

## The Impact of Family and Parental Education on Adolescents' Substance Use: A Study of U.S. High School Seniors

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This study explores the impact of family structure and parental education on adolescents' substance use using a racially diverse sample of 14,268, 12th-grade high school adolescents. Findings reveal that family structure affects adolescents' substance use. In addition, racial differences are noted. African American adolescents report a relatively lower rate of substance use compared to White and Hispanic adolescents, yet they are gravely affected by substance use outcomes. The study lends further support that family structure and parental education variables may buffer adolescents from substance abuse influences. Implications for practice and policy are discussed.

**Keywords:** Adolescents, substance use, family structure, social determinants, alcohol use

Underage drinking and substance use is a major public health challenge (Copeland-Linder, Lambert, Chen, & Ialongo, 2011; Hurd & Zimmerman, 2010; Pleck & O'Donnell, 2001). According to the 2008 National Survey on Drug Use and Health, approximately 10.1 million underage youth drink alcohol each year in the United States (National Institute of Health, n.d.). Early alcohol and drug debut increases the odds of many social, emotional, and behavioral problems including violence, truancy, depression, and precarious sexual activity (Barry, Chaney, & Chaney, 2011; Ellickson, Tucker, & Klein, 2001; Guo et al., 2002; Stueve & O'Donnell, 2005). Although there are known pathways to substance use including biological, behavioral, cultural, and environmental (National Center on Addiction and Substance Abuse [CASA], 2003), a number of studies have implicated the early onset of substance use as a precursor of later morbidity and mortality (Shillington, Woodruff, Clapp, Reed, & Lemus, 2012). Youths who are "early starters" have a high propensity to embark on a life-course-persistent trajectory of drug use, criminal involvement, family deviance, school dropout, and aggression (Blumstein, Cohen, Roth, & Visser, 1986; Chung,

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Hill, Hawkins, Gilchrist, & Nagin, 2002); bullying and threatening behavior (Elliot, Huizinga, & Menard, 1989; Farrington, 1999); and involvement in risky sexual activities (Flory, Lynam, Milich, Leukefeld, & Clayton, 2004; NIH, n.d.; Tolan & Lorion, 1988). Previous studies affirm that “early-start” youth reside in families with poor family structure (Wang, Simons-Morton, Farhart, & Luk, 2009), lower parental education (Hanson & Chen, 2007), and are from ethnic minority families (Vega & Gil, 2002) such as African Americans and Hispanics. Although, family factors have been mentioned in relation to adolescents’ substance use, to date, studies examining the influence of family factors in adolescents substance use especially in minority ethnic populations are sparse and fragmented. African American adolescents’ drug and substance problem is a significant public health concern (NIH, n.d.). Moreover, though African Americans make up only 14% of the overall population in the United States, they encompass 26% of all juvenile arrests, 44% of detained youth, and 58% of the youth admitted in state prisons (Center on Juvenile and Criminal Justice, 2012). In the light of these statistics, it becomes critical to examine the association of family factors pertaining to African American adolescents.

## CONCEPTUAL FRAMEWORK

Ordinarily, adolescents engage in more reckless, risky, and thrill-seeking behavior than any other groups (Arnett, 1992; Gullone, Moor, Moss, & Boyd, 2000). Further, adolescents also have the highest rates of sexually transmitted illnesses (Gittes & Irwin, 1993) and criminal activity involvement (Arnett, 1996; Viner & Barker, 2005). To fully understand adolescent drug and substance use problem, prevention scientists have proposed the social determinants of health approaches (LaVeist, 2005) by specifically examining the relationship between social inequities and health (Lantz et al., 1998). Thus, we use the construct of social determinants of adolescents risk behaviors (SDOARB; LaVeist, 2005) as a conceptual framework to understand adolescents’ drug and substance use problem. SDOARB is conceptualized as the integration of racial and social determinants in health processes surrounding adolescents’ lives. The SDOARB model proposes that the social environment that includes race, family, and education can significantly affect adolescents’ substance use and well-being.

