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MARIJUANA USE IN A RURAL APPALACHIAN COMMUNITY

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Introduction

National surveys of adolescent drug use are of instrumental value for identifying drug use patterns, trends, and related behaviors and formulating public policy at the macro level. The design of intervention strategies, however, requires more particularistic studies at the local level that examine how local historical, cultural, and economic factors influence adolescent drug use behavior. The Southern Appalachian region in the United States is a case in point. Historically, the image of Southern Appalachia in American consciousness has been associated with a distinct subculture, one usually defined in deviant terms (e.g., "culture of poverty," "culture lag," "culture of violence") (Batteau 1990; Hicks 1976; Shapiro 1978). It is somewhat surprising, therefore, that no published research on drug usage in the region exists. In spite of such potentially essentialist notions of Appalachia that stereotype its diverse inhabitants, we believe there is a pressing need for drug research in the region, especially if one agrees that over the past three decades, Southern Appalachia has emerged as a major marijuana production area in the United States (Clayton 1995).

In *Marijuana in the "Third World": Appalachia, U.S.A.* (1995),

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Richard Clayton notes that of all the marijuana plants eradicated by state and federal law enforcement agencies in 1991 and 1992, the state of Kentucky ranked first, Tennessee fourth, and North Carolina eighth. Moreover, his analysis of Drug Enforcement Agency data found that marijuana cultivation was most frequently encountered in the predominately rural, Appalachian sections of these states, i.e., eastern Kentucky, eastern Tennessee, and western North Carolina. Clayton notes a strong association with the cultivation of marijuana in rural Appalachia and poverty. "Just as the drug trade has become entrenched in the urban ghettos," he says, "so too has it gained a foothold in rural ghettos." (1995, 74). People from all walks of life, all social strata, however, are attracted to the lure of big money. In 1995, the Drug Enforcement Agency estimated that marijuana brought on average \$3,000 a pound and, depending on its quality, as high as \$8,000 a pound on the wholesale market. Between 1985 and 1992, businessmen, schoolteachers, coal miners, a human services employee, and a former county judge in eastern Kentucky were prosecuted for growing and selling marijuana (Clayton 1995).

This paper reports on a pilot study of adolescent marijuana use in an eastern Tennessee county conducted in 1997 where, according to state and local law enforcement officials, an active underground marijuana economy exists. One research objective was to determine if adolescents living in an environment with an active underground marijuana economy exhibit higher marijuana use than adolescents nationwide. Patterns of marijuana use in the adolescent population with regard to age, sex, and onset of use are described and compared with similar data reported for the same year in a national survey of adolescent drug use, the Monitoring the Future Study (Johnston, O'Malley, and Bachman 1998). Our focus on high school students in the county is significant inasmuch as the majority of social research on marijuana use currently focuses on adolescents.

Marijuana Research in the North American Context

Though the primary goal of our research project is to develop a detailed description of marijuana use within a single county in rural Appalachia, we utilize data from the Monitoring the Future Study in this article to offer some preliminary comparisons between

marijuana use in Appalachia and in the United States more broadly. The Monitoring the Future Study is an annual survey conducted by the University of Michigan's Institute for Social Research and funded by the National Institute for Drug Abuse (NIDA 1996). Since 1975 the survey has annually questioned high school seniors about drug use trends; eighth and tenth grade students have been surveyed annually since 1991 (NIDA 1996). The Monitoring the Future Study can be considered a benchmark for national data on marijuana use in that it is cited extensively in the larger drug literature (see for example, Griffin 2002; Johnston, et al. 1998; Johnston, O'Malley, and Bachman 2001; Thompson 2001).¹

Research on marijuana use among adolescents has increased dramatically since 1992, due in no small part to three interrelated changes: the steady increase in the frequency of self-reported use; the increased potency of crops; and the decreasing age of first contact with marijuana (Johnston, et al. 2001; Thompson 2001; Tonkin 2002). This research literature had tended toward discussions of either the influences on or the consequences of marijuana use among adolescents. The factors purported to influence adolescent marijuana use are varied and include genetic variables; social-structural variables such as the family form and health, peers, and school; and psychological variables including risk perception, perceived mastery of life's circumstances, and psychopathologies. In terms of consequences, marijuana researchers have focused on marijuana's effects on education and employment aspirations and achievements, correlations with criminal behavior, potential physical and psychological health risks, and its position as a gateway drug that facilitates more destructive behaviors (including substance use). Further, some studies have looked at policy issues with regard to intervention. Some studies have focused on national statistics, while others have researched urban or suburban youth. Interesting and quite significant is the lack of reported research on marijuana use in Appalachia, among adolescents or otherwise.

