

PRECOCIOUS TRANSITIONS AND SUBSTANCE USE PATTERNS AMONG MEXICAN AMERICAN GANG MEMBERS*

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ABSTRACT

Previous research has found that disorderly life events in early adolescence are associated with problem behaviors in late adolescence and early adulthood. The objective of the study is to determine the patterns of associations among substance use and adolescence precocious transitions in a sample (N=160) of Mexican American gang members in San Antonio, Texas. The Mexican American male gang members are a polydrug using population as measured by their lifetime and current drug use patterns. A correlation and confirmatory factor analysis was conducted between substance use and precocious transitions that revealed two distinct groups of drug users in the Mexican American gang population: "hard" drug users and "party" drug users. Furthermore, factor analysis revealed underlying precocious transitions constructs that go beyond a precocious transitions index. Findings begin to identify the importance of disorderly life events as correlates of substance use among this unique population of gang members.

INTRODUCTION

Previous research has found that disorderly life events in early adolescence are associated with problem behaviors in late adolescence and early adulthood (Newcomb & Bentler 1988; Thornberry, Krohn, Lizotte, Smith, & Tobin 2003). This is especially problematic for U.S. Hispanics who experience relatively high levels of poverty as children and adolescents, and subsequently are at high levels of risk for disorderly life events (Marin & Marin 1991; Moyerman & Forman 1992; Padilla & Glick 2000). The association of precocious transitions and adult criminality and other deviant behaviors through the life course has been well established in previous studies, but not among Hispanics even though they are overrepresented among persons under the jurisdiction of local, state, and federal correctional authorities (Harrison & Beck 2003; Steffensmeier & Demuth 2001). The objective of the present study is to determine the associations among patterns of substance use and adolescence precocious transitions in a sample of Mexican American male gang members in San Antonio, Texas.

THE LIFE COURSE PERSPECTIVE AND PRECOCIOUS TRANSITIONS

Normal human development occurs in age-graded stages in which the individual moves from one stage to another in an orderly trajectory (Erickson 1963). Life course theory argues that the movement from one age-graded stage to another involves transitions in multiple institutional arenas such as the family, the peer groups, the economy and

culture. When applied to criminal and deviant behavior life course theory has been proposed to contain three components including a structural context mediated by family and informal social controls, a continuity in anti-social behavior from childhood to adulthood across a variety of life domains and adult informal social bonds to family and employment that explain the continuity and discontinuities of criminal and deviant behavior from adolescence to adulthood (Sampson & Laub 1993). This theory has been further elaborated in numerous other studies and has become a pillar in contemporary criminological thinking (Benson 2002; Hagan, McCarthy, Blumstein, & Farrington 1998).

Another important component in general life course theory concerns the normative orderliness of transitions from one age-graded status to another. Transitions are normative because they are expected to occur in a given order and at particular ages in the life course (Rindfuss, Swicegood, & Rosenfeld 1987). However, the sequence and timing of transitions can be complicated and is frequently disorderly especially in disadvantaged groups and in historical periods of hardship. Three different kinds of "disorderly transitions" have been distinguished in life course theory. These include failure to complete a developmental task that is necessary for normal development in a given age-specific stage (e.g. not having an intimate and loving partner relationship in young adulthood). Also, disorderly transitions include those events that occur out of sequence (e.g. parenthood precedes marriage). A transition can also be

identified disorderly if it is made "off time," that is too early or too late (e.g. leaving home during adolescence). These disorderly transitions often result in numerous adverse consequences reducing the opportunities in life and precipitating a broad range of social and psychological problems.

