Journal of Urban Health: Bulletin of the New York Academy of Medicine, Vol. 85, No. 3
doi:10.1007/s11524-008-9265-z

Urban Young Women's Experiences of Discrimination and Community Violence and Intimate Partner Violence

Ann Stueve and Lydia O'Donnell

ABSTRACT *This paper examines the interrelationships between urban young adult women's experiences of discrimination and community violence and their reports of involvement in intimate partner violence (IPV). We explore whether such experiences are independent risk factors for IPV victimization and perpetration, even when accounting for aggressive behaviors and related risk taking, including drinking and sexual initiation, during early adolescence. We use data from the Reach for Health study, in which a sample of 550 urban African American and Latina women was followed from recruitment in economically distressed middle schools into young adulthood, over approximately 7 years. At the last wave, respondents were 19–20 years old; 28% were raising children. More than 40% reported experiencing at least one form of racial/ethnic discrimination sometimes or often over the past year. About 75% heard guns being shot, saw someone being arrested, or witnessed drug deals within this time period; 66% had seen someone beaten up, 26% had seen someone get killed, and 40% knew someone who was killed. Concurrent reports of lifetime IPV were also high: about a third reported being a victim of physical violence; a similar proportion reported perpetration. Results of multivariate regression analyses indicate that discrimination is significantly associated with physical and emotional IPV victimization and perpetration, controlling for socio-demographic characteristics, including ethnic identity formation, and early adolescent risk behaviors. Community violence is correlated with victimization, but the relationship remains significant only for emotional IPV victimization once early behaviors are controlled. Implications for violence prevention are discussed, including the importance of addressing community health, as well as individual patterns of behavior, associated with multiple forms of violence victimization and perpetration.*

KEYWORDS *Domestic violence, Community health, Community violence, Discrimination, Intimate partner violence, Urban, Female*

INTRODUCTION

Intimate partner violence (IPV) has been associated with economic hardships, including the chronic stressors of living in households and neighborhoods with high levels of disorder and disrepair and underemployment.[1–3] While violence in all its

Stueve is with the Health and Human Development Center, 96 Morton Street, 7th Floor, New York, 10014, New York NY, USA.
O'Donnell is with the Health and Human Development, Education Development Center, Newton, MA, USA.
Correspondence: Ann Stueve, PhD, Health and Human Development, Education Development Center, 96 Morton Street, 7th Floor, New York, NY 10014, USA. (E-mail: astueve@edc.org)

forms is experienced at every socioeconomic level, residents of communities with poor economic opportunities and outlooks bear the burden of high rates of structural violence, including racism and discrimination, predatory violence, and relationship violence.[4–6] According to the National Crime Victimization Survey, women living in families with the lowest annual household incomes were nearly seven times more likely to be victimized by intimate partners than those living in homes with the highest earnings.[7] Multiple studies have found a positive association between household income and the probability of partner violence.[8,9]

This paper focuses on relationship violence in the lives of young African-American and Latina women who grew up in some of the most economically distressed communities of New York City during a time when rates of community violence were at a peak.[10] As they enter the life period of emerging adulthood,[11] when the prevalence of IPV rises,[12,13] many have remained in the neighborhoods where they lived as children, where they may have family and other sources of support but where their prospects are shaped by restricted housing, the lack of good jobs, and limited higher education.[14] Although city crime rates have dropped overall since they were children, most continue to live in neighborhoods with disproportionately high levels of violence.

Compared to those in more affluent circumstances, young women in these challenging environments are much more likely to become mothers before the age of 21 and be raising children as single parents.[15] With few opportunities to gradually grow into the responsibilities of adulthood, they face multiple interrelated individual, familial, community, and structural risk factors for relationship violence.[16,17]

At an individual level, numerous risk factors for relationship violence have been identified. Risk taking during adolescence, including drinking, early sexual initiation, fighting, and other aggression, shapes patterns of personal and relationship behaviors that place young women at increased risk of ongoing violence, including IPV, as well as other physical and mental health problems.[18–20] For example, in previous analyses, we have found that early substance use is a significant risk factor for women's subsequent IPV involvements. Early sexual initiation appears to be a stronger predictor for men, although for women, too, it is related to elevated levels of sexual risks through adolescence and into young adulthood. These risks include more sexual partners and inconsistent condom use that, in turn, increase potential IPV exposures, as also shown in other studies.[21,22] Further, middle school aggression predicts lifetime IPV victimization and perpetration among young adult men; among women, early adolescent aggression is associated with perpetration, although not with victimization.[23]

Analyses that distinguish between different types of IPV victimization and perpetration, including physical acts and emotional threats and terrorism, are important for understanding the contexts in which such violence occurs, as well as its correlates and consequences. It can be controversial to cast women in roles as both perpetrators and victims of IPV, yet most data collected in the USA show that men and women report relatively similar levels of behavior, although, unquestionably, the severity of violence perpetrated by men is greater.[24–28] Men hit harder, with more deadly consequences; women often report they have used force in self-defense but may underestimate the potential risk of being seriously injured.[29–31] Reflecting such gender differences, one study has found that norms about women's violence against male intimates, compared to men's violence against female intimates, are less harsh and more likely to take contextual factors into account.[32] Aggression between heterosexual partners is often interactive and reciprocal,[33,34] and there are strong

associations for both men and women between IPV victimization and perpetration.[35] In addition to acts of physical violence, both genders can be victims or perpetrators of emotional IPV, a term that incorporates such behaviors as threatening, trying to control, or humiliating a victim and is linked to both physical and sexual abuse, again with more serious consequences for women.[36]

To inform prevention efforts, it is important to look beyond individual and family behavior patterns.[37] It has been argued, for example, that a culture of violence is a contributing but a less well-understood factor for increased IPV.[38] Stated simply, in settings where solving problems through aggression becomes normative, patterns of violence witnessed at a community level may get repeated in domestic relationships and vice versa. Herrenkohl et al., examining youth violence trajectories, found that both individual involvement in earlier forms of violence and characteristics of the surrounding community are related to IPV perpetration, and the authors underscore the need to reduce risks both within and across domains of influence.[39]

