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Understanding the Dimensions of Parental Influence on Alcohol Use and Alcohol Refusal Efficacy among African American Adolescents

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Abstract

Empirical evidence indicates that parental factors may be important protective factors for adolescents. Less is known about the dimensions of parental influence on alcohol use among African American adolescents. The purpose of this investigation was to examine parental influence and its relationship to alcohol refusal efficacy and use among African American adolescents and how it differs according to community type, gender, and age. A total of 564 African American fifth-, eighth-, and 12th-grade students participated in this study. The findings suggest that several dimensions of parenting affect alcohol use of children in both direct and indirect ways. Parental monitoring and control, parental disapproval of alcohol use, and relationships with mothers and fathers directly affected alcohol use, alcohol refusal efficacy, or both. Several of the direct effects were attenuated by community type, gender, and age, suggesting the need to examine the context and conditions under which alcohol is more likely to be consumed by African American youths. Implications for research and prevention programming are offered.

Keywords

drugs; substance use; youths

Most adolescent drug prevention programs are school based and teach youths strategies to manage peer pressure to refuse drugs. However, the number of family-based prevention programs that include both parents and children is growing. These programs are based on evidence that factors such as parental drug use (Brook, Whiteman, Balka, & Cohen, 1997), parental monitoring (Stattin & Kerr, 2000), quality of the parent–adolescent relationship (Bahr, Hoffman, & Yang, 2005), and parental attitudes concerning drug use (Yu, 2003)

have direct effects on drug use and buffer against the negative influence of peers during adolescence. Yet little research has been devoted to studying the dimensions of parental influence and its relationship to drug use in general and alcohol use in particular among African American adolescents. Understanding what contributes to alcohol use (or nonuse) is important because alcohol is a “legal” drug (albeit not for those under 21) that is readily accessible in many African American neighborhoods and communities (Wallace & Muroff, 2002).

A need exists to identify how parents can use their influence to reduce domain-specific peer risk factors on the attitudes and behaviors of their children (Brooks-Gunn & Markman, 2005; Chapple, Hope, & Whiteford, 2005; Drapela & Mosher, 2007). This is especially important for youths who may not have access to extracurricular, faith-based, or community programs that often provide protective buffers against peer and community risks (Brooks-Gunn & Markman, 2005; Burtlew et al., 2009; Drapela & Mosher, 2007; Hirschi, 1969). In these cases, parental influences may be the lone or strongest protective factor against not only alcohol and drug use, but other youth risk behaviors, including premature sexual behaviors and delinquency (Brooks-Gunn & Markman, 2005; Chapple et al., 2005; Drapela & Mosher, 2007; Hirschi, 1969; Patterson, DeBaryche, & Meece, 1989).

In this study, we focused on alcohol use because it is one of the primary drugs of choice among youths, it is easily accessible, and African American youths are exposed to alcohol advertising at substantially higher rates than youths from other ethnic groups (Wallace & Muroff, 2002). We explored how dimensions of parental influence on alcohol refusal efficacy and use among African American adolescents differs according to community type (that is, urban or rural), gender, and age. Previous studies have found differences in the prevalence and patterns of predictors of alcohol use among African American adolescents living in rural and urban communities. In a study of 907 African American students in grades 10 and 12, Clark, Nguyen, and Belgrave (in press) found that peer and individual risk/protective factors were more influential for urban youths and that family and community risk/protective factors were more influential for rural youths. In addition, Johnston, O’Malley, Bachman, and Schulenberg (2004) found that girls are disproportionately affected by alcohol and other drug use. There is also a general consensus that the prevalence of alcohol and other drug use differs according to age.

ALCOHOL USE AMONG AFRICAN AMERICAN ADOLESCENTS

Alcohol use is linked to the two leading causes of death among African American youths and young adults: unintentional injuries (including motor vehicle accidents) and homicides (Centers for Disease Control and Prevention, 2009). In addition, African American youths experience increasingly more alcohol-related social and academic problems when compared with white youths (Barnes & Welte, 1986; Moss, 2005; Mulia, Ye, Greenfield, & Zemore, 2009). In a representative sample of 27,335 students in grades 7 through 12, Welte and Barnes (1987) found that these problems included conflicts with youths’ teachers, friends, and police and attending school drunk. Specifically, African American adolescents who reported alcohol use reported 5.9 alcohol-related problems per month, West Indian adolescents reported 3.8 problems per month, and white adolescents reported 2.2 problems

per month. These findings were particularly concentrated among female adolescents, who apparently experience higher levels of negative consequences of alcohol use than do male adolescents, although male adolescents are likely to consume alcohol at higher levels of frequency and in greater quantities than female adolescents (Wilsnack, Vogeltanz, Wilsnack, & Harris, 2000).