Terence Thornberry (Thornberry & Burch 1997) applies a life course perspective emphasizing the disorderly transition component in his developmental study of the long-term consequences of adolescent gang membership on young adulthood criminality. Thornberry and colleagues argue

off-age transitions, especially precocious or early transitions, can create disorder in the developmental sequence and lead to later problems of adjustment because the person is less likely to be socially and psychologically prepared for the transition. (2003: 5)

He focuses on how precocious transitions can disrupt normative trajectories. Trajectories are the long-term pathways a life takes, while transitions are short-term events that have the ability to change the life course and can be detrimental to development. Thornberry's research team identified adolescent precocious transitions as school dropout, teenage parenthood, early nest leaving, unstable employment, and cohabitation. In general, adolescents that engage in deviant behavior, such as substance use, have been shown to go through precocious transitions that force them into adult roles and situations at an earlier age than they may be developmentally prepared (Krohn, Lizotte, & Perez 1997). The more precocious transitions an adolescent experiences, the greater the impact and the more detrimental to the normal developmental process. Thornberry concluded that adolescent precocious transitions were related to long-term gang membership in adolescence and being arrested in young adulthood.

As importantly for life course theory, Thornberry et al (2003) found that engaging in delinquent behavior limits the adolescent's contact with conventional peer groups, which reduces the adolescent's engagement in other prosocial behaviors. This is especially the case for juvenile gang members where participation in the gang leads to more involvement with deviant peers and simultaneously reduces access to other prosocial peers. Thorn-

berry et al also found that stable gang involvement, as opposed to short-term involvement, increases the number of precocious transitions that the gang member will experience. The results showed that among the males, stable (one year or more) gang membership led to significantly more precocious transitions, except in the case of early nest leaving. In another study using the same data from the Rochester Youth Development Study, results indicated that use of alcohol and drugs in early adolescence increased the risk of these precocious transitions (Krohn et al 1997). Experiencing these precocious transitions in turn increased the risk of continued alcohol and drug use during young adulthood.

Thus, engaging in drug use as an adolescent has been found not only to lead to precocious transitions, but the life events of going through these precocious transitions, also leads to more and continuing drug use in young adulthood. Newcomb and Bentler (1988) have offered an explanation that adolescents that use drugs will go through precocious transitions and, then, because of the early onset of the adult roles, will be unable to be successful in these new roles in young adulthood. Previous literature has consistently found high drug use among adolescent gang members compared to other adolescent groups (Spergel 1995). Research has found that drug use effects not only academic performance, but also effects graduation and completion of a high school degree (Mensch & Kandel 1988; Newcomb, Maddahian, & Bentler 1986).

Parental relationships also have been found to be associated with delinquency and drug use. Thornberry et al (Thornberry, Lizotte, Krohn, Farnworth, & Jang 1991) found that there was a strong impact on the parent-child relationship once the child or adolescent had engaged in delinquent behavior. Parke (1995) has found that this strained relationship may lead to what he has referred to as "premature emancipation," or the precocious transition of early nest leaving. These strained parental relationships and problems with school may lead to dropping out and early entry into the workforce and/or early nest leaving. It may also lead to early cohabitation, which may potentially lead to teenage parenthood. Although Newcomb and Bentler (1988) found evidence indicating that early drug use leads to early engagement in sexual activity, other studies have found contradictory evidence, specifically

that drug use may delay the parenting transition until later adulthood (Kandel & Yamaguchi 1985).

Although hypotheses concerning the relationships between precocious transitions and problem behavior have been tested among male and female gang members, Thornberry et al (2003) and Krohn's respondents were derived from seventh and eighth grade school populations in the Rochester, New York school district, a so-called emerging gang city (Decker 2001). These students were predominantly African American. Contrary to Thornberry's sample, the population presented in this article are Mexican American male gang members in a city with a longer history of gang activity. Although Thornberry oversampled high-risk youths that were using drugs at the time, he did not specifically sample gang members.

In this article we specifically examine the association between drug use and precocious transitions among a community-based sample of Mexican American male gang members that differs both culturally and historically from the Rochester study. In addition, we will test hypotheses concerning the underlying constructs of substance use and precocious transitions in this special population. In the Rochester study, the concept of precocious transitions was considered to be cumulative in nature with each precocious transition of equal weight and linear in effect. The measurement of the concept can be validly accomplished by the construction of a simple additive index. In this article, we have refined the concept of precocious transition as well as the nature of drug use behaviors. The measurement and analysis of substance use and precocious transitions will be accomplished by applying the methods of confirmatory factor analysis in order to determine the underlying construct of these two domains of behavior. Through this study, we specifically aim to contribute to the accumulating knowledge of substance use and adolescent development by introducing new data and providing an innovative analysis of these data's structure (Jessor 1993).

