

**INFLUENCE OF PARENTAL SOCIALIZATION ON
ADOLESCENT ALCOHOL MISUSE**

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ABSTRACT

The present study examined the influence of parental socialization on adolescent alcohol misuse. The purpose of the study was to examine two models of parental socialization that included dimensions of parental demandingness and responsiveness and alcohol-specific parental practices: alcohol monitoring, negative and permissive alcohol messages and alcohol contingency messages. More specifically, the study examined the extent to which parental demandingness and responsiveness each moderated the relationships between alcohol-specific parental practices and adolescent alcohol misuse and the extent to which alcohol-specific parental practices mediated the relationships between parental demandingness and responsiveness and adolescent alcohol misuse in separate samples of White and Black adolescents. In addition, the study examined how the pattern of relationships differed by race group.

The study used three waves of data from The Context of Adolescent Substance Use Study (Context Study), which was implemented from 2002 to 2004 in three counties in North Carolina. The final analysis samples included 723 White and 379 Black adolescents and their parents. Parental socialization included parent-reported demandingness, responsiveness, alcohol-specific parental practices and parental alcohol use. Adolescent alcohol misuse was based on adolescent-reported alcohol behaviors and related social problems. Measurement equivalence was tested for White and Black race groups prior to testing the study hypotheses in the separate White and Black samples. Logistic regression

procedures were used to test the moderation model and path analysis was used to test the mediation model.

Overall, neither a moderation nor mediation model was supported as a parental socialization process that predicted adolescent alcohol misuse. There were, however, clear links between one or both parenting style dimensions and each alcohol-specific parental practice for both White and Black adolescents, with the exception of alcohol monitoring for White adolescents. In addition, alcohol contingency messages for White adolescents and permissive alcohol messages for Black adolescents significantly predicted adolescent alcohol misuse. Parental alcohol use also was an important influence on adolescent alcohol misuse for both White and Black adolescents. Future research should continue to explore the relationships between parenting style dimensions, alcohol-specific parental practices and parental alcohol use to further clarify the role of parental alcohol use in family alcohol socialization.

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PREVIEW

CHAPTER 1: INTRODUCTION TO STUDY PURPOSE AND RESEARCH QUESTIONS

Introduction

Alcohol use is prevalent among adolescents and associated with poor social and health outcomes (Shope, 2006; Centers for Disease Control & Prevention, 2006; Johnston, O'Malley & Bachman, 2005; Shrier & Crosby, 2003; Brooks, Harris, Thrall and Woods, 2002; Maney, Hingham & Mahoney, 2002; Poulin and Graham, 2001; Cooper & Orcutt, 2000). More than three-fourths of adolescents in 2006 had tried alcohol by 12th grade, and 45% of 12th grade students reported drinking within the last 30 days, which indicates regular alcohol use. In addition, approximately 6% of 8th graders and almost 30% of 12th graders engaged in episodic heavy drinking (multiple drinks in a row) at least once in the past 30 days (Johnston, et al., 2006).

Alcohol misuse, including episodic heavy drinking, being intoxicated and experiencing alcohol-related social problems, is a complex of behaviors that reflect more serious involvement with alcohol than regular use. Adolescents who engage in episodic heavy drinking are more likely than their peers to report problems with interpersonal relationships and social situations and often experience alcohol-related problems in adulthood (Maney, et al, 2002). Alcohol misuse has been less studied, however, than initiation and progression to regular use. The purpose of this dissertation study is to examine how parental socialization influences adolescent alcohol misuse. Specifically, I examine two models of parental socialization that posit relationships between parenting style dimensions,

alcohol-specific parental practices and adolescent alcohol misuse, controlling for parental alcohol use. I test the study models in separate samples of White and Black adolescents and their parents who participated in The Context of Adolescent Substance Use Study (Context Study) from 2002 to 2004.