The prevalence of alcohol use among African American adolescents has remained fairly steady during the past several years. In 2006, among individuals 12 to 20, past-month alcohol use rates were highest among white Americans and lowest among African Americans (Substance Abuse and Mental Health Services Administration, 2007). Among this age group, current alcohol use was 32.3% among white Americans, 31.2% among American Indians or Alaska Natives, 27.5% among individuals reporting two or more races, 25.3% among Hispanics, 19.7% among Asians, and 18.6% among African Americans. Although alcohol use is lower among African American adolescents, the substantially higher alcohol-related problems experienced by African American youths creates an urgent need for preventive interventions that are grounded in theoretical perspectives that are meaningful to the populations served. This study builds on previous research efforts to identify parenting dimensions that influence alcohol use among African American youths.

This study examined whether parental influence moderated the risky peer–adolescent alcohol refusal efficacy and use relationship and whether community type, gender, and developmental differences moderated the relationship between parental influence and alcohol refusal efficacy and use. This article accomplishes three goals: (1) increases understanding of the dimensions of parental influence on alcohol refusal efficacy and use among African American adolescents; (2) stimulates additional research on parental monitoring, parental control, and relationships between parents and their children; and (3) provides empirical support for emphasizing parenting factors in adolescent alcohol preventive interventions. Our review includes an overview of previous research on the primary study variables.

PREVIOUS RESEARCH OF STUDY VARIABLES

Parent–Adolescent Relationship

Parental attachment or bond is the degree of closeness that adolescents feel toward their parents (Barber, 1997). Recent studies have conceptualized parental attachment and bond separately, as attachment to mother and attachment to father (for example, Dorius, Bahr, Hoffmann, & Harmon, 2004). Bahr et al. (2005) found that weak attachment to mother significantly predicted cigarette, alcohol, marijuana, and illicit drug use. Castro, Brook, Brook, and Rubenstone (2006) found that low maternal affection at time 1 was related to adolescent drug use for boys and girls at time 2, one year later.

Although fewer African American adolescents live with their fathers than with their mothers, many maintain contact with their fathers. Moreover, positive parent–child relationships are likely to have significant conventionalizing influences on youth alcohol use, and these effects may be strongest in cases of father–child relationships (Brody, Flor, Hollet-Wright, McCoy, & Donovan, 1999). Bahr et al. (2005) found that attachment to

father significantly predicted cigarette, alcohol, binge drinking, and illicit drug use. Turner, Larimer, and Sarason (2000) suggested that levels of father–child conflict influenced levels of adolescent alcohol use, especially among male adolescents.

Parental Control

Parental control is conceptualized as rules and limit setting on children’s behaviors (that is, requiring permission before leaving home) (Stattin & Kerr, 2000). Parental control is negatively related to current alcohol use and other drug use (Robbins, Enev, Oconnell, Gealt, & Martin, 2011). In general, the literature suggests that firm rules and limit setting are healthy and lead to positive adolescent outcomes, whereas rigid rules and limit setting may lead to negative adolescent outcomes. For example, parents who set rigid limits tend to have boys who are more aggressive (Lochman, Cohen, & Wayland, 1991), which increases their risk for substance use (Lochman, 2003). Relationships between parental control and adolescent drug use appear to be partially mediated by the effects of this control on peer affiliation (Rodgers-Farmer, 2009). Parents who demonstrate high levels of control, especially parental monitoring, appear to strongly influence their children’s peer selection and affiliation (Chapple et al., 2005; Rodgers-Farmer, 2009). Influences on selection and affiliation may act to protect or reduce youth exposure to peer risks, especially peers who engage in risky behaviors, including alcohol and drug use (Burlew et al., 2009; Chapple et al., 2005; Rodgers-Farmer, 2009). Low levels of parental control are related to an increased likelihood that youths will associate with peers who engage in risk behaviors, especially if these peers have high levels of popularity or there are high levels of intragroup reinforcements for a behavior (Akers, 2000; Prinstein & Dodge, 2008).

