

# Investigating How Decisions to Use Marijuana Change Over Time

RASHI K. SHUKLA<sup>1</sup> AND MARGARET S. KELLEY<sup>2</sup>

<sup>1</sup>University of Central Oklahoma, Department of SOC/CJ/SAS, Edmond, Oklahoma, USA

<sup>2</sup>University of Oklahoma, Department of Sociology, Norman, Oklahoma, USA

*This article examines illicit drug use from a decision-making perspective using data collected during 2000–2002 from 51 current and ex-users of marijuana in a large urban city in the central/southwest United States. A qualitative inductive approach based on grounded theory guided the analyses. We find that prior to experimentation and use, decision-making processes are general and nonspecific. In the later stages of drug involvement, decision-making processes become drug-specific. Individuals consider a number of different types of factors when making decisions about illicit drug use involvement. The study's implications and limitations are discussed and future research suggested.*

**Keywords** rational choice; illicit drug use; initiation; cessation; marijuana use

## Introduction

Decision-making is a neglected area of study within the drug literature. Few studies have examined how decision-making processes related to illicit drug use are structured. This has resulted in the creation of a large body of literature where a potentially informative aspect of drug use behavior, decision-making, has not been addressed. Examining illicit drug use from the perspective of those involved will assist with attempts to understand and explain drug use. By focusing on the decisions and choices of those who use illicit drugs, an insiders' perspective can be gained. Although there is evidence that involvement with illicit drug use changes over time (Bachman, Wadsworth, O'Malley, Johnston, and Schulenberg, 1997; Chen and Kandel, 1995; Kandel and Logan, 1984; Kandel and Raveis, 1989; Kandel, Yamaguchi, and Chen, 1992; Labouvie, 1996), less is known about how drug-related decision-making processes evolve and change. This paper examines the drug-related decision-making processes of a sample of 51 current and ex-users of marijuana in Oklahoma City, Oklahoma. Comparisons are made between the decision-making processes of individuals prior to and after experience using different types of drugs.

Specifically, this article describes how decisions relating to drug use change over time. Our research questions include:

- How are early decisions about drug use (i.e., preinitiation and experimentation) structured? Specifically, what types of information do individuals consider when making decisions about drug use prior to experimentation?

Address correspondence to Margaret S. Kelley, University of Oklahoma, Department of Sociology, 780 Van Vleet Oval, 331 Kaufman Hall, Norman, OK 73019. E-mail: mkelley@ou.edu

- How do decision-making processes change in the later stages of drug involvement (i.e., postexperimentation and use)?

Little is known about how drug-related decisions change as individuals experiment with and use different types of drugs (i.e., legal and illegal substances). This is a critical gap in the drug literature. The rational choice perspective (Clarke and Cornish, 1985, 2001; Cornish and Clarke, 1986) provides a unique framework for examining decision-making processes associated with legal and illegal drug use. According to the rational choice perspective, offenders make decisions about crime or, in this case, drug use. Understanding these decision-making processes from the perspective of the offender presents a useful approach to understanding involvement and changes in offending that occur over time. There are two separate types of decisions associated with criminal offending, involvement decisions and event decisions. Involvement decisions include decisions to initiate, continue, and desist from offending. Event decisions are made by offenders at the time of the criminal event. While the rational choice perspective calls for the modeling of involvement and event decisions, we take a different approach here. Our focus is on examining the broader decision-making processes associated with involvement with drug use and describing how these processes change over time, rather than modeling specific criminal involvement or event decisions. From a rational choice perspective, understanding how decision-making processes associated with offending are structured can potentially provide information on the likelihood an individual will experience displacement to a different type of offending behavior. Developing an understanding of how individuals make decisions about drug use will provide a basis with which to understand broader changes in involvement with drug use and may offer insight on why individuals use certain types of drugs versus others. In an article describing the utility of the rational choice perspective for understanding crime displacement, Cornish and Clarke (1987) develop the notion of *choice-structuring properties* to refer to “*the constellation of opportunities, costs, and benefits*” attached to specific types of crimes (p. 933). Referring to the diverse types of considerations that may apply to illegal substance abuse, the authors note “*that different substances provide different experiences, and this—together with considerations of availability, cost, risk, expertise required, and social context of usage—suggests that displacement and escalation among substances may be more limited than is usually thought*” (p. 939). Through their specific example of factors associated with drug use, Cornish and Clarke provide a foundation by which researchers can empirically analyze drug-related decision-making processes.

A small but emerging body of literature supports the utility of examining drug use from a decision-making perspective. In a study of desistance from marijuana use in adulthood, Shukla (2003) found that two aspects of decision-making processes, conflict and risks, were crucial to explaining why adult marijuana users stopped using marijuana at different periods of time in adulthood. In response to changing life events, adult marijuana users stopped using marijuana when they perceived there to be a conflict between their marijuana use and other life considerations (e.g., becoming a parent) and viewed the risks of continuing marijuana use as outweighing the benefits. Although the periods of desistance experienced by the marijuana users in Shukla’s research were not always long-term, from the perspective of the user they were not always intended to be (Shukla, 2003, 2005a). Marijuana users made decisions about whether to use marijuana on the basis of other life considerations. Both involvement with marijuana use and decisions about use changed over time. Documenting how decision-making processes related to a specific form of drug or marijuana use changed in response to varying life circumstances and situations, the findings from this study lend

support to the idea that there may be a link between changes in decision-making processes and changes in drug use.

There is growing evidence that even individuals addicted to drugs make decisions about involvement with drug use. Studies of ex-opiate addicts who stopped using opiates without treatment have also documented the role of decision-making in desistance from drug use. In research with 101 former opiate addicts, Biernacki (1986) identified a process of *natural recovery* by which opiate addicts recovered from their drug addition without the assistance of any formal treatment. Biernacki found that making a decision to stop using opiates was not uncommon among those who stopped using. Two thirds of the former addicts made an explicit decision to stop using opiates before actually stopping. While not all addicts make formal decisions to stop using drugs, studies support the idea that some individuals consciously decide to stop using opiates (Biernacki 1986; Waldorf, 1983; Waldorf and Biernacki, 1986).

Bennett's (1986) research with opioid addicts provides further support of the value of examining illicit drug use from a decision-making perspective. Through interviews with 135 opioid users and a review of the literature, Bennett specifically sought to examine "*the development of individual drug-taking careers*" from a decision-making perspective (p. 93). Challenging assumptions about the lack of choice or control among illicit drug users, Bennett's research provides evidence that users discussed making decisions about initiation, continuation, and desistance. With regard to initiation, Bennett found that a decision to begin using drugs often preceded the initial opportunity; only a small minority of respondents reported experiencing pressure to use opioids the first time they tried them. For continued use, the findings demonstrated that offenders engage in some level of control and intentionality regarding actual level of drug use. Reported variations in use suggested that opioid users exhibited some level of control over their use even while addicted. Bennett's research also documented that current drug users talked about and thought about quitting their drug use, affirming the finding that some addicts make decisions about stopping their drug use. His study demonstrates that there is a fit between the assumptions of the rational choice perspective (Clarke and Cornish 1985, 2001; Cornish and Clarke, 1986) and empirical data from drug users, leading him to conclude that "*a broader, more helpful theory of drug use and addiction would need to take note of individual perceptions and decision-making*" (Cornish and Clarke, 1986, p. 98).

