The Role of Witnessing Violence, Peer Provocation, Family Support, and Parenting Practices in the Aggressive Behavior of Rural Adolescents

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This study examined the influence of witnessing violence, peer provocation, family support, and parenting practices (monitoring and discipline) on aggression. Participants were 1,196 ninth graders at nine schools in poor, predominantly agricultural, rural communities who completed measures of these variables. Witnessing violence, peer provocation, low levels of family support, and poor parenting practices were each related to higher frequencies of aggression. Witnessing violence and peer provocation partially mediated relations between parenting and aggression, such that students who reported high levels of appropriate parenting reported lower levels of witnessing violence and peer provocation. These were, in turn, related to lower levels of aggression. The relation between family support and aggression was also mediated by peer provocation, though the degree of mediation was not as strong as for parenting. Both parenting and family support moderated the relation between witnessing violence and aggression such that this relation was stronger among adolescents who reported low family support or high levels of poor parenting. Neither parenting nor family support moderated the relation between peer provocation and aggression. Overall, parenting practices had a stronger influence on aggression than did family support. Results were generally consistent across gender. These findings have important implications for intervention efforts.

KEY WORDS: aggression; rural; adolescence; parenting; witnessing violence.

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Exposure to violence in its various forms has been identified as a major influence on adolescents' adjustment. Numerous studies have documented alarmingly high rates of witnessing community violence among adolescents (e.g., Garbarino, 1995; Slovak & Singer, 2001). Adolescents are often not only witnesses to violent acts, but victims as well, particularly for milder forms such as verbal harassment (e.g., Vernberg, Ewell, Beery, Freeman, & Abwender, 1995). Indeed, peer provocation (e.g., being teased or picked on) was identified as the most frequently encountered problem during focus groups with sixth grade students from an urban area (Farrell, Ampy, & Meyer, 1998). These high rates of exposure through witnessing community violence and peer provocation have serious consequences. Exposure to violence provides a powerful context for observational learning that can teach children aggressive behaviors and weaken their inhibitions about behaving aggressively (Bandura, 1986). This is supported by studies that have found positive relations between adolescents' use of aggression and their levels of exposure to community violence (e.g., Gorman-Smith & Tolan, 1998) and peer provocation (Farrell, Valois, Meyer, & Tidwell, 2003).

The negative consequences of exposure to violence may be more serious for children with low levels of family support who are left to deal with the impact of stressful events on their own. Parents provide a potential source of support for adolescents exposed to violence by comforting them, helping them process the event, and restoring a sense of safety (Duncan, 1996). This was supported by Kliwer, Lepore, Oskin, and Johnson (1998) who found that low levels of family support exacerbated the relation between witnessing community violence and negative consequences including internalizing symptoms and intrusive thoughts about violence. Family support may similarly moderate the relation between exposure to violence and the use of aggression against others. Adolescents who experience low levels of family support may be less able to cope adaptively with exposure to violence and may thus be more likely to engage in aggression than those with higher levels. Others have proposed that family support exerts an indirect effect on adolescent aggression by reducing susceptibility to negative peer influences (e.g., Baumrind; 1987; Gomez & Gomez, 2000). This possibility has not, however, been studied with regard to peer provocation.

A second source of parental influence is parental control. Two important components of parental control are discipline and monitoring (Patterson & Stouthamer-Loeber, 1984). The relation of inconsistent discipline and poor monitoring to aggressive behavior has been well supported in the literature (e.g., Henry, Tolan, & Gorman-Smith, 2001). For example, Scaramella, Conger, and Simons (1999) found that parental management strategies had the main effect on the development of and involvement in externalizing behaviors, including violence, in a sample of Caucasian adolescents from eight rural counties in Iowa. Parenting may also moderate the relation between exposure to violence and aggression by controlling
contingencies related to the use of aggressive behavior and reinforcing the notion that violence is not an acceptable response to difficult situations (Patterson, Forgatch, Yoerger, & Stoolmiller, 1998). When parents threaten discipline but do not follow through, children may view the lack of punishment as a reinforcer for deviant behavior (Patterson et al., 1998). Moreover, when parents do not closely monitor their children, there are greater opportunities for experimentation with deviant behavior and association with deviant peers (Patterson & Stouthamer-Loeber, 1984), suggesting that the influence of parenting on aggression may be partially mediated by exposure to violence. Research clarifying the role of protective factors, such as family support and parenting practices, will help prevention programs capitalize on developmental periods and opportunities for promoting positive adaptation.