Parental Attitudes toward Alcohol Use

Ary, Duncan, Duncan, and Hops (1999) conducted a longitudinal study of 173 families with two or more children to explore the influence of parent, sibling, and peer modeling on attitudes toward drug use. In the study, both parents’ attitudes toward youth alcohol use and parental modeling were positively correlated with adolescent alcohol use. Yu (2003) found that adolescents’ perceptions of their parents’ attitudes toward underage drinking influenced their lifetime drinking but not their current drinking or initiation of alcohol. Additional studies that examine the relationship between perceived parental attitudes toward alcohol use and current drinking among African American youths are warranted.

OVERVIEW OF PROPOSED STUDY

Less is known about the nature of parental influence and its relationship to alcohol refusal efficacy and use among African American adolescents and how it differs according to community type, gender, and age. The purpose of this investigation was to examine these relationships. This study extended previous research and incorporated other researchers’ recommendations (that is, Darling & Steinberg, 1993; Kung & Farrell, 2000). Specifically, it included urban and rural youths (Kung & Farrell, 2000) and a more complete set of parenting variables (Darling & Steinberg, 1993) to include examination of the father–adolescent relationship. Also, our focus on African Americans youths—and not other ethnic groups—was consistent with research addressing positive (or negative) youth development

within groups (Belgrave & Allison, 2010). This study sought to test the following four hypotheses:

1. The relationship between parenting factors and alcohol refusal efficacy and use will differ among rural and urban adolescents. Parent–adolescent relations will be more strongly related to adolescent alcohol use in rural areas than in urban communities. And when the community is urban, parental management will be a stronger influence on adolescent alcohol use than when the community is rural. The first part of this hypothesis is based on our earlier research that showed the protective role of the family as a buffer against drug use for rural African American youths. The second part of this hypothesis is based on our expectation that parental management factors may be more important in urban than in rural communities because of increased opportunities for youths to engage in risky behavior in urban communities (Coleman, Ganong, Clark, & Madsen, 1989; Morales & Guerra, 2006).
2. The relationship between parenting factors and alcohol refusal efficacy and use will differ according to gender. Parent–adolescent relations and management will be more strongly related to alcohol refusal efficacy and use for girls than for boys. This hypothesis is based on our expectation that girls are likely to be particularly responsive to parental relationships, which are expected to lead to a stronger influence as a protective factor on behavioral outcomes (Belgrave, Reed, Plybon, & Corneille, 2004).
3. Adequate parent–adolescent relations and management may increase adolescent alcohol refusal efficacy and reduce alcohol use more for younger adolescents. Parent–adolescent relations and management will be stronger predictors of high alcohol refusal efficacy and non–alcohol use among younger adolescents. This hypothesis is based on our expectation that African American parents play a stronger role in shaping the attitudes and behavior of younger youths (Li, Stanton, & Feigelman, 2000).
4. Peer influence will be a stronger predictor of low alcohol refusal efficacy and high alcohol use among older adolescents. The hypotheses are presented schematically in Figure 1.

METHOD

Participants

This study includes three cohorts of fifth-, eighth-, and twelfth-grade students ($N = 660$). Three hundred thirty-nine (60%) were from an urban region, and 227 (40%) were from a rural region. Participants included in the present study were those who self-identified as African American ($N = 564$). The sample comprised 197 (35%) male and 367 (65%) female adolescents. Participants' ages ranged from 11 to 23, with a mean age of 16.65 ($SD = 2.93$). The response rate varied from 25% to 75% depending on the grade level and school. Response rates were higher in lower grades than higher grades.

Procedure

This study was approved by Virginia Commonwealth University's institutional review board. Data were collected in public school systems in the southeastern United States. Specifically, students from two rural elementary schools, one rural middle school, one rural high school, three urban elementary schools, three urban middle schools, and two urban high schools participated in this study. Data were collected at schools during school hours by trained researchers and research assistants. During introductory meetings of the study, data collection staff described the consent and assent process, and the consent and assent forms were later collected and secured by school liaisons until the data collection staff returned to collect study documents. Participants were enrolled in the study upon consent from their parents and after providing assent. The questionnaire was administered in a designated area in the schools, such as the cafeteria or the auditorium. Researchers seated students far enough apart to ensure privacy. Following protocol, a survey prompt was read aloud that included information about how to complete the survey and reminded the students that their participation was voluntary and their responses were confidential. Small incentives were provided to students for participating.

Measures

All measures had been used previously with the target population and were reliable and valid. Descriptive information is available in Table 1. The Network of Relationships Inventory (NRI) assessed adolescents' perceptions of their relationships with their mothers and fathers or guardians (Furman & Buhrmester, 1992). The NRI consists of 20 items rated on a four-point Likert-type scale (10 items each to assess mother- and father-adolescent relationships). An example item is "How often do you talk about personal things with your mother (or father)?" The responses ranged from "not at all" to "a lot," "not a lot" to "all the time," and "not at all happy" to "very happy." In the current sample, the Cronbach reliability coefficient was .84 for the NRI Mother-Adolescent Relationship subscale and .88 for the NRI Father-Adolescent Relationship subscale.