Although structural and community health factors may be critical links in the chain of violence that includes IPV, they have received relatively little attention, especially in relation to the lives of young minority women coming to adulthood in vulnerable environments.[40] In these analyses, we consider two such factors: young women's experiences of racial/ethnic discrimination and their witnessing of community violence. A growing body of research addresses discrimination and its impact on health as well as behavior.[41] Much of this work has focused on personally experienced or perceived discrimination and its impact on receipt of health services.[42,43] Discrimination has also been examined as a chronic stressor influencing mental health, including depression and feelings of anger [44–46] and, more recently, on physical health, where it has been linked to hypertension and other somatic illnesses as well as behaviors, although findings across studies have been inconsistent.[47,48] One reason posited for these inconsistencies is the role of potential protective factors, including a strong sense of ethnic identity, which may mitigate against negative consequences when discrimination is experienced.[49,50] Thus, it is important to consider whether negative experiences are tempered by such personal resiliencies. In several cross-sectional studies, women have reported higher levels of perceived discrimination then men and thus may be more likely to experience negative health repercussions.[51] Indeed, Clark et al. argued that racial discrimination, as a source of both chronic and acute stress leading to negative health consequences, might account for some of the health disparities between racial/ethnic minority women and white women.[52]

Ongoing exposure to community violence can also be viewed as a chronic stressor, with potential negative consequences for mental and physical health. Exposure to community violence incorporates acts of interpersonal violence, such as sounds of bullet shots and fights, committed by individuals who are not intimately related to the witness, as well as a more general disorder, such as the presence of drug deals and gangs. Because of their potential vulnerability, the greatest attention has been on the negative consequences of such violence on children's development.[53–56] In a study focusing on youths' academic and health outcomes, exposure to violence was a distinguishing feature of youth who were identified as the most vulnerable; however, it also characterized some youth who were most resilient.[57]

Limited research on the effects of community violence exposure has extended beyond the childhood years into the period of emerging adulthood or focused on the domain of IPV. One longitudinal study following a sample of youth recruited from

urban, socio-economically disadvantaged communities provides evidence that the impact of violence exposures persists into adulthood and is related to a range of internalizing and externalizing problem behaviors, including depressive symptoms, antisocial behavior, and drug use.[58] In a cross-sectional study of college undergraduates, Brady has found that lifetime community violence exposure is associated with higher reports of substance use and sexual risk taking.[59,60] In an exploratory study of urban adolescent mothers, current violence exposure among urban young mothers, moderated by social support, is a factor increasing risk of homelessness.[61] As with discrimination, individual resiliencies may mediate the negative consequences of exposures.[62] While suggesting the need to better understand the negative consequences of community violence, these studies have not examined whether such exposures are related to the partnership violence that typically gets played out in the privacy of homes.

In the following, we use data from the Reach for Health (RFH) longitudinal study that has followed a large sample of women from middle school into young adulthood. We ask the questions: What are the interrelationships between urban young adult women's current experiences of discrimination and community violence and their reports of involvement in IPV? Are such experiences independent risk factors for IPV victimization and perpetration, when accounting for the high levels of aggressive behaviors and related risk taking, including drinking and sexual initiation, they reported during early adolescence?

MATERIALS AND METHODS

The Reach for Health Study

In 1994, the RFH study was initiated in Brooklyn, NY, as one of seven collaborating partners in a multisite research agreement (Research on Sexually Transmitted Diseases, Violence, and Pregnancy Prevention Project) supported by the Office of Minority Health and National Institute of Child Health and Human Development to explore strategies for promoting health and reducing risk in economically disadvantaged communities. Youth attending seventh or eighth grade at three public middle schools during the 1994–1995 and 1995–1996 school years were eligible for participation. Students who completed an eighth grade survey and remained in the city were eligible for high school and subsequent follow-up. Through high school, information was collected on risks associated with sexual activity, substance use, and interpersonal youth violence. The young adult survey, conducted when participants were about 19–20 years of age (2002–2003), expanded the focus to include IPV. Recruitment and study procedures are described more fully elsewhere.[63]

Sample

Three middle schools provided access to a sample of urban young adolescents, more than 80% of whom were eligible for free lunch programs. Each school was located in an economically disadvantaged area with high rates of teen pregnancy, human immunodeficiency virus/sexually transmitted disease infection, violence-related injuries, and other sources of morbidity. At each survey administration, all students were invited to participate. Written parental permission and youth assent were obtained. Parental consent was provided for 89% of eligible students; completed baseline surveys were obtained from more than 95% of those with parental permission. Tracking information obtained during the high school surveys was used

to contact participants as young adults. All surveys have been administered as paper-and-pencil questionnaires. As participants have gotten older, surveys have been administered either in small groups or individually at locations where privacy could be assured, including former middle and high schools, as well as the study office.

These analyses include data from the 550 women who completed eighth grade and young adult surveys. Of the 768 middle school women who completed eighth grade surveys and lived in New York City during the initial high school survey and thus comprise the RFH longitudinal population, 71.6% completed a young adult survey.

Attrition analyses indicate few differences between those who completed a young adult survey and the original larger pool of eighth graders, including about 90 girls without New York City addresses prior to the high school survey. Differences were not significant by race/ethnicity, eighth grade aggression, sexual initiation, or substance use. Girls who were older (14 years and above) in eighth grade were less likely to be resurveyed.

Measures

Measures of victimization and perpetration of partner violence were based on the Conflict Tactics Scale (Version 1) with a focus on content recommended by Straus for assessment of more serious violence.[64,65] For physical IPV victimization, respondents were asked if anyone that they had dated and/or had sex with had done the following: (1) hit, punched, or slapped you; (2) thrown something at you or hit you with an object; (3) pushed, grabbed, or shoved you; (4) pulled your hair, scratched, or bit you; or (5) kicked or choked you. Four items assessed weapon-related victimization: (6) threatened you with a knife, (7) threatened you with a gun, (8) used a knife against you, and (9) used a gun against you. Respondents indicated whether this happened once, more than once, or not at all. The same set of items assessed perpetration, with the lead: Have you ever done the following things to someone you were dating and/or having sex with? Two questions addressed sexual violence, i.e., Has your partner forced or threatened to hurt you to have oral, anal, or vaginal sex, or do other sexual things that you did not want to do? These items were reworded for perpetration.

