

# Factors Associated with Retaliatory Attitudes among African American Adolescents Who have been Assaulted

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**Objectives** (a) To describe attitudes regarding retaliation among adolescents who have been assaulted. (b) To examine assault/event characteristics, personal, parental, and environmental factors associated with the retaliatory attitudes of adolescents who have been assaulted. **Methods** African American youth aged 10–15 years presenting to two large urban hospitals with peer assault injury and a parent/caregiver completed interviews in their home after their emergency department visit. **Results** Multivariate analyses revealed that lower SES, older age, and adolescents' perceptions that their parents support fighting were related to endorsing retaliatory attitudes. Girls who were aggressive were more likely to endorse retaliatory attitudes. However, level of aggression did not impact boys' retaliatory attitudes. Affiliating with aggressive peers influenced the retaliatory attitudes of boys, but did not influence girls' retaliatory attitudes. Overall, youths' perceptions of their parents' attitudes toward fighting had the greatest impact on retaliatory attitudes. **Conclusions** Adolescents' perceptions of their parents' attitudes toward fighting may be a factor in subsequent re-injury among youth. Violence prevention and intervention efforts need to involve components that assess parental attitudes and incorporate strategies to engage parents in violence prevention efforts. In addition, interventions for youth who have been assaulted may need to incorporate some gender-specific components in order to address the unique needs of girls and boys.

**Key words** adolescent violence; aggression; assault-injuries; retaliation; retaliatory attitudes; revenge.

Interpersonal violence continues to be a major contributor to morbidity and mortality among adolescents. African American youth are disproportionately affected by violence with homicide being the leading cause of death for African American youth aged 10–19 years (Centers for Disease Control and Prevention [CDC], 2004). In addition, in 2003, more than 429,200 young people aged 10–19 were treated in US hospital emergency rooms for injuries resulting from assaults (CDC, 2004). Recent research indicates that many assault injuries result from the recurrence of a previous fight or a past disagreement (Cheng et al., 2006; Mollen, Fein, Localio, & Durbin, 2004; Rich & Grey, 2005). In a qualitative study conducted by Johnson and colleagues (2004),

adolescent participants indicated that the desire for retaliation led to continued violence (Johnson, Frattaroli, Wright, Pearson-Fields, & Cheng, 2004). Therefore, retaliation may play a critical role in youth violence, yet there is a paucity of research on adolescents' views on retaliation.

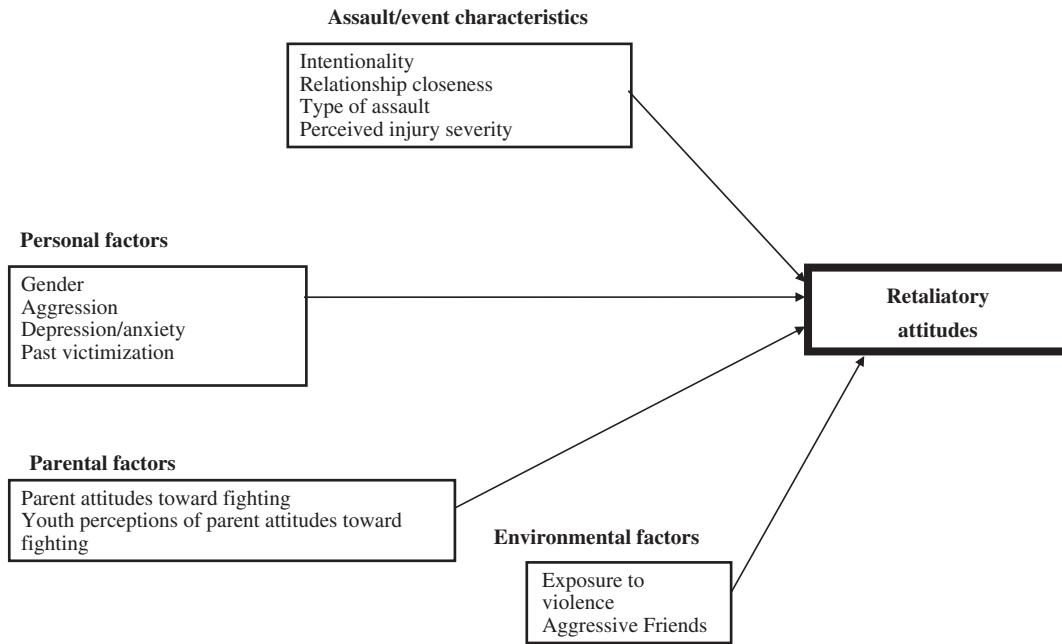
The dearth of research on retaliatory attitudes among adolescents is surprising given the link between retaliation and adolescent violence. Retaliation is often motivated by a desire to maintain or restore one's reputation following an incident that may be perceived as a threat to one's reputation and identity (Jacobs, 2004; Rich & Grey, 2005). Given that one of the fundamental tasks of adolescence is to begin to investigate and develop

