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Families Coping With Alcohol and Substance Abuse

Judith Fischer and Kevin P. Lyness

A prominent approach to the study of alcohol and families involves a biopsychosocial focus (Zucker, Boyd, & Howard, 1994). This perspective organizes the prediction of pathological alcohol involvement (and, by extension, more general substance abuse) through consideration of biological contributions, psychological factors, and social influences. Conjoining this model with the family stress and coping model (see McKenry & Price, Chapter 1, this volume) acknowledges the contribution of these biopsychosocial factors at each juncture: stressor, resource, perception, coping, and managing. Because our focus in this chapter is on families coping with alcohol and substance abuse, we review several aspects of coping: (a) the factors that give rise to the need for coping, (b) the factors that contribute to coping, and, (c) the outcomes of coping efforts. We pay particular attention to the mediating and moderating effects that intervene between two variables, such as those that occur when associations between parent drinking and offspring drinking are mediated or modified by other variables (Baron & Kenny, 1986).

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Biological aspects of substance use and abuse include genetic vulnerability and resilience as well as age-related developmental aspects, such as variations in tolerance to substances. Perception, cognition, expectancy, emotion, personality, and behavior are part of the psychological domain. Parenting, peer influences, life stresses, school and neighborhood settings, and cultural messages are included in the social aspects of the biopsychosocial perspective. Parenting effects may or may not be substance specific (Jacob & Johnson, 1997). For example, the effect of parent alcohol use is a substance-specific variable, whereas parental divorce may be a non-substance-specific factor. In addition, a particular situation or event operates at several levels. For instance, a biological alcoholic parent may, among other things, (a) transmit genetic vulnerability; (b) model alcohol abuse; (c) foster the development of alcohol expectancies; (d) introduce stressors into the child and family environment, such as aggressive or violent behavior and marital disruption; and (e) distress the family economically and legally, placing the family in an impoverished and possibly dangerous environment.

Some definitions are in order. *Substance use*, as we use the term in this chapter, includes both experimental and regular use. *Substance misuse* refers to the excessive consumption of a substance. *Substance abuse* and *substance dependence* are clinical designations involving serious and persistent problems with substances. The major distinction between abuse and dependence is in the level of use; that is, substance dependence includes spending a great deal of time using, unsuccessful attempts to control the substance use, and, for some, the presence of tolerance and withdrawal. If tolerance and withdrawal are present, the diagnosis is substance dependence with physiological dependence (American Psychiatric Association, 2000). The clinical designations used in this chapter reflect those chosen by the authors of the reports cited.

In organizing the following literature review, we take a family developmental approach. Timing is an important part of the stress and coping model. Stressors may be time limited, but they may also extend over long periods. Particular situations may not be considered stressors at one developmental period but may be stressors at another. For example, Biederman, Faraone, Monuteaux, and Feighner (2000) found that *childhood* exposure to parental substance use disorders conferred a twofold nonsignificant risk on offspring, but *adolescent* exposure was associated with a threefold significant risk for the emergence of substance use disorders. Perceptions, resources, and problem solving may be greater or lesser depending on individual and family development, and coping that is effective in the short term may moderate the long-term impacts of a stressor or lead to a pileup of stressors over time.

We first review below the topic of children and infants with fetal exposure to substances and then cover the research to date on children and their parents coping with the challenges posed by substances. We then discuss, within the context of families, adolescents who use and abuse substances. Finally, we review parent and adolescent characteristics for their substance-specific and non-substance-specific contributions. Given limitations of space, we are unable to extend our discussion in this chapter beyond the stage of families with young children and adolescents.

Infants and Substance Abuse Problems

Fetal exposure to alcohol has been described as the most common cause of developmental problems and birth defects (Meschke, Holl, & Messelt, 2003). Fetal alcohol syndrome (FAS), fetal alcohol effects (FAE), and “crack babies” (babies born addicted to crack cocaine) are related to maternal substance abuse during pregnancy (Thomas & Riley, 1998). Furthermore, if a pregnant woman engages in other risky behaviors, her infant may contract serious “adult” diseases, such as HIV (Chavkin, 1990), in addition to fetal addiction.

Although some symptoms and problems may differ among infants with FAS, infants with FAE, and crack babies, the general portrait is one of developmental deficits in learning, motor skills, and social skills, as well as attention deficits and hyperactivity (Thomas & Riley, 1998). Some problems seen in these infants, such as physical abnormalities, can diminish with time; however, the cognitive deficits related to substance abuse during pregnancy appear to remain throughout childhood (Connor & Streissguth, 1996).

Among the families with infants affected by substance abuse that researchers have examined, some of the challenges complicating decision making and coping include the following: (a) age of the mother, (b) developmental age of the fetus when exposed to substances and developmental age at birth, (c) degree of infant’s impairment and prognosis for the short and long term, (d) response to the mother and infant by the families involved, (e) treatment availability, (f) intervention policies of social and judicial agencies, (g) budgetary constraints on resources, and (h) child placement in the short term as well as the long term (Berger, Sorensen, Gendler, & Fitzsimmons, 1990; Chavkin, 1990).

At an everyday level, certain strategies appear to help children who were exposed to substance abuse in the womb. For example, keeping such a child’s learning work space clear of distractions and regulating the child’s sensory stimulation are important to positive development (Connor & Streissguth, 1996). For their part, parents need to provide a positive

atmosphere and work with the child's strengths (Weiner & Morse, 1994). These recommendations assume that (a) the child is in an identified, enduring, and stable caretaking situation; (b) the caretaker is adaptable and has the resources and skills to work with the child; and (c) the child's school has the necessary resources. The likelihood that the first two of these assumptions reflect reality may be tenuous at best, given that parental substance abuse is the cause of substance-related problems in infants and children. When children are cared for by nonparental caregivers, there may be an added level of stress.

When an already vulnerable infant grows up with a substance-addicted mother, the child faces further difficulties as she or he develops. Chavkin noted in 1990 that "because of budgetary constraints, resources to assist these families are often not provided" (p. 483), and that is still the case today. In 1997, the Adoption and Safe Families Act gave drug-using parents 12 months to become drug free if they were to reclaim their children from the foster care system. But services to help such parents overcome their dependency on drugs are limited (Flynn, 1999). Treatment programs for pregnant substance-abusing women in the United States suffer from notable underfunding, lack of treatment facilities, and lack of facilities that accept Medicaid or that provide child-care services (McMurtrie, Rosenberg, Kerker, Kan, & Graham, 1999). In order to curtail substance abuse in mothers, and thus the effects of such abuse on children, communities need programs for substance-abusing mothers that include long stays in intensive, comprehensive, residential treatment centers (Killeen & Brady, 2000)—a highly unlikely situation, given current funding for substance abuse treatment.

In sum, in the above consideration of infants with substance abuse problems, we have drawn from biological, psychological, and social perspectives. We have identified the stressor as a problem that is biologically imposed on the developing fetus and infant. Coupled with chemically altered behavior on the part of substance-abusing mothers, resources for coping are scarce; the perceptions of the families, social agencies, and insurance companies involved may be in conflict; and coping itself is fraught with difficulties on multiple levels. We revisit the topic of substance abuse treatment and prevention issues for families at the end of this chapter.

