

Parental Involvement, Needs and Drug-Related Service Utilization Among Mexican Middle and High School Students

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SUMMARY. *Introduction:* Very little research has been done in Mexico to estimate drug-related treatment needs or service utilization. There

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is also scarce epidemiological research on the influence of parents on drug-related service utilization by adolescents in Mexico. In this paper, we use advanced epidemiologic strategies to provide population-based estimates of the association between parental involvement and treatment needs and service utilization, by level of drug use, with and without adjustment for sociodemographic characteristics. *Methods:* We used data from the latest survey on drug use, representative of all middle and high school students in the Federal District of Mexico (Mexico City). A standardized, self-administered questionnaire was given to 10,173 students aged 12-22 (mean = 14.6, SE = 0.08), especially designed to assess use of several drugs and risk/protective factors, including a sub-scale on parental involvement. All analyses used procedures that account for the complex sample design. *Results:* Students with lower parental involvement (lowest quartile) were found to be more likely to have used drugs in their lifetime, in the past year, as well as in the past month. Moreover, students with the lowest quartile of parental involvement were more likely to have used two or more drugs in their lifetime, and this association was estimated to be independent of sex, age, school enrollment in the past year as well as history of working part or full time in the prior year. About 20% of the students who ever used two or more drugs received some drug-related help, however 50-55% reported they would like to use drugs less. Service utilization was associated with higher numbers of drugs ever used, but not with higher levels of parental involvement. *Discussion:* Parental involvement seems to play a major role as a protective factor against drug use initiation among students, but does not differentiate drug users who seek help from those who do not. Further research is needed to answer whether this is due to students with higher levels of parental involvement having less problematic patterns of drug use. The discrepancy between wanting to use drugs less and service utilization points to the need for further research into the factors that may influence service utilization and, ultimately, recovery. [Article copies available for a fee from The Haworth Document Delivery Service: 1-800-342-9678. E-mail address: <getinfo@haworthpressinc.com> Website: <<http://www.HaworthPress.com>> © 2001 by The Haworth Press, Inc. All rights reserved.]

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INTRODUCTION

For many years, the scope of drug use and drug use problems among Mexican students was stable. However, new patterns have emerged re-

cently that warrant proper public health interventions. These changes include an increase in the proportion of students who have used two or more drugs, an increase in the number and proportion of students who have tried cocaine, and an increase in the proportion of young females who have become users of cocaine (Rojas *et al.*, 1998; Villatoro *et al.*, 1999). Surveillance systems have detected an excess of cocaine use and cocaine-related mentions in treatment centers, and young offenders (Ortiz *et al.*, 1999). However, very little research has been done in Mexico to estimate drug-related treatment needs and service utilization among the general population. Sooner or later, these changes in drug use in Mexico will affect the demand for treatment. Thus, it is imperative to have representative estimates of the proportion of substance users who use health services among the general population. According to prior research, it is expected that this proportion will be low (Goldberg & Huxley, 1992; Solís & Medina-Mora, 1994; Marino *et al.*, 1995; Katz *et al.*, 1997), and that there is a considerable time-lag between onset of the problem and treatment-seeking (Gater *et al.*, 1991; Lara & Acevedo, 1996).

Because adolescent students are still dependents of their parents, an important issue in adolescent service utilization, not just in Mexico, but in the international literature, relates to the influence of parental involvement and adolescent-parent relations on service utilization for drug problems. Several studies with adolescents and school aged children in the United States and Sweden lend evidence to support a relationship between parenting variables (such as monitoring, involvement, communication, affect) and adolescent problem behavior in general (e.g., Richardson *et al.*, 1993; Nelson, Patience, & MacDonald, 1999) and drug use in particular (e.g., Chilcoat, Dishion & Anthony, 1995; Dishion & Loeber, 1985; Stronski *et al.*, 2000). Yet, we do not know how parents influence their adolescents' utilization of drug-related services.

Therefore, in this paper, we use advanced epidemiologic strategies to provide population-based estimates of the proportion of students who have used drug-related services, and of the association between parental involvement, treatment needs and service utilization, by level of drug use.