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**Figure 1.** Conceptual framework.

one's identity (Erikson, 1968), retaliation and retaliatory attitudes may be particularly important to examine during this stage of development. In addition, as youth move from childhood to adolescence, their moral reasoning becomes less influenced by the rules of authority figures (i.e., teachers and parents) and more influenced by principles of mutual respect, reciprocity, and justice (Piaget, 1932; Turiel, 1997). Therefore the likelihood of approving of retaliation may increase during adolescence (Pitner, Astor, Benbenishty, Haj-Yahia, & Zeria, 2003).

The present research examines adolescents' attitudes regarding payback for wrongdoing, which we refer to as *retaliatory attitudes*. Due to the limited research on *retaliatory attitudes*, we incorporate literature on retaliation and revenge in our review. People who approve of retaliation or desire revenge view their aggressive behavior as justifiable, and therefore, are at risk for aggressive and violent behavior. Retaliatory attitudes may vary according to a number of factors (e.g., Bulatao & VandenBos, 1996; Huesmann & Guerra, 1997; Jacobs, 2004; Rogers & Tisak, 1996; Smetana, Campione-Barr, & Yell, 2003). Drawing from previous literature, we organize these factors into four categories: (a) assault/event characteristics, (b) personal factors, (c) parental factors, and (d) environmental factors (Fig. 1).

For youth with assault-injuries, *assault/event characteristics* such as their relationship to the person who

injured them and their perception of whether or not the person who injured them meant to hurt them may influence retaliatory attitudes. Research conducted among adults suggests that as closeness of the relationship increases, participants' willingness to seek revenge in response to offensive behavior decreases (Cota-McKinley, Woody, & Bell, 2001). In their sample of college students, Cota-McKinley and colleagues (2001) found that participants' willingness to seek revenge was highest for coworkers, followed by strangers, friends, and romantic partners, respectively. Studies conducted among youth (e.g., Dodge, 1980) indicate that whether or not a victim perceives the perpetrator of the attack or insult to have had hostile intent has been associated with retaliation. To our knowledge, there are no studies that have examined the impact of relationship closeness or intentionality on the retaliatory attitudes of youth who have been assaulted.

A number of *personal factors* including gender, aggressive behavior, depression, and past victimization may influence retaliatory attitudes. Previous research suggests that males are more likely to approve of retaliation (Cota-McKinley et al., 2001; Pitner et al., 2003; Stuckless & Goranson, 1992). Males' increased likelihood of approving of retaliation may be linked to their tendency to score higher on measures of overall aggression (e.g., Baron & Richardson, 1994), which is another factor that is linked to approval of retaliation (e.g., Astor, 1994; Douglas &

Martinko, 2001; Huesmann & Guerra, 1997; Zelli, Dodge, Lochman, & Laird, 1999).

Although myriad studies have linked approval of retaliation with aggressive behavior, much less is known about the association between depression/anxiety and retaliatory attitudes. Cardozo, Kaiser, Gotway, & Agani (2003) conducted one of the few studies that examined mental health problems, feelings of hatred and revenge, and social functioning among adolescents exposed to traumatic experiences. They found a statistically significant association between high levels of nonspecific psychiatric morbidity and a desire to take revenge. Recent qualitative research suggests a link between victimization and retaliatory attitudes (Rich & Grey, 2005). According to research conducted among Black male young adults (aged 18–30), victims may feel compelled to retaliate in order to protect their identity and because of pressure to behave according to norms in their environment that justify retaliation (Rich & Grey, 2005).

*Parental factors* play a pivotal role in shaping youth violence-related behavior (e.g., Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Orpinas, Murray, & Kelder, 1999; Steinberg, Fletcher, & Darling, 1994). While a number of studies have focused on the impact of particular parental characteristics and behaviors (e.g., Dornbusch et al., 1987; Stattin & Kerr, 2000), fewer studies have examined the influence of parents' *attitudes* towards violence on adolescents' violence-related behavior. In addition, not only are parents' attitudes important, but adolescents' perceptions of their parents' attitudes may be paramount (Malek, Chang, & Davis, 1998; Sieving, McNeely, & Blum, 2000). For example, Orpinas and colleagues (1999) found that youth who believe their parents support fighting were more likely to fight, suffer a fight injury, and carry a weapon compared to youth who did not believe that their parents support fighting. In addition, youths' perceptions of parental attitudes toward fighting had the strongest effect on youth aggression compared to family structure, relationship with parents, parental monitoring, and gender. Absent from the extant research is an understanding of how actual or perceived parental attitudes may impact youth *attitudes* toward violence, particularly, retaliatory attitudes.