In this article, we examine the role of family structure, parental education, and ethnicity to address key risk factors that involve adolescents’ substance use. A number of researchers have recommended the exploration of these factors as a first step in unlocking the complexities of health disparities among diverse populations (Brown, 2008; Williams & Jackson, 2005). It is important to note that research is mixed on adolescents’ drug and substance use when it comes to familial factors. Although some studies emphasize the importance of intact family (Harland, Reijneveld, Brugman, Verloove-Vanhorick, & Verhulst, 2002; McMunn, Nazroo, Marmot, Boreham, & Goodman), other studies argue that drug and substance use rarely develop spontaneously and often have roots in the structure of the family especially single-family households (Hemovich & Crano, 2009). Early drug and substance use have strongly been associated with father-only households. Further, children from dual-parent families are said to use significantly less marijuana than those from mother-only families (Hemovich & Crano, 2009). Other studies however, have found that adolescents in father-headed families frequently used cigarette and marijuana than those from dual-parent families, whereas adolescents residing with their single-parent mothers reported overall drug use and beer consumption than the dual-parent family (Jenkins & Zynguze, 1998).

Recent research increasingly suggests that parental education may be related to adolescents’ cigarette smoking, drinking, and illicit drug use (Bachman, O’Malley, Schulenberg, & Wallace, 2011) and/or children’s academic outcomes (Davis-Kean, 2005; Nagin & Tremblay, 2001). Adolescents whose parents have less education are more likely to drop out of school and to use illegal substance than their counterparts with educated parents (Bachman, O’Malley, Schulenberg, &

Wallace, 2011). Inconsistent parental supervision, failure to set limits for example, may interfere with academic performance and may predict risk behavior including drug use (Farrington, 1999). Maguine and Loeber (1996) observed that, “children with lower academic performance offended more frequently, committed more serious and violent offenses, and persisted in their offending” (p. 145).

In regards to ethnic minority parents, African American and Hispanic parents on average have much lower education than the average population (National Center for Education Statistics, 2010). Also, in terms of educational outcomes, a recent report indicates that only 12% of African American fourth-grade boys are proficient in reading, compared with 38% of White boys; whereas 12% of African American eighth-grade boys are proficient in math compared to 44% of White boys (Council of the Great City Schools, 2009). These factors might also be confounded by other environmental factors such as neighborhood and community. An adolescent living in a stressful environment with limited nurturing and caring resources might be persuaded to experiment with drugs and substance especially when there are limited social supports in their neighborhood (Garcia Coll et al., 1996).

Past research interventions in adolescent drug and substance use have targeted individual factors that affect individual choices. For example, we have had policy interventions targeting tobacco pricing to change individuals’ behaviors (Fichtenberg & Glantz, 2002); marketing (Chaloupka, Straif, & Leon, 2011), and mass-media programs targeting human behavior. In other studies, there is a positive relationship between socioeconomic status (SES) indicators and substance use (Petridou et al., 1997; Van Lenthe et al., 2001); higher rates of smoking, heavy drinking, and substance use disorders have been found among higher SES groups (Borrell et al., 2000; Wohlfarth & Van den Brink, 1998). We posit that although such microapproaches contribute significantly to our knowledge base, macroapproaches to uncover the role of family structure, parental education, and ethnicity can provide a comprehensive perspective to understanding adolescents’ substance use.

Based on previous work, we know that drug and substance use among minority adolescents significantly affects their social and academic achievements (Turner, Wheaton, & Lloyd, 1995). Further, African American adolescents are disproportionately affected by alcohol and drug problems and face a bigger burden of adverse health outcomes associated with substance abuse (Kandel & Wu, 1995). For example, though African American adolescents are less likely than Whites to have engaged in drug use or drug selling, African Americans are more likely to be arrested for engaging in illegal behavior (Gil, Wagner, & Tubman, 2004; Kakade et al., 2012). Therefore, the purpose of this study is to (a) examine the role of family structure and parental education on adolescent substance use and (b) examine whether and to what extent race/ethnicity related factors play a role in adolescents’ drug and substance use. We hypothesize that family structure and parental education play a role in predicting drug and substance use among adolescents. In addition, we examine family structure and parental education separately for each racial group and hypothesize that predictors of drug and substance use among adolescents will differ across racial groups.