The present study attempted to build on previous research by using structural equation modeling to examine several mechanisms by which parenting and family support impact the aggressive behavior of rural adolescents, including direct, moderating, and mediated effects. Kung and Farrell (2000) used a similar approach to examine mechanisms of parental influence on substance use in a study of urban adolescents. They found that poor parenting had a direct effect on substance abuse, exacerbated the peer pressure–drug use relation, and led to increased exposure to peer pressure, which in turn was related to increased drug use. The present study used a similar approach to test models involving both mediators and moderators of aggression. A mediating model was used to test the hypothesis that children who experience poor parenting and low levels of family support are more likely to witness community violence and experience peer provocation and that this, in turn, is related to an increased frequency of aggression. A moderating model tested the hypothesis that poor parenting and poor family support exacerbates the witnessing violence–aggression and peer provocation–aggression relations.

This study differed from much of the previous work in this area by focusing on a rural sample of ninth grade boys and girls. Though research on aggression has predominantly focused on urban samples, there is a growing awareness of the importance of considering youth violence in various cultural groups and settings (Weist & Cooley-Quille, 2001). Rural populations differ from urban populations in many important ways, including their physical distance and isolation, use of informal control as opposed to strict reliance on law enforcement personnel, and mistrust of the government (Weisheit & Donnerneyer, 2001). In addition, much of the previous research examining the influence of parenting practices on aggression has been restricted to male samples (e.g., Gorman-Smith & Tolan, 1998; Patterson & Stouthamer-Loeber, 1984). Finally, in contrast to previous studies that have focused on younger age groups (e.g., Kochenderfer & Ladd, 1996; Schwartz, McFadyen-Ketchum, Dodge, Pettit, & Bates, 1998), the present study focused on ninth graders. This age group represents a period of development when aggressive behaviors are at their peak (U.S. Department of Health and Human Services, 2001).
METHOD

Participants

Data for this study were collected in the Fall of 2000 as part of a follow-up evaluation of a violence prevention program implemented in middle schools (Farrell et al., 2003). Participants were ninth graders from six high schools in the public school systems of five rural counties in the Southern United States. These counties represented poor, predominantly agricultural communities. A total of 1,196 students completed the surveys. Of these, 27 were excluded because they met statistical criteria for random responding (Farrell, Danish, & Howard, 1992), and 16 because they had an excess of missing data. The final sample size was 1,153 (49% boys). The majority of students in the final sample were Caucasian (55%), 24% indicated they were Hispanic, 11% indicated they were African American, and the remainder identified themselves as Native American, Asian, or other. The majority of students lived with both parents (57%), 32% indicated they live with their mother only, 6% with their father only, and the remainder reported other living arrangements.

Procedure

Measures were administered to students by homeroom teachers in all non-special education classes at each school. Questionnaire booklets were coded with identification numbers. Students were told their responses would be confidential, and all completed booklets were immediately placed in an envelope that was then sealed. Students choosing not to participate were instructed to return blank booklets.