Emotional IPV victimization was measured by four items: has your partner made your family/friends worry about you; threatened to hurt you or someone you cared about (like a child, friend, family member, or pet); said they would hurt you or themselves if you tried to leave or break up with them; been jealous or possessive of you, checked up on you, or refused to let you go out with your friends? Emotional perpetration rephrased the last three stems, posing the respondent as the potential perpetrator.

Past year reports of discrimination and community violence were also obtained during the young adult survey wave. Eight items assessed recent discrimination, using similar stems and four-point response categories to the Experiences of Discrimination measure of Krieger et al., with items adapted to be relevant to the developmental stage and involvements of study participants.[66] These items were introduced by the statement: "Some people say these things happen to them because of their race/ethnicity. Others do not. We want to know if these things have happened to you in the past year." Experiences included being called bad names, being followed by security guards when shopping or ignored by cashiers and clerks, having people talk down to me or not think I am smart, and being followed,

arrested, or stopped by police. Responses to items were summed for the discrimination scale, with a range of 8–32, mean 13.33, SD 5.48, and Cronbach's alpha = 0.90.

Community violence experiences were assessed for the same 12-month period and included: hearing guns being shot, seeing someone arrested, seeing drug deals, seeing someone beaten up, someone get killed, or knowing someone well who got killed. Possible responses ranged from never to almost every day. Items were summed to form the community violence scale, with a range of 6–30, mean 16.06, SD 6.73, and Cronbach's alpha = 0.85. In addition, because of its potential protective role in reducing the impact of experiences of discrimination and community violence, ethnic identity formation was assessed using seven items drawn from Phinney[67]; individual items were summed (range 7–35, mean = 21.39, SD 7.24, Cronbach's alpha = 0.853). For correlational and regression analyses, scale scores for discrimination, community violence, and ethnic identity formation were recoded into quintiles to reduce skew and provide a consistent metric for the three constructs.

Early risk behaviors were assessed in eighth grade. Aggressive behaviors were assessed by five items: (1) Did you tell someone you were going to beat them up, not including your brothers and sisters or other children you live with? (2) Were you in a physical fight (a fight with hitting, kicking, or pushing)? (3) Did you carry a knife or razor (including a box cutter)? (4) Did you carry a gun? (5) Did you tell someone you were going to cut, stab, or shoot them? Response options included two "no" categories ("never" engaged in the behavior and "no" had not engaged in the behavior during the specified time period) and several "yes" categories (e.g., once, twice, about once a month). Responses were collapsed into yes/no categories and summed to calculate a score for eighth grade aggressive behavior. The range of scores is 0–5 (mean = 1.08, SD = 1.18; Cronbach's alpha = 0.59). The lower alpha for this measure could be due to the number of items, the fact that responses were skewed toward "no," and the relatively low correlations among items (e.g., most girls who fought did not carry a weapon). The question "Have you ever had sexual intercourse? This is sometimes called 'going all the way'" was used to assess early sexual initiation, and coded as 0 for no and 1 for yes. Similarly, alcohol initiation was assessed with a single item. Missing values at both survey waves were typically 5% or less and mean substitution was used.

Analysis

Descriptive analyses are presented on participants' experiences of discrimination and community violence, as well as reports of lifetime IPV victimization and perpetration. Because very few respondents experienced sexual IPV without other forms of partnership violence, multivariate analyses focus on the outcomes of physical/weapons-related and emotional IPV victimization and perpetration. Participants who endorsed any item for each type of violence received a score of 1; all others received a score of 0. Logistic regressions of IPV physical and emotional victimization and perpetration on racial/ethnic discrimination, community violence, and ethnic identity formation were performed testing three models. In model 1, discrimination and community violence were entered as predictors of IPV, along with the potential protective factor, ethnic identity formation. In model 2, risk behaviors measured at eighth grade (aggressive behaviors, alcohol use, lifetime sex) were added to the regression equation. Model 3 then adds controls for sociodemographic characteristics, including ethnicity, age, education, and parenting status. Analyses were conducted using SPSS version 13.

RESULTS

As shown in Table 1, the majority (67.3%) of respondents were 20 years of age or younger, and most (80.4%) described themselves as African American or black. About a quarter (26.5%) had not graduated from high school. Only 10% had current household incomes above $20,000/year; 73% reported household incomes of less than $10,000. Twenty-eight percent were currently raising children. Not shown, 82.4% lived with a parent or other relative, and most (73.7%) had lived in the same neighborhood for more than 5 years. Over half (51.7%) reported they had been pregnant at least once, and 20% had been pregnant multiple times; 21% reported six or more lifetime partners. Only nine women were married; 17.4% were currently living with a partner, half of whom had been in this arrangement for less than 1 year.

Table 2 provides young women's reports of lifetime IPV victimization and perpetration. Almost half (47.5%) say they have experienced one or more types of victimization, and 38.5% report one or more forms of perpetration. While self-reports of levels of physical victimization and perpetration are the same (35.3%), women say they are more likely to be the victims than perpetrators of emotional and sexual IPV. Not shown, about 8% of the sample reported that they were the victims of physical, emotional, or sexual IPV at a time when they were pregnant. Those raising children were more likely to report physical but not emotional or sexual victimization than those who were not (42.9% compared to 32.3%, $p<0.05$). All but 13 of the 49 women (26%) who reported sexual violence also reported physical victimization; because of this small number, this was not considered as a separate outcome in the multivariate analyses described below.

