
Childhood risk factors						
Low birth weight	17.59 %	15.04 %	0.547	12.82 %	11.82 %	0.793
Maternal age (range, 13–46 years), mean	25.41	25.31	0.880	25.39	25.14	0.737
Parental death	12.37 %	7.49 %	0.174	11.92 %	10.98 %	0.800
Maternal education (range, 0–22), mean	10.20	10.76	0.030	10.58	10.55	0.916
Number of children in the household	4.28	4.44	0.532	4.30	4.50	0.474
Intelligence quotient (IQ) (range, 67–129), mean	96.34	96.37	0.973	94.62	94.33	0.859
Lower school expectations (range, 1–5), mean	2.14	2.44	0.004	2.18	2.30	0.280
Mother Symptom Inventory (MSI) (range, 0–43), mean	10.12	9.94	0.821	9.58	9.18	0.644
First-grade aggressive behavior (range, 0–3), mean	0.35	0.59	0.010	0.69	0.75	0.621
First-grade underachievement (range, 0–3), mean	0.57	0.66	0.421	0.80	0.75	0.648
First-grade shy behavior (range, 0–3), mean	0.37	0.51	0.108	0.57	0.61	0.749
Family history and contextual risk factors across childhood and adolescence						
Maternal history of psychological distress						
None	48.88 %	46.96 %	Ref	45.32 %	48.96 %	Ref
Childhood or adolescence only	39.76 %	32.75 %	0.582	39.03 %	35.46 %	0.549
Persistent	11.36 %	20.29 %	0.072	15.65 %	15.58 %	0.810
Poverty status						
Not poor	36.81 %	28.93 %	Ref	33.11 %	20.96 %	Ref
Childhood or adolescence only	32.51 %	30.58 %	0.548	34.77 %	36.12 %	0.171
Persistent poverty	30.69 %	40.49 %	0.062	32.13 %	42.92 %	0.028
Female-headed household						
Neither	50.09 %	41.73 %	Ref	46.30 %	37.61 %	Ref
Either childhood and adolescence	32.72 %	31.37 %	0.611	34.21 %	33.94 %	0.518
Both childhood and adolescence	17.18 %	26.90 %	0.042	19.49 %	28.45 %	0.069

TABLE 1 ***Continued***

	Females ($N=625$)			Males ($N=603$)		
	Not depressed	Depressed	p value (logit)	Not depressed	Depressed	p value (logit)
Adolescent risk factors						
Reading test score (24–137), mean	85.89	86.19	0.875	82.66	80.23	0.179
Physical health (range, 1–4), mean	1.30	1.32	0.735	1.32	1.26	0.492
Higher family communication (range, 1–6), mean	3.92	4.30	0.106	3.73	3.95	0.360
Family conflict (range, 1–6), mean	3.71	4.46	<0.001	3.41	4.05	0.002
Low parental supervision	15.77 %	18.77 %	0.606	24.12 %	38.14 %	0.027
Age of onset of marijuana use						
No use by age 16 years	48.33 %	41.52 %	Ref	34.05 %	22.70 %	Ref
Ages 13–16 years	48.63 %	50.69 %	0.488	56.90 %	61.60 %	0.165
Age 12 years or younger	3.04 %	7.78 %	0.107	9.04 %	15.71 %	0.072
Delinquent behavior (range, 0–69), mean	9.59	13.10	0.006	15.32	19.02	0.022
Depressed mood (range, 7–42), mean	13.84	15.42	0.075	13.39	14.68	0.166
Anxious mood (range, 7–42), mean	19.48	20.72	0.207	17.74	18.68	0.383

with 18.8 % of women (17.5 % of the total population). Table 1 shows the bivariate associations of a depression diagnosis and childhood and adolescent risk factors separately for men and women. For continuous variables, means are provided; for categorical variables, percentages are given. *P* values are based on unadjusted logistic regression. Odds ratios and 95 % confidence intervals for these bivariate analyses are summarized in Model 1, Table 2 for females and Model 1, Table 3 for males.

Predictors of Depression for Females—Bivariate Analyses. Childhood risk factors that predict a depression diagnosis for women include lower maternal education, mothers' lower aspirations for their daughters' school attainment, and more aggressive behavior as rated by first-grade teachers. Also, as shown in Table 1, depressed women are significantly more likely to have been raised across childhood and adolescence by single mothers than are non-depressed women. Depressed women also have greater family conflict and engage in more delinquent activities as teenagers than non-depressed women. While depressed women are somewhat more likely to have been persistently poor while growing up and to have had a mother with a long history of psychological distress, these associations are not statistically significant ($p=0.072$ and $p=0.062$, respectively).

