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ABSTRACT

Alcohol and drug use, perceived health, and involvement in violent behavior were examined among Mexican-American and White dropouts. The sample consisted of 114 Mexican-Americans and 67 White-Americans who had recently dropped out of school; comparison subjects matched for ethnicity, gender, and grade in school; and "at-risk" comparison subjects matched for ethnicity, gender, grade, age, and grade point average. Subjects were 13-20 years old, from grades 6-12 in a large city, a midsized community, and a small rural town in the Southwest. Dropouts, particularly White males, had the highest rates of alcohol and drug use, followed by at-risk controls. This was true for nearly all drugs, but dropout-control differences were particularly large for getting drunk and for using marijuana, uppers, and cocaine. Smoking differences between dropouts and controls were significant only for males. Among males, both dropouts and at-risk controls were more likely than the other controls to have engaged in violent behavior or to have been beaten up badly. Among females, there were few differences related to violence, although Mexican-American females were less likely to be victimized than White females. Females reported more health problems than males, and White female dropouts reported more recent serious illnesses than White female controls. The results suggest that dropouts may have many more problems than those caused by failure to complete high school. (SV)

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MEXICAN-AMERICAN AND WHITE-AMERICAN DROPOUTS: DRUG USE, HEALTH AND VIOLENCE*

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ABSTRACT

This is an interim report on a study of Mexican-American and White-American dropouts, comparing them with controls matched for gender, ethnicity, and grade in school and with "at risk" controls, also matched for age and GPA. Dropouts have the highest rates of alcohol and drug use, followed by at risk subjects. This is true for nearly all drugs, but differences are particularly large for getting drunk, marijuana, uppers, and cocaine. From three fourths to 90% of dropouts have tried marijuana, over a third have tried cocaine, and from a third to half have tried uppers. Females show high rates of smoking, especially dropouts.

Health problems of parents are not related to dropout. Females indicate higher rates of health problems in general, and one third of White-American female dropouts have had a serious illness in the last year.

Many dropouts live in a violent and dangerous world. As an example, about one in five dropouts have scared someone with a gun, and 20% have cut someone with a knife, while nearly half have been badly beaten up by someone. Females are rarely perpetrators, but are victims, 42% of White female dropouts have been raped or sexually assaulted. Mexican-American females are less likely to be victims of violence, perhaps a function of "marianisma" and the protectiveness toward the female of "machismo."

MEXICAN-AMERICAN AND WHITE-AMERICAN DROPOUTS: DRUG USE, HEALTH AND VIOLENCE

The Mexican-American population is the largest of the U. S. Hispanic subpopulations, comprising 50% of the entire group. In the Southwest, over 80% of the Hispanics are Mexican-American. It has been estimated that by the year 2000 Mexican-Americans will be the majority group in the Southwest. The median age of Mexican-Americans is only 22, with almost a fourth under the age of 10 (1). The economic and social welfare of this region of the country is going to be heavily dependent on the capabilities and earning power of this young population.

Dropping out of school clearly affects societal functioning. Morgan (2) estimated that high school graduates have salaries which on average are $60 a week more than dropouts. The Appalachian Regional Commission estimated that dropouts will earn $237 billion less over their lifetimes than graduates, accounting for a loss of $71 billion in tax revenues to state and local governments (3).

Mexican-American youth almost undoubtedly drop out of school more frequently than their White-American counterparts, but obtaining an accurate estimate of the Mexican-American dropout rate proves to be extremely difficult. In many states, only those youth who attend the 9th grade and later leave school are counted as dropouts. In many locations, if students do not re-enroll for the next year, they are not counted as dropouts; dropouts include only those who leave school during the year. Estimates of dropout rates among Mexican-American youth, however, are as high as 45% in some locations.

While White-American youth probably drop out less frequently, the rate of dropping out of school is not negligible; estimates range as high as 30%. The

cost of dropping out of school is potentially very high, both to the individual and to society, but there is still no clear understanding of the causes and consequences of dropping out, especially among specific minority/ethnic/racial groups.

Rumberger has summarized national survey data on dropouts and in the most recent review of the literature indicates that the overall long-term incidence of dropping out is declining but the short term rate, especially for minority groups, is increasing (4)(5)(6). The author discusses the major issues in research in this area. These issues include the difficulties in establishing the incidence rate, determining trends in dropout rates, identifying factors associated with the phenomenon and its consequences, as well as information about possible solutions. Factors which have been found to contribute to dropping out are socioeconomic status, family-related educational and occupational variables, school-related behaviors of the dropout, economic components which contribute to the dropout's decision to leave school, and a large variety of individual factors. The author concludes with the statement "new research efforts should focus on developing multivariate, longitudinal, and comprehensive models of the causes and consequences of dropping out."