Parents are known to greatly influence adolescent alcohol use through their general parenting style, characterized by their demandingness and responsiveness toward their children, and their alcohol-specific parental practices, such as alcohol monitoring and communicating alcohol messages (Van der Vorst, Engels, Meeus, Dekovic, & Leeuwe, 2005 and 2006a, Simons-Morton & Chen, 2005, Borawski, Ievers-Landis, Lovegreen & Trapl, 2003; Kelly, K.J., Comello & Hunn, 2002; Scheer, Borden, & Donnermeyer, 2000; Andrews, Hops & Ary, 1993; Darling & Steinberg, 1993). Parental alcohol use also is strongly associated with adolescent alcohol use (Richter & Richter, 2001; Hawkins, Graham, et al. 1997, Chassin, Prost & Pitts, 2002; Coffelt, Forehand, Olson, Jones, et al., 2005; White, Johnson & Buyske, 2000), in part because adolescents learn family alcohol use norms by observing their parents and often imitate their parents' drinking behaviors (Yu, 2003, Beal, Ausiello & Perinin, 2001, Richter & Richter, 2001). Although fewer studies have examined adolescent alcohol misuse than less problematic alcohol use, some studies have found that dimensions of parenting style and parental alcohol monitoring are associated with alcohol misuse (Simons-Morton, 2005, Simons-Morton & Chen, 2005, DiClemente, Wingood, et al., 2001, Reifman, Barnes, et al., 1997). In addition, parental alcohol use is a strong predictor of adolescent alcohol use and misuse (Coffelt, et al., 2005; Yu, 2003; Chassin, et al., 2002; White, et al., 2001; Richter & Richter, 2001).

Researchers have conceptualized parenting style as a single construct or as a multidimensional construct that consists of demandingness and responsiveness dimensions. *Demandingness* is parents' use of rules, supervision and consequences to establish and reinforce behavioral expectations. *Responsiveness* is parents' response to their children's emotional and developmental needs through involvement and emotional support. The optimal parenting style includes high levels of parental demandingness and responsiveness, which is often called "authoritative" or "effective" parenting (Brody & Kim, 2004; Jackson, Henrikson & Dickinson, 1999; Darling & Steinberg, 1993, Baumrind, 1991).

A multidimensional approach to measuring parenting style assumes that demandingness and responsiveness have distinct effects on adolescent alcohol misuse and allows for testing such effects (Cox, 2006, Fletcher, Steinberg & Williams-Wheeler, 2004; Barnes, Reifman, Farrell, et al., 2000, Gray & Steinberg, 1999). Although not often studied, Gray and Steinberg (1999) found that high parental demandingness was most influential in reducing problem adolescent behaviors, whereas high parental responsiveness influenced a greater range of adolescent outcomes. Therefore, demandingness and responsiveness were measured as two separate dimensions of parenting style and their separate effects on adolescent alcohol misuse were examined.

Domain-specific parental practices are distinct from parenting style because they are behaviors parents use to influence their adolescents' behavior in a particular content area, such as alcohol use (Van der Vorst, et al., 2005 and 2006a; Jackson, et al., 1999, Darling & Steinberg, 1993). Parents' alcohol-specific practices include their monitoring for alcohol and communication about alcohol. Alcohol communication can include parents' messages about alcohol use rules, alcohol-related contingencies (e.g., "call home for a ride, if you do drink"),

family alcohol norms and consequences of alcohol use. Importantly, parents who have alcohol rules may or may not communicate rules to their children (Van der Vorst, et al., 2006a). Parents' reports of having alcohol rules, therefore, may reflect parental values with respect to alcohol, but are not equivalent to the parental practice of communicating alcohol rules.

Alcohol-specific parental practices have not been studied to the same extent as parenting style, but research on parental practices is emerging. Parental alcohol monitoring has been studied more than other types of alcohol-specific parental practices, and has been consistently associated with lower rates of adolescent alcohol use and misuse (Van der Horst, et al., 2005; Simons-Morton & Chen, 2005, DiClemente, et al.; Reifman, et al., 1997). Parents reports of having alcohol rules, in addition, has been associated with less alcohol initiation in adolescents (Van der Horst, et al., 2006a) and reduced regular alcohol use (Van der Horst, 2005) but has not been found to directly influence adolescent alcohol misuse.