## METHOD

We used data from the Monitoring the Future (MTF) study, which is conducted by the Institute for Social Research at the University of Michigan. MTF utilizes a multistage area probability representative cross-section sample of 8th-, 10th-, and 12th-grade students who are surveyed throughout the United States. The study first selects geographical areas to be used in the study as a Stage 1 process. Second, high schools are then selected from this geographical areas identified. Stage 3 involved selecting students from the high schools identified in Stage 2. Confidential questionnaires are then administered by local field representatives who follow standardized procedure

and are typically administered during regular scheduled class times. Questionnaires are completed by students themselves and are completely anonymous for 8th- and 10th-grade students. Senior respondents, however, are asked to provide their name and address on separate forms to provide for a later mailing follow-up surveys. Follow-up is important for investigators to link individuals' longitudinal data to students' senior-year information. The current study used only 12th-grade sample.

MTF addresses the following content areas: demographic variables, beliefs concerning personal lifestyle, school performance and satisfaction, intergroup and interpersonal attitudes, and behaviors, attitudes, and beliefs related to alcohol and other drug use (Bachman, Johnston, & O'Malley, 2001). MTF data is large and thus divided into six, sequenced questionnaires. About one third of each instrument contains "core" variables that are common to each form. They include demographic variables and measures of alcohol and drug use. This study selected factors addressed by the MTF project and include alcohol behavior and tobacco and marijuana use among 12th graders. (For more detailed information regarding the MTF purpose, design, or sampling methods, interested readers can visit: [www.monitoringthefuture.org](http://www.monitoringthefuture.org).)

### Instruments/Measures

Students' demographic information, beliefs concerning lifestyle, school performance and satisfaction, intergroup and interpersonal attitudes, and behaviors; attitudes, and beliefs related to alcohol and other drug use were addressed by study researchers.

**Alcohol behavior.** Adolescents' alcohol related behavior was measured using the item, "Think back over the last two weeks. How many times have you had 5 or more drinks in a row? (A "drink" is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, a mixed drink, etc.)" The response scale consisted of the following categories: *none, once, twice, 3–5 times, 6–9 times, 10 or more times*. This scale was recoded to *once or more* (1) or *none* (0).

**Tobacco smoking.** Smoking was assessed using item, "Have you ever smoked tobacco (At least one cigarette, cigar or pipe)." The response consisted of *yes* (1) and *no* (0).

**Marijuana use.** Marijuana use was assessed by asking, "Have you ever taken marijuana (pot, weed, hashish, joint)?" The response scale consisted of the following: (a) *in your life*, (b) *in the last 12 months*, and (c) *in the last 30 days*. (Please mark one circle for each line); *40 times or more; 20–39 times; 10–19 times; 6–9 times; 3–5 times; once or twice, and never*. This scale was recoded to *once or more* (1) or *never* (0). The dummy coding of the three dependent variables was 0 for *absence of a condition* (alcohol use, smoking and marijuana use) and 1 indicating the *presence of the condition above*.

**Family structure.** This was assessed using the following question, "Which of the following people live in the same household with you?" (Mark all that apply), father (or male guardian) and mother (or female guardian). This variable was recoded as follows: 1 = *father*, 2 = *mother*, and 4 = *other*.

**Parents' education.** This was assessed using the following question, "What is the highest level of schooling your father AND mother completed?" Three categories were recoded: 1 = *high school or less*, 2 = *some college or college*, and 3 = *graduate school*.

**Adolescent's race.** Adolescents were asked, "How would you describe yourself?" Select one or more responses: 1 = *African American or African Americans*, 2 = *White* (Caucasian), 3 = *Hispanic*.

## Data Analysis

Descriptive statistics and a logistic regression analyses were conducted to assess the impact of race, family structure, and parental education on adolescents' alcohol, tobacco, and marijuana use. SAS for Windows version 9.2 software was used to perform logistic regression. Initially, all independent variables (family structure, parental education, and race) were included in the model to predict the outcome variables (alcohol use, smoking, and marijuana). Next, the interaction effect of race and family structure was included in the model. Demographic variables such as gender and age were also included as covariates. Odds ratios (ORs) and the corresponding 95% confidence intervals (CIs) were estimated. The OR reflected the increased risk of each social structure on addictive behaviors. Odds ratios were obtained using SAS for Windows version 9.2 software (PROC LOGISTIC and ODDSRATIO FUNCTION).