A 1986 volume of the Teachers College Record also contains a number of articles concerning dropouts. The lead article by Natriello, Pallas, and McDill argues for attention to four aspects of dropout research: student characteristics, school processes, the definition of dropping out itself and the consequences of this behavior (7).

Ekstrom, Goertz, Pollack, and Rock summarize the data collected by the National Center for Education Statistics in the High School and Beyond

study (HS&B) (8). This study surveyed 24,000 students who were sophomores in 1980 and followed up with a second survey in 1982. Of this sample over 2000 had dropped out of school when surveyed in 1982. Dropouts were disproportionately represented by lower socioeconomic status individuals and ethnic and racial minorities. Dropouts were more likely to come from homes which offered less educational support. The authors also reported that dropouts had lower school grades and test scores, did less homework, and self reported more disciplinary problems. The dropouts were more likely to select friends who were alienated from and had difficulty in school. The data collected suggest that one third of those who leave school do so because they are performing poorly and are alienated from the educational process. The study reports that 29% of the dropouts were unemployed and not in job training and were looking for work two years after dropping out.

Kolstad and Kaufman also used the HS&B data and report that many of the dropouts changed their minds and returned to school or completed a GED (9). Four years after normal graduation would have taken place, 44% of dropouts completed their high school education, 30.7% received GED's and 13.5% were granted high school diplomas.

Michelle Fine presents data on interviews with dropouts from an urban high school (10). She concludes that some students drop out because they have negative perceptions of education. Others leave because they are surrounded by poverty and negative experiences with their own education and feel hopeless. There is a third group which the educational system actively pushes out of school.

Some authors have focused on the problem as it relates to minority groups. In the most thorough review on language-minority youth Steinberg, Blinde, and

Chan discuss the language variable in particular as it relates to Hispanics (11). They report that speaking only Spanish significantly increases the likelihood of dropping out. Hispanic students with lower socioeconomic backgrounds were one and one-half times more likely to drop out than white students of similar SES. Family size, absence of one parent and having fewer material possessions and reading materials were also found to significantly predict dropping out. Using the data base from the HS&B study, Peng reported that females in the Hispanic and Native-American groups were more likely to drop out than males (12).

Two Canadian studies investigated the relationship between academic success and drug usage. Whitehead reported that drug use was higher for academically successful students but the data were obtained in the 1960's when drug use was still low. Later studies all show greater drug use in those with poor school performance (13). Annis and Watson found drug use to be higher for ninth graders who dropped out (14). The dropouts in the Annis study had higher use rates both before and after dropping out. In the United States, Kandel reported higher drug use patterns for school absentees than for those who attended regularly (15). In a later study, Kandel reported that dropouts were more likely to have higher drug use rates than students attending school (16). More recently Mensch and Kandel reported on data collected by the National Longitudinal Survey of Young Adults in 1984 (17). These authors report that for adults with an age range of 19 to 27, the "lifetime and annual prevalence of the use of various legal and illegal substances and the intensity of use were higher, with the exception of alcohol, among those who dropped out of high school than those who did not."

Although ethnic and racial data were available, the authors do not report these results.

Other authors have indicated a similiar association between dropping out and drug use (18)(19). McCaul, Donaldson, and Coladarci discuss data from the 1986 High School and Beyond data base and report significantly higher alcohol use by dropouts with sex, socioeconomic status, and academic ability held constant (20). The authors suggest caution in interpreting these results given that the unit of measurement for alcohol included both number of days of drinking per month and number of drinks consumed per day.

Bruno and Doscher reported on the relationship between drug use and dropping out among Hispanic youth (21). This sample was comprised of Mexican-American and Anglo youth who were involved in a truant program. Seventy-eight students completed a questionnaire on their drug use. Sixty-seven percent of the sample indicated that they had used marijuana, with a majority of that percentage indicating a use rate of once a week or more. There are two difficulties with this study. One is that the population is composed of "potential" dropouts and follow-up was needed to assess the actual number of dropouts. Secondly, the actual number of Mexican-Americans in the final sample is not specified.

In 1987 we began a long-term study of Mexican-American and White-American dropouts. It is planned to examine a wide range of social, psychological, and environmental variables, with a particular emphasis on drug use. Dropouts are compared with randomly selected controls in school and with students identified as "at risk," matched with the dropouts for academic risk. During the first year we trained staff, developed methods for reaching dropouts, and

tested the instruments for reliability and appropriateness for use with this population. All subjects were debriefed after completing the surveys and were asked whether we should have asked questions about anything else. Some subjects suggested that we should have asked about sexual and physical abuse. During the 1988-89 school year, therefore, we included a series of questions about violence.