The findings from a more recent study of British youth provide additional evidence to support the usefulness of examining decisions about drug use by providing insight into the nature of drug-related decisions. In their research with a sample of British youth tracked annually for 5 years, Parker and colleagues used both quantitative surveys and qualitative interviews to examine motives for drug use and the cost-benefit assessment considered in drug-related decision-making processes (Parker, Aldridge, and Measham, 1998). This research supported the idea that youth make decisions about whether to use drugs and described the different types of factors weighed in the decision-making processes associated with drug use. As they explain:

The availability of drugs, disposable income, curiosity, friends who do drugs, friends who don't do drugs, drugwise acquaintances who can guide and support novices, being drunk, have a certain outlook on risk taking and rule breaking; parental influences, religious and moral frameworks, the impact of "drug stories" may all be found to impact on decisions. (p. 131)

Through their analyses of the cost-benefit assessment employed by young drug users, Parker and colleagues demonstrated how diverse factors ranging from decisions regarding

the expenditure of disposable income to risks associated with using a drug or being caught are weighed against the potential benefits of drug consumption. Their findings also suggest that decisions to use drugs have changed in response to evolving social and economic conditions. In their attempt to explain observed increases in drug availability and drug trying among youth in the 1990s, they hypothesize that increases in drug use can be understood only within the broader context of changes that have occurred in life circumstances and societal conditions experienced by these youth. They argue that youth of today must navigate through “*a more demanding journey to adulthood*” (1998, p. 22). Youth experience a longer period of transition to adulthood in which changes in social and economic conditions have led to greater uncertainty in a number of areas. When viewed within this context of broader social change, the risks associated with using drugs are not viewed by adolescents as being as significant as might be expected. It was argued that policy-makers and drug policy efforts based on a set of misguided assumptions about drug use undermine the complexity of decision-making processes engaged in by the youth. For the youth in their study, drug use serves as a method of “time out” from the stresses and pressures of life in “modern” times (Parker et al., 1998).

It is evident that there is a need to learn more about how decisions to use drugs are structured and how they change over time. The present research contributes to what is known about drug use and decision making by examining changes in drug decision-making processes. It is not the purpose of this study to link changes in decision-making processes associated with drug use to observed changes in drug use among the subjects in the study. Rather, the analyses presented here document, from the perspectives of users, how decision-making processes change as individuals experiment with and use different types of substances. The present study contributes to research documenting the relevance of decision making for drug use. While studies have provided information about the types of factors individuals weigh about drug use, less is known about how decision processes change over time. This article examines changes in drug-related decision-making processes among a sample of 51 current and ex-users of marijuana. We compare data on decision-making processes in the early stage of drug involvement prior to initiation or significant experimentation with data on decision-making processes after experimentation and involvement with drug use.

## Methods

The data analyzed here were collected as part of a larger, exploratory, qualitative study on drug use and decision-making (see Shukla, 2003) that was both deductive and inductive (Babbie, 2005; see Shukla, 2005b). The rational choice perspective (Clarke and Cornish 1985, 2001; Cornish and Clarke, 1986) served as the main theoretical framework for studying illicit drug use from a decision-making perspective. This perspective guided the initial sampling decisions and interview questions. However, in line with the exploratory purpose of the research, flexibility was maintained throughout the research process. Broader research questions and analytical foci were data-driven and evolved over time. In the later stages of the research process, an inductive approach based on grounded theory (Charmaz, 2001; Glaser and Strauss, 1967; Strauss and Corbin, 1998) guided the research focus and analysis.

Subjects were identified using a purposive (Schwandt, 1997), theoretical (Glaser and Strauss, 1967; Strauss and Corbin, 1998) sampling strategy that relied on snowball sampling (Biernacki and Waldorf, 1981) techniques to identify current and ex-users of marijuana. The sampling strategy was designed to identify 50 individuals with a range of past and present experiences with marijuana use. While the original sampling strategy included individuals

who had never used marijuana, the flexibility inherent in qualitative sampling allowed for the sampling strategy to be revised to exclude this group after initial interviews with non-users revealed that these subjects were not providing detailed information on their decision-making processes. The sampling strategy was revised to include only current and ex-users of marijuana. Current and ex-users of marijuana were determined to be theoretically relevant for the purposes of examining drug use and decision making related to marijuana use from diverse user perspectives. Sampling decisions about the number of current marijuana users and the number of ex-users sampled were based on theoretical considerations related to the types of data being gathered from the diverse types of drug users. Specifically, the theoretical sampling strategy was used to identify subjects with a range of experiences and perspectives on marijuana involvement; sampling decisions were guided by emerging data on different levels of marijuana use, perspectives about marijuana involvement, and decision-making processes. Sampling continued until theoretical saturation (Glaser and Strauss, 1967) as it related to marijuana use and decision making was reached. All respondents were a minimum of 18 years old. Sampling began with the identification of three key informants who indicated they would be able to identify other marijuana users. Individuals were referred to the study by key informants or other subjects. Key informants and a number of participants actively participated in identifying potentially eligible subjects by informing persons they knew that a study of marijuana use and decision-making was being conducted by the primary author as part of her Ph.D. They were informed that their participation would be voluntary, that all of the information provided would be anonymous, and that if they agreed to participate, they would have the opportunity to contribute to the broader understanding of drug use by telling their stories. While there are no data on the number of individuals who refused to contact the researcher, not a single participant who contacted the researcher refused to participate in the interview. All of the participants were very willing to discuss their drug use experiences and many expressed being thankful for having an opportunity to talk about and reflect back on their experiences. Interviews were conducted with subjects who met the criteria of being either a current user or ex-user of marijuana. This was determined by asking subjects a set of screening questions including “Have you ever used marijuana?” and “Do you currently use marijuana?”

Data were collected by the primary author in and around Oklahoma City, Oklahoma over the course of 2 years (2000–2002). IRB approval for the research was granted by Rutgers University. Semistructured interviews served as the primary data collection instrument. Face-to-face interviews were conducted with respondents in various public settings (e.g., restaurants and bars). The interview schedule contained approximately 100 open-ended questions on decision-making processes associated with marijuana use and drug histories (see Appendix A). Interview schedules from similar studies that used semi-structured interview schedules were referred to (see Biernacki, 1986; Zinberg, 1984) during the instrument design. However, the schedule used in the present study was designed specifically for this research project. The interview instrument was used as a guide; flexibility was maintained throughout the interview process to allow for the interviews to be conversational in nature. Respondents were asked about their decisions to use, continue, and stop using different types of legal and illicit substances. They were also questioned about how they learned about drugs, what they knew about drugs prior to experimenting with any substances, the types of drugs they experimented with and used, and what their thoughts about drug use were at the time of the interview. One interview was conducted with each respondent. Respondents were paid \$10 as compensation for participation. While respondents were compensated primarily to thank them for their participation, the positive feedback regarding the experience provided by a majority of respondents following the interview made it evident that these

individuals were participating to allow their voices and experiences to be heard. Interviews ranged from one to two hours in length. Study participants were informed of their rights, given a copy of the consent form, and were required to provide verbal consent to be interviewed. Interviews were audiotaped and transcribed into a word processing program. The interview data are anonymous. No identifying information on subject identity was recorded and interview tapes were destroyed immediately after being transcribed.

We used the qualitative software program askSam<sup>TM</sup> to assist with the qualitative data management and coding. The present analyses are based on data gathered through interview questions focused specifically on decision-making processes related to legal and illicit drug use prior to and after experimentation and use. Data bits on decision-making processes early in a drug use career, before initiation and experimentation, were coded using the code PREDEC. Data bits on decision-making processes later in a drug use career (that is, after a period of experimentation and use) were coded using the code POSTDEC. More specifically, the data were coded with codes on risks, benefits, decisions, motives, and other types of choice-structuring properties related to drug decision-making processes. In the analyses that follow, *early stage* decisions refer to data on thoughts and knowledge about drug use prior to any significant level of initiation or experimentation with legal or illicit substances. *Later stage* decisions refer to thoughts about drug use and decision-making processes after experimentation and use of different types of legal and illicit substances. Throughout the article we quote extensively from the respondents in order to illustrate and provide context for our argument. All respondents have been assigned pseudonyms to protect their confidentiality. Given the purpose of the present study, data from individuals who never used marijuana are excluded from this analysis.