METHODS

We used data from the latest survey of drug use, representative of all middle school students in the Federal District of Mexico (a.k.a. Mexico

City). Detailed descriptions of this and prior surveys have been published elsewhere (among other papers, see Medina-Mora et al., 1993; Rojas et al., 1998; Villatoro et al., 1999). Briefly, the survey belongs to a systematic effort on surveillance of drug use among Mexican students conducted by the Ministry of Education and the National Institute of Psychiatry over the past 20 years. For the 1997 survey, the sample frame comprised all students who were enrolled in middle and high school at the beginning of the 1997-98 academic year (grades 7 through 12 in the U.S.), which number close to 1.5 million students (Banamex, 1998).

The sample was designed to provide estimates of drug use representative of each of the 16 districts that comprise the Federal District. The sample was selected using a multi-stage procedure, the first stage consisting of the selection of schools within districts, and the second stage being the selection of groups within schools. Out of the 12,170 students who were expected to participate, a total of 10,173 students actually took part in the survey, resulting in an 83.6% of the total number of students expected to be surveyed. In the sample, 51.9% of the students were females and 48.1% were males. Most students were 14 years or younger (54%), with a mean age of 14.6 (SE = 0.08), and were enrolled in middle school (61%), or high school (27.6%) at the time of assessment. However, because of this paper's focus on parental involvement, we restricted the analytical sample to students younger than 21 years who had provided data on key variables. This restriction resulted in a final analytical sample of 9,466 respondents, after exclusion of 163 students who were older than 20 (1.6%) and 544 students who had missing data in key variables (5.4%).

A standardized, self-administered questionnaire was used for the 1997 survey, similar to the core instrument that has been used in prior surveys (Medina-Mora et al., 1981). The questionnaire gathers data about use of alcohol, tobacco, amphetamines, tranquilizers, marijuana, cocaine, crack-cocaine, inhalants, hallucinogens, sedatives, and heroin. For each of these drugs, data were obtained for lifetime, past year, and past month usage, as well as the number of times each of these drugs were used in their lifetime. As an indicator of drug involvement, we constructed a variable counting the number of drugs that had ever been used by each student. Service needs and utilization was measured by asking the following questions: "Have you seen a physician or talked to a school counselor, or have you been in a hospital due to drug use, excluding alcohol and tobacco?" as well as "Do your parents think that you use drugs too frequently (not including alcohol and tobacco)?" and

“Would you like to use less drugs than you currently do (not including alcohol and tobacco)?” Possible answers to these questions are: yes/no/I don’t use drugs.

As a part of data on several risk/protective factors, a set of items with four Likert-like scale options was included regarding family relations, communication and environment, which had been previously designed and tested (Villatoro et al., 1997). We selected seven items on communication with parents as well as parental support and encouragement to test the hypothesis that higher parental involvement would be associated with increased service utilization among students who had used drugs. These items are listed below:

Items included in the sub-scale of parental involvement:

1. When something personal worries me, I talk with my parents about it
2. I talk with my parents regarding things that happened during the day
3. I like talking with my parents about my personal problems
4. My parents motivate me to keep going when I am troubled
5. My parents are supportive when I start something new
6. I talk with my parents about my personal problems
7. My parents make me feel comfortable talking about my personal problems

The scale’s reliability was found to be very good ($\alpha = 0.86$), and exploratory factor analysis yielded a one-factor solution with an Eigenvalue of 3.27 and all item loadings close to or above 0.60. Based on this information, we created a score by adding the answers to each of the seven questions. Because we expected to observe a curvilinear relation between parental involvement and service utilization, we decided to create variables indicating quartiles of parental involvement, and use the lowest quartile of parental involvement as a comparison or reference group.