*Environmental factors* such as social networks may influence retaliatory attitudes. Although parents have a strong influence over adolescent behavior, peer influence increases during adolescence (Larson & Richards, 1991). Adolescents' perceptions of their friends behaviors are highly correlated with and/or predictive of their

own behaviors (Griffin, Scheier, Botvin, Diaz, & Miller, 1999; Smith, Flay, Bell, & Weissberg, 2001). Therefore, it is reasonable to expect that peers may influence adolescents' retaliatory attitudes. In addition, exposure to violence is another factor that may influence retaliatory attitudes. In a study conducted among fourth, fifth, and sixth-graders from inner city schools, witnessing violence in the community was associated with willingness to retaliate (Hill & Madhere, 1996).

The purpose of the present study is to describe the retaliatory attitudes of African American adolescents who have been assaulted and to examine factors associated with their retaliatory attitudes. Individuals who have been assaulted are at risk for confrontational behavior, retaliatory aggression, and re-injury (Goins, Thompson, & Simpkins, 1992). Increased knowledge about their retaliatory attitudes would help inform violence prevention efforts in health care settings, schools, and the community.

Our hypotheses are as follows:

- (a) Boys will be more likely to endorse retaliatory attitudes.
- (b) Individuals who were strangers to the person who injured them will be more likely to endorse retaliatory attitudes than those individuals who have a closer relationship to the person involved.
- (c) Youth who believe that they were hurt intentionally, will be more likely to endorse retaliatory attitudes.
- (d) Aggressive behavior, increased past victimization, and depression/anxiety will be associated with increased likelihood of endorsing retaliatory attitudes.
- (e) Youth whose parents' support fighting and youth who perceive that their parents support fighting will be more likely to endorse retaliatory attitudes.
- (f) Exposure to violence and affiliating with peers who are aggressive will be associated with endorsing retaliatory attitudes.

In addition, we will explore whether or not the type of assault and the perceived severity of injury is related to retaliatory attitudes, however, we make no a priori hypotheses regarding the role of these factors given that they have not been examined in the literature. Finally, we will explore the interactive effects of gender. It is unknown how gender may interact with other factors in our model (e.g., intentionality, depression/anxiety, peer influence, etc.) to influence youths' retaliatory attitudes. Given the dearth of literature related to the interactive

effects of gender and the factors in our model, these analyses are exploratory.

## Method

### Study Participants

A consecutive sample of adolescents presenting to the emergency department for assault injury were recruited for a randomized trial of a home-based intervention. Eligibility criteria included: adolescents age 10–15 presenting to one of two large inner-city hospitals in Washington, DC and Baltimore, MD; residence in the surrounding metropolitan area; English-speaking; emergency department presentation with an interpersonal assault injury excluding sexual assault, child abuse, sibling fight, or legal intervention (i.e., injured by police); and mental and physical ability of parent and child to participate in assessments. We recruited families in Washington, DC from July 2001 to August 2004 and Baltimore from May 2002 to May 2004. The Institutional Review Boards at the participating institutions approved the study protocol.

### Study Procedures

We identified all eligible youth who presented to the emergency department or were hospitalized for assault injury. Cases were identified from emergency department logs and computer printouts of hospitalized patients. Research assistants recruited families in the emergency department, hospital ward, or by phone. If eligible, a home visit was scheduled as quickly as possible after the injury event. On average, youth and their parents were interviewed within 2 months of the injury (Median = 54 days,  $SD = 100$  days). During the home visit, parent informed consent and youth assent were obtained, and youth and parents were then independently interviewed. Interviews consisted of two components: a face-to-face component and an audiotape (“Walkman”) component. For the audiotape component, participants listened to questions asked on the Walkman and wrote numeric answers on an answer sheet that did not have the printed questions. After completing the baseline interview, families were randomized to the intervention or comparison group. Baseline interview data were used in these analyses.

### Measures

#### Assault/Event Characteristics

Adolescents were asked to indicate the *relationship to the person* who injured them. For the purpose of these analyses categories were later coded as stranger or not a

stranger (i.e., neighbor, friend, or classmate). Youth perceptions of *intentionality* were assessed by asking, “Do you think the person/s who injured you meant to hurt you?” Respondents were asked to indicate “yes,” “no,” or “I don’t know.” Adolescents’ perceptions of the *severity of the injury* were assessed by asking, “How serious do you think your injury is?” They were asked to indicate “very serious,” “somewhat serious,” or “not serious.” Information regarding the *assault type* was taken from the medical charts and coded into one of the following categories: (a) unarmed assault (includes unarmed fights and human bite); (b) assault with a deadly weapon (gunshot and/or stab wounds); and (c) assault by other weapon (blunt or thrown object or BB gun).