Table 3 provides descriptive accounts of women's recent (last year) experiences of discrimination and community violence. About one third of the participants report that they have been "followed by security guards" or that others have seemed "surprised to find out how smart I am." Of the participants, 10.1% report they have "been followed, stopped, or arrested by police" and 13.7% say they have "been called bad names." One in five reports experiences such as clerks/cashiers ignoring them. Levels of witnessing violence in the last year are strikingly high: 79.5% of women say they have heard guns being shot, 77.6% have seen someone arrested, 75% have seen drug deals, and 66.2% have seen someone beaten up. About one in

TABLE 1. Social and demographic characteristics of participants completing middle school and young adult surveys ($n=550$)

Characteristics	Percent
Age	
<20	67.3
20+	32.7
Race/ethnicity	
Black/African American	80.4
Hispanic/Latino	13.8
Black and Hispanic	3.1
Other/missing	2.7
Education completed	
<High school	26.5
High school/GED	46.4
>High school	27.1
Currently raising children	28.0

TABLE 2. Percentages of women reporting lifetime intimate partner violence victimization and perpetration ($n = 550$)

	Percent yes
Lifetime victimization	
Physical	34.2
Weapon-related	7.6
Physical and/or weapon-related violence	35.3
Sexual	8.9
Emotional	32.9
One or more types of victimization	47.5
Lifetime perpetration	
Physical	34.5
Weapon-related	6.7
Physical and/or weapon related	35.3
Sexual	3.8
Emotional	11.8
One or more types of perpetration	38.5

four have seen someone killed, and 39.7% say they have known someone well who was killed.

Table 4 provides information on the risk behaviors reported by participants when they were in eighth grade or about 12–14 years of age. As shown, 31.8% reported two or more types of recent aggressive behaviors, including fighting and weapon carrying, at the time of the middle school survey. At this time, 21.5% reported they had sexual intercourse, and 43.1% reported initiation of alcohol use.

TABLE 3. Women's experiences of discrimination and community violence during young adulthood ($n = 550$)

Experiences	Response
Discrimination scale: range, 8–32, mean 13.33, sd (5.48), Cronbach's alpha = 0.90	
Discrimination experiences: In the past year, how often have these things happened to you because of your race/ethnicity	Percent responding sometimes–often
Been called bad names	13.7
Followed by security guards	33.7
Others surprised to find out how smart I am	34.0
Others talk down to me	16.8
Teachers/employers think I am not smart	15.5
Cashiers/clerks have ignored me	18.3
Been followed, stopped, or arrested by police	10.1
Know people of my race/ethnicity who have been beaten up	22.5
Community violence scale: range, 6–30, mean 16.06, sd (6.73), Cronbach's alpha = 0.85	
Community violence experiences: Over the past year, how often have you	One or more times
Heard guns being shot	79.5%
Seen someone arrested	77.6%
Seen someone get killed	26.2%
Seen drug deals	75.0%
Seen someone beaten up	66.2%
Known someone well who was killed	39.7%

TABLE 4. Adolescent risk behaviors reported by study participants at the 8th grade survey assessments ($n=550$)

	Percent yes
Threatened to fight, past 3 months	41.3
Been in recent fight, past 3 months	31.6
Carried knife, past 3 months	20.0
Carried gun, past year	2.9
Threatened another with weapon, past year	11.8
High/middle school aggression (2 or more behaviors)	31.8
Lifetime report of alcohol use	43.1
Past month report of alcohol use	16.9
Lifetime report of sexual intercourse	21.5
Recent sex (past 3 months)	16.0

In uncontrolled bivariate analyses, discrimination and community violence are positively correlated (Pearson correlation, $r=0.23$, $p<0.001$). Higher scores on ethnic identity formation are correlated with higher reports of discrimination ($r=0.17$, $p<0.001$), but the association with community violence is not significant ($r=-0.03$, not significant). In cross-tabulations, higher middle school aggression is positively associated with young adult reports of community violence ($p<0.001$), but not with discrimination or ethnic identity formation. Early sex and alcohol initiators are also more likely to report higher levels of community violence ($p<0.05$); in addition, early drinking is associated with higher reports of discrimination ($p<0.05$).

As expected, there are significant bivariate relationships between adolescent risk behaviors and subsequent IPV. For example, 45.8% of early sexual initiators report lifetime physical victimization, and 46.6% report lifetime physical perpetration, compared to about 32% of noninitiators ($p<0.05$). They are also more likely to report sexual victimization (17.8% of early sex initiators compared to 6.5% of delayers, $p<0.001$) and somewhat more likely to report emotional perpetration (40.7% versus 30.8%, $p<0.05$). Early alcohol initiation is significantly associated with physical victimization and perpetration (e.g., 47.3% of early drinkers report victimization compared with 26.2% of others, similar to differences in reports of perpetration, $p<0.001$). While differences on all forms of IPV do not necessarily reach significance, it is notable that both early sex and alcohol initiators report higher levels of every type of IPV. Early aggression is associated with both physical perpetration ($p<0.001$) and victimization ($p<0.01$) as well as emotional perpetration ($p<0.05$).

Model 1 in Table 5 provides results of logistic regressions of IPV victimization and perpetration, respectively, on discrimination and community violence, accounting for ethnic identity formation. As shown, when entered without prior behaviors or controls, the first two factors are significantly associated with IPV; they remain independent predictors of IPV victimization when early risk behaviors are entered into the equation. However, only discrimination remains significant for perpetration. In addition, early alcohol use is strongly correlated with physical IPV victimization, while both early alcohol and early aggression are predictors of physical IPV perpetration. In the final model, socio-demographic factors are added. In this fuller model, discrimination (odds ratio [OR] 1.37, confidence interval [CI] 1.20, 1.57, $p<0.001$), early alcohol use (OR 2.26, CI 1.53, 3.34, $p<0.001$), and low

TABLE 5. Associations between ethnic identity formation, perceived discrimination, and witnessing community violence in young adulthood and lifetime intimate partner violence victimization, controlling for eighth grade risk behaviors ($n=550$ women)