Data analysis was performed as follows. First, we prepared a cross-tabulation of students by number of drugs used in their lifetime, past year, and past month, according to parental involvement and socioeconomic characteristics. Then, we estimated the association between number of drugs used and parental involvement, with and without statistical adjustment for potential imbalances in socioeconomic characteristics. Number of drugs used was recoded into ordinal categories as

“never used drugs,” “used one drug,” and “used two or more drugs.” Attending to the ordinal nature of the outcome, a polytomous (ordinal) logistic regression model was implemented. Then, selecting students who had used one or more drugs, we estimated service needs and utilization by number of drugs used and tested the association of service needs and utilization with parental involvement and number of drugs used, with and without statistical adjustment of socioeconomic characteristics. Again, selecting only those students who reported having used two or more drugs, we have prepared a cross-tabulation to illustrate similarities and differences between groups of students defined by whether they used drug-related services or not, by parental involvement and socioeconomic characteristics. All analyses took into consideration the complex sample design of the study using STATA software (Stata Corp., 1999).

RESULTS

An estimated 6.3% of students were estimated to have used one drug in their lifetime, 4.7% used two or more drugs, and 88.0% had never used drugs. As shown in Table 1, students with higher levels of parental involvement (i.e., fourth quartile) used fewer drugs in their lifetime, last year, and past month, compared to students with lower levels of parental involvement (first quartile). Table 1 also shows that a higher proportion of males than females have used drugs, and the difference is larger for the use of two or more drugs during one’s lifetime, past year, and past month. As expected, proportions of drug use are higher for older students, and the age difference somewhat diminishes as the window of observation is smaller and closer to assessment (e.g., lifetime, last year, and past month).

Table 2 presents estimates of the association between number of drugs used and parental involvement, accounting simultaneously for sex, age, past year school enrollment, and past year work enrollment. Compared to the lowest quartile, students with higher levels of parental involvement were estimated to be half as likely to have used one drug (adjusted Odds Ratio, $OR = 0.65, 0.47, \text{ and } 0.39$, for the second, third, and fourth quartile, respectively, with 95% Confidence Intervals (95% CI) that ranged from 0.32 to 0.77). In turn, students with higher levels of parental involvement were estimated to be half as likely to have used two or more drugs, compared to students in the lowest quartile of parental involvement who have never used drugs or have used only one drug

TABLE 1. Parental involvement and sociodemographic characteristics of students, by number of drugs used in their lifetime, last year, and past month (n = 9,466)

	Lifetime						Drugs Used Last Year						Past Month						Total	
	Never		One		Two or more		None		One		Two or more		None		One		Two or more		#	%
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%		
Quartile of Parental Involvement																				
First (lowest)	1972	83.31	212	8.96	183	7.73	2097	88.59	164	6.93	106	4.48	2209	93.32	117	4.94	41	1.73	2367	100.00
Second	2098	88.67	150	6.34	118	4.99	2177	92.01	126	5.33	63	2.66	2281	96.41	61	2.58	24	1.01	2366	100.00
Third	2151	90.91	130	5.49	85	3.59	2224	94.00	97	4.10	45	1.90	2307	97.51	43	1.82	16	0.68	2366	100.00
Fourth	2201	92.99	108	4.56	58	2.45	2264	95.65	73	3.08	30	1.27	2323	98.14	36	1.52	8	0.34	2367	100.00
Sex																				
Male	3851	86.25	320	7.17	294	6.58	4061	90.95	244	5.46	160	3.58	4259	95.39	144	3.23	62	1.39	4465	100.00
Female	4571	91.40	280	5.60	150	3.00	4701	94.00	216	4.32	84	1.68	4861	97.20	113	2.26	27	0.54	5001	100.00
Age																				
12 or less	1429	95.27	49	3.27	22	1.47	1458	97.20	30	2.00	12	0.80	1481	98.73	14	0.93	5	0.33	1500	100.00
13	1620	93.05	79	4.54	42	2.41	1662	95.46	57	3.27	22	1.26	1699	97.59	36	2.07	6	0.34	1741	100.00
14	1713	89.92	120	6.30	72	3.78	1763	92.55	88	4.62	54	2.83	1832	96.17	52	2.73	21	1.10	1905	100.00
15	1367	87.46	107	6.85	89	5.69	1424	91.11	90	5.76	49	3.13	1492	95.46	52	3.33	19	1.22	1563	100.00
16	1020	86.44	91	7.71	69	5.85	1074	91.02	72	6.10	34	2.88	1126	95.42	42	3.56	12	1.02	1180	100.00
17	749	83.69	85	9.50	61	6.82	799	89.27	60	6.70	36	4.02	862	95.20	28	2.91	17	1.90	895	100.00
18	335	79.38	40	9.48	47	11.14	360	85.31	44	10.43	18	4.27	391	92.65	28	6.64	3	0.71	422	100.00
19 or more	189	72.69	29	11.15	42	16.15	222	85.38	19	7.31	19	7.31	247	95.00	7	2.69	6	2.31	260	100.00
Past year school status																				
Did not study	447	81.72	42	7.678	58	10.60	472	86.29	44	8.04	31	5.67	500	91.41	34	6.22	13	2.38	547	100.00
Part time	1010	84.52	98	8.20	87	7.28	1060	88.70	85	7.11	50	4.18	1193	94.81	46	3.85	16	1.34	1195	100.00
Full time	6961	90.17	460	5.959	299	3.87	7226	93.60	331	4.29	163	2.11	7483	96.93	177	2.29	60	0.78	7720	100.00
Past year work status																				
Did not work	7341	90.46	474	5.841	300	3.70	7596	93.60	355	4.37	164	2.02	7869	96.97	191	2.35	55	0.68	8115	100.00
Part time	627	79.57	71	9.01	90	11.42	675	85.66	57	7.23	56	7.11	728	92.39	37	4.70	23	2.92	788	100.00
Full time	336	79.62	40	9.479	46	10.90	361	85.55	40	9.48	21	4.98	386	91.47	26	6.16	10	2.37	422	100.00