In San Antonio, Mexican American gang members and other disadvantaged youth are operating in a social context with concentrated poverty, few well-paid stable jobs, lack of governmental services and a thriving informal economy and drug market. These conditions parallel Wilson and Anderson's descriptions

of the urban underclass found in African American inner city neighborhoods (Anderson 1999; Wilson 1996). This type of urban context may condition the associations among substance use and life course transitions in a different manner than more advantaged communities. There may be some cultural differences among Hispanics that influence the transitions either in a positive or negative manner.

METHODS

Design and Sampling

This research evolved from a study of gang violence among Mexican American gangs in South Texas sponsored by the National Institute of Health (NIH) and National Institute on Drug Abuse (NIDA). The focus of the study was to identify and distinguish the relationship between gang violence and drug use among male gangs. The study used multiple methods, including ethnographic field observations, focus groups, and life history/intensive interviews with 160 male gang members sampled in San Antonio, Texas during 1996 through 1998 (Valdez & Kaplan 1999; Yin, Valdez, Mata, & Kaplan 1996). A cross-sectional study design was used to identify 26 gangs in the South and Westside communities of San Antonio, Texas. The two communities encompass areas that have the highest proportion of Mexican-origin populations and where the largest concentration of public housing in this city is located. The areas have a high concentration of poverty, adult criminals, drug trafficking, delinquent behavior and Mexican-American street gangs. A multi-stage stratified design was applied to select a random sample of individuals that were representative of 560 known Mexican American gang members in this specific urban geographic area. A detailed description of the sampling design has been presented in an earlier article (Yin, Valdez, & Kaplan 1996).

Participants

As indicated by Table 1, the study sample consisted of 160 male gang members ranging in age from 14 to 25 years with a mean of 18.5 years old. Approximately, 43 percent of the respondents reported living in mostly female, single headed households. Only 21 percent were living in households where both parents were present. The remaining 36 percent were currently living by themselves, friends or other relatives including grandpar-

Table 1: Characteristics of Mexican American Male Gang Sample (n=160)

Variable	%/Mean
Average Age	18 yrs
Enrolled in School	26
Marital Status	
Married	4
Single	83
Common Law	11
Separated/Divorced	2
Respondents with Children	31
Employment Status	
Working	33
Not Working	67
Criminal Activities	
Currently Own Gun	68
Carried a Gun in Last 30 Days	56
Sold Drugs in Last 3 Months	51
Arrested for Violent Crime	56
Arrested for Non-Violent Crime	55
Fired Gun in Gang Related Fight	82

ents, wives, uncles and aunts. Thirty-one percent of the subjects reported having children, although the majority of the participants were single at the time of the interview (83%). Only 26 percent reported being currently enrolled in middle or high school. Sixty-eight percent reported having lived or living in public housing. Results show a large percentage of the subject's involved in delinquent behavior. More than half of the respondent's reported firing (82%) a gun or owning (68%) and/or carrying (58%) one within the last 30 days of the interview. Approximately 56 percent of the sample had been arrested for a violent or non-violent crime in their life.

Variables

The focus of the analysis is on drug use and precocious transitions experienced by Mexican American male gang members. The precocious variables included cohabitation, early nest leaving, dropout, unemployment, and teen parenting. The variables were dummy coded (0=no and 1=yes) for the analysis. Cohabitation is determined by whether the respondent was living with their girlfriend or their common law wife at the time of the interview. Respondents were coded as leaving the nest early if they had involuntarily left their guardian's home or had run away. School dropout was coded if the respondent reported

Table 2: Precocious Transition Characteristics of Mexican American Male Gang Sample (n=160)

Transition	Percent
School Drop Out	67
Unemployed	46
Early Nest Leaving	56
Cohabiting	14
Teenage Parenting	23
Mean Number of Precocious Transitions	2.05

dropping out of school regardless if they acquired their GED or high school equivalency. Unemployment indicated that the respondent was not in school and unemployed at the time of the interview. If they were currently attending school, they were coded as employed in accordance with Thornberry's definitions. Responses were coded positive for teen parenting only if the respondent had the child prior to their twentieth birthday. The five precocious transition variables were combined in a composite measure that consisted of summing the total number reported by the subject.