#### Personal Factors

*Past victimization* was assessed using three items developed by Richters and Martinez (1993). Adolescents were asked to indicate how many times they had experienced each of the following three items: (a) “In the past 12 months, how many times has someone injured you with a weapon such as a knife, gun, or club?” (b) In the past 12 months, how many times has someone threatened you with a weapon such as a knife, gun, or club?” and (c) “How many times have you been beaten up or mugged?” Based on the distribution of the responses (skewed toward 0), each of the items were dichotomized in the present analyses (1 = happened at least once; 0 = never happened). An index was created by taking a sum of the three items. *Aggression* was measured using items developed by Orpinas (1993). These items were modified to assess aggressive behaviors that occurred at school, home, and in the neighborhood (36 items,  $\alpha = .91$ ; “In the last 30 days, I hit someone back who hit me first”). Participants responded on a Likert scale (0 = never; 5 = five or more times). Adolescents’ depression was assessed with the anxiety/depression subscale (14 items,  $\alpha = .87$ ) of the Child Behavior Checklist (Achenbach, 1992), which was administered to the parents.

#### Parental Factors

*Parents’ attitudes toward fighting* were measured using items developed by Orpinas and colleagues (1999; 10 items,  $\alpha = .80$ ) and adapted for the purpose of administering them to parents. Parents were asked to indicate the extent to which they agreed or disagreed with a number of statements (e.g., “I would tell my child to ignore someone who called him/her names”) using a Likert scale (1 = strongly agree; 4 = strongly disagree).

Items were reverse coded such that higher scores on this scale are indicative of attitudes that support fighting. Youths' perceptions of parents' attitudes toward fighting were also assessed by items developed by Orpinas et al. (1999; 10 items,  $\alpha = .80$ ). Adolescents were asked to respond to a number of statements (e.g., "Your parent would tell you, 'If someone calls you names ignore them.'") on a Likert scale (1 = strongly agree; 4 = strongly disagree). Items were reverse coded such that higher scores are indicative of youth perceptions that their parents support fighting.

### Environmental Factors

Adolescents' exposure to violence was assessed using nine items developed by Richters and Martinez (1993). Participants were asked to indicate how many times in their lifetime, they had witnessed a particular event. For example, "How many times have you seen someone else getting beat up or mugged?" Based on the distribution of the responses (skewed toward 0), the items were dichotomized in the present analyses such that (1 = one or more times; 0 = never happened). In addition, youth were asked whether or not any of their family and friends had been killed or injured by violence in the past year (1 = yes; 0 = no). An index was created by taking a sum of the violence exposure items. The aggressive behavior of adolescents' friends (*aggressive peers*) was assessed by items developed by Simons-Morton and colleagues (Simons-Morton et al., 1999). The youth were asked to indicate how many of their friends engaged in a number of behaviors (six items,  $\alpha = .80$ ; e.g., "How many of your friends often do things to start a fight?"). The participants responded to these questions on a Likert scale (1 = almost all; 5 = almost none). Items were reverse coded such that higher scores on this scale are indicative of more reported aggression.

### Retaliatory Attitudes

The retaliation subscale of the Children's Perceptions of Environmental Violence (Hill & Noblin, 1991) was used to assess adolescents' attitudes toward retaliation (eight items,  $\alpha = .76$ ). Youth were asked to indicate the extent to which they agreed or disagreed with a number of statements (e.g., "I believe that if someone hits you, you should hit them back," "I believe that revenge is a good thing.") using a Likert scale (1 = strongly agree; 4 = strongly disagree). Items were reverse coded such that higher scores on this scale are indicative of more willingness to endorse retaliation.

## Results

### Recruitment

Figure 2 shows the results of case recruitment. Of the 227 patients confirmed eligible, 176 (78%) agreed to participate in the study and 95% of families who agreed completed both youth and parent baseline interviews, yielding a sample of 168 adolescent-parent/caregiver dyads. The study team attempted to call target families ten times. In addition, one mailing and at least one attempt was made to go directly to the families' homes to enroll them in the study. Refusals were due to lack of interest, lack of time, or feeling too ill to participate.

