Determining upbringing and interpersonal difficulties among those drug consumers and non consumers and identifying the relationship and effects of upbringing and interpersonal difficulties on drug consumption through a descriptive and correlative study using adolescents selected through cluster sampling. The study discovered that upbringing and interpersonal difficulties can predict having ever consumed alcohol and having consumed it within the last year. When a negative perception of upbringing exists, alcohol consumption exists; the greater the number of interpersonal difficulties, the greater the adolescents’ alcohol consumption.

Descriptors: Adolescent; Interpersonal Relations; Father-Child Relations.

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**Introduction**

Drug consumption by adolescents constitutes a public health problem in Mexico, associated with problems at home and at school, legal problems, road accidents, interpersonal problems and anti-social behavior. The National Addiction Survey\(^1\) reported that illegal drug consumption begins before age 18, highlighting the use of sedatives (50.9%), marihuana (55.7%) and inhalants (63.3%). As for legal drugs (Tobacco and alcohol) consumption before the age of 18 was reported as 14.2% and 15.8% respectively, alarming data considering that these drugs are often the gateway to consuming other drugs\(^{1-2}\).

The increasing risks in drug consumption can be linked with imbalances in upbringing, with the characteristics of the adolescent’s development and with problems in intra-family relationships. Upbringing is a concept deriving from Bandura’s Social Cognitive Theory, implicating a reciprocal relationship between parents and children. Upbringing has been defined as the perception the adolescent has of the relationship with his parents (mother and father) and includes dimensions of support, rejection, control and favoritism\(^{3-4}\).

Support includes the emotional climate between parent and child, demonstrations of emotion such as affection and respect for the situations the adolescent is going through.
Rejection is denying affection, demonstrations of hostility, aggression or indifference that the adolescent feels his parents exercise. Control encompasses manifestations of coercion (pressure, imposing force or threats) on the part of the parents, employing emotional blackmail and exacerbating feelings of guilt as corrective actions. Favoritism corresponds to the adolescent perceiving that the parents prefer one of his siblings. Another factor that has been associated with drug consumption is the interpersonal difficulties the adolescent has in communicating with peers and classmates, with the opposite sex and family members or in relating with others who provide some kind of service. When interpersonal difficulties exist, poor performance at school is likely, as is isolation, increasing the risk of consuming legal and illegal drugs, with health repercussions stretching years into the future.

Previous studies have shown that the age at which drug consumption begins varies between 13 and 17 years of age, with alcohol and tobacco being the drugs most likely to be consumed, followed by marihuana and cocaine. Negative perception of upbringing on the part of the adolescent, little parental support and excessive parental control ($\beta=0.25$; $t=4.91$, $p<.01$) have been associated with tobacco and alcohol use as well as certain illegal drugs. It shows that those parents who prevailingly show positive interest, attention and support, their children have less likelihood of consuming drugs.

It has also been shown that there is an association between difficulty in establishing interpersonal relationships in adolescence and drug use, this having been identified in the situations previous to beginning to use drugs such as marihuana ($r=.265$, $p<.05$), cocaine ($r=.737$, $p<.05$) and opiates ($r=.246$, $p<.05$).

Materials and Methods

This was a descriptive correlative study. The population studied was formed of 1833 students in a preparatory school in Nuevo León. The sample was random and consisted of one stage of sampling considering $\alpha=.05$ and a sample strength of 90% yielding a final sample of 324 students in nine clusters of class groups.

Data were collected using a Certificate of Personal Data and Prevalence of Drug Use consisting of 19 items, including socio-demographic data and data on the Prevalence of Psycho-active Drug Consumption and three instruments, the Perceived Parenting Style Scale: “My Childhood Memories”, evaluating the perception of upbringing through four dimensions: support, control, favoritism and rejection. This consists of 82 items, 41 referring to the father and the other 41 focusing on the mother. The minimum score is 82 and the maximum 32, indicating that the higher the score the higher the adolescent’s perception of the upbringing from his parents. The scale has been validated for the Mexican population with Cronbach’s Alpha of 0.78. In this study it presented an acceptable internal consistency of $\alpha=0.90$.

The Questionnaire on Interpersonal Difficulties for Adolescents was also used, a self-reporting tool developed in Spain to evaluate interpersonal difficulties in adolescence. It is made up of 39 questions in five dimensions: assertion (15 items), relationships with the opposite sex (6 items), relationships with peers (7 items), speaking in public (6 items) and family relationships (5 items). The minimum score for the questionnaire is 0 and the maximum is 156, indicating that the higher the punctuation the greater the difficulties for the adolescent. It has been validated for adolescents in middle and high school level in Spain and China, achieving Cronbach’s Alpha of 0.89-0.91. This study
found a Cronbach’s Alpha of 0.91, considered acceptable.

Finally, the Test to Identify Disorders due to Alcohol Consumption was applied, using ten items to evaluate the type of alcohol consumption in the preceding twelve months. It was developed by the World Health Organization and validated for the Mexican population\(^{20}\). Sensible or without risk consumption was evaluated in questions 1, 2 and 3; addictive consumption through questions 4, 5 and 6; and harmful consumption through items 7, 8, 9 and 10. Scores vary between 0 and 40 points; scores are then converted into rates of 0 to 100, the higher the score, the greater the alcohol consumption. It has been validated in preparatory schools in Nuevo León México, with a Cronbach’s Alpha of 0.81-0.84\(^{10,21}\). In this study, it had an internal consistency of 0.75.

The study was approved by the Ethics and Research Committee of the Nursing Faculty of the Universidad Autónoma de Nuevo León and by the preparatory school authorities, consent of parents and/or guardians being sought for those underage, as well as the adolescents’ and the adolescents’ signed a consent form. Anonymity was preserved at all times.