TABLE 2. Estimated association between number of drugs used (none, one, two or more), parental involvement, and sociodemographic covariates. Results from ordered logistic regression analyses (n = 9,321)

Characteristic	Lifetime		Past Year		Last Month	
	OR	95% CI	OR	95% CI	OR	95% CI
Quartile of Parental Involvement						
Second	0.65	0.54-0.77	0.69	0.56-0.84	0.56	0.42-0.74
Third	0.47	0.39-0.57	0.48	0.38-0.59	0.33	0.24-0.47
Fourth	0.39	0.32-0.48	0.37	0.29-0.48	0.30	0.21-0.43
First (lowest)	1.00	---	1.00	---	1.00	---
Sex						
Male	1.53	1.32-1.78	1.39	1.17-1.65	1.47	1.17-1.86
Female	1.00	---	1.00	---	1.00	---
Age						
	1.26	1.21-1.31	1.22	1.17-1.27	1.15	1.09-1.22
Past year school status						
Part time	1.21	0.99-1.47	1.37	1.10-1.71	1.25	0.91-1.72
Did not study	1.27	0.98-1.65	1.46	1.10-1.93	1.89	1.33-2.70
Full time	1.00	---	1.00	---	1.00	---
Past year work status						
Part time	1.61	1.32-1.95	1.66	1.31-2.09	1.81	1.31-2.49
Full time	1.46	1.10-1.95	1.42	1.03-1.96	1.62	1.09-2.41
Did not work	1.00	---	1.00	---	1.00	---

in their lifetime, past year, and past month (the *OR* and 95% *CI* are the same, as one coefficient summarizes the association). This inverse association between drug use and quartile of parental involvement was found to be statistically significant for drug use in one's lifetime, past year, as well as past month. In addition, higher levels of parental involvement were estimated to be associated with lower number of drugs used, among students who had used at least one drug ($p = 0.0423$). More specifically, among students who had used drugs in their lifetime, those with the highest quartile of parental involvement were estimated to be 30% less likely to have used two or more drugs than students in the lowest quartile ($p = 0.019$). A similar finding was obtained for students in

the second highest quartile of parental involvement, though the evidence is marginally significant in statistical terms ($p = 0.056$).