This article provides an early look at the data on the links between drug use, perceived health, violence and dropping out. These data were obtained during the 1988-89 academic year. It is only a small part of the complete study, which will eventually include analyses of the psychosocial characteristics that link to drug use and dropping out. These youth will be followed up to determine what happens to them and how this earlier drug use and violence predicts future outcomes.

METHOD

The sample consists of school dropouts and comparison subjects from grades 6 though 12 in three southwestern locations: a large metropolitan city, a mid-sized community, and a small rural town. Dropouts include students who have stopped attendance and have had no contact with the school for a month. They are compared with two groups: controls are matched to the dropout only for ethnicity, gender, and grade in school. A second comparison group consists of youth matched with the dropouts for academic risk. These "at risk" students are matched with the dropout for ethnicity, gender, grade in school, and as closely as possible for age and grade point average.

Both subjects and their parents must agree to the youth's participation. Dropouts either come to the school or are met in another public building to

complete the survey; comparison subjects are tested during school hours. Dropouts are paid $20 and controls $10 for participating. The tests are individually administered and are all paper and pencil measures. They use relatively simple language and take about an hour and a half to complete. All instruments are in English because in these school systems, the few students who do not have adequate English skills to complete the questionnaires also are likely to lack reading skills in Spanish. Only one subject, thus far, has had to have the questions read to him because of inability to read English.

On completion, all questionnaires are placed in an envelope by the subject and sealed. The interviewer and the subject then walk to the nearest mail box and mail the completed questionnaires to our laboratory. Interviewers never see the responses of individual subjects.

The sample available for analysis at this time includes 114 Mexican American dropouts (73 males, and 41 females) and 67 White-American dropouts (33 males and 34 females). Each of these dropouts is matched with a subject selected to be at equivalent academic risk and a randomly selected control, for a total N of 543 subjects.

RESULTS

These preliminary data analyses include only part of the eventual data set that will be available at the end of the study, those surveys that are currently entered into the computer, where the data have been "cleaned" and are available for analysis. Because this is a partial data set, there are differences in numbers of subjects and in the distribution of gender. These differences should not be taken as an indication of relative rates of dropout

by ethnicity or by gender -- they are an artifact of the fact that this is a preliminary report of an ongoing study. Comparisons of dropouts, at risk subjects and controls within gender/ethnicity groups, however, are accurate comparisons across matched subjects and would not be influenced by differences due to the nature of the partial data set.

Table 1 shows the age distribution and number of subjects in each cell of the sample. The subjects were matched for ethnicity, gender, and school grade with comparison subjects. Within ethnicity/gender groups, the match for age worked well, there are no significant differences between dropouts and either control or at risk subjects.

Table 2 shows the grade point average (GPA) of all groups. As expected, the GPA of control subjects is much higher than that of dropouts or at risk subjects. An attempt was made to match at risk subjects with dropouts for GPA over the last full year of completed school. Some dropouts, however, had all F's (for a zero GPA) during their last full semester in school, and youth with equivalent GPA's could not be found who were still attending school. White males had the highest average GPA, and a matching at risk group could be formed. For the other three ethnicity/gender groups, the at risk group has a significantly higher GPA.

Drug Use

Table 3 and 4 show the "ever tried" or lifetime prevalence rate for each drug. The preferred drugs in this study are essentially the same as those for other American youth: alcohol, marijuana, stimulants, inhalants and cocaine. The rates of use for the control subjects are not identical to, but are generally similar to rates of use of these drugs among Mexican-American and

White-American youth in the southwest (22). Chi square provides a conservative test of significance within the ethnicity/gender groups, since it does not take into account the fact that subjects are matched. There are significant differences in every ethnicity/gender group. Where these differences occur, the drug use of dropouts and subjects at risk academically is higher than that of controls. Even when differences are not significant, lifetime prevalence rates show the same general pattern of lower drug use for controls for most drugs; eleven or more of the fourteen drugs show differences in the expected direction in every ethnicity/gender group.

Given these consistent trends it is likely that, when the study is complete, the larger sample size and more powerful methods of analysis that will be available will show that dropouts have higher rates of lifetime prevalence for nearly every drug, that control subjects have the lowest rates of use, and that subjects who are at risk academically have rates of use between these, often closer to the rates of use of dropouts than rates for controls.

For several drugs, the differences between dropouts and controls are very large. Among male White-Americans, for example, only a third of the controls have tried marijuana, while more than 90% of the dropouts have tried it. In that same group, three times as many dropouts as controls have tried cocaine, and a third of dropouts have used a narcotic such as Demorol or Percodan compared with none of the controls. The differences are not as marked for the Mexican-American male youth because the dropouts seem to have slightly lower rates and controls appear to have slightly higher rates than those found for White-American males.