The total sample included 51 respondents and consisted of 22 ex-users of marijuana and 29 current marijuana users (see Table 1). Twenty-seven respondents were male, and 24 were female. The majority of respondents were White (80%) and they ranged in age from 18 to 52 years old, with a mean age of 31.5. The respondents in this study reported overall high levels of education and occupational status. A majority of respondents attended at least some college or higher (71%) and were legitimately employed in occupations ranging from manual labor or service to professional employment.

The individuals who make up the core sample are unique in a number of ways from other samples of illicit drug users. The adults in this study, whether current users of marijuana or not, are primarily involved in maintaining involvement in conventional roles and responsibilities. They work, go to school, and take care of their families. The majority have not been publicly identified as illicit drug users and have not come into contact with the criminal justice system for their drug-using behaviors. The participants in this study potentially have a lot to lose if knowledge about their past or current illicit drug use is detected. They risk losing their jobs, their children, and the respectable status they maintain in society. This is a population of individuals who for the most part, have not been identified and labeled as drug users in society. As a whole, they have more in common with conventional citizens than stereotypical drug users.

The individuals interviewed for this study were able to provide a great deal of in-depth data on drug use and decision making based on their own experiences with drugs. In particular, they share two things in common with regard to their drug use experiences. First, as shown in Table 2, all respondents had drug histories that included the use of marijuana and the majority of individuals experimented with or used a number of other illicit drugs as well. Ninety-eight percent had drug histories that involved the use of one or more illicit drugs other than marijuana, and high percentages reported past use of cocaine, methamphetamines, hallucinogens, and prescription pills for non-medical reasons. Second,

**Table 1**  
Selected background characteristics of study participants ( $n = 51$ )<sup>a</sup>

Characteristic	<i>n</i>	%
Gender		
Male	27	53
Female	24	47
Age		
18–25	11	21
26–35	28	55
36–45	7	14
46 and older	5	10
Ethnicity		
Caucasian	41	80
American Indian	3	6
African-American	3	6
Hispanic	3	6
Other	1	2
Educational attainment		
Did not complete high school	7	14
High school diploma or GED	8	16
Some college	16	31
Associate's degree	2	4
Bachelor's degree	11	22
Master's degree	3	6
Law degree	1	2
Ph.D.	3	6
Marital status		
Single	21	41
Married	23	45
Divorced	7	14
Number of children		
None	32	63
One	5	10
Two	8	16
Three	3	6
Four	3	6
Employment status		
Employed	37	73
Not employed	8	16
Retired	1	2
In school	5	10
Prior arrest(s)		
No	33	65
Yes	18	35

*Note.* <sup>a</sup>Percentages may not equal 100 due to rounding.

**Table 2**  
Drug use histories, number and percent ( $n = 51$ )

Drug type	<i>n</i>	%
Alcohol		
No use	0	
Current use	45	88
Ever use	51	100
Tobacco		
No use	3	6
Current use	37	73
Ever use	48	94
Marijuana		
No use	0	
Current use	29	57
Ever use	51	100
Inhalants		
No use	23	45
Current use	1	2
Ever use	28	55
Hallucinogens		
No use	12	24
Current use	2	4
Ever use	39	76
Prescription pills for non-medical use		
No use	11	22
Current use	5	10
Ever use	40	78
Cocaine		
No use	11	22
Current use	5	10
Ever use	40	78
Other illicit drugs		
No use	41	80
Current use	1	2
Ever use	10	20

all respondents had experienced changes in the pattern of overall illicit drug use involvement between the time period when their drug use was initiated and the interview. By their own accounts, the majority of participants have passed through a phase of higher involvement with illicit drug use during which they were more willing and likely to initiate and use other illicit drugs with more regularity. At the peak of their drug involvement, individuals discussed using a number of different substances with greater frequency. At the time of the interview, the majority of individuals had stopped using illicit drugs other than marijuana with any regularity. As a result, they were able to discuss in some detail how they thought about drugs and made choices, and how these decisions changed over time.

Those with histories of illicit drug use other than marijuana can be grouped into two broad categories: experimental or recreational users (46%) and regular users (54%). The



high rates of *ever* using illicit substances other than marijuana found in the drug histories of these individuals may be in part a function of the way drug use was measured and counted in the present study. Level of drug use (i.e., experimental/recreational or regular) was categorized by examining the self-report data provided by participants to describe the level of their drug use, and by comparing data from different users. For present purposes, *experimental or recreational* use refers to situations in which a drug is consumed only once or a few times with no regular or stable pattern of use. The term *regular use* refers to drug consumption that is stable and occurs with regularity and higher frequency. We contend that all drug use experiences, whether experimental or regular, were relevant when examining an individual's drug history. For this reason, even mentions of experimental uses of substances (i.e., one or two times only) were counted within the drug history data-counting scheme. This approach differs from that used in other studies of drug use (Chen and Kandel, 1995; Kandel et al., 1992) in which the use of a specific drug is counted in the analyses only if an individual has used the drug at least 10 times. In these studies, experimental uses (i.e., less than 10 times) are eliminated from analyses. While this makes sense given the difference between experimental and more regular use of a substance, the decision to examine experimental experiences fits with the purpose of the present study, to gather drug-history data to document drug use journeys (Parker et al., 1998). We argue here that the past drug use experiences of the individuals in this study, even experimental experiences, were significant in shaping each individual's decisions about drug use and added to their knowledge base about drugs. For these reasons, even experimental use of a substance is important to consider. All 50 of the respondents with drug histories that included one or more types of illicit substances discussed going through a phase of experimentation in the earliest stages of their drug-using career. In each case, individuals started their drug-using experiences by experimenting with one or more substances, and in each case, involvement with drug use progressed and changed over time. Only a few individuals indicated that they were heavy, poly-drug users at any point in their drug use career. More commonly, individuals had drug histories of regular use for only one or a few of the substances initiated.

Although there was a great deal of variation among the individuals in this study with regard to the overall extent of their involvement with drug use, all of the subjects with histories of poly-drug experimentation and use were able to talk about how they thought about their involvement with drug use at different periods of time. We present our findings on changes in decision making according to our two major research questions.

### **Findings: The Early Stages**

First, in terms of the structure of early decision-making processes, we found that all of the respondents discussed where they initially learned about drugs and what they knew about them prior to initiation and experimentation. In general, early decision-making processes are vague and uninformed; they are based primarily on general considerations such as legal classification. Prior to experimenting with drugs, individuals acquire knowledge about drugs from a few key sources. These primary sources of knowledge include peers, family, school drug prevention programs, and the media. During this time, most of the information individuals received about drugs came from external sources. Maria, a 29-year-old marijuana user explains:

When I first learned (about drugs), it was in school, and I don't remember what they did in school, like I don't remember much about learning it in school, I learned a lot of it from kids, my peers.

Maria discussed what she remembers about DARE (Drug Abuse Resistance Education) and how she approached her earliest decisions about whether to try marijuana:

DARE was a big thing, yeah. I really don't remember them teaching me anything. I didn't want to jump into it [marijuana use], like everybody else jumps into things. I was trying to make an educated decision about it on my own without hearing it from other people, 'oh, it's not going to hurt you,' you know, whatever. I would hear both sides of it, you know, "Oh, that's going to hurt you, you're wrong, you're bad." I just didn't really understand why they were at that mindset, but I didn't really question it.