Janet is now 20 years old, and her son, Jason, is 3 years old. Janet became pregnant at 16 and does not know who Jason's father is—she had sex with several boys at a party while she was in an alcohol-induced blackout. She continued to drink heavily throughout the pregnancy, and Jason was born with FAE. Immediately after giving birth, Janet was checked into an alcohol treatment

program for 21 days. During that time, her parents took care of Jason. Janet has been able to stay sober since her treatment, but her son has a very difficult temperament, and she often does not know how to deal with him. Janet wants to be a parent to Jason but has had very little social support to help her in coping with this difficult child. She has not had access to parenting classes, and her own parents are not good models. Recently, however, Janet has been able to see a family therapist through a pro bono program. The therapist is familiar with FAE and family systems models, and Janet's parents have agreed to take part in sessions. The therapist's first order of business is to help Janet match her parenting to Jason's temperament. The therapist also plans to work with Janet's parents on negotiating the three-generation family now living in the home, building ways in which the parents can support Janet's parenting rather than take over parenting Jason themselves. The therapist then will begin working on building social supports for Janet and preparing her to find schools that will be able to help Jason.

Children and Substance Abuse Problems

Although the literature includes one report of alcohol poisoning among 3- and 4-year-old children (Bradford, 1984), most of the research on children and substance use has focused on 8- to 11-year-olds. A number of scholars have documented the fact that children this young are using and even abusing substances (Griffin, Botvin, Epstein, Doyle, & Diaz, 2000; Jackson, Henriksen, & Dickinson, 1997; Loveland-Cherry, Leech, Laetz, & Dielman, 1996; McDermott, Clark-Alexander, Westhoff, & Eaton, 1999). According to McDermott et al. (1999), 18% of fifth graders may be described as active drinkers, having consumed alcohol in the previous 30 days.

Child Characteristics

Research on substance abuse prior to adolescence tends to focus on childhood predictors of *later* adolescent use and abuse rather than correlates of *actual* substance use in childhood. Researchers have also studied such childhood factors as conduct disorders, attention-deficit/hyperactivity disorder (ADHD) (Lynskey & Hall, 2001), school achievement, television viewing, and delinquency as predictors of later substance use and abuse. A considerable body of literature suggests that behavioral undercontrol or behavioral disinhibition in childhood, especially among males, is an important precursor of later adolescent problems with substance use and abuse (Iacono, Carlson, Taylor, Elkins, & McGue, 1999). In a longitudinal study tracing childhood aggression and early adolescent, late adolescent, and young adult

drug use and delinquency, Brook, Whiteman, and Finch (1996) found that childhood aggression was related to later drug use and delinquency.

Cognitions (e.g., expectancies, beliefs, and values) about alcohol use appear in children as young as 3 to 6 years old (Zucker, Fitzgerald, Refior, Pallas, & Ellis, 2000), particularly in alcoholic families. Dunn and Goldman (1996) found that children 8 to 11 years old reported alcohol expectancies that were similar to those reported by adults. Examining young children's cognitions and behaviors is important to understanding childhood and later substance use and misuse. Grant (1998) found that children with smoking onsets at 13 years and younger had poorer adult outcomes educationally and economically.

The child characteristics that scholars have found to be related to childhood substance use include a mix of behavioral and cognitive variables: less competence (Jackson et al., 1997), more tolerance of deviance, more deviant self-image, more susceptibility to peer pressure, and greater reported peer use (Loveland-Cherry et al., 1996). McDermott et al. (1999) have suggested that emphasizing health concerns as a reason not to use alcohol is likely to be ineffective with children, but it may be useful to correct children's misconceptions about alcohol-related norms and risks before they begin active use.

Parent Factors

Jacob and Johnson (1997) conceptualize parenting influences on children as alcohol-specific effects and non-alcohol-specific effects. *Alcohol-specific effects* involve the behaviors of the parents with respect to alcohol and how these parental behaviors are related to the child's behavior and cognition. For example, Weinberg, Dielman, Mandell, and Shope (1994) found that fifth and sixth graders had higher odds of current alcohol misuse and heavy alcohol use with greater mother or father drinking levels, a substance-specific influence. In general, parents' substance-specific influences on preadolescents have predictive utility for later adolescent use and abuse (Cumsille, Sayer, & Graham, 2000; Dishion, Capaldi, & Yoerger, 1999). *Non-alcohol-specific effects* reflect the general aspects of the family environment that are related to children's deviant behavior and cognition, including children's substance use. Parenting practices and behaviors such as supervision, discipline, nurturance of children (Kandel, 1990), communication with children, and parental divorce and remarriage (Griffin, Botvin, Scheier, Diaz, & Miller, 2000; Needle, Su, & Doherty, 1990) reflect the operation of non-substance-specific influences.

The non-substance-specific variables of low income, parental aggression, and low marital satisfaction have also been found to be important correlates

of child adjustment (Fals-Stewart, Kelley, Cooke, & Golden, 2003). In addition, the combination of paternal alcoholism with paternal antisocial behavior has been shown to predict child externalizing behavior (Fals-Stewart et al., 2003). In a study conducted by Wong, Zucker, Puttler, and Fitzgerald (1999), parent negative affect was found to be a mediator between early child risk and later child externalizing. A number of studies have provided evidence that parent reactions to children's difficult behaviors are followed by additional child maladaptation (Bailey, Ennett, & Ringwalt, 1993; Brody & Ge, 2001; Dishion et al., 1999; Wong et al., 1999).

In sum, children with conduct problems, particularly in stressful homes, are at high risk for later substance use problems. Less is known about children with internalizing symptoms. Parenting responses that emphasize increased monitoring may make child externalizing problems worse. Clearly, help for parents in dealing with difficult children is warranted. However, the problems seem to extend beyond parenting to parents' own behaviors in relating to each other and to their own issues with substances. Earlier child onset of substance use is a risk factor for later problems with substances. Adults' behaviors with substances, which provide modeling, elicit expectancies, and create disruptive home environments, appear to be associated with earlier use of substances by children. In addition, parental divorce has been shown to be a greater substance abuse risk factor for adolescents than for preadolescents (Needle et al., 1990).

Karl is a 12-year-old boy who recently got into trouble for drinking at school. This is not Karl's first time to be in trouble—he is often disruptive and aggressive and seems to lack impulse control—but this is the first time he has been in trouble for using alcohol. His parents (at the urging of the school) had him tested for ADHD, but the results were inconclusive, and the psychiatrist did not recommend medication. Karl's parents are typically punitive and have been known to use physical punishment. Karl's working-class family lives in a neighborhood with little social capital. Moreover, Karl's parents have been considering getting a divorce. His father is a heavy drinker, although he has never been diagnosed with a substance abuse problem. Karl sees his father come home from work each night and drink 5 to 6 beers as he complains about his day. Karl has learned from this that drinking is a good way to relieve stress. Karl's parents do not know his friends, but the school reports that Karl hangs out with a slightly older group of kids who are known to drink and party. Karl has never felt that he fits in very well with his peers, but this current group of friends seems more accepting of his aggressive nature. The school recommended that the family see a therapist.