The differences between female dropouts and controls can be equally marked. Less than half of control females have tried marijuana, while more than 80% of dropouts have tried it. More than three times as many dropouts have tried cocaine and twice as many have tried stimulants. Female students in the at risk group have rates of drug use between those of controls and dropouts, but more like those of dropouts.

Tobacco use among dropouts and controls shows a similar pattern. Rates for female control subjects are so high (near 75% have used tobacco), however, that the differences between dropouts and controls are not significant. Only a few of the Mexican-American females have tried smokeless tobacco, but among White-American females one in five controls and half the dropouts have tried it. Only about half of the control males have tried tobacco, while more than 80% of dropouts have tried it.

Use in the last 30 days for tobacco was checked to determine whether these high rates were simply experimentation or whether these youth were continuing to smoke. There were significant differences between dropout, at risk and control subjects for all groups. About 15% of male controls smoked in the last 30 days, while 63% of Mexican-American male dropouts and 73% of White male dropouts had done so. One third of the control Mexican-American females and nearly half of White control females had smoked in the last month, while 60% of at risk Mexican-American females and 81% of dropout White females had done so. There were no significant differences for smokeless tobacco, but slightly less than 20% of males had used it in the last 30 days.

Violence

Tables 5 and 6 show the results from the sections of the survey that deal with violence. In general, more males than females have been perpetrators of violence; females have generally low rates of perpetrating violence, regardless of group.

There are several differences between male dropouts and controls that are significant. Other differences are not significant, but are consistently in the same direction as the significant differences, with greater perpetration of violence by dropouts and at risk subjects. It is likely that, when the study is complete, male dropouts and at risk subjects will not differ from each other in the extent to which they engage in physical attacks or threats of violence, but that these two groups will differ from controls on essentially every variable.

There is only one significant difference between male dropouts and at risk subjects and controls in victimization -- being beaten up by someone other than a friend. Both Mexican-American and White dropouts and at risk males are at two to three times the risk of this happening to them. (The Chi-Square for White males for shooting someone and for being shot with a gun would be significant, but the cell frequencies are too low to meet the requirements for the test.)

While females have low rates of perpetrating violence, they can be the victims of violence. There is only one significant difference between dropout, at risk and control subjects for females -- more White females have been beaten up by someone other than a friend. There are, however, other differences that may prove to be significant in the final analyses. More than

a third of these White females have, for example, been beaten up by parents, by siblings, and/or have been raped or sexually assaulted. There are no significant differences across groups for Mexican-American females, and in general their rates of victimization may be slightly lower than those for Whites.

Health

Tables 7 and 8 show the results for questions about personal and family illness and self ratings of health. Dropouts and at risk subjects do not differ from controls on parental illness, a factor that has been considered of possible importance for dropouts.

When all of the data are in, there may prove to be differences in health between dropouts and/or at risk youth and controls for both males and females. At this time, the rates of reported serious illness among males are too low to allow a test of significance. Male controls, however, do rate their health as above average more often than the dropouts or at risk subjects, and that difference was significant for Mexican-American males.

Females report more health problems than males. Fewer female controls report a serious illness and the difference is significant for White females. Almost a third of the White female dropouts had a serious illness during the past year.

DISCUSSION

The dropouts in this study are probably not representative of all dropouts, even within these cities. In the metropolitan area dropouts frequently disappeared before they could be reached. There is more

communication and less anonymity in the smaller locations, so it was relatively easy to reach dropouts and encourage them to participate in the study. The study, however, only includes a few of the most deviant dropouts, for example runaways, young prostitutes, or "street kids", particularly those from the metropolitan location. Once a dropout was contacted, only 10% refused or had their parents refuse permission to participate, and that rate dropped when we stopped asking for social security numbers as part of the identifying data.

Eventually, by tracking the comparison groups of controls and youth matched for academic risk, we will be able to identify characteristics of dropouts who disappear immediately, but in interpretation of the current results it should be kept in mind that there may be a group of more deviant dropouts that are not included.

In this study, only a few of the female dropouts were pregnant. A generation ago more of the female dropouts might have been due to precocious pregnancy, but now there are programs in these communities to keep pregnant girls in school. The one in the metropolitan area, in fact, may be a model for such programs. The females in this study, therefore, are more likely to have problems other than pregnancy that led to their leaving school.

The White-American youth tended to have better grades than the Mexican-American youth. This poorer school performance of the Mexican-American youth in general may have something to do with the ethnic differences in dropout rates. The reason for lower school performance of Mexican-American youth is not known. It is likely due to a conjunction of economic and social factors: poverty, prejudice, expectancy, and language skills and education of parents.