Two variables were used to measure drug and alcohol use among the sample of male gang members: lifetime use and current use. Lifetime use of alcohol, marijuana, cocaine, heroin, speedball (cocaine/heroin mixture), psychedelics and benzodiazepines use were coded into a dummy variable. Lifetime use was coded 0 if the respondent had never used and 1 if the respondent had used the substance at least once in their lifetime. Current use was measured by using the self-reported number of days a specific substance was used in the last 30 days. For the purposes of this analysis the following drugs were used: marijuana, heroin, cocaine, alcohol, and benzodiazepines. These drugs were selected based on the high frequency of use reported by the sample. The measure indicated a continuous variable ranging from a low of 0 meaning never used in the past 30 days, to a high of 30 days. Factor scores for underlying constructs of these study variables were also computed.

Data Analysis

The variables used in the analysis were examined for normal distribution. Most were normally distributed with the exception of cohabitation that was skewed in a positive direction and lifetime use of alcohol, marijuana

Table 3: Drug Use Characteristics of Mexican American Male Gang Sample

Drug Variables	Mean Age of Onset (SD)	Lifetime % (n)	Current % (n)	Mean (SD)
Alcohol	12.62 (2.53)	98 (157)	83 (132)	9.68 (9.88)
Marijuana	12.21 (2.36)	98 (156)	75 (120)	15.02 (13.12)
Cocaine	14.92 (1.90)	90 (144)	53 (85)	3.52 (6.19)
Heroin	16.33 (2.17)	57 (91)	26 (42)	3.20 (7.82)
Speedball	16.35 (1.94)	44 (71)	-	-
Psychedelics	15.38 (2.12)	58 (92)	-	-
Benzodiazepines	15.90 (2.57)	74 (119)	28 (45)	1.06 (2.91)

and cocaine that was negatively skewed. As a first step in examining the patterns in the study variables, a Pearson product moment correlation analysis was conducted by building a matrix of the intercorrelations of the substance use and precocious transition variables. The matrix was evaluated for statistical significance at the .001, .01, and .5 levels and for strength and directionality of the associations. On the basis of this analysis, a confirmatory factor analysis using a principle components method was conducted to test the hypothesis that the drug use variables in this population indicated two underlying drug use constructs -- "hard drug use" and "party drug use." A similar factor analysis was conducted to test the hypothesis that the precocious transitions items for this population consists of three underlying constructs-- "school and work"; "early family formation" and "early nest-leaving". On the basis of the factor scores, composite indices were constructed by means of a factor-weighted additive scale that multiplied each raw variable score by the factor loading and summing across all variables subsumed by the factor. The factor scores were correlated to refine the analysis.

FINDINGS

Precocious Transitions

As seen in Table 2, although the sample was relatively young most had experienced at least one precocious transition at the time of the interview. Approximately two-thirds (67%) of the sample had dropped out of school and forty-six were unemployed. Over half (56%) of the male gang members had reportedly experienced early nest leaving. Fourteen percent reported currently cohabitating with a partner. Furthermore, 23 percent indicated being teenage fathers during the interview.

Drug Use

Table 3 shows lifetime and current use of substances most frequently reported by the Mexican American male gang members. Almost the entire sample had used alcohol, marijuana, and cocaine in their lifetime. About three-fourths of the sample reported lifetime use of benzodiazepines (e.g. rohypnol). Close to half the sample had used speedball, psychedelics, and heroin during their lifetime. Current substance use patterns indicated that seventy-five percent of the sample was currently using marijuana and eighty-three percent using alcohol. A little more than half the sample currently used cocaine and about a fourth used speedballs or benzodiazepines. Table 3 also shows that marijuana was used on average 15 out of 30 days while alcohol is used ten days in the past month. This was followed by an average of 3 days in the past month reported for both cocaine and heroin. Finally, findings indicated a mean of 1 day in the past month for benzodiazepines. After marijuana, alcohol was the second most frequently used substance. Overall, lifetime used was less for all substances when compared to current use. An exception to this was the current use of marijuana that continues to have a relatively high frequency and to a lesser extent cocaine.