The therapist first addressed parental behaviors, including the quality of the marriage, parenting styles, and Karl's father's drinking. As a result, Karl's father

decided to cut down on his drinking and made a commitment to work on the marriage. The therapist also helped Karl find other ways of coping, along with implementing interventions with Karl at the school that helped him develop a different peer group (particularly focusing on Karl's propensity for aggression). Finally, the therapist intervened with Karl directly about his drinking behavior, knowing that Karl's early onset of drinking places him at risk for later serious substance abuse problems. Karl was able to talk about using alcohol as a means of coping with rejection and reported some success with making new friends. He still struggles with anger, but he is able to talk with his father about this at times.

Adolescents and Youth and Substance Abuse Problems

In the United States, the period of adolescence, roughly ages 13 to 19, is characterized by dramatic increases in substance use. The period of youth or young adulthood, up to age 25, is generally the time during which substance use and abuse peak (National Institute on Alcohol Abuse and Alcoholism, 2000). Monitoring the Future's annual surveys of 50,000 students in the eighth, tenth, and twelfth grades document the latest figures, including drug and alcohol lifetime prevalence (any use) and 30-day use (e.g., Johnston, O'Malley, Bachman, & Schulenberg, 2003a). In this organization's 2003 survey, 20% of the eighth graders interviewed acknowledged having been drunk in their lifetimes, but almost three times as many twelfth graders indicated having been drunk (58%).

From the late 1990s to 2003, substance use among adolescents declined. Despite this decline, however, data from the Monitoring the Future surveys show recent large shifts in behavior from those in the eighth grade to those in the twelfth grade. Scholars' attempts to account for these changes, both cross-sectionally and longitudinally, as well as to explain the use of substances in adolescence, have generated a substantial body of literature in which certain themes stand out. Researchers have looked at (a) adolescent characteristics, such as expectancies, achievements, moods, behaviors, stressors, personality, roles, and clinical diagnoses, as well as demographics of gender, ethnicity, school, and neighborhood; (b) family characteristics, such as parent substance use (a substance-specific influence); and (c) parenting styles, family dysfunction, family stressors, family socioeconomic status, and parent-adolescent communication and bonding (non-substance-specific influences).

Three important models link family history of alcoholism to child pathological alcohol involvement: enhanced reinforcement, deviance proneness, and negative affect pathways. Sher (1993, 1994) has integrated these three

approaches into one model that depicts both mediating and moderating effects. An important development in the study of adolescents and substance use and abuse has been the identification of potential moderating effects. In their research on moderators, scholars have sought to specify for whom and under what conditions associations hold between and among variables (Barnes & Farrell, 1992; Fischer & Wampler, 1994; Jacob & Johnson, 1997).

Adolescent Characteristics

Just as research has identified childhood behavioral disinhibition as an important factor in the prediction of early, as well as later, onset of substance use, it paints a similar picture of the influence of behavioral disinhibition among adolescents. Adolescents sometimes exhibit a complex of behaviors and personality dispositions that are variously labeled but at their core invoke the idea of disinhibition. These include impulsive sensation seeking and aggression (Zuckerman & Kuhlman, 2000), poor behavioral self-control (Griffin, Botvin, Epstein, et al., 2000; Wills & Dishion, 2004), behavioral problems (Barnow, Schuckit, & Lucht, 2002), and delinquency (Bui, Ellickson, & Bell, 2000; Ellickson, Tucker, & Klein, 2003).

Researchers have examined problems related to both delinquency and substance use in adolescents over time, with mixed results (Bui et al., 2000; Mason & Windle, 2002). Mason and Windle (2002) found that early delinquency appeared to have enduring consequences in adolescence for boys. Early substance use in boys, but not later substance use, was related to later delinquency. Among girls, apparent links between drug use and delinquency were based on the shared influences of third variables such as conduct problems.

Adolescent expectancies about the effects of substances are factors in substance use and misuse (Chen, Grube, & Madden, 1994). Research has found early expectancies to be predictive of later heavy drinking in boys but not in girls (Griffin, Botvin, Epstein et al., 2000). According to Thombs, Wolcott, and Farkash (1997), "Perceptions of close friends' drinking practices, rather than those of more distal groups . . . are more closely related to [young people's] own drinking behavior" (p. 265). Mediating variables accounting for such associations are not known, but they may include availability, modeling, self-medication, and expectancies. Furthermore, moderators such as parent-child relationships and other characteristics of the adolescent could alter these peer-adolescent associations.

Barnow et al.'s (2002) research on German adolescents pulled together some of these threads. In their sample, adolescents with alcohol problems had more behavioral problems, more perceived parental rejection, less parental warmth, and more association with substance-using peers than did

adolescents without alcohol problems. Alcoholic adolescents demonstrated all of these characteristics plus aggression/delinquency.

Apart from adolescent delinquency, Windle (2000) found that a number of factors operated directly and indirectly on adolescent substance use over time. Stressful life events were related to drinking to cope and directly to adolescent alcohol problems. High activity levels and sociability of the adolescent were linked to peer substance use and were thereby indirectly related to adolescent substance use and problems with alcohol. In other research, Ellickson et al. (2003) identified a constellation of early (seventh grade) problem behaviors that continued across later adolescence and into young adulthood (age 23). These scholars found that associations between early drinking status and later problem behaviors remained even after they had controlled for a number of demographic and family variables.

Substance-Specific Parenting Factors

Many researchers have documented associations between parental drinking and adolescent drinking (Jacob & Johnson, 1997). Nonetheless, the findings have not been consistent from study to study (Scharff, Broida, Conway, & Yue, 2004). Furthermore, there are variations in drinking outcomes for offspring who come from different alcoholic or dysfunctional families (Fischer & Wampler, 1994).

Parental substance abuse is often seen as a main effect of alcoholism in adolescents. (Note that the use of the term *effect* here does not signify causation.) In such a view, the behaviors of parents are directly associated with the behaviors and outcomes of their children. Several theoretical approaches explain the resemblance in substance use between parents and their children. From the perspective of social learning theory, parents' use (and abuse) of substances serves as a source of information for children on how to use (and abuse) substances. In other words, children imitate behaviors modeled by their parents (Kandel & Andrews, 1987). According to this view, adolescents react to the stress of parental substance use by using substances themselves to reduce or numb the negative emotional states they experience (Sher, 1994).

Researchers have frequently found that a family history of alcoholism is an important element in adolescent development of substance use problems. However, as Pandina and Johnson (1990) caution, "Identification as an FH+ [family history of alcoholism positive] offspring is not, in and of itself, a sufficient predictor of vulnerability, and equally as important, an FH- [family history of alcoholism negative] background does not provide sufficient inoculation against substance abuse problems" (p. 282).

If parental use of alcohol is associated with adolescent use, then parental recovery from alcoholism or cessation of alcohol-related problems should reflect a reduction in family stress and an alteration in children's expectancies and alcohol-related behaviors. Researchers have found mixed outcomes in the offspring of recovering alcoholics, however (e.g., DeLucia, Belz, & Chassin, 2001; Pidcock & Fischer, 1998).