The Parental Control scale is an 11-item self-report scale assessing youths' perceptions of parental behavioral control (parental permissiveness or strictness) of everyday activities (Houston Community Demonstration Project, 1993). Respondents were asked to indicate the extent to which they agree or disagree with a series of statements, such as "My parent(s) permit me to be friends with anyone I choose" and "My parent(s) know the words of the music and rap I listen to." We modified this measure to include the following item: "My parent(s) know which sites I go to on the Internet." Response options ranged from disagree a lot = 1 to agree a lot = 4. In the current sample, the Cronbach reliability coefficient was .72.

Parental attitudes toward drug use was assessed with a three-item scale (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002). It measures youths' perceptions of their parents' attitudes about drinking and smoking. An example item is "How wrong do your parents feel it would be for you to drink beer, wine, or hard liquor?" The items were rated on a four-point scale, with response options ranging from not wrong at all = 1 to very wrong = 4. In the current sample, the Cronbach reliability coefficient was .73.

Scales from the Center for Substance Abuse Prevention's Government Performance and Results Act Participant Outcome Measures were used (Johnston, O'Malley, Bachman, & Schulenberg, 2005) to measure past 30-day alcohol use with a single item, "During the past 30 days, on how many days did you have at least one drink of alcohol?" Participants could check a range of seven responses, from 0 days to all 30 days.

The Specific Event Drug and Alcohol Refusal Efficacy Scale was adapted from a measure developed by Connors, Bradley, Whiteside-Mansell, and Crone (2001). Participants responded to a three-item scale that inquired about whether they would be tempted to drink (alcohol) during certain potentially stressful or pressured events. A sample item is "If my boyfriend/girlfriend wanted me to drink, I would feel tempted." Higher scores reflect a lower sense of alcohol refusal efficacy, and lower scores reflect a higher sense of alcohol refusal efficacy. The items are rated on a seven-point Likert-type scale, with response options ranging from not true = 1 to very true = 7.

Data Analysis Strategy

Preliminary analyses were conducted to screen data for outliers and violations of the assumptions of multiple regression, including linearity, normality, and homogeneity of variance. To test the study's hypotheses, hierarchical multiple regression analyses were computed. Predictor variables were centered to reduce nonessential multicollinearity. To control for the effect of gender and grade cohort, these items were entered into step 1. In analyses that examined gender and development age as moderators, gender and grade cohort, respectively, were not used as covariates in the regression models. Lower order effects such as parental drug disapproval, parental control, quality of father-adolescent relationship, quality of mother-adolescent relationship, community type, and age were entered into step 2. Interaction effects were entered into step 3.

RESULTS

Refer to Table 1 for descriptive information relating to our primary measures. Bivariate associations were computed among the study's variables. The results of the correlational analyses are presented in Table 2. Parental drug disapproval, parental control, quality of the father-adolescent relationship, quality of the mother-adolescent relationship, and alcohol refusal efficacy were associated with lower rates of past 30-day alcohol use, whereas increasing age was associated with higher rates of alcohol use. Parental drug disapproval, parental control, quality of the father-adolescent relationship, and quality of the mother-adolescent relationship were associated with higher rates of alcohol refusal efficacy. Because none of the associations among our predictors were above .70, there were no initial concerns for multicollinearity. Several of the parenting variables were also significantly associated with one another (see Table 2).

Moderating Role of Community Type on Parenting Factors and Past 30-Day Alcohol Use

A hierarchical multiple regression analysis was conducted to examine whether parenting factors predicted how often a student drank alcohol in the past 30 days and whether community type (urban or rural) moderated this relationship. The results of the analysis

indicated that the predictors accounted for a significant amount of variance in past 30-day alcohol use [$F(7, 553) = 11.21, p < .01, R^2 = .12$]. Parental drug disapproval significantly predicted past 30-day alcohol use [$t(563) = -5.15, p < .01, \beta = -.22$], indicating that increasing parental drug disapproval led to decreasing rates of past 30-day alcohol use. Parental control significantly predicted past 30-day alcohol use [$t(563) = -3.60, p < .01, \beta = -.18$], indicating that increasing parental control led to decreasing rates of past 30-day alcohol use.