Also reported in Table 3 is the mean age of onset for each of the identified substances among this population. As seen, alcohol and marijuana use were initiated almost simultaneously at a very young age (12 years). A continuation of drug use is apparent with cocaine having a mean age of onset of 14.9 years followed by such drugs as psychedelics and benzodiazepines at 15 years. The progression of drug use in this sample of male gang members continues with onset of heroin and speedball at approximately 16 years of age. This age of onset data may indicate a pattern

Table 4: Bivariate Analysis of Substance Use and Precocious Transitions among Mexican American Male Gang Sample (n=160)

Lifetime Use	Lifetime Use						Days Used						Age	
	Alcohol	Marijuana	Cocaine	Heroin	Speedball	Psychedelics	Benzodiazepines	Alcohol	Marijuana	Cocaine	Heroin	Benzodiazepines		
Alcohol	1													
Marijuana	.273**	1												
Cocaine	.261**	.214**	1											
Heroin	.066	.184*	.257**	1										
Speedball	.031	.143	.298**	.727**	1									
Psychedelics	.161*	.186*	.261**	.145	.157*	1								
Benzodiazepines	.236**	.273**	.282**	.240**	.294**	.277**	1							
Days Used														
Alcohol	.136	.137	.034	-.038	-.026	.161*	.092	1						
Marijuana	.159*	.184*	.064	.095	.108	.169*	.154	.160*	1					
Cocaine	.072	.079	.191*	.152	.178*	.217**	-.053	.200*	.070	1				
Heroin	.057	.066	.051	.358**	.399**	-.051	.199*	-.020	-.009	.134	1			
Benzodiazepines	.050	.058	-.051	.156*	.238**	.173*	.214**	.066	.197*	.143	.331**	1		
Precocious Transitions	.006	.103	.131	.208**	.197*	.239**	.024	.215**	.115	.161*	.048	.034	1	
Teenage Parenting	-.033	.088	.084	.088	.077	.202*	-.018	.066	.075	.048	-.113	-.011		1
School Drop Out	.094	.137	.154	.220**	.223**	.070	.027	.166*	.006	.027	.140	.055		
Unemployed	-.057	.068	.058	.226**	.181*	.062	.085	.199*	.134	.143	.153	.086		
Cohabiting	-.079	-.052	.133	.018	.045	.123	-.057	-.039	.117	.037	-.038	-.026		
Early Nest Leaving	.064	.020	-.042	-.005	.002	.210**	.002	.148	.002	.168*	-.047	-.026		
Age	.070	-.029	.085	.174*	.029	.130	-.060	.092	-.179*	-.003	.076	-.161*		

*p > .05; ** p > .01

Table 5: Factor Matrices for Drug Use and Precocious Transitions Items for Mexican American Male Gang Sample (n=160)

Variables	Drug Use Factors		Variables	Precocious Transitions Factors		
	1	2		1	2	3
Days used alcohol	.18	.68	Teen Parenting	.57	.54	.19
Days used marijuana	.33	.46	Drop-out	.82	-.21	-.25
Days used cocaine	.41	.20	Unemployed	.66	-.60	-.20
Days used benzodiazepines	.41	.24	Cohabitation	.44	.64	.04
Ever used cocaine	.54	-.10	Early Nest Leaving	.10	-.20	.96
Ever used heroin	.73	-.46				
Ever used speedball	.78	-.42				
Ever used benzodiazepines	.57	.09				
Ever used psychedelics	.51	.40				
Percent Total Variance	27.65	14.85		32.56	22.88	20.48
Eigen values	2.49	1.34		1.63	1.14	1.02

of consistency in use and perhaps increase in severity of use over adolescence.

Correlations

As reflected above, Mexican American male gang members are a polydrug using population as measured by their lifetime and current drug use patterns. This polydrug use pattern is clearly indicated in Table 4 by the high intercorrelations of the lifetime use of illegal drugs, such as cocaine and marijuana with most other drugs like heroin, psychedelics, and benzodiazepines. Out of the twenty-one drug use correlations only four were not significant. This indicates that this sample of male gang members have experimented with a wide array of different drugs, although it may have occurred only once in their lifetime.