Mediators of associations between parental substance abuse and adolescent behavior identify mechanisms and processes in the transmission of adolescent alcoholism. Parenting styles (Lamborn, Mounts, Steinberg, & Dornbusch, 1991) represent one such mediator. Monitoring and supervision constitute one dimension of parenting style; warmth and support constitute another. When parents abuse substances, their ability to provide appropriate levels of monitoring and support may be compromised, thereby providing a mediating pathway to adolescent substance use and abuse (Barnes, Reifman, Farrell, & Dintcheff, 2000).

Adolescents' problems are correlated with both parents' substance abuse and other parental and family problems (Benson & Heller, 1987; Fischer & Wampler, 1994; Johnson, Leonard, & Jacob, 1989). Benson and Heller (1987) found, for example, that although young adult and adult daughters of alcoholic/problem drinking fathers as well as daughters of psychiatrically disturbed fathers reported higher levels of neurotic and acting-out symptoms than did daughters of normal fathers, the daughters in these three groups did not differ in drinking behaviors. These researchers suggest that father's alcoholism may convey a general substance use risk rather than a risk specific to alcohol use.

Moderating factors that have been found to alter the association between parental drinking and offspring outcomes include expectations (VanVoorst & Quirk, 2003), peer orientations, ethnicity, family structure (Barnes & Farrell, 1992), family cohesion (Farrell, Barnes, & Banerjee, 1995), personality of the offspring, and family roles of the offspring (Fischer & Wampler, 1994). Fischer and Wampler (1994) investigated the buffering effects of personality and family roles on the associations between offspring alcohol misuse and both family history of addictions and family dysfunction. They found that personality was a moderator of the association of family addictions with offspring drinking for both males and females, but family roles were moderators only with respect to family dysfunction.

The research of Farrell et al. (1995) and Doherty and Allen (1994) added family cohesion to the list of buffers protecting adolescents against the impacts of paternal drinking. Effects of fathers' drinking were reduced when there was more family cohesion. Lower cohesion, more stressful events, and fathers' drinking were related to adolescents' distress, deviance, and heavy

drinking (Farrell et al., 1995). Doherty and Allen (1994) found that the combination of low family cohesion and parental smoking were the strongest predictors of subsequent adolescent smoking. In a study with a design similar to the one Doherty and Allen employed, Andrews, Hops, and Duncan (1997) concluded that although a good parent-child relationship is important to positive child adjustment, it may not always be protective in situations in which parents use substances.

King and Chassin (2004) conducted research that tested for both mediators and moderators of the link between parental alcoholism and offspring substance use disorders in emerging adults (ages 18–25). Their longitudinal study included measures of adolescent undercontrol. The mediation results suggested that children of alcoholics (COAs) have greater drug use disorder risks in emerging adulthood as a result of their own undercontrol as well as their parents' inconsistent discipline. King and Chassin found that among adolescents with lower levels of behavioral undercontrol, parental support had a buffering or moderating effect on drug use in emerging adulthood. Among adolescents with higher levels of undercontrol, parental support disappeared as a buffer. Because their study sample overrepresented COAs, King and Chassin speculate that "protective effects are lost at the extreme levels of the risk factor" (p. 247).

Given that parents are regarded as sources of information for children, it is important to consider what parents tell their children about substance use and abuse. Surveys indicate that parents do talk to their seventh- through twelfth-grade children about drugs, but their levels of communication vary for different substances: 70% discuss cigarettes, 66% discuss alcohol, and 53% discuss marijuana "a lot," but the proportion of parents who say they discuss Ecstasy "a lot" drops to just 24% ("Survey Finds," 2003). In addition, the effectiveness of parental communication about substance use varies. Although Chassin, Presson, Todd, Rose, and Sherman (1998) found that mothers' smoking-specific conversations with their adolescents were associated with lowered risk of adolescent smoking, Ennett, Bauman, Foshee, Pemberton, and Hicks (2001) discovered that for adolescents who were already using substances, parent-child communication on the topic actually made the situation worse. These researchers recommend that parents begin communicating with their children about substance use before the children initiate use. Miller-Day and Dodd (2004) found that parents were more likely to embed their anti-substance use messages within everyday conversations than to undertake a one-shot "drug talk." However, the relationship between parent-adolescent conversations and adolescents' drug-resistant behaviors was not highly related (Miller-Day, 2002).

Non-Substance-Specific Parenting Factors

Supervision and support are important parenting variables that operate regardless of parental substance use or abuse to influence adolescent outcomes. For example, based on their research on 9- to 17-year-olds, Coombs and Landsverk (1988) suggest that “for a youngster to remain free from substances, it is advantageous if parents set clear behavioral limits and maintain interpersonally satisfying relationships with their children” (p. 480). Abstaining youth have parents who do not use punishment to maintain control but instead clarify appropriate behavior and reinforce that behavior; such parents also have warm relationships with their children.

Adolescent demands for autonomy may create parent-child stressors and disrupted parenting. Dishion and McMahon (1998) provide the following definition of parental monitoring: “Parental monitoring includes both structuring the child’s home, school, and community environments, and tracing the child’s behavior in those environments. . . . [It] should be developmentally, contextually, and culturally appropriate” (p. 66). Good intentions are necessary but not sufficient to bring about successful parental monitoring practices. Dishion and McMahon point out that although poverty may be a barrier to parental monitoring, prosperity may also undermine parental monitoring efforts if it is achieved through parents’ working long hours.

The period of time after the school day ends can provide unsupervised adolescents with opportunities to engage in problem behaviors. Lack of even indirect adult contact has been shown to be related to higher levels of smoking in ninth graders. Mott, Crowe, Richardson, and Flay (1999) found that if these adolescents’ parents had rules about smoking and engaged in contact with their children after school, even if the parents were not directly present at that time, the adolescents engaged in less smoking.

Some scholars have theorized that single-parent family structure creates distress in adolescents that may lead to greater affect and mood alteration through substance use. In addition, the lower levels of supervision and availability of parents in single-parent households may also lead to greater substance experimentation and abuse. Reflecting the stress approach, Jeynes’s (2001) research of nationally representative U.S. twelfth graders found that adolescents who had experienced more recent parental divorce drank more alcohol. Using the same national data set, Curry, Fischer, Reifman, and Harris (2004) showed that the association between parental divorce and adolescent alcohol use was mediated by other variables, including parent unavailability, family quality, peer acceptance/self-esteem, and deviant peer involvement. In addition to the absence of the nonresident father, other

factors, such as weak attachment and limited monitoring, combined to be associated with adolescent alcohol use (Jones & Benda, 2004). Older adolescents experienced a strong relationship between divorce and marijuana use than did younger adolescents (Hoffman, 1994). In conjunction with parental divorce and substance use, child and family violence contributed to lack of parent-child engagement (Logan, Walker, Horvath, & Leukefeld, 2003).