## RESULTS

Demographic characteristics of the population sample are summarized in Table 1. A total of 14,268 cases were included in the analyses and met the inclusion criteria (12th-grade students only). There was a fairly even split in the gender of the students with 48.8% male and 51.2% female. Most of the respondents were White, 68.8%, followed by Hispanics, 19.8%, and African American, 11.4%. A majority of students 57.9%, were age 18 years and older. About 42.2% of the students reported mother's education to be high school or lower, 46.3% some college, and 11.5% reported graduate level education. Father's education was reported to be high school or lower (49.5%), some college (38.2%), and graduate school (12.3%). Most adolescents reported that they lived with both parents (67.8%). A considerable number (20.5%) lived with mother only, and 5.1% lived with father. Fewer than 7% stated that they lived with "other" whose category included grandfather or grandmother, foster home, or someone else.

Logistic regression results for the relationship between alcohol use, smoking, and marijuana use, when controlling for gender and age are displayed in Table 2. As stated above, we hypothesized that structural factors significantly determine whether an adolescent will drink alcohol, smoke tobacco, or use marijuana. The results indicate that family structure has a significant influence. Living with mother alone increased the odds of alcohol use (OR = 1.19, 95% CI [1.05, 1.36]), and smoking (OR = 1.32, 95% CI [1.12, 1.55]) compared to living with both parents (OR = 1.00). Those that lived with someone else other than a parent had greater odds of alcohol, smoking, and marijuana use compared to those who lived in a two-parent household. For example, alcohol use (OR = 1.76, 95% CI [1.43, 2.17]); smoking, (OR = 2.14, 95% CI [1.68, 2.74]) and marijuana use (OR = 2.01, 95% CI [1.12, 3.48]). The odds of an adolescent using a substance were lower if a parent had a higher education (Father: OR = .81, 95% CI [0.72, 0.91]; Mother: OR = .78, 95% CI [0.64, 0.95]). Similarly, parental education also affected adolescent drug use (marijuana) (Father: OR = .73, 95% CI [0.54, 0.99]). If a parent had a graduate education, the odds for smoking were .80 (95% CI [0.66, 0.97]) for father and .88 (95% CI [0.79, 0.99]) for mother.

This study also reveals that there are ethnic variations among adolescents' drug use. The odds of African American and Hispanic adolescents using substances were lower than those of their White counterparts. Furthermore, African American adolescents living with both parents had lower odds of using a substance than Hispanic and White adolescents living with both parents for drinking

TABLE 1  
Weighted Demographic Characteristics of the 12th-Grade Students  
(*N* = 14,268)

<i>Item</i>	<i>Percent</i>
Gender	
Male	48.8
Female	51.2
Race	
African American	11.4
White	68.8
Hispanic	19.8
Age	
18 years or younger	42.1
18 years and older	57.9
Mother's education	
High school and lower	42.2
Some college	46.3
Graduate school	11.5
Father's education	
High school and lower	49.5
Some college	38.2
Graduate school	12.3
Live with	
Parents	67.8
Mother alone	20.5
Father alone	5.1
Others	6.6
Location	
Farm	5.4
Country	12.9
Small town	28.4
Medium city	14.2
Suburb of the medium city	10.1
Large city	10.8
Suburb of the large city	6.8
Very large city	6.9
Suburb of the very large city	4.5
Alcohol use (frequency of 5 or more drinks in row per 2 weeks)	
None	74.8
More than once	25.3
Smoking (frequency of cigarettes smoking during the past 30 days)	
None	80.0
More than once	20.0
Marijuana (frequency of marijuana use during the last 30 days)	
None	79.0
More than once	21.0