Table 4 also shows the association of lifetime and current drug use. What emerges from these correlations are two distinct groups of drug users within this gang population. The first distinct group has an association between lifetime use of psychedelics and current use of alcohol, marijuana, cocaine, and benzodiazepines (.161, .169, .217, and .173). The other distinct group that was identified were the lifetime users of heroin and speedball, which was associated with the current use of heroin (.358), speedball (.399) and benzodiazepines (.156 and .238). The lifetime use of speedball was also associated with the current use of cocaine (.178). These associations indicate that previous psychedelic use is correlated with current use of substances such as alcohol, marijuana, cocaine and benzodiazepines (e.g. rohypnol). On the

other hand, current heroin and cocaine users are correlated with lifetime use of hard drugs including heroin and speedballing. The two groups of substance use are distinguished based on existing literature that identifies the hard drugs as being more highly associated with negative social and health consequences (Dembo & Williams 1991; Johnson, Williams, Dei, & Sanabria 1990). The correlational analysis on the composite (total) and individual item measures of precocious transitions and drug and alcohol use among the male gang members revealed significant correlations. Lifetime use of heroin, speedball, and benzodiazepines all were highly correlated with the total composite measure of precocious transitions (.208, .197, .239). More specifically, lifetime heroin and speedball use were associated with the specific precocious transition items of school dropout (.220 and .223) and unemployment (.226 and .181). Lifetime use of psychedelics however, was significantly correlated with teenage parenting (.202) and early nest leaving (.210). In regards to current use of substances (number of days used in past month), alcohol and cocaine were correlated with the composite precocious transition measure, .215 and .161, respectively. Early nest leaving was found to be significantly associated with current cocaine use (.168). Alcohol on the other hand was positively correlated with school dropout (.166) and unemployment (.199).

Although not shown, the precocious transition variables formed distinctive patterns of intercorrelations. Specifically, three patterns of precocious transitions were found among

Table 6: Bivariate Analysis of Drug Use and Precocious Transitions Factor Scores for Mexican American Male Gang Sample (n=160)

	Hard Drug Use Factor Scores	Party Drug Use Factor Scores	Work/School Factor Scores	Family Factor Scores	Leaving Nest Factor Scores	Precocious Transitions Index
Hard Drug Use Factor Scores	1					
Party Drug Use Factor Scores	.000	1				
Work/School Factor Scores	.266**	.044	1			
Family Factor Scores	-.082	-.022	.000	1		
Leaving Nest Factor Scores	.040	.178*	.000	.000	1	
Precocious Transitions Index	.266**	.106	.932**	-.039	.357**	1

*p > .05; **p > .01

the sample. The first pattern included the cluster of work and school variables; specifically unemployment and dropping out of school were strongly associated (.460, $p < .01$). The second pattern was a cluster that indicated the beginning of a new family; e.g., the correlation of cohabitation and teenage parenthood (.254, $p < .01$). Teenage parenthood was also associated with school dropout indicating some interrelationship between the first and second patterns (.272, $p < .01$). The third pattern found only consisted of one precocious transition, early nest leaving, which was not associated with others.

Factor Analysis

Table 5 presents the results of the confirmatory factor analysis. The hypothesis that drug use in this population is organized by two main constructs--a hard drug use and a party drug use was clearly confirmed. The first principle component extracted had an eigenvalue of 2.488 and explained 27.6 percent of the variance of drug use and clearly represented hard drug use with high loadings on heroin use by itself and heroin mixed with cocaine. The second component (eigenvalue 1.336, percent of variance explained 14.84) clearly represented party drug use loading high on alcohol and moderate on cannabis use and moderately and negatively on the heroin and heroin mixed with cocaine variables. Interesting modifications of the party drug use were also found in two components that had an eigenvalue over 1. These compo-

nents indicate the importance of cocaine in party drug use as well as negative use of benzodiazepines.