Measures

A 14-item subscale from the Problem Behavior Frequency Scale (Farrell, Kung, White, & Valois, 2000) was used to assess aggression. Students rated how frequently they had engaged in specific forms of physical and nonphysical aggression in the past 30 days using a 6-point anchored scale (1 = Never to 6 = 20 or more times). The alpha in the current sample was .93. The child form of the Alabama Parenting Questionnaire (APQ) (Frick, 1991) was used to assess students’ perceptions of parental monitoring and discipline. Students were asked 10 questions related to parental monitoring and 6 questions related to their parents’ disciplinary practices. In a previous study, Kung and Farrell (2000) found support for combining these subscales into an overall scale representing parenting practices. That finding was supported in the present study by the high correlation between these subscales ($r = .69$). The alpha coefficient for the combined scale was .89.
A 7-item version of the Network of Relationships Inventory by Furman and Buhrmester (1985) was used to assess family support. This scale was modified by asking students to rate their perceptions of support from their family rather than from individual family members. The alpha for the family support scale in the current sample was .90.

Students' level of witnessing violence was assessed using items from the Children's Report of Exposure to Violence (Cooley, Turner, & Beidel, 1995). Students were asked how frequently they had seen six specific acts of violence directed at a stranger. The alpha was .87.

Students' frequency of experiencing peer provocation was assessed using a scale from the Interpersonal Problem Situation Inventory for Urban Adolescents (Farrell et al., 1998). Students were asked how frequently they encountered five specific forms of verbal harassment (e.g., "People teased you about the way you look") during the past year. The alpha was .78.

Analyses

Data were analyzed using LISREL VIII (Jöreskog & Sörbom, 1993) to test separate structural equation models representing mediating and moderating effects. Moderator effects were tested using single-indicator methods recommended by Mathieu, Tannenbaum, and Salas (1992). The primary criterion used to evaluate the fit of the models was the comparative fit index (CFI). The CFI compares the fit of the proposed model to the null model, with values above .90 indicating a good fit (Bentler, 1990).

RESULTS

Descriptive Statistics

Means and standard deviations for scales included in this study are reported in Table I. Analyses of gender differences indicated that compared to girls, boys reported higher levels of poor parenting practices, $F(11,149) = 17.50, p < .001, d = .26$; witnessing violence, $F(11,124) = 36.95, d = .43$; and aggression, $F(11,151) = 43.57, d = .46$. There were no significant gender differences in family support or peer provocation. Correlations among these scales (reported below the diagonal in Table I) were low to moderate, ranging in absolute value from .17 to .51.

Latent Variable Models

Prior to examining relations among latent variables, a confirmatory factor analysis was used to test a measurement model representing the relations between
Table 1. Means and Standard Deviations for Measures, and Correlation Coefficients Among Scales (Below the Diagonal) and Latent Variables (Above the Diagonal)

<table>
<thead>
<tr>
<th>Scale name</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Family support</td>
<td></td>
<td>-.45**</td>
<td>-.07</td>
<td>-.22*</td>
<td>-.16*</td>
</tr>
<tr>
<td>2. Poor parenting</td>
<td>-.40**</td>
<td></td>
<td>.30**</td>
<td>.32**</td>
<td>.33**</td>
</tr>
<tr>
<td>3. Witnessing violence</td>
<td>-.17**</td>
<td>.34**</td>
<td></td>
<td>.30**</td>
<td>.43**</td>
</tr>
<tr>
<td>4. Peer provocation</td>
<td>-.21**</td>
<td>.29**</td>
<td>.28**</td>
<td></td>
<td>.50**</td>
</tr>
<tr>
<td>5. Aggression</td>
<td>-.22**</td>
<td>.42**</td>
<td>.51**</td>
<td>.42**</td>
<td></td>
</tr>
<tr>
<td>Means</td>
<td>26.2</td>
<td>38.2</td>
<td>8.7</td>
<td>8.9</td>
<td>25.1</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>6.8</td>
<td>12.0</td>
<td>3.8</td>
<td>3.9</td>
<td>13.2</td>
</tr>
</tbody>
</table>

Note. N = 1,153.
*p < .01. **p < .001.

the observed variables and the latent variables or constructs they were assumed to measure. This analysis was conducted on groups of items, or parcels, rather than individual items based on recommendations by Kishton and Widaman (1994). The parcels were created by randomly assigning items from each scale to parcels and calculating the sum of the items within each parcel. There were two to four items per parcel and two to three parcels served as indicator variables for each scale. The reliabilities of parcels ranged from .61 to .83.