The grade point averages of the dropouts, taken from school records, are very low for all but the White-American males. For the White male dropouts to have an average GPA of 1.93, almost half of them must have had grades that were passing. A later examination of their reasons for leaving school may prove interesting.

These grades were averaged for the last complete year that they spent in school. Although dropouts leave school for many different reasons, it is clear that their performance in school suffers badly long before they leave. Although not included in the analyses for this study, we have noted that dropouts are progressively more frequently absent before they finally leave school, and this may be a factor in the low grades.

Although we tried to match the GPA of the "academic risk" students with that of the dropouts, we could not always do so. Except for the White males, the grades of some of the dropouts were just too low to find matches with other students. In interpreting any differences between dropouts and "at risk" students who are still in school, this difference must be considered; for three of the four groups, the school adjustment of the "at risk" students is not quite as low as that of the dropouts.

Drug and alcohol use

This study is consistent with prior research in finding higher rates of drug use in dropouts. Unlike the findings of Mensch and Kandel (17), there are also indications of higher alcohol use. The NSLY panel they used, however, were surveyed long after leaving school and had an age range of 19 to 27, suggesting that their dropouts may be a different group than those in our study. Our dropouts were surveyed immediately after leaving school and had an age range of 13 to 20.

There are significant differences between the dropouts and at risk students and control groups for several drugs, particularly for marijuana, but also for getting drunk and using uppers. The consistency in pattern across nearly all drugs, however, suggests that, when this study is complete, dropouts are likely to show higher rates of use for essentially all drugs. These differences between dropouts and controls are especially large for the more frequently used drugs. It is not unusual to find that from two to three times as many dropouts as controls have tried a drug. The subjects who are still in school, but are matched with dropouts for academic risk, tend to have lifetime prevalence rates between those of controls and dropouts, but generally closer to the rates for dropouts. A strong general case can be made that youth who are having academic problems are much more likely to also be involved with drugs.

While the general pattern of higher drug use by dropouts is present in all groups, there are ethnicity and gender differences, many of which will probably hold up in the final results. The largest differences between controls and dropouts are for the White males. Differences are smaller for Mexican-American males because rates for controls are somewhat higher and rates for dropouts are somewhat lower. White male dropouts had the highest percentages of drug use for a number of different drugs. The dropout rate is lower for Whites than for Mexican-Americans, and Whites may, therefore, be a more deviant segment of the population than Mexican-American dropouts. It would make sense, then, that this group is the most deviant, in terms of drug use, in the study.

Dropout rates are also lower for White females, but they have similar percentages of drug use to the Mexican-American female dropouts. One

possibility is that dropping out of school is not considered as deviant for females in either of the subpopulations from which the dropouts are drawn. In other studies, and, although the data have not yet been analyzed, probably in this one, dropouts are more likely to come from lower socioeconomic backgrounds in which traditional sex roles may be maintained. It may be more deviant for the male, who has the traditional "breadwinner" role, to drop out, than for the female, who has less investment in that role.

Both drug use and dropping out have long term consequences for the individual and society, and it is likely that, for at least some of these youth, the problem behaviors exacerbate each other. The lack of employment potential probably makes deriving satisfaction from a drug lifestyle more attractive, and the use of drugs may reduce employment potential even further.

This same reciprocity may be present in the evolution of these problems while the youth is still in school. Other studies will have to determine whether there are temporal relationships between drug use and problems in school that suggest the direction of causation. We suspect that there is a feedback loop between these two behaviors. We have shown in other research that school adjustment problems may lead to the formation of peer clusters (best friend dyads, couples, or small groups of friends) that have a higher potential for drug involvement (23). Drug use, in turn, may interfere directly with school performance and, perhaps more important, distance the student from teachers, counselors, and non-drug using students who might otherwise have had a positive influence on school adjustment.

Violence and Health

Although only one of the differences was significant, dropouts in all of the ethnicity/gender groups were more likely to have experienced a serious illness in the last year. Almost one third of the White female dropouts were seriously ill. Further study may show that there is a small, but important, group of students where illness is a precipitating factor in dropout. If so, special supportive programs for seriously ill students may be a useful part of prevention. They might effect only a small proportion of dropouts, but may be essential for those few.

Long-term health risks may prove to be a greater problem. The figures on tobacco use in the last 30 days show that this is not merely experimentation, but that many are continuing to use tobacco. Females, in particular, are likely to be smoking, particularly White dropouts; eight out of ten of the White female dropouts and almost three fourths of the White male dropouts smoked in the last month. Along with all of the other problems they are likely to experience, we have to add increased chances of everything from heart disease to lung cancer. A few males are using smokeless tobacco, probably increasing the chances of mouth lesions and oral cavity cancers.