Methods

This pilot study represents a case study in rural adolescent marijuana use in Southern Appalachia. Data were collected by

graduate students and faculty researchers from a regional university. Specifically, a group of graduate students enrolled in a graduate seminar in applied anthropology worked with the faculty instructor to develop and implement a survey instrument and analyze the data collected. Both quantitative and qualitative techniques were used to triangulate findings and thus to improve the validity of subsequent interpretations. Because the goal of this research was to offer a descriptive analysis of marijuana use among high schoolers in a rural county of Appalachia rather than to compare these data with national data, we make no explicit claims for generalizability beyond our surveyed population. However, comparison of this study's findings with oft-cited national data suggests that rural adolescent marijuana use does not differ significantly from the national average. This should serve as an impetus for more detailed work in the area.

Data on adolescent use of marijuana and other drugs were obtained through a self-administered questionnaire that contained ninety-seven items on marijuana and other drug use and related attitudes and behaviors, as well as through subsequent in-depth interviews with a random sample of students and teachers. A reliance on self-reported behaviors regarding substance use is well documented in the literature (Griffin, Botvin, Scheier, and Nichols 2002; Thompson 2001). Researchers have found that adolescents are more likely to accurately report marijuana use than other, more illicit substances (Sneed, Morisky, Rotheram-Borus, Ebin, and Malotte 2001), perhaps due to the social acceptance of marijuana use relative to other illegal drugs (Tonkin 2002).²

Our survey included questions on a variety of intoxicating behaviors including marijuana use. Our survey results proved most intriguing in terms of marijuana use, and as a result we focused our qualitative data collection toward eliciting as much information as possible from students without hamstringing ourselves by explicitly questioning individual behaviors. In the fall of 1997, the research team contacted the Crystal County³ School Board and requested permission to survey and interview students on a voluntary basis regarding drug-related attitudes and behaviors. The Board was enthusiastic about our research, but was somewhat disappointed by our stipulation that all data would be anonymous and that no

students could be identified during or after the research. The Board agreed to allow us access to the student body during school hours.

Crystal County High School (CCHS) is the only high school in the county. Serving grades nine through twelve, CCHS offers both college and vocational tracks. More recently, an optional school was established for students with chronic truancy and other behavioral problems. In 1997, CCHS enrolled 575 students and had a faculty of fifty. In order to garner information from adolescents in the county, our research efforts focused on students at the high school.

The questionnaire was administered during the first period of class in the students' assigned "home rooms."⁴ Prior to distributing the questionnaire, a brief presentation was made to each class about the purpose and significance of the study and the format of the questionnaire. In every case, the presentations were made by graduate students without the presence of teachers or administrators in order to limit the amount of resistance or trepidation students might have toward participating. Anonymity was assured by students not recording their names on the questionnaire, and students were told explicitly that they did not have to participate unless they chose to. Surveys were separated at the time of administration in order to ensure that the different grades were not mixed.

A total of 513 students (89.2 percent of the student population) participated in the survey. Fifty-three percent of the respondents were female, forty-seven percent male, which is the reverse of the Crystal County population (just over fifty-three percent of the county's population is male). Thus, males were slightly underrepresented and females slightly overrepresented in the survey. Respondents were distributed across the grades as follows: ninth grade, thirty-one percent; tenth grade, twenty-four percent; eleventh grade, twenty-six percent; and twelfth grade, twenty percent.

More detailed information was gathered from tape-recorded interviews with fifteen students selected using convenient sampling techniques. Because of the nature of the research topic, the School Board stipulated that we only interview students who volunteered and received written permission from a parent to be interviewed. A total of sixty-five students (from both the main campus and the

"alternative school") brought back signed permission slips from a parent. From these sixty-five students, fifteen were randomly selected to participate. Our interest at the qualitative level was not in distinguishing between students based on age, sex or grade, but rather in how a random sample of youth from across the student body were likely to talk about their knowledge of marijuana and its use within Crystal County. Nine teachers, as well as the school principal and guidance counselor, were also interviewed. The interview questionnaire for both teachers and students obtained information on their perception of student use of marijuana and other drugs in and outside of school; notions about why adolescents use drugs; the school's policy on student drug use and school intervention programs, past and present; and relations between the school and the larger community. Participants were not questioned directly in regard to their personal behaviors. Lastly, additional information was obtained from interviews with the District Attorney for the judicial district within which Crystal County is located, an informed member of the Judicial District Task Force on Drugs, and an officer with the Juvenile Court.