### Participant Characteristics

The present sample consisted of 164 youth ages 10–15 (mean = 12.89;  $SD = 1.5$ ) and a parent/caregiver (Four youths who were not African American were dropped from the analyses). One hundred and eight of the participants were male (66%). Sixty-three percent were involved in an unarmed assault (unarmed physical fight), 10% had been stabbed, 2% presented with gunshot wounds, 19% were assaulted with some other weapon (blunt or thrown object or BB gun), and 6% had been bitten (human bite). Only 2% of the sample were hospitalized as a result of their injury. The sample of parents/caregivers was 98% African American and 91% female. The majority of the parents/caregivers (78%) indicated that they were the mother of the injured youth, 7% were fathers, 8% were grandparents, 8% indicated some other relationship (i.e., step parent, other relative, or legal guardian). The median annual household income was between \$10,000 and \$25,000.

### Univariate and Bivariate Statistics

Overall, the sample presented a mixed picture in relation to retaliatory attitudes. For example, 78% of youth agreed or strongly agreed with the statement, "I believe that if someone hits you, you should hit them back," and 72% of youth agreed or strongly agreed with the statement, "I believe that to survive you should always be willing to fight back."

However, the majority of the sample (64%) disagreed or strongly disagreed with the statement, "I believe that revenge is a good thing," and the majority of the sample (67%) disagreed or strongly disagreed with the statement, "I believe that you should get even with people who hurt you to keep your pride."

Means, standard deviations, and correlations among variables are presented in Table I. Pearson's product moment correlations were calculated to examine the

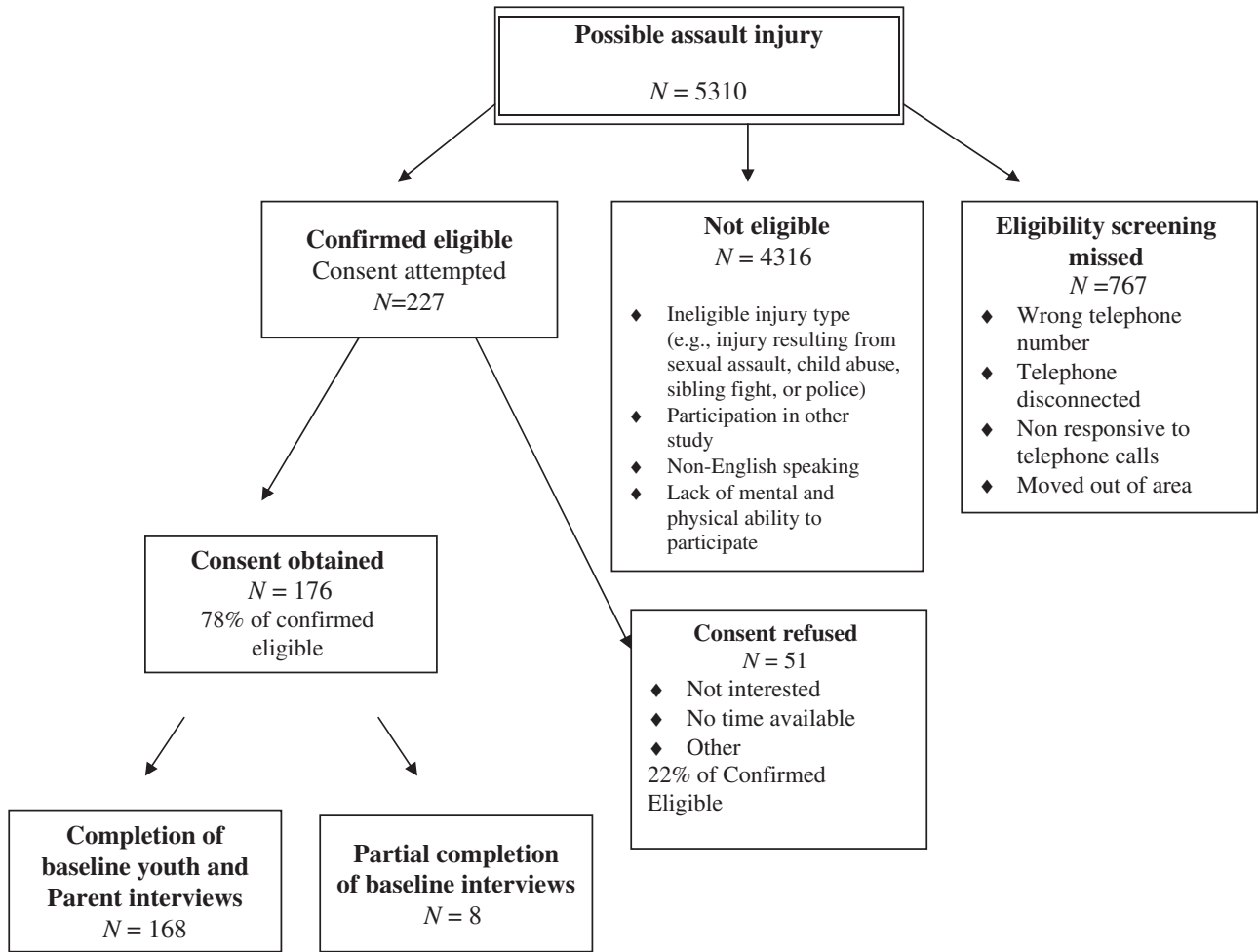


Figure 2. Recruitment.