Approximately, eight to eleven percent of students who used one drug reported to have used drug-related services, and 19% to 23% of students who used two or more drugs did so, as shown in Table 3. Only one in five students who used two or more drugs in the past month reported that his/her parents believe she or he uses drugs too much. However, an overwhelming 50% of students who have used two or more drugs in their lifetime reported they would like to use drugs less, and the percentage was higher for students who used drugs in the past year and in the past month (53% and 55% respectively). In this context, it is interesting to note that only 22% of the students who had used two or more drugs in the past month reported their parents believe they use drugs too much (Table 3).

Table 4 shows estimates of the association between lifetime drug-related service needs and utilization and several covariates among students who had used drugs (students who have not used drugs are not included). In general, the analysis fails to show a statistically significant association between parental involvement and service needs and utilization. However, a few differences were observed that are noteworthy. Compared to the lowest quartile, students with the second quartile of parental involvement were estimated to be 1.7 times more likely to have

TABLE 3. Indicators of drug services needs and utilization among students who used drugs, by number of drugs used at different time periods

Number of drugs used	Received drug related services					Parents believe too much drug use					Would like to use drugs less				
	No		Yes		Total	No		Yes		Total	No		Yes		Total
	#	%	#	%	#	#	%	#	%	#	#	%	#	%	#
<i>Lifetime</i>															
One drug	537	92.11	46	7.89	583	314	97.52	8	2.48	322	114	87.69	16	12.31	130
Two or more	351	81.25	81	18.75	432	317	89.30	38	10.70	355	99	50.00	99	50.00	198
<i>Last year</i>															
One drug	401	89.71	46	10.29	447	426	96.60	15	3.40	441	144	79.12	38	20.88	182
Two or more	189	79.75	48	20.25	237	205	86.86	31	13.14	236	69	47.26	77	52.74	146
<i>Past month</i>															
One drug	221	88.76	28	11.24	249	234	93.98	15	6.02	249	174	72.20	67	27.80	241
Two or more	68	77.27	20	22.73	88	68	78.16	19	21.84	87	39	44.83	48	55.17	87

TABLE 4. Estimated association between drug services needs and utilization, parental involvement, number of used drugs, and sociodemographic covariates, among students who used drugs

Characteristic	Received drug related services		Parents believe too much drug use Yes		Would like to use drugs less	
	OR	95% CI	OR	95% CI	OR	95% CI
Quartile of Parental Involvement						
Second	1.73	1.08-2.77	0.77	0.40-1.49	0.66	0.43-1.02
Third	1.02	0.58-1.80	0.57	0.25-1.28	0.98	0.64-1.48
Fourth	1.04	0.57-1.90	0.74	0.32-1.73	0.49	0.29-0.84
First (lowest)	1.00	---	1.00	---	1.00	---
Lifetime drugs used						
Two or more	2.73	1.84-4.07	3.53	1.93-6.47	7.64	5.32-10.97
One drug	1.00	---	1.00	---	1.00	---
Sex						
Male	1.03	0.68-1.58	1.31	0.71-2.42	2.24	1.53-3.28
Female	1.00	---	1.00	---	1.00	---
Age						
Each year compared to the prior year	0.98	0.88-1.09	1.02	0.88-1.18	0.99	0.91-1.08
Past year school status						
Part time	1.00	0.59-1.72	1.04	0.50-2.15	0.86	0.56-1.32
Did not study	0.82	0.39-1.71	1.24	0.49-3.16	0.98	0.56-1.73
Full time	1.00	---	1.00	---	1.00	---
Past year work status						
Part time	1.93	1.15-3.24	0.85	0.38-1.90	1.13	0.73-1.76
Full time	1.69	0.80-3.55	1.34	0.47-3.80	0.65	0.33-1.29
Did not work	1.00	---	1.00	---	1.00	---

received drug-related services ($OR = 1.73$, 95% CI, 1.08-2.77). As predicted, the strongest association of drug-related service utilization was found with having used two or more drugs, as compared to students who used only one drug in their lifetime ($OR = 2.73$, 95 CI, 1.84-4.07), and this association was even stronger with regard to parental belief that their child was using drugs too much ($OR = 3.53$, 95 CI, 1.93-6.47), as well as with the desire of using drugs less ($OR = 7.64$, 95 CI, 5.32-10.97). An interesting observation is that sex was not estimated to be associated with service utilization or parental belief of too much drug use.