When discussing how she finally arrived at her decision to try marijuana, she stated:

Well, I mean I did my research, and I decided that, you know, eventually, when it feels right, for me, and I, you know, before, I'd been approached with it, when, after I researched it and I wasn't ready. I waited 'til I was ready.

Maria's situation may be unique in that she actually talked about arriving at her decision to try marijuana after thinking through the pros and cons of doing so. However, her story illustrates the reality that respondents often discussed thinking about whether to try drugs prior to experimenting with them. While a number of individuals were exposed to drug education and prevention programs in school, the influence of these programs were viewed by respondents as minimal in retrospect. None of the respondents described these programs as having any long-term influence on their abstinence from drug use.

Early stage decisions are characterized by a minimal understanding of the difference between legal and illegal substances. Of the 51 respondents in the sample, 41 indicated that they knew there was some difference between legal and illegal substances prior to ever using drugs. However, the majority of individuals who stated that they differentiated between legal and illegal drugs at this time in their lives discussed this distinction predominantly in terms of the availability and acceptability of legal substances versus illegal ones. When asked about what the differentiation between legal and illegal drugs meant to her before she had ever used drugs, Anna, a 27-year-old ex-user of marijuana, said, "*legal was only alcohol and cigarettes, and everything else was illegal I guess. Yeah, oh yeah. . . There were certain things that were not OK. Illegal meant that you'd go to jail.*" Other subjects were able to talk about the distinction they made between legal and illegal substances at this time in their lives in greater detail. Craig, a 29-year-old ex-user of marijuana expanded on what he understood about the distinction between legal and illegal drugs when he was younger:

Um, yeah, I think I did differentiate between legal and illegal. I knew, I knew that alcohol was legal and I knew that marijuana and cocaine and all of the other heroin, opium, you know, were not legal. I don't think I understood the consequences of like "you might go to jail," I understood the consequences of what they were teaching in school, that "oh, you might end up really stupid, and you might work at McDonalds or whatever," you know, I mean that was their scare tactic, it wasn't "you're going to throw your whole life away," it was like, "you may not be a, a high achiever," was what I got from it.

Before experience with drug use, distinctions between drugs were based primarily on differences in legal classification which were not clearly understood. David, a 32-year-old ex-user of marijuana, explains:

I really didn't have a very strong definition of what I thought was legal and illegal, I'm sure I drew a line somewhere in there, you know, if a policeman saw you doing this, it was bad, but that's really all I can say about it.

Many of the subjects discussed having a basic understanding of the risks and negative consequences associated with illegal drug use. This is illustrated by Dominic, a 40-year-old ex-user of marijuana:

Uh, it meant that, to me, illegal is, you get in a lot of trouble, uh, I mean that's how I define legal and illegal. You do things legally, you're fine. You do things illegally, then it's going to lead to trouble, including jail time.

A number of respondents talked about the risks of using drugs in terms of negative consequences to one's life, rather than specific legal risks. Andrew, a 30-year-old marijuana user explains:

Oh yeah, yeah, I knew it was bad. I mean it was just, drugs bad, get in trouble, but back then, it was more like, not get in trouble with the law, it was get in trouble like you wouldn't be able to succeed, like you, all of a sudden, there's still that mentality like, "you'll do bad in school, you'll get lazy, you'll do this or you won't, you won't succeed." It wasn't necessarily "don't do this because you can go to the pen (penitentiary)," you know, you'll become a loser, yeah that was more, yeah, you don't want to be like those people, you don't want to be the burners.

Andrew went on to talk about the fact that the information he was presented with about drugs during this time only focused on the risks of using drugs such as marijuana:

I'd head about it, way before, in bad terms, you know, don't do it, bad things, but I don't remember, it had to be junior high years, probably 12, 13, something like that. You know, all I'd ever heard benefit-wise, I mean I'd never heard any benefit-wise. All I heard was risk-wise was you'll become a bad person, or you're going to get in trouble, because it's illegal.

Not surprisingly, early decisions about drug use are characterized by uncertainty. The majority of individuals indicated that they did not know much about drugs in general and were not aware of the specific risks and benefits of different types of drugs prior to their own experiences with them. This is evident from the way Andrew, a 30-year-old current marijuana user, recalled the first time he used marijuana:

Well, the first time I ever smoked pot was a, was, at a party, in high school, there was only like 10 or 11 people there, it was people that I wasn't really friends with, but I was with my best friend, and he kinda was friends with 'em. I knew these people, they weren't people I normally socialized with, so we were just drinking beer, and playing like, a drinking game, you know, just high school stuff, and all of a sudden like one joint got pulled out, and I was like, "oh God," and it came to me, and I'm like, what do I do, you know? So I took a hit off of it and it was one of those things where, I didn't know what to do. I'd never inhaled, exhaled, breathed it you know, nothing happened, didn't feel a thing, so when people say, "oh it didn't affect me the first time," I think it's mainly because their first time's a lot like mine.

The majority of respondents did not have specific expectations about what a particular substance would do to them in terms of effects, and indicated they did not know anything about the substances they first initiated. The uncertainty that characterizes decision-making at this stage is demonstrated by Matthew, a 47-year-old ex-user of marijuana with a history of heavy poly-drug use, who described his first drug experience huffing gasoline at the age of 8:

I was completely blind to drugs when I first encountered anything. The first thing I encountered was gasoline, and I discovered it on my own. I didn't have anyone telling me what it would do, enticing me to get high. I just, there was a lawnmower that Daddy brought home one day, and all the older males in the family went around and oohed and aahed, and I couldn't see what the big deal was. And after they all went into the house and left me sitting on the porch with the lawnmower, I got to exploring it, and discovered the gas tank, and took a sniff, and it smelled good, and my head got light, and I indulged. Next thing I knew, I was hallucinating, seeing audio and visual hallucinations, and I passed out. I woke up with a pounding headache, nauseous, sick, at 8 years old, and instead of going into the house and saying anything to Momma or Daddy, who I was scared to death of, I rolled over and started again.

After he began experimenting with alcohol in the years that followed, Matthew talked about how he began to make comparisons between the effects and side effects of huffing gasoline and his new experiences with alcohol. He explains:

I had peers, that were outside of my siblings and nephews and nieces, and they started bringing in the mysterious alcohol, and this was where the general focus was, on alcohol at the time, but at 11 was the first time that I tasted alcohol, but it was, it was a summer's day, and it was hot, ninety-degrees plus, and about six of us boys found a quart of beer. I don't remember what kind. All I know is, the beer was hot, it tasted like the skunk smelled, but it tasted wonderful. And it took me to a place, and it gave me a buzz, and I remembered, it took me to the same place the gasoline did, **but I didn't get the headache** [emphasis added].

During the earliest stages of experimentation with drugs, individuals make comparisons about a small number of drugs based on the few experiences they have had using different substances.

The uncertainty that characterized early decisions about drug use influenced the earliest motives for initiation of drug use. For some, the illegality of specific drugs actually served as a motive for initiation. Here, a Michael, a 19-year-old marijuana user, describes how the illegality of marijuana specifically made him want to try it:

I knew that it was illegal, and I think that's kind of what arose my suspicion to try it, just because, the kind of thing you know that, everyone tells you not to do it, it's going to make you want to do it even more.