The full measurement model specifying five correlated latent variables (aggression, witnessing community violence, peer provocation, parenting, and family support) fit the data well, CFI = .96, $\chi^2$ (80, N = 740) = 238.21. Correlations among these latent variables are reported in the upper diagonal of Table 1. The strongest relations were between aggression and experiencing peer provocation ($r = .50$), aggression and witnessing violence ($r = .43$), and poor parenting and family support ($r = -.45$). All correlations were significant with the exception of the correlation between family support and witnessing violence. Apart from this one exception, the pattern of correlations is consistent with mediation in that parenting variables were significantly correlated with peer provocation, witnessing violence, and aggression; and peer provocation and witnessing violence were correlated with aggression.

**Mediation Models**

Several models were used to examine the extent to which the effects of family support and parenting on aggression were mediated by witnessing violence and peer provocation. The first model, which included both family variables, fit the data very well, CFI = .96, $\chi^2$ (1, N = 1,102) = 36.58, and accounted for 44% of the variance in aggression. Within this model, paths from poor parenting to peer provocation and to witnessing violence were significant and positive (see Fig. 1a), indicating that poor parenting was related to higher rates of witnessing violence and peer provocation. Paths from peer provocation and witnessing violence to
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Fig. 1. Standardized parameters for latent variable models representing direct and indirect effects of poor parenting, family support, witnessed violence, and peer provocation on aggression in a sample of rural adolescents. Includes models: (a) representing witnessing violence and peer provocation as mediators of the effects of parenting and family support on aggression, and (b) representing parenting practices and family support as moderators of the relations between witnessing violence and aggression, and between peer provocation and aggression. *p < .05, **p < .01, ***p < .001.
aggression were also significant and positive, indicating that higher rates of peer provocation and witnessing violence were related to a higher rates of aggression. Parenting also had a significant and positive direct effect on aggression. Standardized coefficients indicated that the direct effect of parenting on aggression was .22, the indirect effect through peer provocation and witnessing violence was .26, and the total effect was .47. This indicates that witnessing violence and peer provocation mediated over half the total effect of parenting on aggression, reflecting partial mediation (Baron & Kenny, 1986). Within this combined model, family support did not have a significant direct effect on aggression, but did have a significant but small negative effect on peer provocation. The direct effect of family support on aggression was .01, its indirect effect through peer provocation and witnessing violence was -.04, and its total effect was -.03. This indicates that family support had essentially no impact on aggression within this model.

Separate mediating models were also examined for family support and parenting practices. This provided a basis for examining the effects of each of these variables without controlling for the other. The mediating model for parenting fit the data well (CFI = .96, \( \chi^2 = 36.83, df = 1 \)) and produced results similar to the full model. The mediating model for family support had a marginally acceptable fit, CFI = .89, \( \chi^2 (1, N = 1,102) = 67.30 \). Within this model, family support had significant negative effects on peer provocation (-.26), witnessing violence (-.20), and aggression (-.06). These indicate that greater family support was related to lower levels of peer provocation, witnessing violence, and aggression. Within this model, the total effect of family support on aggression was -.25, with indirect effects through witnessing violence and peer provocation accounting for 76% of this effect.

Multiple group analyses were used to examine gender differences in the pattern of relations among latent variables in the combined model. This involved comparing the fit of a model in which all paths involving the mediating effects were constrained to be equal for boys and girls (all other coefficients including direct effects, error variances, variances and covariances of the exogenous variables were allowed to vary) to an unconstrained model in which these paths were allowed to vary across gender. Although the fit of the unconstrained model, CFI = .94, \( \chi^2 (2, N = 1,070) = 67.07 \), was slightly better than that of the constrained model, CFI = .93, \( \chi^2 (8, N = 1,070) = 77.77 \), the difference in fit between the models was not significant, \( \chi^2 (6, N = 1,070) = 10.70, p > .05 \). This indicates that there were no differences in the magnitude of indirect effects for boys and girls.