The change in R^2 from step 2 to step 3 was insignificant ($R^2 = .01, p > .05$) and did not warrant further examination of the interaction effects between community type and parenting factors.

Moderating Role of Community Type on Parenting Factors and Alcohol Refusal Efficacy

A hierarchical multiple regression analysis was conducted to examine whether parenting factors predicted students' alcohol refusal efficacy and whether community type (urban or rural) moderated this relationship. Results of the analysis indicated that the predictors accounted for a significant amount of variance in alcohol refusal efficacy [$F(11, 551) = 3.17, p < .01, R^2 = .06$]. Community type significantly predicted alcohol refusal efficacy [$t(563) = 2.75, p < .01, \beta = .12$]. Adolescents from urban regions displayed higher rates of alcohol refusal efficacy when compared with adolescents from rural regions.

Interaction effects entered in step 3 of the regression equation contributed a significant amount of unique variance above lower order effects ($R^2 = .02, p < .01$). Community type moderated the relationship between the father–adolescent relationship and alcohol refusal efficacy [$t(563) = -2.40, p < .01, \beta = -.33$]. It was found that higher quality of the father–adolescent relationship predicted higher alcohol refusal efficacy for rural adolescents. However, quality of the father–adolescent relationship did not influence alcohol refusal efficacy for urban adolescents.

Moderating Role of Gender on Parenting Factors and Past 30-Day Alcohol Use

A hierarchical multiple regression analysis was conducted to examine whether parenting factors predicted 30-day alcohol use and whether gender (male or female) moderated this relationship. The results of the analysis indicated that the predictors accounted for a significant amount of variance in past 30-day alcohol use [$F(10, 550) = 8.34, p < .01, R^2 = .13$]. Three variables emerged as significant predictors of past 30-day alcohol use. Parental drug disapproval was a significant predictor of past 30-day alcohol use [$t(563) = -3.34, p < .01, \beta = -.23$], indicating that higher parental drug disapproval predicted lower rates of alcohol use. Parental control was negatively associated with past 30-day alcohol use [$t(563) = -3.33, p < .01, \beta = -.26$], indicating that higher parental control predicted lower rates of alcohol use. Lastly, quality of the mother–adolescent relationship significantly predicted past 30-day alcohol use [$t(563) = 1.98, p < .05, \beta = .15$], indicating that higher mother–adolescent relationship quality predicted higher rates of alcohol use.

Interaction effects entered in step 3 of the regression equation contributed unique variance above lower order effects ($R^2 = .02, p < .01$). Gender moderated the relationship between

mother–adolescent relationship and past 30-day alcohol use [$t(563) = -2.12, p < .05, \beta = -.16$]. For female adolescents, a stronger mother–adolescent relationship predicted lower rates of alcohol use; for male adolescents, a stronger relationship with mother predicted higher rates of alcohol use.

Moderating Role of Gender on Parenting Factors and Alcohol Refusal Efficacy

A hierarchical multiple regression analysis was conducted to examine whether parenting factors predicted students' alcohol refusal efficacy and whether gender (male or female) moderated this relationship. The results of the analysis indicated that the predictors accounted for a significant amount of variance in alcohol refusal efficacy [$F(6, 556) = 3.11, p < .01, R^2 = .32$]. Parental control significantly predicted drug refusal efficacy [$t(563) = -2.09, p < .05, \beta = -.11$], indicating that higher rates of parental control predicted higher rates of drug refusal efficacy.

The change in R^2 from step 2 to step 3 was insignificant and did not warrant further examination of the interaction effects between gender and parenting factors ($R^2 = .00, p > .05$).

Moderating Role of Developmental Age on Parenting Factors and Past 30-Day Alcohol Use

A hierarchical multiple regression analysis was conducted to examine whether parenting factors predicted how often a student drank alcohol in the past 30 days and whether developmental age moderated this relationship. The results of the analysis indicated that the predictors accounted for a significant amount of variance in past 30-day alcohol use [$F(10, 549) = 10.28, p < .01, R^2 = .16$]. Two variables emerged as significant predictors of past 30-day alcohol use. Perceptions of parental drug disapproval were negatively associated with past 30-day alcohol use [$t(563) = -2.86, p < .01, \beta = -.70$], indicating that increasing parental drug disapproval predicted lower rates of past 30-day alcohol use. Developmental age significantly predicted past 30-day alcohol use [$t(563) = 3.48, p < .01, \beta = .15$], indicating that increasing age predicted higher rates of past 30-day alcohol use.