Regardless of intactness of family of origin, parental support is an important main effect of adolescent alcohol use, but it is also mediated by other factors, such as religiosity, peer alcohol use, and school grades (Mason & Windle, 2001). Furthermore, students who receive good grades elicit greater parental support. According to Bogenschneider, Wu, and Raffaelli (1998), mothers' responsiveness acts indirectly on adolescent alcohol use by helping to weaken adolescents' orientation to peers. In addition, Wills and Cleary (1996) suggest that parent support buffers adolescent substance use by reducing the effects of risk factors and increasing the effects of protective factors.

Family support is also a moderator of the effects of peers on adolescent substance use (Frauenglass, Routh, Pantin, & Mason, 1997; Marshal & Chassin, 2000). In a study of Hispanic eighth graders, Frauenglass et al. (1997) found that parent support was protective against the effects of peer modeling on tobacco and marijuana use.

The combination of supervision and acceptance, termed *authoritative* parenting style, has been identified as a particularly important factor, both concurrently and longitudinally, in the reduced use of substances (Adalbjarnardottir & Hafsteinsson, 2001). Among older adolescents, more indulgent and less controlling parents have been found to be related to substance abuse more often than have authoritative parents.

In addition to parenting style, the quality of parent-child communication is important. Kafka and London (1991) established the value of an adolescent's having at least one parent with whom the adolescent has "open" communication. They found reduced levels of substance use among high school-aged adolescents who had such a parent. However, openness of communication may not be enough; Humes and Humphrey (1994) suggest that parents also need to be sensitive to adolescents' needs. Acknowledging possible reciprocal effects in their research on families with adolescent daughters, Humes and Humphrey note that the parental mixed messages they found might have resulted from the daughters' histories of drug abuse.

Trauma is another pathway to adolescent problem behavior. Adolescents in substance abuse treatment programs have reported more physical, sexual, and violent victimization compared with controls (National Institute on Alcohol Abuse and Alcoholism, 1997). Female COAs who have grown up to be less adjusted have also been shown to be more likely to report

childhood abuse (Griffin, 1998). The dual risks of COA status and sexual abuse in adolescence have been related to a higher level of adolescent problems, including chemical abuse, than that found in adolescents with only one risk factor (Chandy, Blum, & Resnick, 1996). Adolescents experiencing current abuse have been shown to have more problem behaviors, such as binge drinking, than adolescents with histories of prior abuse (Luster & Small, 1997). Employing a national data set, Kilpatrick et al. (2003) found connections between substance abuse and dependence in adolescence and family alcohol problems, having been a witness to violence, and having been a victim of physical assault. Posttraumatic stress disorder occurred when sexual assault was added to the mix. Research indicates that the impact of victimization can be ameliorated by a very supportive relationship with a parent and by close parental monitoring of adolescent behavior (Luster & Small, 1997).

In sum, difficulties in making the transition from childhood to adolescence are compounded when alcohol and drugs enter the picture. Parents' use of substances gains added importance, creating stressors, influencing perceptions, detracting from resources, and hindering coping. In addition, parents need to adjust their methods of parenting as their children develop: The methods that are appropriate for children must be adapted to meet the needs of teens. Parents' flexibility in coping with adolescents' emerging needs for autonomy and independence should be both age appropriate and gender sensitive, given that socialization pressures continue to differ for boys and girls.

Issues in Prevention and Treatment

Although we have focused on families coping with substance use and misuse in the discussion above, limiting prevention and treatment efforts to "the person" in the family with the substance use problem is not sufficient to address the multiple levels of factors that are implicated in a person's substance use problem. There is no one place to start. The substance-abusing parent certainly needs help, but so do the children in the family. As the above review illustrates, the stress and coping model highlights the importance of all the components—stressors, perceptions, resources, problem-solving skills, and coping skills—found in families dealing with substance abuse. The feedback loop, whereby responses to stressors generate greater stressors in the family system, is also of great importance. Helping parents to manage a behaviorally disinhibited child effectively may interrupt the negative sequence of events from childhood to young adulthood. Helping parents cope with a substance-abusing child or adolescent is as critical as helping children cope with a substance-abusing parent. Prevention of early onset of

substance use as well as early conduct disorder problems is a key factor in positive youth development. Although medicating children who have ADHD has been found to be effective in preventing later substance use, not all behaviorally disinhibited children have ADHD. Nor is medication the sole answer for multifaceted family problems.

Effective programs aimed at treating or preventing substance abuse involve multiple components and multiple points of entry (Boyd & Faden, 2002). These programs may be expensive; they may require commitments of time, energy, and other resources from schools and communities as well as the dedication of skilled leaders. There is no “magic bullet” for treating or preventing substance abuse.

Too many parents and children are in need of treatment services. As we have noted above, substance abuse treatment is expensive, and effective programs are scarce, particularly for those whose addiction issues have led to impoverishment and lack of insurance. Etheridge, Smith, Rounds-Bryant, and Hubbard (2001) have documented the two-decades-long decline in drug treatment services for adolescents in the United States, including psychological, family, employment, and financial services. Changes in access to treatment and reduced program resources have contributed to a pileup of unmet needs. Even when substance-abusing parents or children go into treatment and recovery, the relapse rates are discouraging (Alford, Koehler, & Leonard, 1991). For example, because an important outcome of recovery is the disruption of family dynamics (Bepko & Krestan, 1985), programs need to address changes in family dynamics to prevent relapse. Dealing with family dynamics is only one goal of comprehensive intervention, however. To prevent relapse, programs must also consider settings and situations beyond the family itself (Benson, Leffert, Scales, & Blyth, 1998), such as (a) effective aftercare services; (b) safe havens for children of addicted parents (McKeganey, Barnard, & McIntosh, 2002); (c) school, college (e.g., Wechsler, Seibring, Liu, & Ahl, 2004), and community policies; and (d) cultural and subcultural norms and behaviors.

Conclusion

An encouraging aspect of recent studies examining how families cope with substance abuse is the inclusion of multiple variables, multiple perspectives, multiple waves of data collection, and sophisticated data analysis techniques. This very richness presents challenges to the scholars who report such research because the findings are embedded in complex webs of interrelated results. With only a few exceptions, the literature we have reviewed in this

chapter has largely reported on research with U.S. families of European heritage. However, the Monitoring the Future surveys repeatedly find lower rates of substance use among African American youth than among European American adolescents (Johnston, O'Malley, Bachman, & Schulenberg, 2003b). The importance of the issues discussed in this chapter transcends narrow boundaries, and future research must reflect the diversity of families coping with substance abuse, not just in terms of ethnicity and culture, but also in terms of emerging understandings of the broad spectrum of close relationships covered by the term *families*. Despite the limitations noted, we have included in this review research on families with infants, children, and adolescents—all important considerations to further family scholars' understanding of families coping with substance abuse.