	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
	Odds ratio (confidence interval)			Odds ratio (confidence interval)		
A	Physical IPV victimization			Emotional IPV victimization		
Discrimination	1.34 (1.17, 1.52)****	1.34(1.17,1.53)****	1.37 (1.20,1.57)****	1.20 (1.05, 1.36)***	1.20 (1.05, 1.37)***	1.22 (1.07, 1.39)***
Community violence	1.24 (1.09, 1.42)***	1.17 (1.02, 1.35)**	1.13 (0.98, 1.31)*	1.30 (1.14, 1.49)****	1.29 (1.12, 1.48)****	1.26 (1.09, 1.45)***
Ethnic identity	1.03 (0.90, 1.17)	1.02 (0.90, 1.17)	1.07 (0.93, 1.22)	1.00 (0.88, 1.14)	1.00 (0.88, 1.14)	1.03 (0.90, 1.18)
Eighth grade aggression		1.32 (0.88, 2.00)	1.31 (0.86, 1.98)		1.01 (0.67, 1.52	1.05 (0.69, 1.58)
Eighth grade alcohol use		2.14 (1.46, 3.15)****	2.26 (1.53, 3.34)****		1.03 (0.70, 1.51)	1.04 (0.71, 1.54)
Eighth grade lifetime sex		1.31 (0.83, 2.07)	1.19 (0.74, 1.90)		1.43 (0.91, 2.25)	1.42 (0.89, 2.26)
Hispanic vs. other			1.36 (0.83, 2.22)			1.13 (0.70, 1.84)
Age			1.09 (0.72, 1.62)			1.08 (0.73, 1.60)
Education			1.68 (1.04, 2.69)**			1.71 (1.07, 2.73)**
Parenting			1.32 (0.86, 2.04)			0.78 (0.51, 1.20)
B	Physical IPV Perpetration			Emotional IPV Perpetration		
Discrimination	1.26 (1.11,1.44)****	1.27 (1.11, 1.45)****	1.29 (1.13,1.47)****	1.24 (1.02, 1.50)**	1.24 (1.03, 1.50)**	1.26 (1.04, 1.53)**
Community violence	1.21 (1.06, 1.38)***	1.13 (0.98, 1.30)*	1.08 (0.94, 1.25)	1.22 (1.00, 1.48)**	1.14 (0.93, 1.40)	1.10 (0.90, 1.36)
Ethnic Identity	1.04 (0.91, 1.18)	1.04 (0.91, 1.19)	1.09 (0.95, 1.24)	0.95 (0.79, 1.15)	0.95 (0.79, 1.15)	1.02 (0.84, 1.23)
Eighth grade aggression		1.51 (1.01, 2.26)**	1.54 (1.02, 2.32)**		1.61 (0.92, 2.84)*	1.68 (0.95, 2.99)*
Eighth grade alcohol use		1.69 (1.15, 2.47)***	1.76 (1.20, 2.58)***		1.12 (0.64, 1.95)	1.18 (0.67, 2.08)
Eighth grade lifetime sex		1.44 (0.92, 2.25)	1.34 (0.84, 2.12)		1.37 (0.74, 2.54)	1.17 (0.61, 2.23)
Hispanic vs. other			0.97 (0.59, 1.59)			1.04 (0.51, 2.11)
Age			1.09 (0.74, 1.62)			0.58 (0.31, 1.07)*
Education			1.98 (1.24, 3.17)***			3.30 (1.41, 7.73)**
Parenting			1.00 (0.65, 1.53)			1.14 (0.64, 2.05)

*$p<0.10$, **$p<0.05$, ***$p<0.01$, ****$p<0.001$

education (OR 1.68, CI 1.04, 2.69, $p<0.05$) are independent predictors of physical IPV victimization. By contrast, both discrimination (OR 1.22, CI 1.07, 1.39, $p<0.01$) and community violence (OR 1.26, CI 1.09, 1.45, $p<0.01$) are predictors of emotional IPV victimization. As shown in Table 5B, higher experiences of discrimination are related to reports of both physical (OR 1.29, CI 1.13, 1.47, $p<0.001$) and emotional (OR 1.26, CI 1.04, 153, $p<0.05$) IPV perpetration. Those who engaged in higher levels of early aggressive behaviors (OR 1.54, CI 1.02, 2.32, $p<0.01$) or early drinking (1.76, CI 1.20, 2.58) were more likely to report physical but not emotional perpetration.

DISCUSSION

Extending the lens beyond individual and family predictors of relationship violence, we examine how structural and community violence contribute to high levels and different forms of IPV victimization and perpetration in young women's lives. Our findings are consistent with several smaller, cross-sectional studies that have found that living in neighborhoods characterized by high levels of social disorder and community violence is associated with increased rates of IPV. They also take a step beyond these studies by controlling for patterns of behaviors, including early sexual initiation, early drinking, and aggression, established in early adolescence.

At a descriptive level, women's reports underscore the extent to which violence in many forms is commonplace in the lives of young women who grow up and remain in economically distressed settings. While it is true that relationship violence can occur in affluent as well as impoverished households, it is also clear that the environmental context influences what goes on in the privacy of homes. The sheer extent of different forms of violence reported by these women, who are still on the cusp of adulthood, should compel both policymakers and the public to take larger, community-wide steps to address not only individual and family risk factors but also broader social contexts of violence and discrimination.

Hardly out of their teens, about half of the participants in this longitudinal study report they have been victims of some form of IPV, and over one in three say they have perpetrated such violence. Figures from other studies vary, depending upon the types of violence included, timeframes assessed, and population characteristics.[68] Those who were raising children—already one quarter of the sample—are more likely to report physical victimization and as likely to report emotional or sexual victimization as those who were not, with implications for the multigenerational transmission of violence as a way of dealing with relationship and domestic problems. Not unlike their more privileged counterparts, few women were married, and less than 10% had been living with a partner for more than a year. Unfortunately, given the clear relationship of early behaviors with IPV involvements and the violent contexts in which they find themselves, it is likely that they will bring similar patterns of victimization and perpetration to new relationships. Thus, they are at ongoing risk for engaging with new partners in ways that could lead to more escalating violence as well as increase their exposures to other negative consequences, including sexually transmitted infections.