Interaction effects entered in step 3 of the regression equation provided a significant R^2 (.02, $p < .01$). Age moderated the relationship between parental drug disapproval and past 30-day alcohol use [$t(566) = -3.75, p < .01, \beta = -.91$]. When parental drug disapproval was high, younger and older adolescents displayed similar rates of alcohol use. However, when parental drug disapproval was low, older adolescents had significantly higher rates of alcohol use compared with younger adolescents.

Moderating Role of Developmental Age on Parenting Factors and Alcohol Refusal Efficacy

A hierarchical multiple regression analysis was conducted to examine whether parenting factors predicted students' alcohol refusal efficacy and whether developmental age moderated this relationship. The results of the analysis indicated that the predictors accounted for a significant amount of variance in alcohol refusal efficacy [$F(10, 552) = 2.80, p < .01, R^2 = .05$]. Parental control was a significant predictor of alcohol refusal efficacy [$t(563) = -2.59, p < .01, \beta = -.73$], indicating that increasing parental control predicted higher alcohol refusal efficacy. The quality of the father–adolescent relationship

was negatively associated with alcohol refusal efficacy [$t(563) = 2.35, p < .05, \beta = .65$], indicating that higher levels of quality in the father–adolescent relationship predicted lower rates of alcohol refusal efficacy.

Interaction effects entered in step 3 of the regression equation provided a significant R^2 (.02, $p < .01$). It was found that developmental age moderated the relationship between parental control and alcohol refusal efficacy [$t(563) = 2.20, p < .05, \beta = .62$]. At low levels of parental control, older adolescents had higher levels of alcohol refusal efficacy than younger adolescents. At high levels of parental control, younger adolescents had higher levels of alcohol refusal efficacy than older adolescents. It was found that developmental age moderated the relationship between quality of the father–adolescent relationship and alcohol refusal efficacy [$t(563) = -2.55, p < .01, \beta = -.71$]. At lower quality levels of the father–adolescent relationship, older adolescents had the higher levels of alcohol refusal efficacy compared with younger adolescents. At higher quality levels of the father–adolescent relationship, younger adolescents had higher levels of alcohol refusal efficacy compared with older adolescents.

DISCUSSION

This study is salient and unique in our examination of multiple dimensions of parenting and current alcohol use among African American youths. Previous studies have examined parenting factors and alcohol use, but few have aimed to understand the dimensions of parenting and how these factors differ for current alcohol use across different contexts. This study addressed this gap in the literature, and its findings have important implications for prevention and research.

The findings suggest that several dimensions of parenting affect alcohol use of children in both direct and indirect ways. Parental monitoring and control, parental disapproval of alcohol use, and relationships with mothers and fathers directly affected alcohol use, refusal efficacy, or both. Several of the direct effects were attenuated by community type, gender, and age, suggesting the need to examine the context and conditions under which alcohol is more likely to be consumed by African American youths.

Limitations

This study yielded salient findings regarding the protective role of parenting factors on alcohol use and refusal efficacy among African American youths. Still, the findings of this study should be interpreted in the context of the study's limitations. First, because the study used a cross-sectional design, cause and effect relationships cannot be determined. Second, this study relied exclusively on youths' self-reports, which may have resulted in response bias among some students. Third, because the sample comprised enrolled public school students, the results cannot be generalized to students in other grades, other school settings, or not enrolled in school. Similarly, the findings are not generalizable to other ethnic, racial, or age groups. Fourth, we did not include school or classroom membership in our analyses, and these higher order variables may have contributed to intraclass correlations and to observations that were not fully independent. Multiple linear regression assumes

independence of observations. This may produce standard errors that are too small and lead to a higher probability of rejecting the null hypothesis (Galwey, 2006).

Implications for Research

The study's findings suggest that different types of parental factors directly and indirectly affect alcohol use and refusal efficacy among African American youths. We found that parental control and perceptions of parent drug disapproval predicted lower levels of alcohol use and higher levels of alcohol refusal efficacy. The literature suggests that younger adolescents rely on their parents as support structures (Vucina & Becirevic, 2007) and, in our case, rely on parents as protective buffers against early alcohol use. However, as adolescents become older, parental influence gives way to peer influence (Berndt, 1979; Brody & Shaffer, 1982), and research needs to revisit the interplay among parental influence, peer influence, and developmental age.

A relatively small amount of the variance was explained by the factors examined in this study, suggesting that there might be other parental factors and other types of factors at play. For example, alcohol use by siblings and close cousins might affect youth alcohol consumption along with monitoring and quality relationships with other important figures, such as grandparents.