The violence data present a picture of living in a very dangerous environment. Only some of the differences are significant, but the consistent pattern of the results suggests that many of the differences between dropouts and controls will be significant in the final sample.

In keeping with cultural stereotypes, the females, in general, are less likely to be perpetrators of violence. They are, however, likely to be victims of violence, particularly the White female dropouts, almost half of

whom report having been raped or sexually assaulted. More than a third of these white females have also been physically assaulted. A surprising number of control subjects have also been assaulted, so some of these differences are not significant.

At least in these preliminary data, the Mexican-American females show slightly lower levels of victimization than any of the other groups. If these differences hold up in the final analyses, it may relate to the cultural factor of "marianisma", the image of the Hispanic female as relatively passive, innocent and virginal, and to the element of female protectiveness in "machismo." This lower level might also be related to underreporting of family related and violence issues because the strong Hispanic family values may lead to denial.

A number of the males, and particularly the male dropouts, live in a more violent and dangerous world. About one in five have scared someone with a gun and actually hit someone with a club. Almost one in five of the Mexican-American dropouts have cut someone with a knife, and a couple of youth have shot someone with a gun. Male dropouts are also the victims of violence, being beaten, robbed, and a few having been shot. The at risk group who are still in school are similar to dropouts in level of violence and victimization.

Male dropouts and at risk students seem to be both the perpetrators and the victims of violence. But other youth are victims as well, perhaps of these youth whose school adjustment is poor. There are considerable differences between dropouts and controls in perpetrating violence, but smaller differences in being the victims of violence.

To the problems presented by dropout and drugs, we have to add problems related to violence. This area has received very little attention in previous studies of dropouts, but may be a critical factor for some youth. Victims of violence, particularly when the perpetrators are present in the school environment, may have increased motivation for dropping out. Perpetrators are engaging in behaviors that may lead to criminal records that add to dropout and drug use in reducing employability. They may also be isolating themselves even further from the elements of society that provide social control and in that way increasing the potential for drug involvement.

Summary

Dropouts and subjects matched for similar poor academic records have higher rates of drug use and are more likely to be both the victims and perpetrators of violence. The image is one of youth with multiple problems, all of which exacerbate each other. The results indicate that dropouts may have many more problems in life than those that are caused by failure to complete high school. The results also suggest that prevention or treatment programs may not be effective if they try to deal only with one facet of the dropout's life.

Although these results show very high rates of drug use and violence among the dropouts, it must be remembered that not all dropouts are alike. There are those who are not using drugs, and most of the youth, including dropouts, are not involved with violence.

The future of dropouts is also not entirely negative. National studies report that as many as 40% of dropouts will return and complete their education, or receive a GED. Little is known of the long-term consequences of these temporary dropouts and further longitudinal research is needed.

It is likely that high levels of drug use and involvement in violence are factors that limit the possibility of positive outcomes, but that remains to be determined. Our long term goals are to identify the social and psychological patterns that not only distinguish between dropouts and those who complete school, but that identify youth who are likely to fail in the future as well. The results should help focus prevention and treatment programs on the factors that need to be changed to reduce dropout, drug use, and violence, and to increase the chances of a positive outcome for those who do leave school.

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Table 1: Mean age and age range among drop-out, at risk and control groups

	Control	At Risk	Drop-Out
Mexican-American			
Males	16.74 (13-19) N=73	16.82 (14-19) N=73	16.71 (13-20) N=73
Females	16.59 (14-19) N=41	16.6 (14-19) N=41	16.71 (14-19) N=41
White American			
Males	16.74 (15-19) N=33	17.18 (15-20) N=33	16.97 (15-19) N=33
Females	16.47 (14-18) N=34	16.55 (14-18) N=34	16.44 (14-18) N=34

There are no significant differences in age within ethnicity / gender groups.

Table 2: Average grade point averages among drop-out, at risk and control groups

	Control	At Risk	Drop-Out
Mexican American			
Males	2.69	1.76	1.47
Females	2.63	1.71	1.52
White American			
Males	2.97	1.88	1.93
Females	2.81	2.07	1.56

At risk and drop-outs differ significantly where shaded. Chi Square $p < .05$

Table 3: Lifetime prevalence of substance use among males in control, drop-out and at risk groups