Suggested Internet Resources

Harvard School of Public Health, College Alcohol Study (information on adolescent and young adult binge drinking in college): <http://www.hsph.harvard.edu/cas>

Monitoring the Future (information on adolescent substance use and abuse): <http://www.monitoringthefuture.org>

National Institute on Alcohol Abuse and Alcoholism (an institute within the National Institutes of Health): <http://www.niaaa.nih.gov>

National Institute on Drug Abuse: <http://www.drugabuse.gov>

UNC Carolina Population Center (information about the National Longitudinal Survey of Adolescent Health): <http://www.cpc.unc.edu/projects/addhealth>

References

- Adalbjarnardottir, S., & Hafsteinsson, L. G. (2001). Adolescents' perceived parenting styles and their substance use: Concurrent and longitudinal analyses. *Journal of Research on Adolescence, 11*, 401–423.
- Alford, G. S., Koehler, R. A., & Leonard, J. (1991). Alcoholics Anonymous–Narcotics Anonymous model inpatient treatment of chemically dependent adolescents: A 2-year outcome study. *Journal of Studies on Alcohol, 52*, 118–126.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text rev.). Washington, DC: Author.
- Andrews, J. A., Hops, H., & Duncan, S. C. (1997). Adolescent modeling of parent substance use: The moderating effect of the relationship with the parent. *Journal of Family Psychology, 11*, 259–270.

- Bailey, S. L., Ennett, S. T., & Ringwalt, C. L. (1993). Potential mediators, moderators, or independent effects in the relationship between parents' former and current cigarette use and their children's cigarette use. *Addictive Behaviors, 18*, 601-621.
- Barnes, G. M., & Farrell, M. P. (1992). Parental support and control as predictors of adolescent drinking, delinquency, and related problem behaviors. *Journal of Marriage and the Family, 54*, 763-776.
- Barnes, G. M., Reifman, A., Farrell, M. P., & Dintcheff, B. A. (2000). The effects of parenting on the development of adolescent alcohol misuse: A six-wave latent growth model. *Journal of Marriage and the Family, 62*, 175-186.
- Barnow, S., Schuckit, M. A., & Lucht, M. (2002). The importance of a positive family history of alcoholism, parental rejection and emotional warmth, behavioral problems and peer substance use for alcohol problems in teenagers: A path analysis. *Journal of Studies on Alcohol, 63*, 305-312.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Benson, C. S., & Heller, K. (1987). Factors in the current adjustment of young adult daughters of alcoholic and problem drinking fathers. *Journal of Abnormal Psychology, 96*, 305-312.
- Benson, P. L., Leffert, N., Scales, P. C., & Blyth, D. A. (1998). Beyond the "village" rhetoric: Creating healthy communities for children and adolescents. *Applied Developmental Science, 2*, 138-159.
- Bepko, C., & Krestan, J. A. (1985). *The responsibility trap: A blueprint for treating the alcoholic family*. New York: Free Press.
- Berger, C. S., Sorensen, L., Gendler, B., & Fitzsimmons, J. (1990). Cocaine and pregnancy: A challenge for health care providers. *Health and Social Work, 15*, 310-317.
- Biederman, J., Faraone, S. V., Monuteaux, M. C., & Feighner, J. A. (2000). Patterns of alcohol and drug use in adolescents can be predicted by parental substance use disorders. *Pediatrics, 106*, 792-797.
- Bogenschneider, K., Wu, M., & Raffaelli, M. (1998). Parent influences on adolescent peer orientation and substance use: The interface of parenting practices and value. *Child Development, 69*, 1672-1688.
- Boyd, G. M., & Faden, V. (2002). Overview. *Journal of Studies on Alcohol, 14*(Suppl.), 6-13.
- Bradford, D. E. (1984). Alcohol and the young child. *Alcohol and Alcoholism, 19*, 173-175.
- Brody, G. H., & Ge, X. (2001). Linking parenting processes and self-regulation to psychological functioning and alcohol use during adolescence. *Journal of Family Psychology, 15*, 82-94.
- Brook, J. S., Whiteman, M., & Finch, S. J. (1996). Young adult drug use and delinquency: Childhood antecedents and adolescent mediators. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 1584-1592.

- Bui, K. V. T., Ellickson, P. L., & Bell, R. M. (2000). Cross-lagged relationships among adolescent problem drug use delinquent behavior, and emotional distress. *Journal of Drug Issues, 30*, 283–304.
- Chandy, J. M., Blum, R. W., & Resnick, M. D. (1996). History of sexual abuse and parental alcohol misuse: Risk, outcomes and protective factors in adolescents. *Child and Adolescent Social Work Journal, 13*, 411–432.
- Chassin, L., Presson, C. C., Todd, M., Rose, J. S., & Sherman, S. J. (1998). Maternal socialization of adolescent smoking: The intergenerational transmission of parenting and smoking. *Developmental Psychology, 34*, 1189–1201.
- Chavkin, W. (1990). Drug addiction and pregnancy: Policy crossroads. *American Journal of Public Health, 80*, 483–487.
- Chen, M., Grube, J. W., & Madden, P. A. (1994). Alcohol expectancies and adolescent drinking: Differential prediction of frequency, quantity, and intoxication. *Addictive Behaviors, 19*, 521–529.
- Connor, P. D., & Streissguth, A. P. (1996). Effects of prenatal exposure to alcohol across the life span. *Alcohol Health and Research World, 20*, 170–175.
- Coombs, R. H., & Landsverk, J. (1988). Parenting styles and substance use during childhood and adolescence. *Journal of Marriage and the Family, 50*, 473–482.
- Cumsille, P. E., Sayer, A. G., & Graham, J. W. (2000). Perceived exposure to peer and adult drinking as predictors of growth in positive alcohol expectancies during adolescence. *Journal of Consulting and Clinical Psychology, 68*, 531–536.
- Curry, L., Fischer, J., Reifman, A., & Harris, K. (2004, March). *Family factors, self-esteem, peer involvement, and adolescent alcohol misuse*. Poster presented at the biennial meeting of the Society for Research on Adolescence, Baltimore.
- DeLucia, C., Belz, A., & Chassin, L. (2001). Do adolescent symptomatology and family environment vary over time with fluctuations in paternal alcohol impairment? *Developmental Psychology, 37*, 207–216.
- Dishion, T. J., Capaldi, D. M., & Yoerger, K. (1999). Middle childhood antecedents to progressions in male adolescent substance use: An ecological analysis of risk and protection. *Journal of Adolescent Research, 14*, 175–205.
- Dishion, T. J., & McMahon, R. J. (1998). Parental monitoring and the prevention of child and adolescent problem behavior: A conceptual and empirical formulation. *Clinical Child and Family Psychology Review, 1*, 61–75.
- Doherty, W. J., & Allen, W. (1994). Family functioning and parental smoking as predictors of adolescent cigarette use: A six-year prospective study. *Journal of Family Psychology, 8*, 347–353.
- Dunn, M. E., & Goldman, M. S. (1996). Empirical modeling of an alcohol expectancy memory network in elementary school children as a function of grade. *Experimental and Clinical Psychopharmacology, 4*, 209–217.
- Ellickson, P. L., Tucker, J. S., & Klein, D. J. (2003). Ten-year prospective study of public health problems associated with early drinking. *Pediatrics, 111*, 949–955.
- Ennett, S. T., Bauman, K. E., Foshee, V. A., Pemberton, M., & Hicks, K. A. (2001). Parent-child communication about adolescent tobacco and alcohol use: What