In addition, the findings suggested that family factors were moderated by demographic (for example, age, gender) and contextual factors (for example, type of community). Our study's results found that positive mother-adolescent relationships predicted lower levels of alcohol use for female adolescents but higher levels of alcohol use for male adolescents. The implication for research is the need to study gender-incongruent dyads of mothers and sons or fathers and daughters and how these relationships may affect adolescents' patterns of alcohol and drug behavior.

Family factors might also influence alcohol consumption through a family's religious beliefs and practices that discourage alcohol consumption. One question for future research might be how religiosity interacts with family factors with regard to adolescent alcohol use. This construct could be examined by focusing on differences across and within religions (that is, denominations) and practices, such as frequency of attendance at services.

Implications for Prevention Programming

Findings of this study suggest several implications for prevention and intervention programming to prevent alcohol use among African American adolescents. First, we found that parental disapproval of alcohol use predicted lower rates of current alcohol use. This finding suggests that prevention and intervention programming should emphasize the impact of parents' attitudes on their children's behavior, particularly alcohol use. This finding is critical given that alcohol is legal for adults and might be more accessible in the home than other drugs, such as marijuana and cocaine. Consequently, programs should emphasize the potential influence of parental attitudes regarding alcohol use on their children's alcohol use, including the possible consequences of implicit attitudes, such as alcohol availability in the home.

Second, we found that higher levels of parental control predicted current alcohol use and alcohol refusal efficacy. This finding supports the literature suggesting that monitoring and supervision are important. However, this construct is more specific to parents' rule setting and involvement in specific behaviors, such as friend selection, music choice, and Internet sites visited. Our findings suggest that prevention and intervention programs should continue to emphasize monitoring and should focus on parental involvement in social activities, such as friend and music selection.

Third, consistent with previous studies, we found that older adolescents were more likely to report alcohol use. Prevention programs should consider targeting younger adolescents in elementary school to reduce the number of adolescents using alcohol. These programs should also consider providing specialized programs or services for older adolescents, such as additional booster sessions.

Fourth, we found that developmental age moderated the relationship between parental drug disapproval and alcohol use. This finding suggests that if parental disapproval was high throughout adolescence, adolescents' alcohol use might be less. Prevention and intervention programs should not overlook the important influence of parents even on their older adolescents' alcohol behaviors. Perhaps emphasizing the role of parental disapproval of alcohol use until adulthood would significantly reduce alcohol use among African American adolescents.

Fifth, we also found that age moderated the relationship between quality of the father–adolescent relationship and alcohol refusal efficacy. This finding indicates that when the quality of the father–adolescent relationship is weak, younger adolescents have lower alcohol refusal efficacy, and vice versa. This finding highlights the importance of the father–adolescent relationship on alcohol refusal efficacy. More African American fathers should be recruited in prevention and intervention programs, and these relationships should be emphasized.

Sixth, we found that urban adolescents had higher levels of alcohol refusal efficacy than rural youths. Our data also show that more urban adolescents (81%) had refrained from drinking alcohol in the past 30 days compared with rural adolescents (77%). Prevention programs should be mindful of the comparable rates of alcohol use across community types and dispel the myth that rural youths are engaging in alcohol use at significantly lesser rates than their urban counterparts.

In conclusion, the findings from our study are important for understanding parental influences and alcohol use among African American youths. Our focus on African Americans, and not other ethnic groups, is consistent with research that aims to understand within-group and not between-group differences in youth development.