By contrast with their personal relationships, residential stability is quite high: Most had lived in their neighborhood for at least 5 years and many for their whole lifetime. This may be a mixed blessing, however, given the violence that they experience not just in their relationships but in their communities. Perhaps even more striking than the prevalence of IPV in the sample is the community violence

exposure so many women report, especially at a time of declining and unusually low crime rates throughout New York City. In the neighborhoods where many are living, social disorder still prevails: about three quarters of women report that in the last year, they have heard guns shots and witnessed arrests, drug deals, and physical fights; 25% say they have seen someone killed. Our findings are illustrative of the violence, both at the community level and within relationships, that continues within pockets of poverty. Indeed, some have argued that such violence has become even more concentrated in specific areas, even as strides are being made elsewhere.[69]

By contrast to their accounts of community violence, women's reports of discrimination are not as high; between 10% and 34% of participants report some incident where they felt they were discriminated against sometimes or often because of their race or ethnicity. This may reflect the fact that many of their interactions are with people who share similar backgrounds. It may also explain why, when we examined whether ethnic identity formation was a correlate of IPV, we found that it was not, even at a bivariate level. Having a strong sense of ethnic identity may be more protective the more one interacts outside one's own community; similarly, experiences of discrimination may be heightened the more one encounters others not like themselves. For young women who live in relatively segregated neighborhoods and who have few employment or further education opportunities elsewhere, the extent of racially charged encounters might be limited. It is also possible, with the growing diversity of urban centers like New York City, city dwellers have become less openly discriminatory.

Looking more closely at differences among women, those who report both more experiences of discrimination and higher levels of community violence exposure are more likely to report multiple types of IPV. Indeed, while overall levels of reported discrimination are low, discrimination is a predictor of physical and emotional IPV victimization, even after controlling for early adolescent risk behaviors and socio-demographic differences. Discrimination is also a significant predictor of both forms of perpetration. By contrast, community violence, while correlated with IPV, remains an independent predictor only of emotional IPV victimization once other factors are accounted for.

Several interpretations of these results are possible. It could be that overall levels of community violence within this sample are too high for attributing differences, once other factors are considered. While community violence and IPV are correlated in many instances, the association may be driven by early risk behaviors and life contexts, including earlier exposures to community violence not examined here. Pathways of how early life experiences, including factors at a structural and community level, drive this association merit further attention in future studies.[70]

A number of limitations to the current analyses must be noted. First, as with any longitudinal sample, there was some loss to follow-up, although the considerable effort put into tracking respondents over about a 7-year period has kept attrition to a reasonable level. More than 70% of women surveyed as young adolescents were recontacted during young adulthood. Measurement issues and potential social desirability bias must also be considered. We obtained women's accounts of their experiences of discrimination and violence (as well as other self-reported behavior). The extent to which such accounts coincide with "reality" has been debated. However, given the relationship of reports of these experiences with data collected on risk behaviors years before, as well as with current reports of IPV, these perceptions or accounts of experiences are meaningful, whatever they definitively represent. We note that it goes beyond this paper to consider severity of each type of IPV involvement, although in a previous report, we found similar relationships of

both early adolescent behaviors and socio-demographics to less and more severely consequential violence.[23] We also are unable to establish the temporal sequence of discrimination experiences, community violence, and IPV, given that assessments of these constructs were obtained only in young adulthood. However, we do consider early adolescent risk behaviors, including aggression, and their correlations with subsequent reports of partner violence. Given our focus on multiple forms of violence, we do not explore the mechanisms through which early risk behaviors, community violence, and discrimination may influence IPV. Identifying these mechanisms is an important step for future studies.

As Johnson and Ferraro pointed out, research over the last decade helped clarify distinctions between different forms of IPV and highlighted the importance of understanding the different contexts in which such violence occurs.[71] Coordinated community response efforts were informed by this work and as a result are better prepared to work with victims and perpetrators, male and female, to promote victim safety and reinforce abuser accountability. More recently, in studies such as this, greater emphasis has been placed not only on understanding the individual and relationship factors that lead to violence but also how the larger social context—community-level factors—contributes to ongoing disparities.

The challenge that remains is finding ways for coordinated community responses, which have been successfully implemented to address IPV, to also address social and community health. Prevention programs and risk reduction interventions are often limited to addressing individual and family factors that place young women and their partners at risk. Their single-problem focus may overlook the interconnections among different forms of violence and how patterned responses to stressors—learned inside and outside of the home and over time—lead to ongoing risks. Ultimately, studies such as this point to the importance of addressing the interrelationships of structural, community, and relationship violence and the context of violence that continue to shape many urban women's lives.

ACKNOWLEDGMENTS

Support was provided by the National Institute for Child Health and Human Development (R01HD035378) and the National Center for Injury and Violence Prevention, Centers for Disease Control and Prevention (R49/CCR118509). We extend our gratitude to the New York City public schools, school administrators, parents, and young people supporting the Reach for Health study. We also thank members of the Reach for Health study team, including Gail Agronick, Richard Duran, Athi Myint-U, Alexi San Doval, and Renée Wilson-Simmons. The findings and conclusions in this report are those of the authors and do not necessarily represent the views of the funders.

REFERENCES

1. Hill TD, Mossakowski KN, Angel RJ. Relationship violence and psychological distress among low-income urban women. *J Urban Health*. 2007;84(4):537–551.
2. Staggs SL, Riger S. Effects of intimate partner violence on low-income women's health and employment. *Am J Community Psychol*. 2005;36(1–2):133–145.
3. US Department of Justice. *When Violence Hits Home*. Washington, DC: US Department of Justice; 2004 Available at: www.ncjrs.gov/pdffiles1/nij/205004.pdf. Accessed on August 10, 2007.