Although we anticipated the possibility of sub-group variation in the association of parental involvement with drug-related service utilization by sex, in general, the analyses did not substantiate this possibility ($p > 0.05$). However, some male-female differences were found with regard to the desire to use drugs less. Males were estimated to be twice as likely to endorse they would like to use drugs less ($OR = 2.24$, 95% CI, 1.53-3.28), and a significant interaction was found involving the desire to use drugs less, sex, and parental involvement. Specifically, female students who had used drugs and had higher levels of parental involvement were less likely to report they would like to use drugs less, especially compared to the corresponding estimates for males ($p < 0.05$).

Table 5 describes characteristics of students who used two or more drugs in their lifetime, by whether or not they have received drug-related services. The number of respondents becomes too small when several attributes are analyzed simultaneously, even with samples as large as the one we use for this study, which has prevented us from applying more advanced statistical tools. Descriptive analyses of characteristics of students who used services and those who did not failed to show differences at conventional levels of statistical significance ($p < 0.05$).

DISCUSSION

The most important findings of this study can be summarized as follows: (1) students with lower parental involvement (lowest quartile) were found to be more likely to have used drugs in their lifetime, in the past year, as well as in the past month. Moreover, students with the lowest quartile of parental involvement were more likely to have used two or more drugs in their lifetime, and this association was estimated to be independent of sex, age, school enrollment in the past year as well as history of working part or full time in the prior year; (2) about 19% of the students who ever used two or more drugs received some drug-related help, however 50-55% reported they would like to use drugs less; and (3) service utilization among students who had used drugs was associated with having used two or more drugs in the lifetime, but not with higher levels of parental involvement.

Before discussing these findings in detail, it is important to acknowledge several limitations of this study. First, the cross-sectional nature of the data makes it difficult to sort the sequence of events without ambiguity. For example, drug use initiation or escalation could lead to more

TABLE 5. Characteristics of students who used two or more drugs in their lifetime, by drug-related services utilization

	No		Received services Yes		Total	
	#	%	#	%	#	%
Quartile of Parental Involvement						
First (lowest)	145	84.80	26	15.20	171	100.00
Second	89	76.07	28	23.93	117	100.00
Third	67	81.71	15	18.29	82	100.00
Fourth	42	77.78	12	22.22	54	100.00
Sex						
Male	116	84.06	22	15.94	138	100.00
Female	227	79.37	59	20.63	286	100.00
Age						
12 or less	17	80.95	4	19.05	21	100.00
13	32	80.00	8	20.00	40	100.00
14	52	75.36	17	24.64	69	100.00
15	65	81.25	15	18.75	80	100.00
16	56	83.58	11	16.42	67	100.00
17	50	83.33	10	16.67	60	100.00
18	37	82.22	8	17.78	45	100.00
19 or more	34	80.95	8	19.05	42	100.00
Past year school status						
Did not study	228	81.14	53	18.86	281	100.00
Part time	69	81.18	16	18.82	85	100.00
Full time	46	79.31	12	20.69	58	100.00
Past year work status						
Did not work	243	83.51	48	16.49	291	100.00
Part time	64	73.56	23	26.44	87	100.00
Full time	36	78.26	10	21.74	46	100.00

intensive parent monitoring or to an emergence of family conflicts, but also it is possible that higher parental involvement might have served as a buffering factor against risky situations that might otherwise have ended in initiation or greater drug involvement. Longitudinal data is needed here to clarify the direction of the association. Also, it is important to acknowledge that self-report data is subject to assumptions on completeness and accuracy. This survey did not include other measurement methods, however, it is important to mention several steps that were taken in order to promote good quality in the data. These steps in-

cluded intensive and systematic training of staff administering the survey to students, reassurance of the confidentiality of the data, and inclusion of detailed instructions for each section of the survey.