Similar sentiments were shared by others. For the majority of respondents, however, initial motives for initiation were based more on a general curiosity about drugs and a desire to experience different types of drugs than on a desire to achieve a specific drug-related effect, such as to get drunk. Kathryn, a 29-year-old female current user, claimed to have a

curious nature. She said she first used “*just because I wanted to try new things. It wasn’t just because it was a drug, it was, I want to try it. There’s still a few drugs I want to try, just to try.*” Matthew reported a similar experience. He said he initially used drugs for “*rebellion, I think more than anything else, and curiosity.*” A majority of subjects discussed being motivated to try drugs initially because they were curious about drugs and wanted to see what they were like. Leeza, a 47-year-old marijuana user, also discussed being influenced by peers. She said, “*It was just something new, everybody was doing it, so I wanted to do it too.*” For some, rebellion also played a factor. Craig, a 29-year-old ex-user, explains “*because it was a grown up thing, or because it was taboo, just like any kid, I mean you’re told not to do something, you want to do it.*”

The data on early decisions about drug use demonstrates that knowledge about the specific effects of drugs prior to experimentation is generally lacking. The influence of the uncertainty about the effects of specific drugs made some individuals resist initial opportunities to use them. On why he initially resisted trying marijuana, Michael said:

I guess it was just, I was afraid of what it was going to do to me. I didn’t know. I didn’t know what it was going to do to me, so I was kind of afraid to try it, because I wouldn’t know how to handle it, if it did happen, so I was just, I kind of said I didn’t want it at the time.

As individuals begin to experiment with different types of drugs, their decision-making process incrementally become more complex. From the earliest experiences with drugs, they make simple comparisons about the effects, risks, and benefits of different types of substances. However, decisions made in these early stages remain filled with uncertainty. Here, Kevin, a 35-year-old current marijuana user, describes the importance of this uncertainty as he reflects back on his own drug experiences:

Now, looking back on it, you can make decisions, but then, you’ve got nothing to look back on. You’re really looking at a situation where, OK, this is something I’ve never done, I’ve never tried, and I want to experience. Would I change my mind on any of it? Maybe on LSD, hallucinogens, and definitely the cocaine, on hindsight. At the time, you don’t know, you don’t know what it’s going to do to you.

This uncertainty about what drugs are, what they do, and the specific risks and benefits associated with different types of drugs changes later on.

### **Findings: The Later Stages**

Evidence of a change in decision-making processes after experimentation and use was apparent for all 51 respondents. After individuals begin to experiment with and use legal and illegal drugs, their sources of information about drugs shift from external sources, such as peers and schools, to knowledge that is more directly acquired. Rather than basing drug-related decisions on the understanding of drugs gained from outside sources, individuals become more likely to develop an understanding and knowledge of drugs based on their own experiences and the experiences of the people around them (e.g., peers or family members). Information about drug use in general and specific types of drugs becomes increasingly likely to be based on personal experience and first-hand observations. It is evident from

Kathryn's response about why she now prefers marijuana to other illicit drugs that she bases her thoughts and decisions about marijuana on a cost–benefit comparison of the effects and side effects of different types of drugs based on her own experiences:

I like it because it doesn't impair my abilities to carry on normal activities. Like if I'm drunk, it's kinda hard to walk, and you know different things like that. Like cocaine, it impairs it (you), because you can't sleep, and acid, you take it, you stay where you are, you don't do anything else. But marijuana, I can smoke it, and I can still go to work, I can smoke it and still cook dinner. I can function normally.

It is evident in the explanation of her preference for marijuana that Kathryn integrates what she's learned about the effects of alcohol, cocaine, and acid into the comparison she makes. Similar sentiments were common in data on later stage decisions and were shared by others. Here, Kevin makes comparisons between marijuana, which he's willing to continue to use, and cocaine and opium, which he no longer uses:

One of the major motivating factors behind heavy drugs, like cocaine, is money, and it's a glamorous type of drug. It's not a glamorous type of drug, that's hype, it's phony. So if there's anything I've got to tell you about drugs, it's stay away from the heavy shit. It ain't worth it, I know from my experiences, I wished I had left it alone.

Kevin went on to explain what he's learned over the years about the dangers of harder drugs such as cocaine and opium:

Cocaine comes from a plant, but it's so refined and processed that it's not the plant anymore. The same goes with opium of any of the opiates, like heroin. Raw opium is dangerous, I would say. Granted, I'd like to find some opium, cuz it's a killer high with the weed, that's a killer, that's a good one, but I can see that you could get addicted to that easy. I never got addicted to opium though, because we always crumbled it up in the weed, kick the weed in the ass, give you hell of a high, I mean you had a high for a lot longer smoking opium with the weed. But I recommend staying away from it too, it's probably pretty dangerous, considering they make heroin out of it too. Brown heroin and white heroin, all that is pretty bad.

It is evident from the way Kevin talks about his thoughts about drug use that while he still romanticizes about the positive aspects of combining opium and marijuana, he has come to understand that the risks of using opium outweigh the benefits. As individuals experiment with and use drugs, the information they learn becomes integrated into their drug-related decision-making processes. In the later stages of drug use, decisions that were once characterized by uncertainty and a high number of unknowns become replaced with decisions that are characterized by the weighing of diverse choice-structuring factors individuals learn are drug specific.

The data support the finding that during the later stages of drug involvement, the distinction between legal and illegal substances becomes a less important basis for differentiating between different types of drugs than the specific benefits and risks of different types of drugs. Individuals talked about how they began to weigh the risks and benefits associated

with specific types of drugs regardless of legal classification. On his preference for using marijuana, Steven, a 30-year-old current user, stated:

I'm just, know from my experience, the heavier stuff really messes me up. I can do coke [cocaine] and I'll be up for three or four days, and the alcohol, even though I know it's legal, but it's still a drug, nonetheless, tears my stomach up. I can drink, and I'll be throwin' my guts up in the morning.

In talking about the risks of drug use, he discussed the negative consequences he's experienced with both cocaine and alcohol. It is clear that, at least for him, legal classification is now less important a factor in drug-related decisions than the drug specific risks he experiences when he uses different substances.

The uncertainty evident in early drug-related decisions is replaced with a more sophisticated understanding of the pros and cons, or specific risks and benefits, of particular drugs. As individuals gain experience with drug use, decisions become increasingly complex. Rather than weighing a few factors from the few substances they have used, the specific risks and benefits from the multiple types of substances used become incorporated into the decision-making processes. This is illustrated in the way Craig describes his likes and dislikes about different types of drugs:

If I had my choice of any drug to use, it would be cocaine because of the way it makes me feel. Again, I'm from, I mean these are all my own opinions but I'm basing this on, once again, my personality. I um, I like alcohol, it's OK, and I never liked the way marijuana made me feel. Me, I'm a pretty-laid back person, I'm not a high-stress person, most things don't get to me, they don't make me nervous and so depressants, you know, just make me down, downer, and I don't need to be down because I'm normally at that level. But I like to be up. So that's why I choose cocaine because the high doesn't last as long as methamphetamine, and because it's a, a natural substance in nature, it's not a man-made chemical, so I don't, not that I consider it to be safe, but I consider it to be less toxic than something man created. I mean methamphetamine is man's way of saying cocaine wasn't enough, I'm going to try and make something stronger, so, and that's why cocaine would be my drug of choice if I had to choose.

Although Craig does not use any illicit drugs anymore, he still bases his decisions and explains his thoughts about drug use using what he's learned about the drug-specific choice-structuring properties associated with different types of drugs.

The more complex decision-making processes that characterize later-stage drug decisions influence individual motivations regarding drug use. In comparison to early-stage decisions in which the motives to try drugs were related to factors such as curiosity, rebellion, or peer pressure, in later stages the motives to use or not use different types of substances become drug-specific. During this period in the drug career, motives about use are more related to the specific risks and benefits, or effects and side effects, of different types of drugs. Factors such as availability, cost, method of use, potential health risks, and length of high are weighed against potential benefits of using specific substances. Here Sean, a 52-year-old marijuana user, talks about some of the different substances he's used in his life.