4. Curadi CB, Caetano R, Clark C, Schafer J. Neighborhood poverty as a predictor of intimate partner violence among White, Black, and Hispanic couples in the United States: multilevel analysis. *Ann Epidemiol*. 2000;10(4):297–308.
5. Fiegelman S, Li X. Psychosocial and environmental correlates of *violence* perpetration among *African-American* urban youth. *J Adolesc Health*. 1998;22(4):202–209.
6. Pearlman DN, Zierler S, Gjelsvik A, Verhoek-Oftedahl W. Neighborhood environment, racial position, and risk of police-reported domestic violence: a contextual analysis. *Public Health Rep*. 2003;118(1):44–58.
7. Rennison CM, Welchans S. *Intimate Partner Violence*. Washington, DC: US Department of Justice, Office of Justice Programs; 2000.
8. Cunradi CB, Caetano R, Schafer J. Socioeconomic predictors of intimate partner violence among White, Black, and Hispanic couples in the United States. *J Family Violence*. 2002;17(4):377–389.
9. Jewkes R. Intimate partner violence: causes and prevention. *Lancet*. 2002;359 (9315):1423–1429.
10. Division of Criminal Justice Services. *New York Crime Trends*. Available at: http://criminaljustice.state.ny.us/crimnet/ojsa/crmtrnd01/ctvc9401.htm. Accessed on: August 10, 2007.
11. Arnett JJ. *Adolescence and Emerging Adulthood: A Cultural Approach*. Upper Saddle River, NJ: Prentice Hall; 2001.
12. Schafer J, Caetano R, Clark CL. Rates of intimate partner violence in the United States. *Am J Public Health*. 1998;88:1702–1704.
13. US Department of Justice, Office of Justice Programs, Bureau of Statistics. *Intimate Partner Violence in the US*. Available at: http://www.ojp.usdoj.gov/bjs/intimate/victims.htm. Accessed on: August 10, 2007.
14. Burton LM, Allison KW, Obeidallah D. Social context and adolescence: perspectives on development among inner-city African-American teens. In: Crockett LJ, Crouter AC, eds. *Pathways through Adolescence: Individual Development in Relation to Social Contexts*. Hillsdale, NJ: Lawrence Erlbaum; 1995:119–138.
15. Guttmacher Institute. US Teen Pregnancy Statistics. Available at: www.guttmacher.org/pubs/state_pregnancy_trends.pdf. Accessed on: August 12, 2007.
16. Hampton R, Oliver W, Magarian L. Domestic violence in the African American community: an analysis of social and structural factors. *Violence Against Women*. 2003;9:533–567.
17. Kasturirangan A, Krishnan S, Riger S. The impact of culture and minority status on women's experience of domestic violence. *Trauma Violence Abuse*. 2004;5(4):318–332.
18. Coker AL, Smith PH, Bethea L, King MR, McKeown RE. Physical health consequences of physical and psychological intimate partner violence. *Arch Family Med*. 2000;9:451–457.
19. Roche KM, Ensminger ME, Ialongo N, Poduska JM, Kellam SG. Early entry into adult roles: associations with aggressive behavior from early adolescence into young adulthood. *Youth Soc*. 2006;38(2):236–261.
20. Wingood GM, DiClemente RJ. Consequences of having a physically abusive partner on the condom use and sexual negotiation practices of young adult African-American women. *Am J Public Health*. 1997;87:1016–1018.
21. O'Donnell L, O'Donnell C, Stueve A. Early sexual initiation and subsequent sex-related risks among urban minority youth: the Reach for Health middle to high school study. *Fam Plann Perspect*. 2001;33(6):268–275.
22. Coker AL. Does physical intimate partner violence affect sexual health? *Trauma Violence Abuse*. 2007;8(2):149–177.
23. O'Donnell L, Stueve A, Wilson-Simmons R. Middle school aggressive behavior and subsequent intimate partner physical violence. *J Youth Adolesc*. 2006;35(5):693–703.
24. Coney NS, Mackey WC. The feminization of domestic violence in America: the woozle effect goes beyond rhetoric. *J Men's Stud*. 1999;8(1):45–58.
25. Howard DE, Wang MQ. Psychosocial factors associated with adolescent boys' reports of dating violence. *Adolescence*. 2003;38(151):519–35.

26. Coker AL, Davis KE, Arias I, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prev Med*. 2002;23(4):260–268.
27. Howard DE, Wang MQ. Psychosocial factors associated with adolescent boys' reports of dating violence. *Adolescence*. 2003;38(151):519–35.
28. Morse BJ. Beyond the conflict tactics scale: assessing gender differences in partner violence. *Violence Vict*. 1995;10(4):251–272.
29. Siegel JA, Williams LM. Risk factors for sexual victimization of women. *Violence Against Women*. 2003;9(8):902–930.
30. Campbell JC. Helping women understand their risk in situations of intimate partner violence. *J Interpers Violence*. 2004;19:1464–1477.
31. Fiebert MS, Gonzalez DM. Women who initiate assaults: the reasons offered for such behavior. *Psychol Rep*. 1997;80:583–590.
32. Sorenson SB, Taylor CA. Female aggression toward male intimate partners: an examination of social norms in a community based sample. *Psychol Women Quart*. 2005;29(1):79–96.
33. Archer J. Sex differences in physical aggression to partners: a reply. *Psychol Bull*. 2000;26:697–702.
34. Milan S, Lewis J, Ethier K, Trace Kershaw T, Jeannette R, Ickovics JR. Relationship violence among adolescent mothers: frequency, dyadic nature, and implications for relationship dissolution and mental health. *Psychol Women Quart*. 2005;29(3):302–312.
35. Stith SM, Smith DB, Penn CE. Intimate partner physical abuse perpetration and victimization risk factors: a meta-analytic review. *Aggress Violent Behav*. 2004;10(1):65–98.
36. Coker AL, Davis KE, Arias I, et al. Physical and mental health effects of intimate partner violence for men and women. *Am J Prevent Med*. 2002;23:260–268.
37. Proctor L. Children growing up in a violent community: the role of the family. *Aggress Violent Behav*. 2006;11(6):558–576.
38. Winstock Z. Toward an interactional perspective on intimate partner violence. *Aggress Violent Behav*. 2007;12(3):348–363.
39. Herrenkohl TI, Kosterman R, Mason WA, Hawkins JD. Youth violence trajectories and proximal characteristics of intimate partner violence. *Violence Vict*. 2007;22(3):259–274.
40. Waltermaurer E, Watson CA, McNutt LA. The effect of perceived racism and intimate partner violence. *Violence Against Women*. 2006;12(12):1214–1222.
41. Caldwell CH, Kohn-Wood LP, Schmeelk-Cone KH, Chavous TM, Zimmerman MA. Racial discrimination and racial identity as risk or protective factors for violent behaviors in African American Young adults. *Am J Community Psychol*. 2004;33(102):91–105.
42. Schuster MA, Collins R, Cunningham WE, et al. Perceived discrimination in clinical care in a nationally representative sample of HIV-infected adults receiving health care. *J Gen Intern Med*. 2005;20(9):807–813.
43. Casagrande SS, Gary TL, LaVeist TA, Gaskin DJ, Cooper LA. Perceived discrimination and adherence to medical care in a racially integrated community. *J. Gen Intern Med*. 2007;22(3):389–395.
44. Kessler R, Mickelson K, Williams D. The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *J Health Soc Behav*. 1999;40:208–230.
45. Williams DR, Yu Y, Jackson J, et al. Racial differences in physical and mental health; socioeconomic status, stress, and discrimination. *J Health Psychol*. 1997;2:335–351.
46. Broudy R, Brondolo E, Coakley V, et al. Perceived ethnic *discrimination* in relation to daily moods and negative social interactions. *J Behav Med*. 2007;30(1):31–43.
47. Lewis TT, Everson-Rose SA, Powell LH, et al. Chronic exposure to everyday discrimination and coronary artery calcification in African-American women: the SWAN Heart Study. *Psychosom Med*. 2006;68(3):362–368.
48. Williams DR, Neighbors H, Jackson JS. Racial/ethnic discrimination and health: findings from community studies. *Am J Public Health*. 2003;93(2):200–208.
49. Soriano FI, Rivera LM, Williams KJ, Daley SP, Reznik VM. Navigating between cultures: the role of culture in youth violence. *J Adolesc Health*. 2004;34(3):169–176.