TABLE 2  
Weighted Logistic Regression Model Results

	<i>Alcohol Use</i>		<i>Smoking</i>		<i>Marijuana Use</i>	
	<i>OR</i>	<i>95% CI</i>	<i>OR</i>	<i>95% CI</i>	<i>OR</i>	<i>95% CI</i>
Live with						
Parents	1.00		1.00		1.00	
Mother alone	1.19 <sup>a</sup>	[1.05, 1.36] <sup>a</sup>	1.32 <sup>a</sup>	[1.12, 1.55] <sup>a</sup>	1.38	[0.98, 1.94]
Father alone	1.38 <sup>a</sup>	[1.12, 1.69] <sup>a</sup>	1.49 <sup>a</sup>	[1.15, 1.94] <sup>a</sup>	1.59	[0.96, 2.62]
Others	1.76 <sup>a</sup>	[1.43, 2.17] <sup>a</sup>	2.14 <sup>a</sup>	[1.68, 2.74] <sup>a</sup>	2.01	[1.12, 3.48] <sup>a</sup>
Mother's education						
High school and lower	1.00		1.00		1.00	
Some college	1.07	[0.96, 1.20]	0.78 <sup>a</sup>	[0.64, 0.95] <sup>a</sup>	0.79	[0.58, 1.06]
Graduate school	1.13	[0.95, 1.35]	0.88 <sup>a</sup>	[0.79, 0.99] <sup>a</sup>	0.83	[0.51, 1.34]
Father's education						
High school and lower	1.00		1.00		1.00	
Some college	0.92	[0.82, 1.03]	0.81 <sup>a</sup>	[0.72, 0.91] <sup>a</sup>	0.73 <sup>a</sup>	[0.54, 0.99] <sup>a</sup>
Graduate school	0.87	[0.73, 1.03]	0.80 <sup>a</sup>	[0.66, 0.97] <sup>a</sup>	0.86	[0.54, 1.37]
Race						
African American	0.35 <sup>a</sup>	[0.29, 0.44] <sup>a</sup>	0.27 <sup>a</sup>	[0.21, 0.34] <sup>a</sup>	1.03	[0.65, 1.61]
White	1.00		1.00		1.00	
Hispanic	0.79 <sup>a</sup>	[0.69, 0.91] <sup>a</sup>	0.61 <sup>a</sup>	[0.52, 0.71] <sup>a</sup>	0.92	[0.63, 1.34]
Interaction effects						
Live with parents						
African American × Hispanic	0.53 <sup>a</sup>	[0.38, 0.75] <sup>a</sup>	0.53 <sup>a</sup>	[0.34, 0.79] <sup>a</sup>	0.64	[0.30, 1.38]
African American × White	0.40 <sup>a</sup>	[0.29, 0.55] <sup>a</sup>	0.37 <sup>a</sup>	[0.25, 0.53] <sup>a</sup>	0.78	[0.38, 1.59]
Hispanic × White	0.75 <sup>a</sup>	[0.63, 0.89] <sup>a</sup>	0.69 <sup>a</sup>	[0.57, 0.83] <sup>a</sup>	1.22	[0.79, 1.86]
Gender						
Male	1.00		1.00		1.00	
Female	0.58 <sup>a</sup>	[0.53, 0.63] <sup>a</sup>	0.76 <sup>a</sup>	[0.68, 0.84] <sup>a</sup>	0.62 <sup>a</sup>	[0.48, 0.81] <sup>a</sup>
Age						
17 years or younger	0.89 <sup>a</sup>	[0.80, 0.97] <sup>a</sup>	0.85 <sup>a</sup>	[0.77, 0.95] <sup>a</sup>	0.75 <sup>a</sup>	[0.57, 0.98] <sup>a</sup>
18 years and older	1.00		1.00		1.00	
AIC	10,861.52		9,746.06		1,542.09	

OR = odds ratio; CI = confidence interval; AIC = Akaike Information Criterion.

<sup>a</sup>Denotes statistical significance.

or smoking. Compared to Hispanic, African Americans living with both parents had lower odds of alcohol use (OR = .53, 95% CI [0.38, 0.75]) as well as smoking (OR = .53, 95% CI [0.34, 0.79]). The odds of drinking and smoking were lower for Hispanic living with both parents than White living with parents (OR = .75, 95% CI [0.63, 0.89]) (OR = -.69, 95% CI [0.57, 0.83]) respectively. Thus, the availability of both parents was a strong protective factor for minority populations.

### DISCUSSION

The study aimed at identifying the social determinant of adolescents' health using family structure, parental education, and race as covariates of adolescents substance use. Previous studies have indicated that children from substance-affected families show an elevated risk for developing substance-related or other mental disorders (Alford, Jouriles, & Jackson, 1991). Negative impact

of parental drug use on adolescents' well-being has also been well documented (Denton & Kampfe, 1994; Kilpatrick et al., 2000; Pejnovic Fanelic, Kuzman, Pavic Simetin, & Kern, 2011). Although this is the case, our understanding on the impact of family structure on adolescents' substance use is still underdeveloped and requires additional investigations. In fact, some studies (Kakade et al., 2012) have found that peer group and perceived availability of marijuana were more important influence than family structure.