Cocaine, I've done, starting probably, um, would have been the late '70s, early '80s, every, just every once in a while when someone said, "oh, I can get this much cocaine, and get it for you for 50 bucks" or whatever it was, if I had the money at the time, and I saw that it might be useful at a party or something, I might get it. But it was too expensive, too short lasting, and I'd notice a lot of times that there was things in it that wouldn't dissolve, and get around your nose, and I worried about the health risks. Never used heroin. Had the opportunity once, but didn't. But I've had other opiates, and opiates, they're alright, but, it's a, it's more just a pain-killer than anything else. It's not really introspective in the way that marijuana is, or psychedelics, or even cocaine and speed at times, it, you know, makes you think faster.

In his comments about the drugs he's used in his life, he talked about the different types of factors he weighed in his drug-related decision-making processes. The importance of drug-specific choice-structuring factors continues to influence his decisions about his current drug use today. When asked whether he feels as though his drug use has interfered with his life in any way, he responded:

Well, I don't think so, well the tobacco is getting, my doctor says I should quit because there's signs of emphysema approaching, and I'm considering quitting tobacco because of that. I don't know that marijuana's interfered with my life or not, that's a hard call to make, I've never had any, I've never missed appointments because of it, or been late for work because of it, or anything like that.

The data on later stage decisions illustrate how drug decision-making changes once more direct information about drugs and their effects are acquired through experimentation and use. When discussing their thoughts and decisions about drug use after experimenting with them, individuals begin to differentiate between types of drugs by making comparisons based on drug-specific choice-structuring properties. Analyses of later stage decisions indicate that after experimenting with drug use, individuals weigh a greater number of factors in their drug-related decisions and begin to make comparisons between all of the different substances they have experienced.

## Conclusion

The data on decision-making presented here demonstrates the utility of examining drug-related decision making and provides evidence about how such decisions change over time. All of the individuals in this study were clearly able to discuss how they thought about drugs and the choices they made about using drugs both prior to experimenting with them and after going through a period of experimentation and use. Given that the majority of these respondents had experienced changes in their drug involvement over time, they were able to provide unique insight on how their decisions about drug use evolved and changed as they learned more about the specific risks and benefits of drugs through direct experimentation or the experimentation of their peers, family members, and others in their lives. As the individuals in this study gained experience with drug use, the complexity and sophistication of their decision-making processes evolved. In the early stages of decision making, before initiation and experimentation, they discussed having only



a very general understanding of different types of substances. During this stage, decisions were characterized by uncertainty. In the absence of any direct knowledge about drugs the information used was based primarily on external sources, such as parents, peers, drug prevention programs in school, and references to drugs in the media. In the later stages of drug involvement, drug-related decisions became more refined and specific. As individuals began to experiment with and use drugs, they acquired more direct knowledge about the specific risks and benefits of different types of drugs based on their own experiences and the experiences of their peers. They began to discuss decisions about drug use by making comparisons between specific choice-structuring properties (Cornish and Clarke, 1987) associated with the different types of drugs they had used. For all respondents, there was evidence that drug-related decisions changed over time. Decisions once characterized by uncertainty and a large number of unknowns become replaced with more sophisticated decision-making processes in which drug-specific factors become incorporated into how they think and make decisions about drug use.

The data and analyses presented here contribute to developing a greater understanding of how individuals make choices about using drugs at different periods in their lives. The findings provide further support for the need to understand and examine drug use from the perspective of drug users. Often overlooked in studies of drug use, it is evident that much can be learned by gaining an insider's perspective. This is one of the key strengths of qualitative research. The findings lend support to the utility of the rational choice perspective (Clarke and Cornish, 1985, 2001; Cornish and Clarke, 1986) as an approach that is useful for enhancing theoretical understanding about the nature of decision-making processes and changes that may occur over time. While the purpose of the study was not to link changes in decisions to observed changes in drug use behavior, the data presented here can be used as a beginning step toward understanding the link between cognitive and behavioral changes that occur with drug use. Respondents were able to discuss their thoughts and describe their decision-making processes both prior to and after initiating drug use and were able to explain to some degree why they used certain types of drugs versus others. Although the findings from this study demonstrate how decision-making processes changed as individuals gained first-hand knowledge about the specific effects, side effects, risks, and benefits of different types of drugs, there is a clearly a need to understand more thoroughly the relationships between changes in decision-making processes and changes in drug use behavior.

The findings in this study are limited in that they are based on self-report data from a small sample of current and former users of marijuana in Oklahoma. To the extent that the respondents in this study are not representative of all marijuana users or all drug users, the applicability of the findings to other drug users may be limited. However, the study's purpose was exploratory and generalizability was not the goal. While decision making and choice were found to structure the participants' drug-related decisions, it is likely that there are differences between various types of drug users with regard to the role that choice and decision-making play in drug behaviors. Further, just as drug users represent a heterogeneous population, there is likely to be heterogeneity among decision-makers and choice-makers. Given that data from individuals who had never used illicit drugs was not included in this study, comparisons between the decision-making processes of non-users and users are not possible. Future studies need to continue to examine how decisions about drug use are structured, the types of factors that influence how risks and benefits are weighed in decision making, and the role played by changes in decisions on influencing observed changes in drug use. Future research on varying decision-making processes of different types and samples of users, and on the decision-making processes and factors that influence decisions of those making drug policy is needed.

The findings of this study have implications for drug use prevention and education efforts. Whereas a common goal underlying many programs is drug prevention and abstinence, the data suggest prevention programs that focus on abstinence may be of limited use for individuals who have experimented with illicit drugs. For individuals who have experimented with or used illicit drugs, drug programs oriented toward harm reduction (Inciardi and Harrison, 2000; Riley and O'Hare, 2000; Somers, Tapert, and Marlatt, 1992) may be more useful for minimizing the potential negative consequences of drug use. Given the relevance of decision making for drug use, there is reason to believe that drug-related decision-making processes could be influenced by new types of information about drugs. Prevention programs that focus primarily on the risk side of cost-benefit assessments of drug use are likely to be discounted in the face of experiences within which the benefits of using drugs is discovered. In reality, as demonstrated by prior research and the findings of the current study, there are both benefits and risks to using drugs. More research on how best to incorporate this information into drug education programs without increasing the likelihood of experimentation and use is needed. The findings presented here are based on a small sample of individuals who used illicit drugs. They all experimented with alcohol and tobacco during adolescence. A number of respondents were exposed to various forms of drug prevention in school, yet these individuals viewed the impact of these prevention programs on their early drug decisions as minimal. Drug education programs may oversimplify the categorizations of drugs presented and discussed. Whereas many drug prevention programs focus on making a distinction between legal and illegal substances, drug-specific information about the potential risks and benefits of different types of drugs may be more effective in influencing decision-making processes. Integrating harm reduction approaches into drug prevention and education programs would perhaps prove more effective in preventing problematic drug use while also minimizing unnecessary harms associated with experimentation. Rather than educating individuals about drugs by using tactics of fear for the purposes of preventing all use and experimentation of illegal drugs, the findings suggest that reality-based drug-education programs may be more effective for some individuals.

### **Acknowledgments**

The authors thank the anonymous reviewers and Dr. Angela Taylor, Dr. Mangai Natarajan, Dr. Ronald V. Clarke, Dr. Sharon Chamard, Dr. Marti Smith, and Krishna K. Shukla for their comments and suggestions. The primary author also thanks the National Drug Research Institute and MHRA in New York City for their support during the final stages of data collection for this research.