- do parents say and does it affect youth behavior? *Journal of Marriage and Family*, 63, 48–63.
- Etheridge, R. M., Smith, J. C., Rounds-Bryant, J. L., & Hubbard, R. L. (2001). Drug abuse treatment and comprehensive services for adolescents. *Journal of Research on Adolescents*, 16, 563–589.
- Fals-Stewart, W., Kelley, M. L., Cooke, C. G., & Golden, J. C. (2003). Predictors of the psychosocial adjustment of children living in households of parents in which fathers abuse drugs: The effects of postnatal parental exposure. *Addictive Behaviors*, 28, 1013–1031.
- Farrell, M. P., Barnes, G. M., & Banerjee, S. (1995). Family cohesion as a buffer against the effects of problem-drinking fathers on psychological distress, deviant behavior, and heavy drinking in adolescents. *Journal of Health and Social Behavior*, 36, 377–385.
- Fischer, J. L., & Wampler, R. S. (1994). Abusive drinking in young adults: Personality type and family role as moderators of family-of-origin influences. *Journal of Marriage and the Family*, 56, 469–479.
- Flynn, M. (1999). The Adoption and Safe Families Act of 1997: Changing child welfare policy without addressing parental substance abuse. *Journal of Contemporary Health Law and Policy*, 16, 243–271.
- Fraueglass, S., Routh, D. K., Pantin, H. M., & Mason, C. A. (1997). Family support decreases influence of deviant peers on Hispanic adolescents' substance use. *Journal of Clinical Child Psychology*, 26, 15–23.
- Grant, B. F. (1998). Age at smoking onset and its association with alcohol consumption and DSM-IV alcohol abuse and dependence: Results from the National Longitudinal Alcohol Epidemiologic Survey. *Journal of Substance Abuse*, 10, 59–73.
- Griffin, K. W., Botvin, G. J., Epstein, J. A., Doyle, M. M., & Diaz, T. (2000). Psychosocial and behavioral factors in early adolescence as predictors of heavy drinking among high school seniors. *Journal of Studies on Alcohol*, 61, 603–606.
- Griffin, K. W., Botvin, G. J., Scheier, L. M., Diaz, T., & Miller, N. L. (2000). Parenting practices as predictors of substance use, delinquency, and aggression among urban minority youth: Moderating effects of family structure and gender. *Psychology of Addictive Behaviors*, 14, 174–184.
- Griffin, M. (1998). Mixed psychosocial outcomes of sisters from families with alcoholic parents. *American Journal of Drug and Alcohol Abuse*, 24, 153–167.
- Hoffman, J. P. (1994). Investigating the age effects of family structure on adolescent marijuana use. *Journal of Youth and Adolescence*, 23, 215–235.
- Humes, D. L., & Humphrey, L. L. (1994). A multi-method analysis of families with a polydrug-dependent or normal adolescent daughter. *Journal of Abnormal Psychology*, 103, 676–685.
- Iacono, W. G., Carlson, S. R., Taylor, J., Elkins, I. J., & McGue, M. (1999). Behavioral disinhibition and the development of substance-use disorders: Findings from the Minnesota Twin Study. *Development and Psychopathology*, 11, 869–900.

- Jackson, C., Henriksen, L., & Dickinson, D. (1997). The early use of alcohol and tobacco: Its relation to children's competence and parents' behavior. *American Journal of Public Health, 87*, 359-364.
- Jacob, T., & Johnson, S. (1997). Parenting influences on the development of alcohol abuse and dependence. *Alcohol Health and Research World, 21*, 204-210.
- Jeynes, W. H. (2001). The effects of recent parental divorce on their children's consumption of alcohol. *Journal of Youth and Adolescence, 30*, 305-319.
- Johnson, S., Leonard, K. E., & Jacob, T. (1989). Drinking, drinking styles, and drug use in children of alcoholics, depressives, and controls. *Journal of Studies on Alcohol, 50*, 427-431.
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2003a). *Ecstasy use falls for second year in a row, overall teen drug use drops*. Ann Arbor: University of Michigan News and Information Services. Retrieved February 28, 2004, from <http://www.monitoringthefuture.org>
- Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2003b). *Monitoring the future: National results on adolescent drug use: Overview of key findings, 2003*. Retrieved May 19, 2004, from <http://www.monitoringthefuture.org/pubs/monographs/overview2003.pdf>
- Jones, K. A., & Benda, B. B. (2004). Alcohol use among adolescents with non-residential fathers: A study of assets and deficits. *Alcoholism Treatment Quarterly, 22*, 3-25.
- Kafka, R. R., & London, P. (1991). Communication in relationships and adolescent substance use: The influence of parents and friends. *Adolescence, 26*, 587-597.
- Kandel, D. B. (1990). Parenting styles, drug use, and children's adjustment in families of young adults. *Journal of Marriage and the Family, 52*, 183-196.
- Kandel, D. B., & Andrews, K. (1987). Processes of adolescent socialization by parents and peers. *International Journal of the Addictions, 22*, 319-342.
- Killeen, T. K., & Brady, K. T. (2000). Skin conductance hypo-responding in recently abstinent cocaine dependent inpatients. *American Journal on Addictions, 9*, 154-163.
- Kilpatrick, D. G., Ruggiero, K. J., Acierno, R., Saunders, B. E., Resnick, H. S., & Best, C. L. (2003). Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: Results from the national survey of adolescents. *Journal of Consulting and Clinical Psychology, 71*, 692-700.
- King, K. M., & Chassin, L. (2004). Mediating and moderated effects of adolescent behavioral undercontrol and parenting in the prediction of drug use disorders in emerging adulthood. *Psychology of Addictive Behaviors, 18*, 239-249.
- Lamborn, S. D., Mounts, N. S., Steinberg, L., & Dornbusch, S. M. (1991). Patterns of competence and adjustment among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 62*, 1049-1065.
- Logan, T. K., Walker, R., Horvath, L. S., & Leukefeld, C. (2003). Divorce, custody, and spousal violence: A random sample of circuit court docket records. *Journal of Family Violence, 18*, 269-279.