	Mexican-American			White American		
	Control	At Risk	Drop-Out	Control	At Risk	Drop-Out
Substances						
Alcohol	81.7	89.2	89.4	85.3	97.0	100.0
Drunk	60.7	76.7	80.3	64.7	84.4	96.3
Cocaine	18.3	33.3	32.3	8.8	21.2	33.3
Marijuana	56.7	66.2	77.3	35.3	71.9	92.6
Heroin	4.9	2.7	6.2	5.9	3.0	7.4
Other Narcotics	11.5	19.2	12.1		24.2	33.3
Inhalants	16.4	23.9	33.8	17.6	31.3	44.0
Uppers	21.3	32.9	34.4	15.2	40.6	46.2
Downers	8.2	12.5	9.1	2.9	12.1	20.0
Tranquilizers	-	4.1	1.5	2.9	15.2	7.4
PCP	6.7	13.9	7.6	6.3	24.2	18.5
Quaaludes	10.0	7.0	3.0	6.3	15.2	3.7
Cigarettes	49.2	72.6	80.0	54.5	84.8	85.2
Smokeless Tobacco	52.5	45.2	34.8	45.5	75.8	66.7

Control, at risk and drop-outs differ significantly where shaded. Chi Square $p < .05$

Table 4: Lifetime prevalence of substance use among females in control, drop-out and at risk groups

	Mexican-American			White American		
Substances	Control	At Risk	Drop-Out	Control	At Risk	Drop-Out
Alcohol	90.2	90.9	90.2	94.1	100.0	97.1
Drunk	65.9	78.8	80.5	55.9	83.3	91.2
Cocaine	12.8	36.4	42.5	8.8	32.1	41.2
Marijuana	48.8	75.8	82.9	44.1	63.3	85.3
Heroin	2.4	3.0	10.0	2.9	-	2.9
Other Narcotics	7.3	12.1	7.3	14.7	24.1	29.4
Inhalants	9.8	31.3	17.5	18.2	31.0	20.6
Uppers	24.4	51.5	52.5	20.6	46.4	52.9
Downers	7.3	18.2	19.5	8.8	10.3	26.5
Tranquilizers	4.9	6.1	2.4	2.9	10.3	11.8
PCP	5.0	21.2	12.2	5.9	6.9	8.8
Quaaludes	5.0	9.4	7.3	5.9	10.3	14.7
Cigarettes	73.2	81.8	68.3	76.5	79.3	91.2
Smokeless Tobacco	2.3	6.1	14.6	20.6	24.1	50.0

Control, at risk and drop-outs differ significantly where shaded. Chi Square $p < .05$

Table 5: Violence among males in control, drop-out and at risk groups

	Mexican-Americans			White American		
	Control	At Risk	Drop-Out	Control	At Risk	Drop-Out
Perpetrator						
Scared w/ knife	15.0	26.0	27.1	15.6	33.3	37.9
Scared w/ club	18.3	28.8	28.2	3.1	36.4	28.6
Scared w/ gun	3.4	20.8	19.7	6.3	21.2	17.9
Cut w/ knife	1.7	13.5	19.7	6.3	15.2	10.7
Hit w/ club	8.5	27.4	18.3	3.1	24.2	21.4
Shot w/ gun	-	5.5	2.9	-	3.0	3.6
Victim						
Beaten by parents	11.7	21.9	19.7	15.6	24.2	27.6
Beaten by bro/sis	21.7	20.5	21.1	12.5	33.3	34.5
Beaten by friend	13.3	15.3	11.3	19.4	18.2	24.1
Beaten by other	23.3	43.2	41.4	12.9	60.6	51.7
Raped/Sexually assaulted	3.3	1.4		3.1	3.0	3.4
Been robbed	20.0	28.8	21.1	25.0	36.4	35.7
Been stabbed w/ knife	6.8	15.1	15.7	6.3	12.1	13.8
Been shot w/gun	1.7	4.1	4.3	-	-	13.8

Control, at risk and drop-outs differ significantly where shaded. Chi Square $p < .05$

Table 6: Violence among females in drop-out, control and at risk groups

	Mexican-American			White American		
	Control	At Risk	Drop-Out	Control	At Risk	Drop-Out
Perpetrator						
Scared w/ knife	7.5	8.6	7.5	8.8	13.3	15.2
Scared w/ club	-	2.9	2.9	5.9	10.0	-
Scared w/ gun	-	8.6	7.5	2.9	-	-
Cut w/ knife	2.5	8.6	2.5	2.9	6.7	9.1
Hit w/ club	-	2.9	10.0	5.9	10.0	-
Shot w/ gun	-	-	-	2.9	-	-
Victim						
Beaten by parents	10.0	14.3	22.5	17.6	16.7	36.4
Beaten by bro/sis	30.0	20.6	20.0	26.5	23.3	39.4
Beaten by friend	12.5	8.6	7.7	8.8	10.0	27.3
Beaten by other	25.0	28.6	20.0	8.8	23.3	39.4
Raped/Sexually assaulted	10.0	20.0	20.0	23.5	23.3	42.4
Been robbed	12.5	11.4	12.8	20.6	16.7	12.1
Been stabbed w/ knife	2.5	2.9	7.5	5.9	3.3	12.1
Been shot w/ gun	-	-	-	5.9	6.7	-