Research Site

Crystal County, Tennessee was selected for investigation because of its location in an area recognized by local, state, and federal law enforcement agencies as a significant marijuana cultivation area. The then District Attorney for the area's Judicial District of Tennessee, and the Director of the area's Judicial Task Force on Drugs, who wished to remain anonymous for security reasons, reported that the mountainous terrain of Crystal County, twenty-five percent of which is bound up within a national forest, provides an ideal environment for inconspicuous marijuana cultivation. They said it is difficult, if not impossible in some cases, to locate marijuana cultivation sites by either ground or aerial reconnaissance. Nevertheless, helicopter surveillance is routinely performed in targeted areas of northeastern Tennessee around harvest time, resulting in the identification and destruction of what law officials believe is only a small portion of existing marijuana plots.

Crystal County's demographic and economic profile is similar to that of other counties in the marijuana cultivation areas of Southern Appalachia. According to year 2000 Census data, the county's population of 17,499 is racially homogeneous, being 96.4 percent white (U.S. Census Bureau 2000). Though predominately rural, the majority of the county's workforce is employed in the manufacturing, service, sales, and technical sectors. About six percent of the workforce is involved full-time in farming, but part-time farming, especially the cultivation of tobacco, is common. The closing of three manufacturing plants in the mid- to late-1990s involving the loss of over 1,300 jobs has had a negative impact on the local economy.

Though Crystal County does not have the problem of widespread, hardcore poverty evident in other parts of Southern Appalachia, it is nonetheless economically challenged. Census data indicate that less than half of the population (forty-seven percent) is in the labor force (U.S. Census Bureau 2000). In 1996, per capita income was \$11,199 as compared to the state average of \$19,450 (Tennessee Commission on Children and Youth 1997). Poverty levels have remained fairly constant over the last decade; nearly twenty-six percent of the county lived below the poverty level in 2000, down slightly from twenty-eight percent in 1990 (U.S. Census Bureau 2000). Civic leaders have been actively involved in the recruitment of new industry, but their efforts have met with little success thus far due in part to the population's low level of educational attainment. According to the 2000 U.S. Census, 41.7 percent of adults aged twenty-five and older do not have a high school diploma or GED, while less than seven percent have a Bachelor's degree or greater. The combination of low educational achievement levels and above-average poverty creates a complex situation in which life improvement becomes more difficult and innovative strategies to earn money become more likely.

Prior to the end of Prohibition in 1933, the production of illicit whiskey known as "moonshine" or "blockade whiskey" was fairly common in Crystal County. Moonshine is still produced today, but more out of antiquarian than economic interest. State law enforcement officials and residents maintain that some of the same families that were involved in moonshine production years ago are

now involved in marijuana cultivation. According to local residents, there are small-scale and large-scale cultivators. Small-scale cultivators consume much of what they produce and share or sell their surplus locally. Large-scale cultivators have several plots in operation and some have employed sophisticated indoor hydroponics systems. They sell their product locally, but are also tied into a distribution network outside the county. The extent of this network is not known. Local residents said that one must be careful when hiking or hunting in some areas either known or suspected of harboring marijuana plots. Many fear an encounter with cultivators who might misidentify them as law enforcement officers or thieves.

Teachers and students at Crystal County High School and state law enforcement officials reported that the counties in northeastern Tennessee have a reputation for the production of a highly potent grade of marijuana (i.e., high in THC, or delta-9-tetrahydrocannabinol) known locally as "Rock Creek Gold." (The name "Rock Creek" comes from a small town in a neighboring county where this variety of marijuana was initially cultivated.) A few years ago, in a bold act of rebellion or pride, some young people in the county wore t-shirts with "Rock Creek Gold" and a marijuana plant emblazoned on the front.