**Moderated Models**

A second set of models examined the extent to which parenting and family support moderated the relation between witnessing violence and aggression and between peer provocation and aggression. A combined model testing this effect
with both parenting and family support fit the data well, CFI = .96, \( \chi^2 (4, N = 1,102) = 83.97 \) (see Fig. 1b). None of the paths involving family support were significant. In contrast, parenting, peer provocation, and witnessing violence all had significant and positive effects on aggression. Parenting also significantly moderated the influence of witnessing violence on aggression. In order to better understand this interaction, slopes representing the relation between witnessing violence and aggression were estimated for students reporting different levels of parenting practices. For adolescents who reported mean levels of parenting practices, the estimated standardized slope of aggression on exposure to violence was .34 (i.e., 1 SD difference in exposure was associated with .34 SD difference in aggression). For students reporting poorer levels of parenting (i.e., 1 SD above the mean), the slope increased to .46. At low levels of poor parenting (i.e., 1 SD below the mean), the slope decreased to .22. In other words, the relation between witnessing violence and aggression was stronger for children who reported poor parenting than those children who indicated that their parents provided more appropriate parenting.

As with the analyses of mediating influences, separate models of the moderating effects of parenting and family support were examined. The model with parenting fit the data well, CFI = .95, \( \chi^2 (2, N = 1,102) = 55.44 \), and results were consistent with the full moderating model. The moderated model with family support also fit the data well, CFI = .95, \( \chi^2 (2, N = 1,102) = 37.83 \). In contrast to the full model, family support significantly moderated the influence of witnessing violence on aggression such that the relation between witnessing violence and aggression was strongest for adolescents who reported low levels of family support. The slopes of witnessing violence on aggression were .49, .42, and .35, respectively, when family support was low (i.e., 1 SD below the mean), average (at the mean), and high (1 SD above the mean). Standardized coefficients representing the moderating impact of family support (i.e., .07) and its direct effect (.06) on aggression were quite small relative to coefficients representing the direct effects of peer provocation (.34) and witnessing violence (.42) on aggression.

Multiple group analyses were again conducted to examine the impact of gender within the combined moderating model. This involved comparing a model in which the path coefficients associated with the interaction terms were constrained to be equal for boys and girls to an unconstrained model. Other coefficients (e.g., direct effects, error variances, and covariances and variances of the exogenous variables) in both models were unconstrained. The fit of both models was excellent, CFI = 1.0, \( \chi^2 (8, N = 1,070) = 18.18 \), and CFI = 1.0, \( \chi^2 (4, N = 1,070) = 5.83 \), for the constrained and unconstrained models, respectively. Although a \( \chi^2 \) difference test indicated that the unconstrained model fit the data significantly better, \( \chi^2 (4, N = 1,070) = 12.35, p < .05 \), the fit indices for the two models were virtually the same suggesting that any gender differences in moderating effects were small.
DISCUSSION

This study tested several different models of the influence of parenting and family support on witnessing violence, peer provocation, and aggression among rural adolescents. Support was found for models in which the influence of parenting practices, including discipline and monitoring, on aggression was partially mediated by witnessing violence and peer provocation. Support was also found for parenting as a moderator of the relation between witnessing violence and aggression, such that witnessing violence was more strongly related to aggression among adolescents who experienced poor parenting. Family support did not predict aggression, nor did it moderate the influence of witnessing violence on aggression in models that included parenting practices. Both effects were, however, evident in models that examined the effects of family support separately from parenting practices. Neither parenting nor family support moderated the relation between peer provocation and aggression in any of the models tested. Examination of gender differences indicated that the role of parenting practices and family support within the various models did not differ for girls and boys.