Little is known about how content other than alcohol rules is communicated by parents and how other aspects of alcohol communication, such as the context within which messages are delivered, influence adolescent alcohol use and misuse (Ennett, Bauman, Foshee, Pemberton, et al., 2001; Jaccard, Dodge & Dittus, 2002). Parents' verbal messages about alcohol are an important component of parental socialization because it is through such messages that parents communicate behavioral expectations, as well as alcohol-related contingencies such as situations that may arise when adolescents have been drinking.

In addition to these alcohol-specific parental practices, alcohol use by parents is strongly associated with adolescent alcohol use (Van der Vorst, 2005; Coffelt, et al., 2005; Yu, 2003; Chassin, et al., 2002; White, et al., 2001; Richter and Richter, 2001). Social

Learning Theory (Bandura, 1986) suggests that adolescents learn alcohol behavior norms, at least in part, by observing parents' drinking behaviors. Empirical evidence also supports the link between parental alcohol use and the onset and progression of adolescent alcohol use and misuse (Latendresse, Rose & Viken, 2007, Yu, 2003, Beal, et al., 2001, White, et al., 2001, Richter, L. & Richter, 2001). Parental alcohol use, therefore, is important in conceptualizing parental socialization related to adolescent alcohol use.

Although dimensions of parenting style, alcohol-specific parental practices and parental alcohol use have been independently associated with adolescent alcohol misuse, few studies have linked these behaviors to each other to build a model of parental socialization that explains adolescent alcohol use or misuse (Latendresse, et al., 2007; Van der Vorst 2005, 2006a, 2006b; Chassin, Presson, Rose, et al., 2005). Parental socialization models specify a process through which different types of parental behaviors, such as parenting style dimensions and domain-specific parental practices, influence adolescent behavior. To understand the process through which parental socialization affects adolescent alcohol misuse, researchers must clarify relationships between demandingness and responsiveness and alcohol-specific parental practices, as well as the pathways through which these behaviors influence adolescent alcohol misuse.

Two models of parental socialization, in particular, explain alternative pathways through which dimensions of parenting style and alcohol-specific practices may affect adolescent alcohol misuse, controlling for parental alcohol use. One model assumes that parental demandingness and responsiveness provide a context within which parents implement alcohol-specific practices, and therefore alter the effect of practices on adolescent alcohol misuse. Another model assumes that demandingness and responsiveness predict the

alcohol-specific practices parents implement, which in turn influence adolescent alcohol misuse.

Consistent with the first model, Darling and Steinberg (1993) posited that parenting style moderates the relationship between domain-specific parental practices and adolescent behavior by altering the effectiveness of such practices. Parents with high versus low levels of demandingness and responsiveness are more effective when they implement alcohol-specific practices to discourage alcohol use because their children are more open and attentive to their parents' socialization efforts. High demandingness and responsiveness also may mitigate the effects of parental practices that do not discourage alcohol use on adolescents' alcohol misuse. For example, adolescents who are told that it is "okay to drink on some occasions, like family events," would likely interpret this message within the context of their parents' generally high behavioral expectations. Darling and Steinberg's model suggests that parenting style, which parents establish early in their children's lives, is an important context within which children interpret their parent's alcohol-specific practices during adolescence.