Student Drug Use Survey Results

To obtain a perspective on how Crystal County adolescents compared with adolescents nationally in marijuana use in 1997, CCHS student drug use survey data were compared with similar data reported by the Monitoring the Future Study (MTFS). The CCHS drug use survey assessed a six-month period of use in contrast to the MTFS's thirty-day, annual, and lifetime periods. Also, the CCHS survey included students in grades nine through twelve, whereas the MTFS surveyed grades eight, ten, and twelve. Therefore, to make an approximate comparison of marijuana use in the two populations, CCHS six-month use rates were compared to the MTFS's annual use rates in grades ten and twelve. Since ninety percent of the students were surveyed, frequencies or percentages

were considered population parameters as opposed to sample estimates. Consequently, differences between grade levels and males and females were considered parameter differences and sampling variability (sampling error) was not estimated.

MTFS sophomores and seniors reported annual use rates (i.e., use of marijuana at least once in the past year) of 34.8 percent and 38.5 percent, respectively. The CCHS sophomore and senior six month use rates (i.e., use of marijuana at least once in the past six months) of thirty-five percent and thirty-six percent, respectively, were much the same. The annual use rates for MTFS sophomores and seniors residing in "rural" areas (i.e., non-Metropolitan Statistical Areas), 32.5 and 34.9 percent, respectively, were slightly lower than CCHS six month use rates. If adjusted for an annual rather than six-month period of use, it is likely that CCHS use rates would have been slightly higher.

As shown in Table 1, the six-month use rate was somewhat higher for males than females, thirty-six percent and 33.5 percent, respectively. Females were more likely to be one-time experimenters whereas males were somewhat more likely to admit to more frequent use. To make a more direct comparison with MTFS data, separate calculations by sex were made for tenth and twelfth grade students at CCHS. As indicated in Table 2, these results differ from those for the whole CCHS population, which included ninth and tenth graders. Among CCHS sophomores, thirty percent of the males reported using marijuana over the past six months in comparison to thirty-eight percent for females. As for seniors, the male and female use rates were thirty-three and thirty-six percent, respectively. There was a rather large difference in the number of senior males compared to sophomore males, but the difference among females between the two grades was minimal. This pattern indicates a significantly higher dropout rate among males and accounts for why the female use rates were higher than those for males. Table 3 shows that most CCHS sophomores and seniors who had used marijuana first tried it between the ages of twelve and fourteen, 33.3 and 21.5 percent, respectively. These rates are close to those for MTFS sophomores and seniors for the same age interval, 31.8 and 21.7, respectively. Table 3 also indicates that females first tried marijuana at an earlier age than males.

Table 1**Prevalence of Marijuana Use Among CCHS Students, by Gender**

Frequency of Use	Boys Frequency (%)	Girls Frequency (%)
Never	149 (63.9)	186 (66.4)
Once	13 (5.6)	25 (8.9)
Seldom	23 (9.9)	20 (7.1)
Occasionally	17 (7.3)	18 (6.4)
Often	31 (13.3)	31 (11.1)
TOTAL	233 (100.0)	280 (100.0)

Table 2 Prevalence of Marijuana Use Among CCHS Students, by Grade and Gender

Frequency of Use	Tenth Grade		Twelfth Grade	
	Boys Freq. (%)	Girls Freq. (%)	Boys Freq. (%)	Girls Freq. (%)
Never	37 (69.8)	42 (61.8)	26 (66.7)	41 (64)
Once	2 (3.8)	4 (5.9)	2 (5.1)	5 (7.8)
Seldom	4 (7.5)	5 (7.3)	2 (5.1)	3 (4.7)
Occasionally	3 (5.7)	4 (5.9)	3 (7.7)	5 (7.8)
Often	7 (13.2)	13 (19.1)	6 (15.4)	10 (15.6)
TOTAL	53 (100.0)	68 (100.0)	39 (100.0)	64 (100.0)

Table 3 Age at First Use of Marijuana by CCHS Students, by Grade and Gender

Age Categories	Tenth Grade		Twelfth Grade	
	Boys Freq. (%)	Girls Freq. (%)	Boys Freq. (%)	Girls Freq. (%)
Does Not Apply	31 (59.6)	31 (45.6)	20 (52.6)	33 (51.6)
11 or Younger	4 (7.7)	4 (5.9)	2 (5.3)	2 (3.1)
12 - 14	14 (27.0)	26 (38.2)	4 (10.5)	18 (28.1)
15 - 16	2 (3.8)	7 (10.3)	11 (28.9)	5 (7.8)
17 or Older	1 (1.9)	0 (0.0)	1 (2.6)	6 (9.4)
TOTAL	52 (100.0)	68 (100.0)	38 (100.0)	64 (100.0)