50. Li ST, Nussbaum KM, Richards MH. Risk and protective factors for urban African American youth. *Am J Community Psychol.* 2007;39(1–2):21–35.
51. Daly AB, Casl S, Holtford T, Jones BA. Perceived racial discrimination and nonadherence to screening mammography guidelines: results from the Race Differences in the Screening Mammography Process Study. *Am J Epidemiol.* 2007;165(11):1287–1295.
52. Clark R, Anderson NB, Clark VR, et al. Racism as a stressor for African Americans. *Am Psychol.* 1999;54:805–816.
53. Krieger N, Sidney S. Racial discrimination and blood pressure: the CARDIA study of young black and white adults. *Am J Public Health.* 1996;86:1370–1378.
54. Krieger N. Racial and gender discrimination: risk factors for high blood pressure? *Soc Sci Med.* 1990;30:1273–1281.
55. Brennan RT, Molar BE, Earls F. Refining the measurement of exposure to violence (ETV) in urban youth. *J Commun Psychol.* 2007;35(5):603–618.
56. Schwab-Stone ME, Ayers TS, Kasprow W, et al. No safe haven: a study of violence exposure in an urban community. *J Am Acad Child Adolesc Psych.* 1995;34(10):1343–1352.
57. Solberg VSH, Caristom AH, Howard KAS, Jones JE. Classifying at-risk high school youth: the influence of exposure to community violence and protective factors on academic and health outcomes. *Career Develop Quart.* 2007;55(4):313–327.
58. Schilling EA, Aseltine RH Jr, Gore S. Adverse childhood experiences and mental health in young adults: a longitudinal survey. *BMC Public Health.* 2007;7(7):30.
59. Brady S. Lifetime community violence exposure and health risk behavior among young adults in college. *J Adoles Health.* 2006;39(4):610–613.
60. Scarpa A, Fikreto D, Bowser F, Hurley JD, Pappert CA, Romero N. Community violence exposure in university students: a replication and extension. *J Interpers Violence.* 2002;17(3):253–272.
61. Kennedy AC. Urban adolescent mothers exposed to community, family, and partner violence: prevalence, outcomes, and welfare policy implications. *Am J Orthopsych.* 2006;76(1):44–54.
62. Kennedy AC. Resilience among urban adolescent mothers living with violence: listening to their stories. *Violence Against Women.* 2005;11(12):1490–1514.
63. O'Donnell L, O'Donnell C, Wardlaw DM, Stueve A. Risk and resiliency factors influencing suicidality among urban African American and Latino youth. Am J Commun Psychol. 2004;33:37–49.
64. Straus MA. Measuring intrafamily conflict and violence: the conflict tactics scales. *J Marriage Fam.* 1979;41:75–88.
65. Straus MA. Measuring intrafamily conflict and violence: the Conflict Tactics (CT) Scales. In: Straus MA, Gelles RJ, eds. *Physical Violence in American Families: Risk Factors and Adaptations to Violence in 8145 Families.* New Brunswick, NJ: Transaction; 1990:29–47.
66. Krieger N, Smith K, Naishadham D, Hartman C, Barbeau EM. Experiences of discrimination: validity and reliability of a self-report measure for population health research on racism and health. *Soc Sci Med.* 2005;61(7):1576–1596.
67. Phinney J. The multigroup ethnic identity measure: a new scale for use with adolescents and young adults from diverse groups. *J Adoles Research.* 1992;7:156–176.
68. National Youth Violence Prevention Resource Center. *Teen Violence.* Available at: http://www.safeyouth.org/scripts/faq/dateviolfacts.asp. Accessed on January 2008.
69. Woolf S, Johnson R, Geiger H. The rising prevalence of severe poverty in America: a growing threat to public health. *Am J Prev Med.* 2006;31(4):332–341.
70. Raghavan C, Mennerich A, Sexton E, James SE. Community violence and its direct, indirect, and mediating effects on intimate partner violence. *Violence Against Women.* 2006;12(12):1132–1149.
71. Johnson MP, Ferraro KJ. Research on domestic violence in the 1990s: making distinctions. *J Marriage Fam.* 2000;62(4):948–963.