Table I. Correlations among Study Variables

	Retaliation	Income	Age	Past victimization	Aggression	Anxiety/depression	Parent attitudes toward violence	Youths' perceptions of parent attitudes	Aggressive friends	Exposure to violence
Retaliation	1.0									
Income	-.19*	1.0								
Age	.28**	-.01	1.0							
Past Victimization	-.04	-.03	.17*	1.0						
Aggression	.13	.01	-.07	.03	1.0					
Anxiety/depression	-.01	-.15	-.08	.08	.02	1.0				
Parent attitudes toward violence	.12	-.21**	.03	.11	.08	-.04	1.0			
Youths' perceptions of parent attitudes	.45**	-.09	.32**	-.03	.02	-.05	.04	1.0		
Aggressive friends	.29**	-.03	-.01	.03	.36**	.05	-.04	.13	1.0	
Exposure to violence	.20*	-.04	.25**	.30**	.17*	.20*	.02	.11	.38**	1.0
Mean	2.66	\$10K-\$25K	12.89	.38	.42	5.30	1.73	1.93	2.12	.44
Standard deviation	.52		1.5	.33	.54	4.93	.38	.46	.89	.21

bivariate relationships among the continuous variables. Household income (proxy for socioeconomic status [SES]) was related to retaliatory attitudes such that higher income was associated with less likelihood of endorsing retaliatory attitudes ( $r = -.19, p < .05$ ). As age increased, the likelihood of endorsing retaliatory attitudes increased ( $r = .28, p < .01$ ). The relationship between aggression and retaliatory attitudes was not statistically significant, however, there was a trend in which more aggression was associated with more approval of retaliation ( $r = .13, p = .09$ ). Adolescents' beliefs that their parents support fighting were positively correlated with retaliatory attitudes ( $r = .45, p < .01$ ). In addition, having aggressive peers ( $r = .29, p < .01$ ) and more exposure to violence ( $r = .20, p < .05$ ) were positively correlated with endorsing retaliatory attitudes. Past victimization, anxiety/depression, and parents' attitudes toward fighting were not related to retaliatory attitudes. It is also of note that parents' reported attitudes toward fighting and youth perception of parent attitudes toward fighting were not correlated.

T-tests revealed that there was no significant difference in retaliatory attitudes between males and females, between those injured by a stranger and someone unknown, or between intentional and non-intentional harm. Pearson's chi-square tests were conducted to determine whether type of assault or severity of injury was related to retaliatory attitudes. The retaliatory attitudes scale was split at the median in order to determine its relationship to the categorical variables in these analyses. The results revealed that neither assault type nor severity of injury was related to retaliatory attitudes.

### Multivariate Statistics

To further examine the relationship between retaliatory attitudes and personal, parental, and environmental factors and to explore the moderating effect of gender, a hierarchical ordinary least squares (OLS) regression model was run (Table II). Variables that were significantly related to retaliatory attitudes in bivariate analyses were entered into the model. Aggression was also entered into the model because it approached significance in bivariate analyses. The predictor variables were centered in these analyses (Aiken & West, 1991). Gender, along with SES and age (control variables) were entered in the first block. This block of variables explained 13% of the variance in the extent to which youth endorsed retaliatory attitudes,  $F(3, 148) = 7.39, p < .01$ . SES and age were significant. Individuals from households with lower annual incomes