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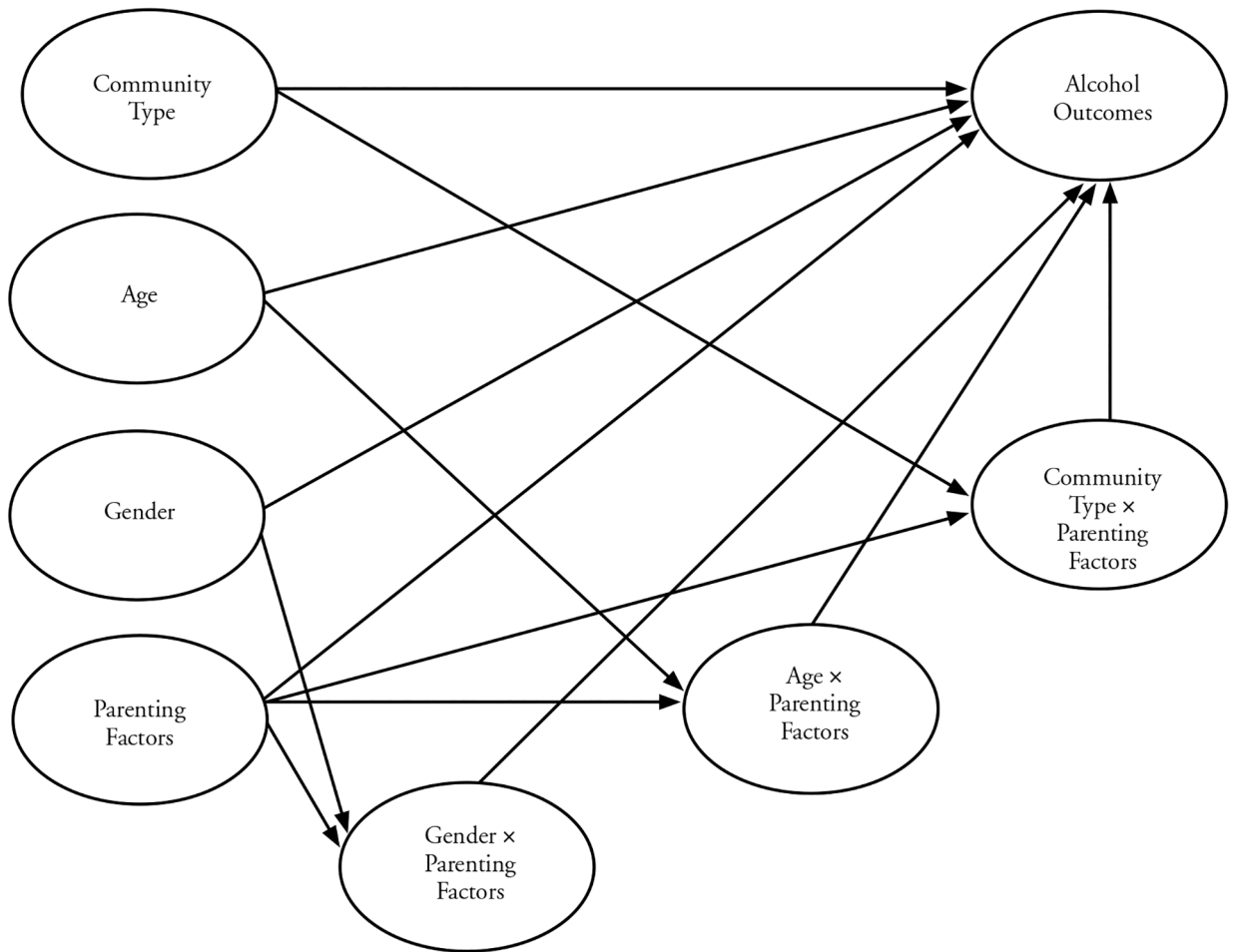


Figure 1:
Theoretical Model

Table 1:

Descriptive Statistics for Variables Used in the Study

Variable	<i>M</i>	<i>SD</i>	Range
Parental drug disapproval ^a	10.86	1.74	3.00–12.00
Parental control ^b	27.66	5.50	14.00–42.00
Quality of father–adolescent relationship ^c	25.23	6.47	9.00–36.00
Quality of mother–adolescent relationship ^d	29.40	5.11	9.00–36.00
Alcohol refusal efficacy ^e	6.74	4.19	4.00–28.00

^aHigher scores indicate the perception that parents would consider it wrong for adolescents to use drugs.

^bHigher scores indicate parental strictness.

^cHigher scores indicate a positive father–adolescent relationship.

^dHigher scores indicate a positive mother–adolescent relationship.

^eHigher scores reflect a lower sense of alcohol refusal efficacy.

Table 2:

Bivariate Associations among Variables of Interest

	1	2	3	4	5	6	7	8	9
1. Parental drug disapproval	—	.21*	.15***	.24***	-.21***	.00	.08	-.27***	-.09*
2. Parental control		—	.33***	.48***	-.39***	-.06	.06	-.25***	-.16***
3. Father-adolescent relationship			—	.21***	-.28***	-.01	-.09*	-.10*	-.10*
4. Mother-adolescent relationship				—	-.20***	-.02	-.01	-.13***	-.12***
5. Developmental age					—	.17***	-.03	.24***	.06
6. Community type						—	-.03	.06	.12***
7. Gender							—	-.04	.03
8. Past 30-day alcohol use								—	.21***
9. Alcohol refusal efficacy									—

* $p < .05$.*** $p < .01$.