The direct and indirect influences of parenting practices on aggression found in the present study are consistent with links between parenting and aggression that have been established in several previous studies using urban, male samples (e.g., Henry et al., 2001; Patterson & Stouthamer-Louwer, 1984). Over half the effect of parenting on aggression was mediated by witnessing violence and peer provocation, which supports theories suggesting that parents can influence their children's behavior indirectly by preventing their exposure to negative influences (e.g., Patterson & Dishion, 1985). The current findings are also consistent with Patterson et al. (1998) contention that proper parenting provides a mechanism for controlling contingencies that influence aggressive behavior, and that a disruption in these processes facilitates experimentation with and the experience of reinforcement for engaging in aggressive behavior. The finding that part of the relation between parenting practices and aggression was mediated by peer provocation is somewhat surprising in that peer provocation most commonly occurs at school (Pierce & Cohen, 1995). It may be that parents are able to limit their children's exposure to peer provocation by monitoring who they spend their time with outside of school, thus minimizing incidents of provocation in community settings. The notion that consistent discipline and close monitoring may limit exposure to deviant peers is similar to the findings of Kung and Farrell (2000) who reported that the influence of parenting practices on adolescents' drug use was mediated by peer pressure.

Results regarding family support were consistent with the theory that having a family that is available for open communication fosters the sense of security and confidence necessary for adaptive coping with difficult situations (Duncan, 1996, Kliwer et al., 1998). Specifically, family support had small, but significant direct
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and indirect effects on aggression in models that considered its influence independent of parenting. Much of the influence of family support on aggression was mediated by peer provocation. This is consistent with previous findings that low levels of family support are related to the attribution of hostile intent to ambiguous peer provocation (Gomez & Gomez, 2000) and that children who attribute more hostile intent to ambiguous or neutral peer provocation tend to engage in more aggression (Crick & Dodge, 1994). Studies of witnessing community violence have also found support for a relation between low levels of family support and negative outcomes, such as intrusive thoughts about violence (e.g., Kliever et al., 1998). In the present study, however, family support only influenced witnessing community violence when parenting was not in the model. This may be due to the relatively stronger influence of parenting in reducing exposure to community violence through monitoring (Patterson & Dishion, 1985). The age of the participants in the current study may also be responsible for the smaller role of family support on the effects of witnessing violence as compared to Kliever et al. (1998) study that used preadolescent participants. Important changes that occur during adolescence, such as pubertal development, autonomy, and identity development, are related to diminished positive interactions with parents and greater rejection of parental values (Silverberg, Tennenbaum, & Jacob, 1992).

This study also examined the extent to which parenting practices and family support moderated the witnessing violence-aggression and peer provocation-aggression relations. Findings indicated that the relation between adolescents' reports of witnessing violence and their frequency of aggression was weaker among children who reported receiving adequate parenting (i.e., consistent discipline and close monitoring) than among those who reported receiving poor parenting. This is consistent with a study that found that poor parenting exacerbated the relation between peer pressure and drug use (Kung & Farrell, 2000). It may be that proper parenting is necessary to counteract the strong influence of models of deviant behavior (Bandura, 1986). Witnessing violent models in the community has been related to an increase in attitudes supporting violence and decrease in attitudes supporting nonviolence in studies of both rural and urban children (Farrell & Sullivan, 2004). The current findings support the contention that parents play a crucial role in moderating this influence by re-instilling the notion that aggression is unacceptable with monitoring and discipline (Patterson et al., 1998). Family support also moderated the relation between witnessing violence and aggression, though only when parenting was not in the model. This suggests that the sense of comfort and confidence that family support can restore following witnessing violence (Duncan, 1996; Kliever et al., 1998) influences adaptive coping but may be overshadowed by parenting in conveying the message that aggression is an inappropriate (Patterson et al., 1998). Neither parenting nor family support moderated the relation between peer provocation and aggression. The ability of parenting and family support to play a role in aggression when adolescents witness violence
but not when they experience peer provocation may be related to proximity. Peer provocation involves being the direct recipient of verbal aggression, which can trigger an immediate aggressive reaction in some children (Crick & Dodge, 1994).