were more likely to endorse retaliatory attitudes ( $\beta = -.18, p < .05$ ). Older adolescents were more likely than younger adolescents to approve of retaliation ( $\beta = .31, p < .01$ ). The second block of variables included the main effects for affiliating with aggressive peers, youth perceptions of parent attitudes toward fighting, aggression, and exposure to violence. This block of variables explained an additional 20% of the variance in retaliatory attitudes,  $F(7, 148) = 9.90, p < .01$ . Affiliating with aggressive peers and youth perception of parent's attitude toward fighting were significant. Youth with more close friends who engage in aggressive behavior were more likely to endorse retaliatory attitudes ( $\beta = .20, p < .05$ ) and adolescents who perceive that their parents support fighting were more likely to endorse retaliatory attitudes ( $\beta = .35, p < .01$ ). Aggression and violence exposure were not significant. The third block of variables consisted of interactions between gender and each of the variables in block 2 (affiliating with aggressive peers, perception of parent's attitudes toward fighting, aggression, and violence exposure). The third block of variables as a whole explained an additional 4% of the variance  $F(11, 148) = 7.23, p < .01$ . Two significant interaction terms emerged: Gender  $\times$  Aggression ( $\beta = -.33, p < .05$ ) and Gender  $\times$  Aggressive Peer Affiliation ( $\beta = .35, p < .05$ ). To examine the nature of the Gender  $\times$  Aggression interaction, the regression model was run separately for

**Table II.** Hierarchical OLS Regression Analysis: Gender, SES, Age, Aggressive Peer Affiliation, Youths' Perceptions of Parent Attitudes Toward Fighting, Aggression, Exposure to Violence, and Interaction Terms Predicting Retaliatory Attitudes

	B	(SEB)	$\beta$
Block 1			
Constant	1.49	(.36)	
Gender	-.01	(.08)	-.01
Household Income	-.09	(.04)	-.18*
Age	.11	(.03)	.31**
Block 2			
Aggressive peers	.12	(.05)	.20*
Youths' perceptions of parent attitudes toward fighting	.39	(.08)	.35**
Aggression	.08	(.07)	.08
Exposure to violence	.01	(.19)	-.03
Block 3			
Gender $\times$ Aggressive Peers	.24	(.10)	.35*
Gender $\times$ Youths' perceptions of parent attitudes	-.08	(.17)	-.06
Gender $\times$ Aggression	-.35	(.17)	-.33*
Gender $\times$ Exposure to violence	-.23	(.38)	-.08

$R^2 = .13$  for Block 1;  $\Delta R^2 = .20$  for Block 2;  $\Delta R^2 = .04$  for Block 3

\* $p < .05$ ; \*\* $p < .01$

boys and girls. The results indicated that as aggression increases, girls are more likely to endorse retaliatory attitudes ( $\beta = .41, p < .01$ ), whereas aggression does not have an impact on boys' retaliatory attitudes ( $\beta = .01, n.s.$ ). To examine the nature of the Gender  $\times$  Aggressive Peer Affiliation interaction, the regression model was run separately for boys and girls. For boys, affiliating with aggressive peers was related to endorsing retaliatory attitudes ( $\beta = .32, p < .01$ ). However, affiliating with aggressive peers did not have an impact on girls' retaliatory attitudes ( $\beta = -.10, n.s.$ ).

## Discussion

The present study further extends existing research by describing attitudes regarding retaliation among adolescents who have been assaulted and examining factors associated with their retaliatory attitudes. Overall, adolescents in this sample have mixed views about retaliation. The majority of the sample agreed with the statement, "I believe that if someone hits you, you should hit them back." However, most of the youth disagreed with the statement, "I believe that revenge is a good thing." These findings may indicate that attitudes regarding retaliation are complex. Youth may believe that they have to retaliate in order to protect themselves. Yet, they may realize the dangers of retaliation and long for a more peaceful resolution. Other studies have reported similar findings regarding youths' complex feelings regarding retaliation. Roger and Tisak (1996) conducted a study in which youths responded to hypothetical scenarios related to peer interpersonal violence. Their results revealed that many of the children (45%) stated that a victim *would* retaliate against a perpetrator, but only 2% stated that the victim *should* retaliate. Similarly, in research conducted among youth, Buckley and Walsh (1998) indicated that youth sometimes view violence as a no-choice situation. The authors state, "Participants' comments often reflected an understanding of violence as an effective, although at times unpleasant, means to achieve a desired end..." (p. 187).

The results of our multivariate analyses revealed that age, SES, and youth perceptions of their parents' attitudes toward fighting were related to retaliatory attitudes. The relationship between aggression and retaliatory attitudes differed for girls and boys. Aggression played a significant role in girls' retaliatory attitudes, such that girls who were more aggressive were more likely to endorse retaliatory attitudes. However, level of aggression did not impact boys' retaliatory attitudes.

The relationship between affiliating with deviant peers and retaliatory attitudes also varied by gender. Affiliating with aggressive peers influenced the retaliatory attitudes of boys, but did not influence girls' retaliatory attitudes.