The results of the confirmatory factor analysis for the precocious transition items confirmed that for this population the items are organized by three main constructs. The first principle component extracted had an eigenvalue of 1.628 and explained 32.5 percent of the variance of precocious transitions. This component represented work and school precocious transitions with high loadings on high school dropout and unemployment. The second component represented precocious transitions associated with early family formation with an eigenvalue of 1.144 and explained 22.8 percent of the precocious transitions variance and high loadings on cohabitation and teenage parenting. The third principle component (eigenvalue 1.024, 20.4% variance explained) also involved the family, but in this instance the construct referred to the family of origin rather than the family of formation. The component was defined by the high loading on early nest leaving. This component indicates the importance of leaving home at an early age and the consequences associated with parenting at a young age.

The results of correlating the factor score measures of the first two drug use principle components with the three precocious transition components are shown in Table 6. The hard drug measure was positively and significantly correlated with the work and school measure and the precocious transition total

score index. In contrast, the party drug measure was only significantly correlated with the early nest leaving measure. Positive correlations were also observed with the precocious transition index and the work/school and leaving the nest factor scores.

DISCUSSION AND CONCLUSION

The study findings show wide-spread drug use in the Mexican American gang member population. Most notably, current cannabis use exceeds alcohol use in this population indicating that illegal drug consumption has become normalized for these adolescents. The correlation analysis of the lifetime and current drug use study variables and the confirmatory factor analysis suggest that there are two distinct patterns of drug users in the Mexican American gang population. The first pattern involves a lifetime of "hard" drug use (heroin, cocaine, and benzodiazepines) that continues through their current use.¹ Continual hard drug use may indicate a distinctive subgroup of these gang members that are characterized by either drug dependence or psychological distress or both. This group would be in need of specialized addictive and or psychological services. The second pattern is associated with current alcohol, marijuana, cocaine and benzodiazepines. Of importance, this pattern did not include current heroin use. This distinctive drug use pattern suggests a second subgroup of Mexican American gang members. This group can be termed the "party drug users" in that their use seems to be associated with recreational or social reasons and does not seem to indicate an underlying psychopathology.

The drug use categories in this analysis are not mutually exclusive in that there are instances in which the types of drugs used overlap between the two groups. For instance, lifetime use of psychedelic drugs including ecstasy plays a significant role in both patterns. This finding suggests more future research attention needs to be paid by early psychedelic and ecstasy use in forming the drug use risk in this population. In addition, current cocaine use was correlated in both the hard drug users and party drug users illustrating the wide spread accessibility of this drug in this population. The results of the factor analysis also suggest that cocaine use plays an important role in further distinguishing drug use patterns in this population. Cocaine use with and without injection and with-

out benzodiazepines and heroin use seems to be the basis of further refining the typology of drug use patterns among Mexican American gang members. Cocaine use in the "hard drug user" group may be explained by its high dependence liability and the role it plays in widely diverse heroin using populations (Blanken, Barendregt, & Zuidmulder 1999; Grund, Adriaans, & Kaplan 1991; Inciardi & Harrison 1998). In contrast, cocaine among the "party drug user" group is associated with it being used in low doses and "casually" in social atmospheres, especially when poly-drug use occurs (Bieleman, Diez, Merlo, & Kaplan 1993; Cohen 1989; Kaplan, Bieleman, & TenHouten 1992; Kozel & Adams 1995; Murphy, Reinerman, & Waldorf 1989; Musto 1992; Spotts & Shontz 1980). Similarly, use of benzodiazepines was characteristic of both of the predominant drug user subgroups. This finding is consistent with research that suggests these prescription drugs have a widespread and multiple functional use in diverse poly-drug youth populations (Calhoun, Wesson, Galloway, & Smith 1996; Maxwell 2003; Valdez, Cepeda, Kaplan, & Yin 1998).