Control, at risk and drop-outs differ significantly where shaded, Chi Square $p < .05$

Table 7: Illness last year, personal assessment of health and father-to-be status among drop-out, control and at risk groups (males)

	Mexican-American			White American		
	Control	At Risk	Drop-Out	Control	At Risk	Drop-Out
Father-to-be	5.1	1.4	4.3	-	-	3.4
Serious illness in last yr	-	7.2	6.3	7.1	-	15.4
Mother ill last year	13.1	11.6	12.7	7.4	12.0	7.7
Father ill last year	4.9	14.7	8.2	14.8	16.0	4.2
Personal assessment of health						
Better than peers	63.6	44.6	31.7	74.1	52.0	50.0
Same as peers	31.1	52.3	61.9	25.9	44.0	45.5
Worse than peers	3.3	3.1	6.3	-	4.0	4.5

Control, at risk and drop-outs differ significantly where shaded, Chi Square $p < .05$

Table 8: Illness last year, personal assessment of health and pregnancy rates among drop-out, control and at risk groups (females)

	Mexican-American			White American		
	Control	At Risk	Drop-Out	Control	At Risk	Drop-Out
Pregnant	-	2.9	15.4	2.9	3.3	12.1
Serious illness in last yr	7.5	13.3	12.9	12.5	6.9	32.3
Mother ill last year	20.0	10.0	10.0	18.8	13.8	12.9
Father ill last year	12.8	10.3	9.7	3.1	10.7	6.5
Health:						
Better	43.6	40.0	34.5	25.8	32.1	29.0
same	56.4	60.0	65.5	54.8	60.7	45.2
worse	-	-	-	19.4	7.1	25.8

Control, at risk and drop-outs differ significantly where shaded, Chi Square $p<.05$

Table 9: Substance use in last 30 days among males in control, drop-out and at risk groups

	Mexican-American			White American		
	Control	At Risk	Drop-Out	Control	At Risk	Drop-Out
Substances						
Alcohol	52.5	67.6	69.2	55.9	71.9	77.8
Drunk	38.3	54.1	65.2	35.3	51.6	74.1
Cocaine	3.3	8.1	9.2	-	-	22.2
Marijuana	18.3	40.3	44.4	14.7	21.2	59.3
Heroin*	-	-	-	-	-	7.4
Other Narcotics*	6.6	10.8	9.1	2.9	6.1	20.0
Inhalants	4.9	9.6	7.6	2.9	-	12.0
Uppers	6.6	10.8	9.1	-	6.1	23.1
Downers	4.9	2.8	3.0	-	3.0	11.5
Tranquilizers*	-	1.4	-	-	-	7.4
PCP*	1.7	2.8	1.5	-	-	7.4
Quaaludes*	5.0	2.8	-	-	-	-
Cigarettes	14.8	47.9	63.1	18.2	51.5	73.1
Smokeless Tobacco	19.7	17.8	6.1	12.1	21.2	18.5

* Within the last few months

Control, at risk and drop-outs differ significantly where shaded, Chi Square $p < .05$

Table 10: Substance use in last 30 days among females in control, drop-out and at risk groups

	Mexican-American			White American		
	Control	At Risk	Drop-Out	Control	At Risk	Drop-Out
Substances						
Alcohol	61.0	69.7	53.7	61.8	80.0	79.4
Drunk	43.9	51.5	37.5	38.2	53.3	64.7
Cocaine	-	12.1	17.1	-	7.1	5.9
Marijuana	12.5	48.5	39.0	11.8	27.6	47.1
Heroin*	-	3.1	-	-	-	-
Other Narcotics*	4.9	6.1	7.3	5.9	10.3	15.2
Inhalants	-	6.3	7.5	6.1	10.7	-
Uppers	9.8	12.1	14.6	2.9	17.2	14.7
Downers	-	3.0	4.9	2.9	-	2.9
Tranquilizers*	-	-	2.4	-	6.9	8.8
PCP*	-	3.0	-	2.9	3.4	-
Quaaludes*	-	-	2.4	-	3.4	2.9
Cigarettes	34.1	60.6	43.9	47.1	62.1	81.8
Smokeless Tobacco	-	-	5.0	8.8	-	5.9

* Within the last few months

Control, at risk and drop-outs differ significantly where shaded, Chi Square $p < .05$