Youth who believe that their parents support fighting were more likely to endorse retaliatory attitudes than their counterparts who did not believe that their parents support fighting. This finding corroborates the research conducted by Orpinas and colleagues (1999) and Malek and colleagues (1998) that highlights the importance of adolescents' perceptions of their parents' attitudes in youth aggression. We were surprised to find that parents' reported attitudes toward fighting were not related to youth retaliatory attitudes. In fact, youths' perceptions of their parents' attitudes toward fighting were not related to parents' reports of their attitudes toward fighting. One possible explanation for this finding is that there is a breakdown in communication such that parents' attitudes toward fighting are not being conveyed to youth or that youth are misreading their parents. These findings suggest that adolescents' *perceptions* of their parents' attitudes play a more important role in their retaliatory attitudes than parents' *actual* attitudes toward fighting. In fact, multivariate analyses revealed that after controlling for age, SES, gender, aggression, violence exposure, and having aggressive peers, adolescents' perceptions of their parent attitudes toward fighting was the strongest predictor of retaliatory attitudes.

Contrary to our expectations, recent assault/event characteristics were not related to retaliatory attitudes. Relationship to the person who injured them, intentionality, assault type and youths' perceived severity of their injury were not related to their retaliatory attitudes. More research is needed to further explore the relationship between assault/event characteristics and retaliation. This study examined youths' *general* attitudes toward retaliation. Perhaps assault/event characteristics do not impact youths' *general* beliefs about retaliation, yet these characteristics may play a role in youths' retaliatory attitudes and behaviors related to the *specific* person who recently injured them.

Intervention efforts aimed at changing environmental (i.e., school-wide or community level interventions) norms regarding retaliation may be particularly beneficial for youth who feel compelled to retaliate based on their experience in violent contexts such as their schools or neighborhoods. Efforts designed to help assault-injured youth effectively manage aggression may be particularly helpful for girls. For boys, such intervention efforts should involve components that help them effectively



manage peer pressure, particularly pressure from peers who may engage in deviant behaviors.

Given the importance of youths' perceptions of parents' attitudes, violence prevention and intervention efforts need to engage parents. More specifically, research and interventions are needed that assess parents' attitudes toward violence and facilitate parent-child communication about violence. Although adolescents' perceptions may be strongly influenced by characteristics of the adolescent, it is highly likely that their parents can have some influence over these perceptions. Youth who perceive that their parents support fighting, when actually their parents do not support fighting, may benefit from in depth parent-child discussions in which parents clearly articulate their stance against fighting. Youth who have parents who actually support fighting may benefit from interventions aimed at their parents to increase their parents' awareness of nonviolent ways to resolve conflict. Parents of adolescents who have been assaulted may need support and assistance in coping with their own fears and frustrations related to adolescents' assault event and exposure to violence (Phelps et al., 2006). This support mechanism for parents may be a crucial first step in helping them to communicate with their children about violence and promote nonviolence. Engaging parents who are raising youth in violent neighborhoods and schools in violence prevention efforts is paramount. Often these parents may be conflicted about what to communicate to their adolescents about retaliation, in particular. Parents need to feel confident that mechanisms in the school and the community are in place to protect youth who decide not to take matters into their own hands. Intervention and prevention efforts are needed that empower parents to demand structural changes in their environment that will ultimately influence norms related to violent behavior in their community.

There are some limitations of the study that need to be considered. The generalizability of the findings may be limited because the youth were recruited from just two hospitals and the hospitals were both in urban areas. In addition, the sample represented only one ethnic group. It is unknown whether these findings can be generalized to youth from non-urban areas or those who represent other ethnic groups. Because the data are cross-sectional, we are unable to establish the direction of the relationships presented in the study. It is possible that retaliatory attitudes may influence youths' perceptions of their parents' attitudes toward fighting and their decisions to affiliate with aggressive peers. More longitudinal studies are needed to examine the nature and course of

the relationships presented in this study. The study may have been enhanced by having more information on the adolescent's retaliatory attitudes relating to the specific person who injured him or her. In addition, actual retaliation may have occurred prior to the study assessment and this may have influenced youths' retaliatory attitudes. Potential nonparticipation bias is also a limitation of this study. The significant findings in this study all involved associations between variables from the same reporter, therefore, issues of common method variance must be taken into consideration. In addition, self-report measures are limited because of possible recall bias and possible social desirability. However, the use of youth and parent self-report measures is currently the state of the science for measuring violence-related attitudes.

Future research and intervention efforts in this area should address additional ways to help youth process their feelings related to retaliation and identify opportunities to assess youth retaliatory attitudes. Health care professionals and school staff (e.g., counselors, teachers, and administrators) are in a unique position to assess retaliatory attitudes and engage adolescents in conversations about these attitudes. In addition, more research is needed on the role of retaliatory attitudes in predicting future retaliatory behavior as well as the possible mediating role of retaliatory attitudes in youth aggression.

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