### **RÉSUMÉ**

#### **Investigation de comment les décisions d'utiliser la marijuana changent au fil du temps**

Cet essai examine l'usage des drogues illicites d'une perspective de décision en utilisant des données rassemblées pendant les années 2000 à 2002 de 51 actuels et ex-consommateurs de la marijuana dans une grande ville urbaine dans le centre/sud-ouest des Etats-Unis. Une approche qualitative inductive basée sur une théorie raisonnée a guidé les analyses. On trouve qu'antérieur à l'expérimentation et l'usage, les processus de décision sont généraux et nonspécifiques. Dans les stades plus tard de l'inclusion des drogues, les processus de

décision deviennent spécifiques envers les drogues. Les individus considèrent un certain nombre de types de facteurs différents en prenant des décisions de l'inclusion de l'usage des drogues illicites. Les implications et les limitations de cette étude sont discutées et de la recherche ultérieure est suggérée.

## RESUMEN

### Investigación de cómo las decisiones de usar marihuana cambian a través del tiempo

Este trabajo examina el uso ilícito de drogas desde la perspectiva de la toma de decisiones utilizando datos recopilados durante los años 2000 hasta 2002 de 51 usuarios actuales y ex-usuarios de marihuana en una ciudad urbana grande en el centro/suroeste de los Estados Unidos. Este análisis fue guiado por un acercamiento cualitativo-inductivo basado en teoría bien fundada. Encontramos que antes de experimentación y uso, los procesos decisivos son generales e inespecíficos. Durante las etapas más avanzadas de la involucración en drogas, los procesos decisivos se ponen más droga-especificados. Los individuos consideran una variedad de factores mientras toman una decisión sobre la involucración en el uso ilícito de drogas. Se discute las implicaciones y limitaciones del estudio y se sugiere futura investigación.

## THE AUTHORS



**Dr. Rashi K. Shukla** received her Ph.D. in criminal justice from Rutgers University, School of Criminal Justice, in 2003. She is currently an assistant professor of criminal justice at the University of Central Oklahoma. Her research interests include drug use, drug policy, and white-collar crime. She is currently researching Oklahoma's clandestine methamphetamine laboratory problem and is involved in a study of women in policing.



**Dr. Margaret S. Kelley** is an associate professor of sociology at the University of Oklahoma. Dr. Kelley's research interests include women and crime, drinking and drugs, and sports and delinquency. She has written and published on issues related to theory of crime, drinking, and drug use. Dr. Kelley is currently working on a project investigating the underlying order of marginal sports participation. Her articles have appeared in *Social Science and Medicine*, *Advances in Criminological Theory*, *Contemporary Drug Problems*, *Research in Social Problems and Public Policy*, *Journal of Drug Issues*, *Journal of Psychoactive Drugs*, *Addiction Research*, and *International Journal of Sociology and Social Policy*.

## Glossary

*Benefits*: actual or potential positive consequences or outcomes associated with a specific behavior or decision.

*Choice-Structuring Properties*: a term developed by Cornish and Clarke (1987) to refer to the diverse types of factors including costs, benefits, and opportunities that are attached to specific types of crimes.

*Cost-Benefit Assessment*: a part individual decision-making described by Parker et al. (1998); specifically refers to how different types of risks are weighed against potential benefits when making decisions about drug use.

*Decision-Making Processes*: the process of weighing of costs and benefits that lead to a specific decision or choice about a particular behavior or action.

*Experimental/Recreational Use*: a drug is consumed only once or a few times with no regular or stable pattern of use.

*Rational Choice Perspective*: criminological version of rational choice theory (Clarke and Cornish, 2001, 1985; Cornish and Clarke 1986); a theoretical perspective that provides a framework for examining criminal offending from a decision-making perspective.

*Regular Use*: drug consumption that is stable and occurs with regularity and higher frequency.

*Risks*: actual or potential negative costs or consequences associated with a specific behavior or decision.

*Social Use*: drug use that occurs infrequently over a period of time with no regularity.

## References

- Bachman, J. G., Wadsworth, K. N., O'Malley, P. M., Johnston, L. D. Schulenberg, J. E. (1997). *Smoking, drinking and drug use in young adulthood*. Mahwah, NJ: Lawrence Erlbaum.
- Babbie, E. (2005). *The basics of social research*. Belmont, CA: Thomson Wadsworth.
- Bennett, T. (1986). A decision-making approach to opioid addiction. In D. Cornish and R. Clarke (Eds.), *The reasoning criminal—Rational choice perspectives on offending* (pp. 83–102). New York: Springer-Verlag.
- Biernacki, P. (1986). *Pathways from heroin addiction—Recovery without treatment*. Philadelphia: Temple University Press.
- Biernacki, P., Waldorf, D. (1981). Snowball sampling: Problems, techniques and chain-referral sampling. *Sociological Methods and Research* 10:141–163.
- Charmaz, K. (2001). Grounded theory in ethnography. In P. Atkinson, A. Coffey, S. Delamont, and J. Lofland (Eds.), *Handbook of ethnography* (pp. 160–174). Thousand Oaks, CA: Sage.
- Chen, K., Kandel, D. B. (1995). The natural history of drug use from adolescence to the mid-thirties in a general population sample. *American Journal of Public Health* 85:41–47.
- Clarke, R. V., Cornish, D. B. (1985). Modeling offenders' decisions: A framework for research and policy. In M. Tonry and N. Morris (Eds.), *Crime and justice: An annual review of research* (pp. 147–185). Chicago: The University of Chicago Press.
- Clarke, R. V., Cornish, D. B. (2001). Rational choice. In R. Paternoster and R. Bachman (Eds.), *Explaining criminals and change* (pp. 23–46). Los Angeles, CA: Roxbury.
- Cornish, D. B., Clarke, R. V. (1986). *The reasoning criminal*. New York: Springer-Verlag.
- Cornish, D. B., Clarke, R. V. (1987). Understanding crime displacement: An application of rational choice theory. *Criminology* 25:933–947.
- Glaser, B. G., Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Aldine de Gruyter.
- Inciardi, J. A., Harrison, L. D. (2000). Introduction. In J. A. Inciardi L. D. Harrison (Eds.), *Harm reduction* (pp. vii–xix). Thousand Oaks, CA: Sage.