One other piece of comparative data is considered here to support our finding that marijuana use in the Southern Appalachia is not remarkably different than the U.S. average. In 1992, the Community Partnership Program of East Tennessee State University conducted a survey of alcohol and other drug use among CCHS students (Zahorik 1993). Data from the two surveys show that the six month marijuana use rate for seniors rose from twenty-five percent in 1992 to thirty-six percent in 1997. For sophomores, the rate increased from seventeen percent to thirty-five percent. MTFS findings indicate a similar trend at the national level. The annual marijuana use rate for seniors steadily increased each year from 21.9 in 1992 to 38.5 in 1997. Several other studies agree with our findings that marijuana among adolescents has increased dramatically since a twenty-year low in the early 1990s (see Thompson 2001).

To summarize, the CCHS student survey data show that adolescent patterns of marijuana use in Crystal County are roughly the same as those for adolescents nationally. Had annual rate of use been measured, CCHS rates might have been slightly higher. Six-

month use rates in Crystal County are higher, though not greatly so, than the annual use rates for adolescents residing in other "rural" areas (i.e., non-Metropolitan Statistical Areas). It appears, therefore, that the underground marijuana economy in Crystal County has not had a profound effect on adolescent marijuana use. In terms of availability, it appears that marijuana is easily obtainable to Crystal County youth, but perhaps no more so than to adolescents nationwide. MTF's data show that each year from 1975 to 1997 a minimum of eighty-two percent of the seniors reported that marijuana was easy to obtain (Johnston, et al. 1998).

Community Perspectives on Use, Treatment, and Prevention: A Culture of Denial?

There have been a variety of drug prevention and treatment programs in place in most high schools throughout Appalachia for at least the last quarter century, though the relative success of such programs varies widely based on how success is measured. Most drug prevention and treatment programs represent marijuana either as a gateway drug that will lead to more destructive behavior, or as an illegal substance, the possession or use of which will result in being labeled as a criminal and possible incarceration. More generally, drug intervention programs represent the negative outcomes of marijuana use while skirting or avoiding serious consideration of the pleasurable effects the adolescent users experience.

Over the past decade, Crystal County High School installed several intervention programs directly or tangentially concerned with drug use prevention. In 1990, the school implemented the state supported "True Colors" program (also known as "Positive Attitude in Tennessee Schools"), which essentially involved identifying student personality profiles and informing students about how certain personalities are disposed to experiencing certain problems such as fighting, dropping out, and drug use. Much to the dismay of some teachers, this program was discontinued four years ago. Another program, "Crossroads," was geared toward working with students at risk of dropping out. It was shut down three years ago.

More recently, CCHS installed the "Getting It Together" program, which involves students viewing a video series modeled after the popular television show "Beverly Hills 90210." The videos portray a variety of social problems, including drug use, and, following the viewing of an episode, students and teachers discuss its content. Other drug intervention efforts include Red Ribbon Week, Prom Promise, and Graduation Promise, all of which entail students pledging to avoid using alcohol and other drugs during special events. Lastly, police "drug dogs" are periodically brought in to search classrooms and student lockers.

While the teachers interviewed for this study varied in their assessments of the value of one or another of the drug intervention efforts at CCHS, the majority agreed that drug education over the years has been piecemeal, inconsistent, and often poorly planned and implemented. They attributed this situation mainly to the immediate past principal who, though described as a highly capable administrator and well liked by the students and faculty, was, purportedly, more concerned with promoting a positive image of the school in the community than confronting problems. Some teachers and students speculated, for example, that the principal purposefully disclosed information about when the "drug dogs" were going to be brought in to ensure that no drugs would be found on campus. "He wanted to hide our problems, wanted everything under the carpet," one teacher said. "If we had a problem, he didn't want anybody to know about it," he added. Another teacher agreed, but noted that the principal's tendency to conceal rather than openly address a social problem was congruent with the community's culture:

Our problems in Crystal County are just so well concealed. The tendency—and it's been like this for years—is that if you don't see it, it doesn't exist. Don't talk about it; don't bring it up. If everything looks nice, smells nice, and seems nice, then it probably is nice. Let's not dig around.