- Loveland-Cherry, C. J., Leech, S., Laetz, V. B., & Dielman, T. E. (1996). Correlates of alcohol use and misuse in fourth-grade children: Psychosocial, peer, parental, and family factors. *Health Education Quarterly*, *23*, 497-577.
- Luster, T., & Small, S. A. (1997). Sexual abuse history and problems in adolescence: Explaining the effects of moderating variables. *Journal of Marriage and the Family*, *59*, 131-142.
- Lynskey, M. T., & Hall, W. (2001). Attention deficit hyperactivity disorder and substance use disorders: Is there a causal link? *Addiction*, *96*, 815-822.
- Marshal, M. P., & Chassin, L. (2000). Peer influence on adolescent alcohol use: The moderating role of parental support and discipline. *Applied Developmental Science*, *4*, 80-88.
- Mason, W. A., & Windle, M. (2001). Family, religious, school, and peer influences on adolescent alcohol use: A longitudinal study. *Journal of Studies on Alcohol*, *62*, 44-53.
- Mason, W. A., & Windle, M. (2002). Reciprocal relations between adolescent substance use and delinquency: A longitudinal latent variable analysis. *Journal of Abnormal Psychology*, *111*, 63-76.
- McDermott, R. J., Clark-Alexander, B. J., Westhoff, W. W., & Eaton, D. K. (1999). Alcohol attitudes and beliefs related to actual alcohol experience in a fifth-grade cohort. *Journal of School Health*, *69*, 356-361.
- McKeganey, N., Barnard, M., & McIntosh, J. (2002). Paying the price for their parents' addiction: Meeting the needs of the children of drug-using parents. *Drugs: Education, Prevention, and Policy*, *9*, 233-246.
- McMurtrie, C., Rosenberg, K. D., Kerker, B. D., Kan, J., & Graham, E. H. (1999). A unique drug treatment program for pregnant and postpartum substance-using women in New York City: Results of a pilot project, 1990-1995. *American Journal of Drug and Alcohol Abuse*, *25*, 701-713.
- Meschke, L. L., Holl, J., & Messelt, S. (2003, November). *The assessment of prenatal alcohol use: A statewide study of Minnesota*. Paper presented at the annual meeting of the National Council on Family Relations, Vancouver.
- Miller-Day, M. A. (2002). Parent-adolescent communication about alcohol, tobacco, and other drug use. *Journal of Adolescent Research*, *17*, 604-616.
- Miller-Day, M. A., & Dodd, A. H. (2004). Toward a descriptive model of parent-offspring communication about alcohol and other drugs. *Journal of Social and Personal Relationships*, *21*, 69-91.
- Mott, J. A., Crowe, P. A., Richardson, J., & Flay, B. (1999). After-school supervision and adolescent cigarette smoking: Contributions of the setting and intensity of after school self-care. *Journal of Behavioral Medicine*, *22*, 35-58.
- National Institute on Alcohol Abuse and Alcoholism. (1997). *Youth drinking: Risk factors and consequences* (Alcohol Alert 37). Retrieved December 20, 2004, from <http://www.niaaa.nih.gov/publications/aa37.htm>
- National Institute on Alcohol Abuse and Alcoholism. (2000). Drinking over the life span: Issues of biology, behavior, and risk. In National Institute on Alcohol

- Abuse and Alcoholism, *Tenth special report to the U.S. Congress on alcohol and health: Highlights from current research*. Retrieved December 20, 2004, from <http://www.niaaa.nih.gov/publications/10report/chap01.pdf>
- Needle, R. H., Su, S. S., & Doherty, W. J. (1990). Divorce, remarriage, and adolescent substance use: A prospective longitudinal study. *Journal of Marriage and the Family*, *52*, 157-169.
- Pandina, R. J., & Johnson, V. (1990). Serious alcohol and drug problems among adolescents with a family history of alcoholism. *Journal of Studies on Alcohol*, *51*, 278-282.
- Pidcock, B. W., & Fischer, J. L. (1998). Parental recovery as a moderating variable of adult offspring problematic behaviors. *Alcoholism Treatment Quarterly*, *16*, 45-57.
- Scharff, J. L., Broida, J. P., Conway, K., & Yue, A. (2004). The interaction of parental alcoholism, adaptation role, and familial dysfunction. *Addictive Behaviors*, *29*, 575-581.
- Sher, K. J. (1993). Children of alcoholics and the intergenerational transmission of alcoholism: A biopsychosocial perspective. In J. S. Baer, A. Marlatt, & R. J. McMahon (Eds.), *Addictive behaviors across the life span* (pp. 3-33). Newbury Park, CA: Sage.
- Sher, K. J. (1994). Individual-level risk factors. In R. Zucker, G. Boyd, & J. Howard (Eds.), *The development of alcohol problems: Exploring the biopsychosocial matrix of risk* (National Institute on Alcohol Abuse and Alcoholism Research Monograph No. 26) (pp. 77-108). Rockville, MD: U.S. Department of Health and Human Services.
- Survey finds parents unresponsive to Ecstasy threat. (2003, November 3). *Alcoholism and Drug Abuse Weekly*. Retrieved February 28, 2004, from <http://www.drugfreeamerica.org>
- Thomas, J. D., & Riley, E. P. (1998). Fetal alcohol syndrome. *Alcohol Health and Research World*, *22*, 47-54.
- Thombs, D. L., Wolcott, B. J., & Farkash, L. G. E. (1997). Social context, perceived norms and drinking behavior in young people. *Journal of Substance Abuse*, *9*, 257-267.
- VanVoorst, W. A., & Quirk, S. W. (2003). Are relations between parental history of alcohol problems and changes in drinking moderated by positive expectancies? *Alcoholism: Clinical and Experimental Research*, *26*, 25-30.
- Wechsler, H., Seibring, M., Liu, I. C., & Ahl, M. (2004). Colleges respond to student binge drinking: Reducing student demand or limiting access. *Journal of American College Health*, *52*, 159-168.
- Weinberg, N. Z., Dielman, T. E., Mandell, W., & Shope, J. T. (1994). Parental drinking and gender factors in the prediction of early adolescent alcohol use. *International Journal of the Addictions*, *29*, 89-104.
- Weiner, L., & Morse, B. A. (1994). Intervention and the child with FAS. *Alcohol Health and Research World*, *18*, 67-73.

- Wills, T. A., & Cleary, S. D. (1996). How are social support effects mediated? A test with parental support and adolescent substance use. *Journal of Personality and Social Psychology, 71*, 937–952.
- Wills, T. A., & Dishion, T. J. (2004). Temperament and adolescent substance use: A transactional analysis of emerging self-control. *Journal of Clinical Child and Adolescent Psychology, 33*, 69–81.
- Windle, M. (2000). Parental, sibling, and peer influences on adolescent substance use and alcohol problems. *Applied Developmental Science, 4*, 98–110.
- Wong, M. M., Zucker, R. A., Puttler, L. I., & Fitzgerald, H. E. (1999). Heterogeneity of risk aggregation for alcohol problems between early and middle childhood: Nesting structure variations. *Development and Psychopathology, 11*, 727–744.
- Zucker, R., Boyd, G., & Howard, J. (Eds.). (1994). *The development of alcohol problems: Exploring the biopsychosocial matrix of risk* (National Institute on Alcohol Abuse and Alcoholism Research Monograph No. 26). Rockville, MD: U.S. Department of Health and Human Services.
- Zucker, R. A., Fitzgerald, H. E., Refior, S. K., Pallas, D. M., & Ellis, D. A. (2000). The clinical and social ecology of childhood for children of alcoholics: Description of a study and implications for a differentiated social policy. In H. E. Fitzgerald, B. M. Lester, & B. S. Zuckerman (Eds.), *Children of addiction: Research, health, and policy issues* (pp. 109–141). New York: Routledge/Falmer.
- Zuckerman, M., & Kuhlman, D. M. (2000). Personality and risk-taking: Common biosocial factors. *Journal of Personality, 68*, 999–1029.