TABLE 2 Predictors of major depressive disorder for women: logistic regression results ($N=625$)

	Model 1		Model 2	
	Odds ratio	95 % Confidence interval	Odds ratio	95 % Confidence interval
Maternal education	0.90*	0.82–0.99	0.92	0.83–1.02
Lower school expectations	1.43**	1.12–1.82	1.34*	1.02–1.76
First-grade aggressive behavior	1.38*	1.08–1.77	1.25	0.95–1.65
Female-headed household				
Neither	1.000		1.000	
Either childhood and adolescence	1.15	0.67–1.97	0.99	0.56–1.71
Both childhood and adolescence	1.88*	1.02–3.43	1.45	0.74–2.65
Family conflict	1.48**	1.22–1.81	1.40**	1.13–1.73
Delinquent behavior	1.05**	1.01–1.08	1.03	0.99–1.07

Model 2 also adjusts for all other variables in the table
*$p<0.05$, **$p<0.01$

While depressed women have a higher mean on the depressed mood assessment in adolescence, this variable is not a significant predictor of the development of major depression after age 16 years.

Predictors of Depression for Females—Multivariate Analyses. Table 2 provides the multivariate associations between childhood and adolescent risk factors and adult depression for women (see Model 2). When including all variables predicting adult depression at the $p<0.05$ level from bivariate analyses in a single model, low school aspirations and family conflict remain statistically significant. Women whose mothers had lower educational aspirations for them in first grade are more likely to develop depression than those aspired to go farther in school. Those with more

TABLE 3 Predictors of major depressive disorder for men: logistic regression results ($N=603$)

	Model 1		Model 2	
	Odds ratio	95 % Confidence interval	Odds ratio	95 % Confidence interval
Poverty status				
Not poor	1.00		1.00	
Childhood or adolescence only	1.65	0.81–3.36	1.58	0.76–3.28
Persistent poverty	2.12*	1.08–4.15	1.82	0.91–3.62
Parental supervision	1.94*	1.08–3.48	1.80	0.97–3.35
Family conflict	1.35**	1.12–1.64	1.29*	1.06–1.59
Delinquent behavior	1.03*	1.00–1.06	1.02	0.99–1.05

Model 2 adjusts for all other variables in the table
*$p<0.05$, **$p<0.01$

family conflict in adolescence are also more likely than those with less family conflict as teenagers to develop depression.

Predictors of Depression for Males—Bivariate Analyses. Tables 1 and 3 show the associations of childhood and adolescent risk factors with the development of depression for men. None of the childhood-only risk factors differentiates depressed and non-depressed men. Specifically, maternal age, death of a parent, IQ, low school expectations, and mothers' assessment of child's psychological symptoms, teachers' ratings of aggressive behavior, underachievement, and shyness do not predict adult depression for men, nor does maternal history of psychological distress. Instead, structural factors in childhood and adolescence predict depression. Specifically, men raised in persistent poverty are more likely than those who were not poor to develop depression. Men raised by a single mother from childhood through adolescence also have marginally higher rates of depression (28.45 % of depressed men vs. 19.49 %, non-depressed, $p<0.069$).

Multiple adolescent risk factors predict depression for men including family conflict, low parental supervision, and delinquent behavior. Similar to findings for women, depression for men is not related to reading test scores, physical health, family communication, or self-rated anxious or depressed mood in adolescence.

Predictors of Depression for Males—Multivariate Analyses. Multivariate analyses identify family conflict as the sole statistically significant predictor of male depression in a model that includes poverty throughout childhood and adolescence, parental supervision, and delinquent behavior (see Table 3, Model 2).

DISCUSSION

Rates of lifetime depression among the urban, African American community cohort comprising the Woodlawn Study are considerably higher than what has been reported by national studies. More than 17 % of the Woodlawn adults meet lifetime criteria for depression compared with 8.9 % reported for African Americans by the NESARC,[1] 7.5 % found in the National Health and Nutrition Examination Survey III,[56] 10.4 % for the National Survey of American Life (NSAL),[8] and 11.2 % found in the Behavioral Risk Factor Surveillance Survey (BRFSS).[57] While these studies do not stratify by both gender and race together, both Woodlawn men and women clearly have elevated rates compared with African Americans represented by national surveys. In fact, rates among Woodlawn participants are more comparable to rates found in White national samples (e.g., 17.9 % in NSAL, 17.2 % in BRFSS, 14.5 % in NESARC).