- Kandel, D. B., Logan, J. A. (1984). Patterns of drug use from adolescence to young adulthood, I: Periods of risk for initiation, continued use and discontinuation. *American Journal of Public Health* 74:660–666.
- Kandel, D. B., Raveis, V. H. (1989). Cessation of illicit drug use in young adulthood. *Archives of General Psychiatry* 46:109–116.
- Kandel, D. B., Yamaguchi, K., Chen, K. (1992). Stages of progression in drug involvement from adolescence to adulthood: Further evidence for the gateway theory. *Journal of Studies on Alcohol* 53:447–457.
- Labouvie, E. (1996). Maturing out of substance use: Selection and self-correction. *Journal of Drug Issues* 26:457–476.
- Parker, H., Aldridge, J., Measham, F. (1998). *Illegal leisure—The normalization of adolescent recreational drug use*. New York: Routledge.
- Riley, D. O'Hare, P. (2000). Harm reduction: History, definition and practice. In J. A. Inciardi, L. D. Harrison (Eds.), *Harm reduction* (pp. 1–26). Thousand Oaks, CA: Sage.
- Schwandt, T. A. (1997). *Qualitative inquiry*. Thousand Oaks: Sage.
- Shukla, R. K. (2003). *A rational choice analysis of decision-making and desistance from marijuana use*. *Dissertation Abstracts International* 64:1417.
- Shukla, R. K. (2005a). An examination of decision making and desistance from marijuana use. In P. Cromwell (Ed.), *In their own words: Criminals on crime* (pp. 330–340). Los Angeles, CA: Roxbury.
- Shukla, R. K. (2005b). Using marijuana in adulthood: The experience of a sample of users in Oklahoma City. *Journal of Ethnicity in Substance Abuse* 4:151–179.
- Somers, J., Tapert, S. F., Marlatt, G. A. (1992). Bringing harm reduction home. In A. Trebeck, K. B. Zeese (Eds.), *Strategies for change: New directions for drug policy research* (pp. 221–226). Washington, DC: Drug Policy Foundation.
- Strauss, A., Corbin, J. (1998). *Basics of qualitative research* (2nd ed.). Newbury Park, CA: Sage.
- Waldorf, D. (1983). Natural recovery from opiate addiction: Some social-psychological processes of untreated recovery. *Journal of Drug Issues* 13(2):237–280.
- Waldorf, D., and Biernacki, P. (1986). The natural recovery from opiate addiction: Some preliminary findings. *Journal of Drug Issues* 11(1):61–74.
- Zinberg, N. E. (1984). *Drug, set and setting*. New Haven: Yale University Press.

## Appendix A

### Interview Schedule

Case Number ----- Date -----

### Screening Questions

1. Have you ever been offered, or considered using marijuana?  
     ----- No      ----- Yes
2. Have you ever used marijuana?  
     ----- No      ----- Yes
3. Do you currently use marijuana?  
     ----- No      ----- Yes
4. How often do/did you use marijuana? (Open ended)  
     ----- Used marijuana in the past  
     ----- Currently uses marijuana  
     ----- Recreationally/socially  
     ----- Regularly

**Interview Questions**

1. Race/Ethnicity:
  - Caucasian
  - Hispanic
  - African American
  - Asian
  - Other
2. Gender
  - Male
  - Female
3. Year of Birth ---- Age ----
4. Are you currently employed?
  - Yes
  - No
  - Student
5. What kind of work do you do?
6. Marital Status:
  - Single, never married
  - Married
  - Separated, divorced
  - Live with boy/girlfriend
  - Widowed
7. Do you have any children?
  - No
  - Yes
  - (#)
8. Education level:
  - Did not finish high school
  - High school graduate/GED
  - Some college
  - College graduate
  - Other
9. Parents:
  - Single-parent household
  - Both parents
  - Step-parent
  - Other
10. Siblings
  - One
  - Two
  - Three or more
11. Did anyone in your family, either immediate or extended, use legal drugs?
  - Yes
  - No
  - If yes, what? -----
12. Has anyone in your family, either immediate or extended, been involved in criminal activity?

13. Other than minor traffic violations, have you ever gotten in trouble with the law? Briefly explain.
14. Have you ever gotten in trouble for drugs? Explain.
15. How did you learn about drugs?
16. Did you have any drug prevention at school?
17. Did your parents or anyone else ever talk with you about drug use?
18. What did you learn about drugs?
19. Did you differentiate between legal and illegal drug use?
20. What did you think illegal drug use meant?
21. What was the first substance you ever used recreationally?
22. Describe the first time you used.
23. How often would you use?
24. Did you become a regular user?
25. Where would you get it?
26. How difficult was it to get?

### ***Drug History***

Ask about each of the following types of drugs [questions 27–46]:

- Tobacco: cigarettes, chewing tobacco, snuff
- Alcohol: beer, wine, hard liquor
- Pills (non-medical): stimulants, depressants, tranquilizers
- Inhalants: gasoline, glue, Freon
- Marijuana: pot, weed, hash
- Hallucinogens: mushrooms, LSD, peyote
- Hard drugs: methamphetamines, cocaine, heroin, PCP, opium
- Other drugs: any drugs not mentioned

### ***Drug History Questions***

DH1 Have you ever tried\_\_\_\_\_?

\_\_\_\_\_ Yes

\_\_\_\_\_ No

DH2 If NO, have you ever had an opportunity to try or use \_\_\_\_\_?

If YES, how old were you the first time you tried \_\_\_\_\_?

DH 3 How would you describe your use of \_\_\_\_\_ (drug)?

[Subject defines level of use]

- Experimental (once or a few times only)
- Social (occasionally, use when around, recreational only)
- Regular (use regularly, stable use, have access)
- Heavy (daily, multiple times per day, more often than regular)

DH4 When did you use \_\_\_\_\_ last?

Probe: past week, month, year, more than one year.

DH5 Do you currently use \_\_\_\_\_?

DH6 IF YES, how often?

Probe: daily, weekly, monthly, other (specify)

DH7 When you were using the different drugs, did you use them use one at a time, or did you use multiple drugs at once?

[End of drug history]

47. Can you tell me the sequence or order in which you tried drugs?
48. Did your use of the different drugs overlap or was your use more separated?

### *Marijuana Use*

49. Describe the first time you used marijuana?
50. Did you actively search it out or happen to come across it? Explain.
51. Why did you want to try it?
52. Were there any risks involved?
53. Did you have to plan anything?
54. Had you thought about using marijuana before you had the chance to use it?
55. Did you know you would be using before the opportunity arose?
56. Did you use it at the first opportunity to?
57. How did it feel? Is this what you were expecting? Please explain.
58. Did you know you would be using marijuana the first time that you tried it?
59. How would you describe your first experience with marijuana?
60. After your initial use, did you continue using marijuana?
61. Did you become a regular user? Why or why not.
62. Did you notice any changes after you started using marijuana?
63. Do/did you consider yourself a regular or social user? Explain.
64. How often do/did you use marijuana?
65. Why do/did you use marijuana?
66. Do/did you use marijuana alone, or with other drugs?
67. Do/did you mostly use marijuana alone or with others? Explain.
68. What do you think makes marijuana a social drug?
69. Where do/did you get marijuana from?
70. How much effort is/was involved?
71. Do you buy it yourself? If so, from where?
- 71a. Can you tell me anything about buying something that is illegal (i.e., the black market side of drugs)? Is it risky? Do the risks vary by drug type? Have you ever had any negative experiences trying to buy drugs?
72. Is your use heavier or lighter at certain times? What does that depend on?
73. Who all knows about your use of marijuana?
74. What do you like about marijuana?
75. What do you dislike about marijuana?
76. How does marijuana use fit into your lifestyle? (i.e., job, social life, family etc.)
77. Have you thought about quitting marijuana? Why?
- 77a. Do you ever cut down on your use of marijuana?
78. Have you ever quit using marijuana? (How many times?) (How long?)  
If YES, what triggered it?  
If NO, why or why not?
- 78a. v What triggers your using less at times?



79. How did you quit?
80. Was it difficult to quit?
81. Did you have to go to drug treatment?
82. Did you make a decision to quit?
83. Did you quit immediately, or over time?
84. Do you think marijuana is a “gateway” drug?
85. Do you think you’ll ever quit using marijuana? [for users.]
86. As far as drug use and children, how do you think you’ll deal with the issue of drug use with them?
87. With regard to drug use experiences, would you do things the same, or would you change anything if you could?
88. Do you think your drug use could have been prevented? Is there anything anyone could have said or done that would have made you not try drugs?
89. How do you think we should be handling the issue of drug use in society today?
90. Is there anything else you can tell me about your drug use experiences? Or why you think some people become heavily involved in drug use while others do not?

Copyright of *Substance Use & Misuse* is the property of Taylor & Francis Ltd and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.