Faculty perception of drug use among CCHS students varied considerably according to the age of the teacher. When asked what

percentage of the CCHS students used marijuana at least once a week, the estimates of teachers age thirty and below ranged from thirty-five to seventy percent. The older teachers' estimates ranged from one to ten percent. Two interpretations of marijuana use among high schoolers become apparent. First, it is interesting to note that some of the more experienced teachers reported that marijuana use among Crystal County youth was much greater in the late 1970s than at the time of this study. Their impression is supported by MTFS data which indicate that the national annual use rate for marijuana increased each year from 1975 to 1980, then declined each year from 1981 to 1992, and then began to increase each year since 1993. In 1979, the annual use rate was 50.8 as compared to 38.5 for 1997 (Johnston, et al. 1998; Thompson 2001). A second plausible interpretation is that multiple groups with the school community, including students, teachers, and the administration, want to deny or minimize the extent of drug use (see Stein 1995), though their reasons for denying or marginalizing the problem appear to diverge considerably.

Teachers and administrative officials offered several explanations for why students use marijuana and other drugs, including alcohol. All agreed that there are several factors influencing student drug use such as single-parent households, lack of self-esteem, mass media, rebellion, peer pressure, and boredom. They believe, however, that boredom is a more powerful inducement to use drugs in relatively isolated rural communities like Crystal County. "Our kids," one teacher explained, "have nothing to do. They have to travel several miles to go out to eat or see a movie. There are no recreation services, like roller skating or bowling and things like that."

The assumption that adolescents would be less likely to use drugs if more recreational activities were available, however, is not necessarily true. Boredom is neither peculiar to nor more prevalent among rural adolescents. Adolescents interviewed for an in-depth, ethnographic study of drug use in a "mean demographic city" (pop. 600,000) in the Midwest also mentioned boredom as a primary reason for using drugs (Glassner and Laughlin 1987). They and several of the CCHS students interviewed offered another explanation for drug use not mentioned by the teachers and

administrators: pleasure. While it is true that marijuana and other drug use is sometimes symptomatic of various social and psychological problems, the search for hidden, rational explanations for what is deemed by society as irrational behavior diverts attention from the fact that many people use drugs simply because they enjoy the pleasurable sensation of being high.

According to the CCHS student drug use survey discussed earlier, sixty-eight percent (n=351) of the students believed drug use was a problem at CCHS. Furthermore, 74.5 percent of the students reported that at least forty percent of CCHS students had a serious drug use problem. Definitions of "serious," of course, no doubt varied in the student population. Forty percent (n=206) believed their school did not adequately deal with student drug use.

Several students interviewed during the study reported that the sale and use of marijuana on school grounds by students was, as one student expressed it, "a lot more common than the teachers think." Some teachers, however, were aware of the presence of marijuana on school grounds, and they expressed concern about the school administration not doing anything about it. "They're smoking pot between buildings, hiding behind cars," one teacher said. "It's a problem that needs to be addressed," he added, "because control is not as good as it should be." Teachers also expressed frustration over the differential enforcement of CCHS's zero tolerance policy on the possession of illegal drugs on school grounds installed in 1996, noting that some students managed to avoid the mandatory one-year suspension rule because of their parents' political influence.

Several teachers, the guidance counselor, and the principal reported that parents frequently present an adversarial attitude when summoned to the school to discuss a problem with their child whether the problem was drug use or something else. One teacher explained:

Our parents are in extreme denial about their children. I've called many parents and they say: 'My child would never do that. You're lying.' They say that we are making it up or some other child is

making it up. It never happened. I think they don't want to know. They're in denial. I think a lot of it comes from guilt. Parents have to work so much and they don't have the time to spend with their children. They're scared that they are going to be blamed for something their child does.

The reaction of some Crystal County residents to a recent article in a local newspaper on heroin use in Crystal County revealed another dimension of denial. In the article, a state law enforcement official stated that heroin use was an emerging problem in the county. In reference to a recent incident when two people overdosed on heroin "in a church parking lot with church going on," he said "if there's not a problem that's right there in the wide open, then they (the citizens) don't want to bring it up." The reporter who wrote the article said that a local school official and a social worker "were forbidden from discussing the drug use issue with me" and that local ministers he approached "refused to talk about the problem." Following the appearance of the article, the reporter received hostile letters from citizens accusing him of maligning the county's reputation by creating a problem that did not exist. The various discussions of denial that emerged during our study lead us to question the extent to which anti-drug policies in the schools will actually lead to benefits for students.