Single-family households (living with mother or father alone) have been found to be a risk factor for youth's poor outcomes. Recent studies from *Fragile Families and Child Wellbeing* (Waldfoegel, Craigie, & Brooks-Gunn, 2010) have examined why children who grow up in a single-mother and cohabitating families fare worse off than children born into married-couple households. They identified factors such as parental resources, parental mental health, parental relationship quality, parenting quality, and father involvement. Although this study did not examine these identified factors, we posit that these factors are in line with the sociocontextual attributes of a nested context of an adolescent's protective home environment, which is an important preparatory venue for a child's future well-being. This, in our view should reemphasize the direction for practice and policy, that is, examining the elements in the family structure that are deemed protective and can enhance the well-being of children.

This study also found that African American children are less likely to use drugs compared to White and Hispanic children. Similar results have been documented by others (Gil et al., 2004; James, Kim, & Armijo, 2000) who have found a low prevalence rate of substance use among African American youths. We know from research that substance use is linked to poor health outcomes. Because White students report a higher propensity to substance use, logically, White students should exhibit worse outcomes compared to African American students. However, this is not the case. This paradox has been a constant quandary among researchers. Studies indicate that African American adolescents have a disproportionately higher burden of adverse physical, social, and economic consequences related to drug and substance use than their White counterparts (Williams & Jackson, 2005). Thus, there are other important mediating factors that require further investigation. Adolescents who experience high rates of illegal substance abuse in general are more likely to live in poverty, have a low educational level, live in disadvantaged areas with low or no social capital, and, finally, may have limited employment opportunities (Datnow, 2006). For African American adolescents however, these problems are relatively pronounced and often lead to poor outcomes such as school dropout, drug problems, and subsequent jail or imprisonment.

This study suggests that looking at the overall cause of health disparities that affect adolescents' well-being as a solution would go farther than examining episodic interventions that simply compare Whites to African American students. These may include generational and cultural related factors among ethnic populations that pertain to childhood development. Studies indicate that compared to other ethnic populations, African American children have been found to be exposed to long periods of trauma and stress, poor living conditions, and predominantly live in resource-poor neighborhoods with inherent poor health outcomes (Braveman, Egerter, & Williams, 2011). Addressing these environmental concerns in concert with related individual problems such as individual's drug use, child neglect, and adequate child rearing could reduce substance use occurrences among adolescents.

## Limitations

The study has a number of limitations. It uses a cross-sectional data, and therefore no causal inferences can be made. Further, data used were from self-report and did not include objective measures of individuals substance use. Reliance on self-reports on matters of substance abuse has the potential for inaccuracies stemming from social desirability. Adolescents may give socially desirable responses to conceal their actual drug use. Consequently, it is possible that substance



risks in this study are underestimated. It is also possible that our results only reflect the extent of adolescents' perception of drug use and not the actual severity of the problem.

Although the selection of indicator variables was based on theory, the study uses secondary data and is limited to the questions that were asked during the interview. Part of structural differences could better be assessed if we had the variable of income in the data set. We know that economic factors have tremendous impact on adolescents' well-being. Studies done by others (Williams & Jackson, 2005) do reveal that there are social and economic consequences that are related to substance use. Because of the secondary nature of data set, we were not able to determine how income affected substance use.

### Implications for Policy and Practice

Because having a strong family and community with needed resources is important for adolescents' success, it is necessary that school and public health officials consider examining the totality of a student's home environment to help address risks that could potentially derail a student's success. The study lends support that family structure and parental education may act as buffers to protect adolescents from substance abuse influences. Future research is however needed to understand how social context can be used to understand substance use debut and to link adolescents with appropriate resources.

Although African American adolescents report lower substance abuse, they are affected more by negative outcomes. They are more likely to drop out of school, to be arrested, and spend a considerable time in jail (Bachman et al., 2011). For example, despite only accounting for 6% of the general population, African American males represent nearly 50% of the prison population (Perry & Bright, 2012). This situation brings about a truncated earning potential affecting many African American families; these men are unable to make significant financial contributions to their families' well-being. Education policies that would educate African American children and keep them in school where they can graduate and be college ready will go a long way in strengthening African American families.

To address the problem of drug use that can be pervasive in certain neighborhoods, it is recommended that practitioners and substance abuse specialists focus more attention on the needs of children who are often excluded from policy decisions. Factors that push adolescents to choose drugs over positive life choices should be part of parental and practitioners' conversations in an effort to ameliorate these problems. Practitioners should also utilize community-based programs to offer support services and provide children with a safe environment leading them to a hopeful future orientation.

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