The significant associations between the composite and factor precocious transitions scores and the hard drug use factor score as well as selected lifetime and current illicit drug use clearly specify the importance of these disorderly life events as correlates of substance use among this population of gang members. Moreover, results of the correlation and factor analyses for precocious transitions and substance use are largely consistent with the distinction made above regarding the two types of Mexican American gang member drug using subgroups. On the one hand, lifetime use of hard drugs (i.e. heroin and cocaine) was found to be associated with precocious transitions related to school (dropout) and the economy (unemployment). This association may be related to the use of heroin as part of a coping style of retreat from social institutions where there is scarcity of social and personal resources available to adolescents from disadvantaged backgrounds (Brunswick & Titus 1998; Desmond & Maddux 1984; Jorquez 1984). Psychedelic and ecstasy use is associated with risk taking behaviors that may include early experimentation with sex (teenage parenting), early nest leaving and other risk behaviors. This is consistent with the long-standing and continuing research evidence that social and psy-

chological experimentation that characterizes lifetime psychedelic use (Aaronson & Osmond 1970; Seymour & Smith 1993).

Significant correlations were found for precocious transitions and alcohol and cocaine. An association between current alcohol use and the precocious transitions of dropping out of school and unemployment was found. This finding may be associated with an excessive amount of spare time the adolescents have without attachments to school or work that facilitates drinking and quite possibly contributes to other drug use behaviors. The present results also indicate that the relationship between current cocaine use and leaving home at an early age can be attributed to the risk taking behaviors that characterize the party drug users mentioned above. These differing patterns among precocious transitions and substances suggest that there are multiple rather than single pathways linking drug use to precocious transitions. The investigation of these developmental pathways in this population should be a future research priority. The limitations of cross-sectional designs such as in this study for these investigations are obvious. Although a more sophisticated multivariate analysis can contribute to some understanding of these pathways, investment in longitudinal research designs that follow-up children before their initiation into drug use is the way that future research resources need to be allocated to address this priority.

The findings from the current study begin to confirm and extend prior research on precocious transitions. As others have found, these data demonstrate how precocious transitions have a cascading effect on multiple areas of later life and how the impact increases the more precocious transitions are experienced (Krohn et al 1997; Newcomb & Bentler 1988; Thornberry et al 2003). However, the substance use patterns observed among this population may have more serious repercussions for these adolescents compared to those in previous research given that higher levels of violence, crime, unemployment, and poverty characterize their social environment. This is clearly the case for hard drug users identified in this analysis, whose precocious transitions may lead to an early onset of adult roles that is accompanied with continual drug use and subsequent unsuccessful adaptation in young adulthood. The association between precocious transitions and substance use is less clear among the party drug users.

These party drug users seem to be less prone to long-term drug dependence as well as serious social disruptions indicated by school dropout and unemployment in comparison to the hard drug users. However, they seem to be more prone to experiencing other young adult disorderly transitions associated with and unstable personal and family relationships. We suspect that these disorderly relationships may not be as permanent as among other groups given the importance of class and cultural characteristics such as familism among Hispanics.

The associations presented here suggest that the links among specific patterns of drug use and specific precocious transitions are complex and heterogeneous among this special population of Mexican American male gang adolescents. This is further evidenced in that the precocious transitions reported in the Rochester Youth Development Survey were distinct from the population under study. Furthermore, this analysis goes beyond the precocious transitions index in that it begins to identify underlying constructs such as work, school and family associated with substance use in this population of gang members. These precocious transitions constructs may be related to the structural changes and transitions these urban areas are undergoing that are weakening neighborhood social organizations and ties such as the extended family, churches, small businesses, residential stability and schools. This results in the breakdown of institutional completeness, a condition that contributes to the social stability of economically marginal communities (Flippen 2001; Moore & Pinderhughes 1993; Tsukashima 1985; Valdez 1993).

This suggests that specific consequences of precocious transitions will vary across different communities and gang member populations. Furthermore, the present analysis allows us to begin to untangle which polydrug drug use patterns are affecting patterns of precocious transitions or vice versa in gang populations. Finally, given the unique community based nature of this Mexican American gang member sample, these and other future results will likely be more generalizable to gang members compared to research on school based populations. Finally, early drug prevention efforts need to take into consideration not only the drug use itself but also other precursors to precocious transitions that may extend into early adulthood.

END NOTES

¹ Use of benzodiazepines is also present in this group. Although benzodiazepines as a prescription drug are not commonly considered a "hard" drug, they can be addictive if administered for long periods of time.

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