Discussion

Our research has uncovered two important aspects of marijuana use in a single county in Southern Appalachia. First, we found that, contrary to research that suggests that geographical areas rife with socio-economic problems are affiliated with a higher levels of substance abuse (Siqueira, Diab, Bodian, and Rolnitzky 2001), adolescents in our research did not report remarkably different marijuana use than national studies of youth and marijuana use. Thus our research offers support for a rejection of stereotypical claims about the commonplaceness of marijuana use in rural Appalachia. Second, we found that there were a variety of factors

that coalesce around the issue of marijuana in the public sphere. For reasons that remain to some extent unclear, various groups within the community utilize various strategies to either deny or marginalize the problem of drug use in the county. Further research should focus on excavating the underlying processes by which marijuana is constructed as a taboo topic at the community level.

Also significant in terms of future policy, the study of marijuana use among rural, suburban, and urban adolescents alike must begin to take into account the fact that marijuana is a 'feel good' drug. Adolescents, like adults, use marijuana because it stimulates the body in what most would consider pleasurable ways. While this argument seems obvious, we were surprised to find almost no mention of the correlation between marijuana use and sensation-seeking in the literature (for an exception, but with a highly selective sample, see Miles, van den Bree, Gupman, Newlin, Glantz, and Pickens 2001). Much research suggests that adolescents who use drugs have likely been rejected by conventional society and suffer problems of self-esteem (e.g., Kaplan 1985). It is further argued that these problems lead to deviant behavior, including marijuana use (Brook, Adams, Balka, and Crystal 2002). Our research shows how the concept of 'boredom' is constructed as an excuse for marijuana use in a rural context. We do not reject out-of-hand these interpretations as potential factors leading to marijuana use. We do, however, wish to remind other researchers that one undeniable reason individuals who use marijuana do so because they find pleasure in the behavior at a sensory level (Becker 1953; Hallstone 2002).

According to MTF data, since 1992 urban and rural annual marijuana use rates among adolescents in the U.S. have converged to a near parity point today (Cronk and Sarvela 1997; Johnston, et al. 1998). As noted earlier, the six-month use rate among Crystal County adolescents also increased from 1992 to 1997 and in 1997 was roughly equivalent to the annual use rate for adolescents nationwide. The parallels between the two populations, therefore, may reflect more a national trend shaped by the forces of mass popular culture than the presence of an underground marijuana economy. Surveys of adolescent populations in other communities in Southern Appalachia, rural and urban, are needed to better

understand adolescent marijuana use in rural communities where extensive marijuana cultivation is present.

This study revealed that despite denial of its importance, many teachers, students, and school administrators believe that drug use is a problem that needs attention. It will be recalled that 74.5 percent of the CCHS students surveyed believed that forty percent of the student body had a serious drug use problem. In stark contrast, there are many Crystal Countians who would be alarmed to learn that over a third of the students surveyed reported using marijuana in the past six months and that around twelve percent identified their own use as "often." Like many Americans, many Crystal Countians harbor the misconception that rural communities are insulated from the scourge of drugs evident in urban America, even though their youth have access to and, to one extent or another, use the same illicit drugs that are available to adolescents nationwide. "This is not an easily solved problem," an officer with the Juvenile Court said. "It's going to take community awareness. They must take these blinders off their eyes and say 'we have a problem.' Until we focus on this and come together and say it's everyone's problem, nothing will get done. It's going to take community organization."

Notes

1. For a list of more than 290 publications utilizing data from the Monitoring the Future Study, go to: <http://monitoringthefuture.org/pubs.html>.
2. The problems with gathering data on illegal activities are obvious inasmuch as there is no way to ensure that the data are accurate. One reviewer noted that "self report surveys are always questionable as to accuracy when focusing on illegal behavior. Behavior is usually either underreported for fear of violation of anonymity, or inflated, in interest of sounding 'bad.'" Throughout this project the researchers labored over this issue and came to the same conclusions. We thus preface our analysis with the admission that our research, like much survey research on illicit activity, provides a unique frame of reference that is affected by student's attitudes and emotions, student : researcher interaction during the survey, and a host of other unknowable factors.
3. The name Crystal County is a pseudonym. Other names have also either been changed or omitted to protect all identities concerned.
4. A potential problem associated with administering surveys during the first class

period was tardiness. It is possible that a random sampling error arose due to unknowable correlations between students who were tardy (and thus were excluded from the population) and marijuana use (see Lamanna 1981). Likewise, our subsequent in-depth interview sampling technique was also flawed because the sample was derived from the same population. Interviews nonetheless provided some interesting insights into particular areas of knowledge about marijuana, including methods of procurement, contexts of use, and related argot.

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