We also do not find the stark gender difference in rates of MDD that have been reported in the literature.[1,56,57] Instead, Woodlawn men have rates of depression (16.2 %) only slightly lower than Woodlawn women (18.8 %), demonstrating the magnitude of the problem of depression for African American urban men. Woodlawn men also have high rates of crime, homelessness, substance use, and unemployment,[58–61] all of which have been found to be associated with depression.[18,62–64] Therefore, we conclude that national studies underestimate the magnitude of depression in some African American communities.

Identifying early risk factors is a critical and complex first step in designing effective programs to prevent or reduce depression. However, any risk factors for

depression in men and women identified in the literature [36,37] are not found in this community sample of urban African Americans, including low birth weight, poor childhood health, parental death, poor academic achievement, maternal depressive symptoms, and early internalizing symptoms. Some researchers have suggested that because of the greater number of stressors in urban communities, girls and boys raised in these environments may become resilient to some of life's adversities.[65] Thus, it is critical that prevention programming for African Americans address risk factors relevant for this population.

In this study, reducing family conflict emerges as an important target for depression prevention for both men and women. Previous work suggests that conflict within families may lead youth to internalize these negative interactions, thus increasing vulnerability to depression.[44] Others have suggested that family conflict is not only a stressor, but also it can promote depression by reducing the stress-buffering effect of family warmth.[66] Clearly, providing support to low-income, urban families is critical for child well-being. It may also be that family conflict is the result of early aggressiveness (for females) and adolescent delinquent behavior (both males and females) and thus family conflict mediates problem behaviors.

While family conflict in adolescence predicts depression for both men and women, none of the childhood-only measures from age 6 years predict depression for men. Thus, more work is necessary to determine if there are factors from childhood that can identify urban African American men who are at increased risk of the development of depression in adulthood. For women, it is interesting that mothers' low aspirations for first-grade daughters' school attainment predicts the development of depression 10 or more years later. It is important to note that these low school aspirations do not seem to reflect poor academic ability since IQ, teacher's ratings of achievement, and standardized reading scores do not differentiate depressed and non-depressed girls. Nor were they related to mother's own mental health (data not shown). Instead, these low aspirations may represent a sense of hopelessness among some poor urban mothers for social mobility for their daughters in particular, which then may set these daughters on a pathway to later depression.

Another important marker for girls is aggression demonstrated as early as age 6 years. In the Woodlawn study, we have found that first-grade aggressive behavior has been linked to poor outcomes in adulthood for both boys and girls, including substance use and violence.[48,58,59,67,68] In this study, we find it also predicts depression for girls, consistent with previous research on aggression and depression in girls,[68,69] though this statistically significant association disappears when other behavioral and structural risk factors, such as delinquent behavior and family conflict, are included in the model. Thus, while we often think of aggressive behavior as being more relevant for boys, it may be that early aggressive behavior is a particularly important marker of later problems for girls. It is interesting that for both males and females, the consequences of conflict and aggressive behavior seem more important for later depression than the internalizing symptoms and shy behaviors that are more consistently thought of as leading to depression. Considering the significant toll that depression takes on lives, we recommend targeting urban, African American girls who display aggressive behavior in first grade for depression preventive interventions that address family conflict and individual risk factors.

Despite the considerable strengths of this study–longitudinal design, under-investigated urban African American population, recruitment of an entire commu-

nity cohort, use of a standardized assessment of depression, and data gathered from multiple sources (self-reports, mothers, and teachers) spanning 35 years, we must discuss three important limitations. First, our measures of family history are limited. We were unable to assess the impact of paternal history of depression. Fathers were assessed only by mothers and only if they were present in the household; 57.2 % of households had no biological father present. Also, mothers' self-reports of depressed mood are not a diagnosis of depression, but the reliability and predictive validity of these two items has been demonstrated.[53,55] In our prior work, these items predicted earlier onset of depression in daughters among Woodlawn participants;[55] however, in the current study, maternal history does not predict depression diagnosis once adolescent onset is omitted to allow appropriate time order with adolescent predictors, and data now are extended to age 42 years. Second, the generalizability of these findings should be tested with other urban, African American communities to determine whether our findings are confirmed or if, instead, factors found in predominantly White samples (but not among Woodlawn participants) are confirmed in other African American urban community populations. That knowledge is essential to inform the development of depression programming specific to and thus potentially more effective in urban African American communities. Third, in these analyses, we have not explored the potentially complex mediating mechanisms, and this is an important area for future work.

Depression is expected to become the most prevalent cause of disability worldwide within the next two decades according to the World Health Organization.[7] Despite the extreme, negative impact of depression on individuals, families, and society, the literature continues to reveal considerable confusion regarding prevalence and risk factors, particularly for African American men and women. Clearly, this problem must be informed by well-designed longitudinal research in well-defined populations.

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