Finally, it is important to note that findings from this study may or may not apply to youth who are not enrolled in middle or high school. Further research is certainly needed for those not enrolled in school, especially considering empirical evidence of excess risk for drug use among school dropouts in Mexico (Rosovsky *et al.*, 1999; Medina-Mora *et al.*, 1999).

Notwithstanding these and other limitations, the present study provides novel information that may be useful in the context of research on needs assessment and service utilization. We found parental involvement to be negatively associated with lower odds of using drugs. This is consistent with a body of evidence linking parental involvement with reduced likelihood of several negative outcomes, such as drug use (Dishion & Loeber, 1985; Richardson *et al.*, 1993; Chilcoat *et al.*, 1995; Chilcoat & Anthony, 1996) and points to parent education as an important avenue for intervention to prevent drug use initiation among children. On the other hand, we did not find differences of parental involvement by number of drugs used (*i.e.*, one versus two or more drugs). Other researchers however have found peers to be especially important for initiation into marijuana use, while parental factors gained in importance in the transition from marijuana use to the use of other illicit drugs (Kandel, 1985; Hoffman, 1993; Stronski *et al.*, 2000). Methodological and cultural differences need to be taken into consideration in order to explain these differing findings. One possibility is the different parental factors employed. Some measures reflect more parental monitoring while others reflect parental communication and affective tone of the parent-adolescent relationship. Also, it is possible that risk/protective factors vary across stages of drug involvement, as discussed by Glanz and Pickens (1992), and more specifically by Clayton (1992). Parental involvement among Mexican students might be associated with reduced likelihood of initiating drug use, but other factors such as peer drug use and deviant peer association might play a more important role with regard to escalation of drug use.

The finding that only 22% of parents with children who have used two or more drugs in the past month reported to view this drug usage as too much, leads one to wonder how much parents are aware of their children's drug use and how much knowledge they have of the problems associated with drug use. Further research is needed to understand

the extent of the disconnect that exists between what parents think their children are doing and the children's actual drug use.

While we found service utilization to be associated with higher number of drugs ever used, we failed to find a significant association with parental involvement. Many studies have documented health services utilization to be associated with higher levels of psychiatric morbidity and comorbidity, though an important proportion of cases with mental disorders does not get services at all (e.g., Goldberg & Huxley, 1980, 1992; Offer et al., 1991; Marino et al., 1995; Katz et al., 1997; Medina-Mora et al., 1997). In this context, it is not surprising that students who have used two or more drugs were more likely to report having sought drug-related services than students who only used one drug. Also, it is important to consider that a study among Mexican-American students found that peers are the first source of help for drug-using children and adolescents, rather than their parents (Mason, 1997). Yet, it is also possible that adolescents with greater parental involvement develop less problematic patterns of drug use, which in turn is associated with reduced need of service utilization. A much larger sample and a prospective design would be needed to unravel these potential mechanisms.

The unfortunate discrepancy between desire to use less drugs and service utilization points to the importance of researching how best to reach adolescents in need, such as treatment availability, knowledge of treatment options, adolescent help-seeking strategies, and other mediating factors which might increase the likelihood of service utilization. The results of this article provide some empirical support which shed light on the last two questions. While number of drugs used increased the likelihood of receiving drug-related services, parental involvement, past school enrollment, and past year employment status did not.

Another important question is to whom drug-related services should be targeted. Based upon a foundation of epidemiological evidence on the person-to-person spread of drug initiation and the rapid transition from initial use to drug dependence, a recently published article makes the case for intervention at early stages of drug involvement, well before a more problematic pattern of drug use is developed (Anthony, 2000). Our research supports the idea that parent involvement (and thus targeting parents as well as adolescents in prevention/intervention programs) would be useful for Mexican youth during the early stages or before drug involvement. In Mexico, about one in five students in the Federal District who used two or more drugs have received some drug-related help. Yet, for each student who has received help there is

another one who would like to use drugs less. If this is an indication of unmet treatment needs, further research is needed for a better understanding of factors that may influence service utilization and, ultimately, recovery. This might be helpful in reducing the spread of drug use, an urgent task in the face of the unfortunate changes in the epidemiology of drug use in Mexico.

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