An alternative to the parental socialization process posited by Darling and Steinberg (1993) is a model in which parental demandingness and responsiveness predict alcohol-specific parental practices, which in turn predict adolescent alcohol misuse (mediating model). A mediating model is plausible because parents who are highly demanding and responsive may adapt specific practices, such as communicating family alcohol norms or messages about avoiding alcohol dangers (e.g., riding in a car with someone who has been drinking) as a way to respond to emerging behaviors or to anticipated environmental influences. These practices would, in turn, affect adolescent alcohol misuse. Additionally,

parents with high levels of demandingness must communicate their expectations to their children and must enforce their rules. Hence, these parents may be more likely than parents with low levels of demandingness to explicitly communicate alcohol messages, and they may be more likely to take actions that reinforce their socialization goals, such as monitoring their children's behaviors and environment (e.g., checking their child's room) for alcohol use. Mediating models that explain processes that influence alcohol use are emerging in substance use literature (Latendresse, et al., 2007, Chassin, et al., 2005; Brody & Kim, 2004; Barnes, et al. 2000). Chassin, et al.(2005), for example, compared moderating and mediating models that linked parenting style and cigarette-specific parental practices. Latendresse, et al. (2007) found that parental alcohol use predicted dimensions of parenting style, which in turn predicted adolescent alcohol use. I could find no studies, however, that conceptualize dimensions of parenting style as predicting alcohol-specific practices. Although a mediating model is plausible and merits testing, there is not the same theoretical foundation for mediating pathways from dimensions of parenting style to adolescent alcohol misuse through alcohol-specific parental practices as the moderating model posited by Darling and Steinberg.

Race/ethnic group comparisons are particularly relevant to studies of parental socialization because some researchers have found that parenting behaviors and dimensions of parenting style in particular are influenced by cultural factors that differ by ethnic group (Cox, 2006, Brody, et al., 2005, Peters, 1997; McAdoo, 1997), while others have found that parenting norms in America reflect broader societal expectations that are consistent across racial groups (Steinberg, 2001, Bray, et al., 2001). Importantly, some researchers who study cultural differences have found that, while the meaning and effect of some domain-specific parental practices differ by race/ethnic groups, "effective" or "authoritative" parenting is

equally protective against the development of problem behavior across race/ethnic groups (Simons, Simons, Burt, et al., 2006; Simons, Simons and Wallace, 2004; Brody, 2002, Steinberg, 2002)

Race/ethnic group comparisons, therefore, should clarify whether the *process* of parental socialization and its effects on adolescent alcohol misuse differ by race group versus merely testing whether mean levels of parenting style and alcohol-specific parental practices differ by race group (Rowe, Vazsonyi, Flannery, 1994). Two important components of race/ethnic group comparisons are measurement equivalence and comparisons of the patterns of relationships in parental socialization models. The present study stratifies the study sample by race to descriptively compare the pattern of relationships by race group; that is the strength and direction of relationships specified in each model.

Study Purpose and Research Questions

The purpose of the study is to examine the extent to which two alternative models of parental socialization that link dimensions of parenting style and alcohol-specific parental practices affect adolescent alcohol misuse, controlling for parental alcohol use. Parenting style includes two constructs: parental demandingness and responsiveness. Alcohol-specific parental practices consist of four constructs: parental alcohol monitoring and three types of alcohol communication: negative, permissive and alcohol contingency messages. In model 1, parental demandingness and responsiveness are posited to moderate associations between alcohol-specific parental practices and adolescent alcohol misuse. In model 2, alcohol-specific parental practices are posited to mediate the relationships between parental demandingness and responsiveness and adolescent alcohol misuse. Because the focus of the study is to test two possible mechanisms through which dimensions of parenting style and

alcohol-specific practices influence adolescent alcohol misuse, parental alcohol use will be included in the model as a control variable. Although parental alcohol use could be conceptualized as a parental practice, it is not in this study because it is not likely a practice parents change in response to their expectations or concerns about their children's alcohol use. Nonetheless, parental alcohol use is recognized as an important component of parental alcohol socialization and is considered in the results and discussion.

The study will specifically address the following research questions:

Research Question 1 (Moderation Model): Do parental demandingness and responsiveness each moderate the relationships between alcohol-specific parental practices and adolescent alcohol misuse?