Several important gender differences were revealed. Consistent with previous research, boys reported higher rates of aggressive behavior (e.g., Vernberg, Jacobs, & Hershberger, 1999), poor parenting (e.g., Kung & Farrell, 2000), and witnessing violence (Farrell & Sullivan, 2004) than did girls. Despite differences in reported rates of behaviors, gender differences in the role of parenting practices and family support were not found. These findings are consistent with those of studies in both rural (Scaramella et al., 1999) and urban settings (Forehand, Miller, Dutra, & Chance, 1997) that did not find gender differences in the influence of parenting on externalizing behaviors, including aggression. These findings are in contrast to the literature on substance abuse that indicates a differential effect of parenting based on gender (e.g., Kung & Farrell, 2000; Steinberg et al., 1994).

The current findings support the use of interventions designed to improve parenting practices as a means of reducing aggression in both boys and girls (e.g., Dishion & Kavanagh, 2000). They also suggest multiple ways in which parenting practices may influence levels of aggression. Parenting practices such as monitoring and consistent discipline not only produce direct effects on aggression, but may also reduce the likelihood of exposure to witnessing violence and peer provocation in the community-factors related to increased levels of aggression. Apart from this reduction in exposure, strengthening parenting skills may have the additional benefit of reducing the influence of witnessing violence on aggressive behavior when such exposure does occur. Although family support had less relative influence than parenting, family support was also found to be influential through several pathways. Interventions to increase family support may reduce the likelihood of peer provocation. Reducing rates of peer provocation is especially crucial because neither family support nor parenting practices were found to influence its effects once it has occurred.

Although this study had a number of significant strengths, including the use of a large rural sample and the application of sophisticated methods for examining mediating and moderating mechanisms, several significant limitations should also be noted. One key limitation was that the assessment of adolescent and parent behaviors was based solely on perceptions of the adolescents. Previous studies using multiple informants have found low agreement between child and parent reports of parenting behavior (e.g., Patterson & Dishion, 1985) and some researchers have argued that parent-report is a more appropriate method of assessing these constructs (e.g., Furman & Buhrmester, 1985; Patterson & Dishion, 1985). On the other hand, some such measures assess the desired outcome of parenting rather than the process itself (e.g., Steinberg et al., 1994). Studies that use observational methods often force parenting variables into categories that do not allow for an exploration of the continuum of parenting
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(e.g., Gorman-Smith & Tolan, 1998; Scaramella et al., 1999). Furthermore, Berman, Kurtines, Silverman, Lourdes, and Serafini (1996) found that children’s perceptions of parenting were more influential than the actual parenting they received. Finally, self-report has been found to be a more accurate representation of the occurrence of stressful events, such as witnessing violence, because parents tend to underestimate the levels of distress that their children experience (Martinez & Richters, 1993).

Another limitation is that this study’s cross-sectional design precludes making any strong causal inferences. Although support was found for models in which parenting, family support, peer provocation, and witnessing violence were depicted as causes of aggression, the possibility that aggression may have influenced these other variables cannot be ruled out. It is plausible that aggressive adolescents may be more likely to expose themselves to situations where they are more likely to witness violence. The fact that aggressive adolescents may differ in their perceptions of situations (Crick & Dodge, 1994) may be responsible for the relation between aggression and adolescents’ reported frequency of exposure to peer provocation. It is also possible that parental behavior may also be influenced by their children’s behavior. Parents may change parenting strategies in an attempt to prevent further delinquency after their children begin to engage in aggressive behavior. Developmental theory has also indicated that changes in adolescence often lead to alterations in parenting and family dynamics (Silverberg et al., 1992).

This study suggested several directions for future work. Although the results of this study provided evidence in support of relations among parenting practices, family support, witnessing violence, peer provocation, and aggression, longitudinal studies are needed to examine the cross-sectional models supported in the present study and to test competing models of the relations among these variables. Additional research is also needed to examine the influence of specific components of parenting, and to determine if these relations vary as a function of who is making the report (parents or children). Finally, further work is needed to determine the extent to which the findings obtained with this rural sample can be generalized to adolescents from other communities.

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