Research Question 2 (Mediation Model): Are the relationships between parental demandingness and responsiveness and adolescent alcohol misuse mediated by alcohol-specific parental practices, such that demandingness and responsiveness each predict alcohol-specific parental practices, which in turn each predict adolescent alcohol misuse?

Research Question 3: Do the patterns of relationships specified in the models differ by race group?

CHAPTER 2: LITERATURE REVIEW

Adolescent Alcohol Use in the United States

Alcohol is the most common substance used by adolescents in the United States, and the percentage of adolescents who have tried alcohol greatly increases throughout high school years (Johnston, et al., 2006; Centers for Disease Control & Prevention, 2006). Although lifetime alcohol use and 30-day prevalence among middle and high school students declined overall from 1996 to 2006, middle school years (7th and 8th grade) remain the peak period for alcohol initiation. Approximately 40% of 8th grade and 75% of 12th grade students have tried alcohol (lifetime use), and almost half of 12th graders in 2006 reported they used alcohol during the last 30 days. In addition, 6% of 8th grade and 30% of 12th grade students in 2006 reported being drunk at least once during the past 30 days, and more than 10% of 8th grade and one-quarter of 12th grade students reported having five or more drinks in a row during the past two weeks.

Adolescent alcohol use is associated with myriad health and social problems (Maney, et al., 2002). Adolescents are more likely to experience motor vehicle crashes and non-intentional injuries after consuming alcohol (Shope, 2006; Linberg, et al., 2000). Alcohol use also is associated with intentional injuries, such as suicide attempts and interpersonal violence and early predictors of violence including aggression and behavior problems in school (Miller, et al., 2007; Linberg, et al., 2000). Further, adolescents are less likely to use

condoms during sexual intercourse and more likely to experience coercive sexual behavior after consuming alcohol (Shrier & Crosby, 2003; Maney, et al., 2002).

Adolescents who misuse alcohol experience health and social problems to a greater extent than their peers who engage in less problematic alcohol use and are more likely to encounter alcohol problems in adulthood (Miller, et al., 2007, Merline, et al., 2004, Maney, et al., 2002). Therefore, adolescent alcohol misuse is an important focus within adolescent health research.

Continuum of Alcohol Involvement

Adolescent alcohol use is measured along a continuum from ever having a sip of alcohol to clinically diagnosed alcohol use disorders (Johnston, et al., 2006, Centers for Disease Control & Prevention, 2006; DeWitt, Adlaf, Offord, et al., 2000). *Lifetime alcohol use* (e.g., ever used within the lifetime) is one way to measure any alcohol use. Adolescent alcohol initiation, sometimes measured by lifetime alcohol use, has been a major focus of alcohol research in recent years. Researchers have consistently found that young people who initiate alcohol use before age 14 are more likely to have alcohol problems in adolescence and adulthood than later initiators (DeWitt, et al, 2000; Hawkins, et al., 1992, 1997).

Current alcohol use refers to recent alcohol consumed and is often reported as the quantity and frequency used during the past 30 days, three months or 12 months (Johnston, et al., 2006; Simons-Morton and Chen, 2005; Centers For Disease Control & Prevention, 2006). Current alcohol use can indicate a progression from trying alcohol (i.e., initiation) to an established behavior of using alcohol. Studies of current alcohol use

among adolescents have established that, as the quantity and frequency of alcohol use increases, adolescents experience more social and health problems (Maney, et al., 2002).

Alcohol misuse, the focus of my dissertation, includes episodic heavy use (“binge drinking”), drinking to intoxication and alcohol-related social problems. Episodic heavy use is drinking multiple alcoholic beverages in a short period. Measures for episodic heavy use in adolescent populations have included drinking three, four or five drinks (Johnston, et al., 2006; Centers for Disease Control & Prevention, 2006; Tucker, Orlando, Ellickson, 2003; Barnes, et al., 1997; Shope, et al, 1994). Drinking to intoxication is adolescents’ report of being drunk in a recent period. In addition, interpersonal problems, such as physical fights and trouble with parents after using alcohol, may indicate more serious alcohol misuse and longer-term problem alcohol use (Merline, et al., 2004; Maney, et al., 2002).

Alcohol misuse among middle and high school adolescents has not been studied as extensively as alcohol initiation and progression to regular use (e.g., consuming alcohol once week). (Reifman & Barnes, 1998; Barnes, et al., 1997; Ellickson, Mcguigan, Adams, Bell, et al., 1996). Some studies have found, however, that adolescents who engage in episodic heavy drinking and report recently being intoxicated are more likely to have interpersonal problems, do something they regret or become physically ill from alcohol, than their peers (Maney, et al., 2002; Swahn & Donovan, 2002).

Adolescents who misuse alcohol are at greater risk than peers with less problematic alcohol use for the health and social problems described above (Miller, et al., 2007; Merline, et al., 2004; Maney, et al., 2002). In addition, adolescents who engage in episodic heavy drinking are more likely than peers to have poor academic achievement

and drop out of high school and to experience alcohol problems in adulthood (Maney, et al., 2002).

Race/Ethnic Differences in Adolescent Alcohol Involvement

White adolescents initiate alcohol use earlier, drink more frequently and are more involved in episodic heavy alcohol use than most other adolescent ethnic groups including Black adolescents (Johnston, et al, 2006; Centers for Disease Control & Prevention, 2006; Foley, Altman, Durant, et al., 2004). White adolescents have reported more regular alcohol use than Black adolescents over the past three decades (Faden, 2006; Johnston, et al., 2006, Centers for Disease Control & Prevention, 2006). In 2006, 47% White versus 37% Black 12th grade students reported they used alcohol at least once during the past 30 days (Johnston, et al., 2006, Centers for Disease Control & Prevention, 2006). In addition, White versus Black adolescents are more likely to have three or more drinks in a row and report recent intoxication. Some researchers have found, however, that despite comparable or lower rates of substance use (including alcohol use) among Black versus White adolescents, Black adolescents experience substance use social problems more than their White peers (Wallace & Muroff, 2002; Bachman & Wallace, 1991; Welte & Barnes, 1987). Therefore, alcohol use and misuse can lead to serious health and social problems for both White and Black adolescents, despite overall lower rates of alcohol use among Black youth.

Individual and Environmental Influences on Alcohol Involvement

Alcohol researchers have examined numerous individual and social factors that influence adolescent alcohol use and misuse. Alcohol misuse among adolescents increases with age and differs by gender (Johnston, 2006; Centers for Disease Control &

Prevention, 2005). Older adolescents drink alcohol more frequently, in greater quantities and are more likely to engage in episodic heavy drinking than younger adolescents. Boys initiate alcohol use earlier and drink more than girls and are more likely than girls to misuse alcohol throughout adolescence.

Most important among family factors associated with adolescent alcohol use are family structure (i.e., one vs. two parents) and parental education level (Blum, Beuhring, Shew, Bearinger, et al., 2000; Cookston, 1999; Brody, et al., 1993). Adolescents who live in two-parent homes are less likely to use alcohol than adolescents who live in single-parent homes. In addition, adolescents whose parents have greater than a high school education are less likely to use alcohol than youth with parents who have no more than a high school education (Goodman & Huang, 2002).

In addition, adolescents with siblings who use alcohol are more likely than their peers to use alcohol (Trim, Leuthe & Chassin, 2006; Windle, 2000; McGue, Sharma & Benson, 1996). Siblings may model alcohol use behaviors. Siblings close in age, in particular, are similar to peers, and adolescents with siblings who use alcohol are more likely to also use alcohol than those with non-drinking siblings (McGue, et al., 1996). In addition, older siblings' problem behavior in general and substance use in particular can influence younger siblings substance use (Bullock & Dishion, 2002). Therefore, older siblings' use of substances other than alcohol may influence younger siblings' alcohol misuse, not only through direct modeling of alcohol use but also through general modeling of problem substance use behavior.