**Results**

Of the participants, 50.8% were male and 49.2% female. The majority were aged 16 (47.7%) and were in the second semester (60.9%). Some 88% of the adolescents lived with both parents, 10.5% lived only with their mother and the rest either with their father or with friends. The mean age at which they began to consume alcohol was at 13 years old and for tobacco and illegal drug consumption the mean age was 14.

Having consumed tobacco at least once was reported by 32.6% of participants, of whom 7.7% stated they had used it within the preceding week. Having consumed alcohol at least once was reported by 68.9% of students, of whom 20.3% had consumed it in the week preceding the study. Of the adolescents, 4.0% stated they had used inhalants at least once, marihuana 2.8%, cocaine 0.3% and amphetamines 0.3% (Figure 1).

In terms of the second objective, upbringing showed significant differences with tobacco consumption in the preceding month (\(Mdn=70.7, U = 5108.5, p = .042\)) with a higher median in non consumers. Significant differences were also shown with having consumed alcohol at least once (\(Mdn = 70.3, U = 9360.0, p = .013\)) and within the last year (\(Mdn = 70.3, U = 10726.0, p < .05\)) where there was a higher rate for upbringing in non consumers in all types of prevalence. Interpersonal difficulties showed significant differences with alcohol consumption for temporal (\(Mdn = 23.4, U = 10738.00, p = .05\)), current (\(Mdn = 23.4, U = 9833.0, p = .002\)) and instantaneous (\(Mdn = 22.1, U = 6528.00, p = .003\)) prevalence, observing that non consumers had a greater number of interpersonal difficulties.
Moreover, a statistically significant negative relationship (Table 1), was observed between upbringing (EMBU-I) mother and alcohol dependency ($r = -0.423$, $p < .05$). There was no significant relationship between the rate for upbringing (EMBU-I) and the AUDIT rate ($r = -0.054, p = .443$), nor was there a significant relationship between the rate of interpersonal difficulties (CEDIA) and the AUDIT ($r = -0.056, p = .429$).

As for the third objective, it was found that, for having consumed alcohol at least once and within the last year, upbringing ($OR = .97; OR = .97, p < .05$ respectively) and interpersonal difficulties ($OR = .99; OR = .98, p < .05$) can predict consumption of this drug. It was also observed that interpersonal difficulties can predict alcohol consumption (Table 2) within the last month ($OR = .97, p = .003$) and within the last week ($OR = .96, p = .002$).

### Table 1 – Spearman’s Coefficient of Correlation for the EMBU-I and CEDIA and AUDIT rates

<table>
<thead>
<tr>
<th>Variables</th>
<th>C. Cigarettes</th>
<th>AUDIT</th>
<th>Sensible consumption</th>
<th>Dependent consumption</th>
<th>Harmful consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMBU-I rate</td>
<td>-.064</td>
<td>-.054</td>
<td>-.002</td>
<td>-.282</td>
<td>.086</td>
</tr>
<tr>
<td>EMBU-I Father rate ($n=291$)</td>
<td>(.602)</td>
<td>(.443)</td>
<td>(.561)</td>
<td>(.077)</td>
<td>(.561)</td>
</tr>
<tr>
<td>EMBU-I Mother rate ($n=322$)</td>
<td>-.072</td>
<td>-.045</td>
<td>.034</td>
<td>-.294</td>
<td>.085</td>
</tr>
</tbody>
</table>
| EMBU-I = Escala de Estilos Parentales Percibidos: Mis Memorias de Crianza – Perceived Parenting Style Scale: My Childhood Memories
CEDIA = Cuestionario de Evaluacion de Dificultades Interpersonales en la Adolescencia – Questionnaire Evaluating Interpersonal Difficulties in Adolescence
AUDIT = Prueba de Identificacion de Trastornos por Uso de Alcohol Test for Disorders caused by Alcohol Use
$n = total sample $
$n* = Perceived Parenting Style Scale: Father$
$n† = Perceived Parenting Style Scale: Mother$
$n‡ = Tobacco consumers$
$n§ = Alcohol consumers$
$n|| = consumers 0-3 glasses$
$n¶ = consumers 4-7 glasses$
$n** = consumers 8-40 glasses$
$p < .05$

### Table 2 – Linear Regression Model for the EMBU-I and CEDIA rates for the overall prevalence of alcohol consumption

<table>
<thead>
<tr>
<th>Model 1</th>
<th>$c^2$</th>
<th>Df*</th>
<th>$p$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistic regression</td>
<td>9.9</td>
<td>2</td>
<td>.007</td>
<td>3.0%</td>
</tr>
<tr>
<td>Variables ($n=222$)</td>
<td>$B^1$</td>
<td>SE$^2$</td>
<td>$W^3$</td>
<td>df</td>
</tr>
<tr>
<td>EMBU-I</td>
<td>-.033</td>
<td>.014</td>
<td>6.040</td>
<td>1</td>
</tr>
<tr>
<td>CEDIA</td>
<td>-.022</td>
<td>.009</td>
<td>5.403</td>
<td>1</td>
</tr>
<tr>
<td>Constant</td>
<td>3.759</td>
<td>1.067</td>
<td>12.402</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 2 = Linear Regression Model for the EMBU-I and CEDIA rates for the overall prevalence of alcohol consumption

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>SE$^2$</th>
<th>$W^3$</th>
<th>df</th>
<th>OR$^4$</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMBU-I</td>
<td>-.033</td>
<td>.014</td>
<td>6.040</td>
<td>1</td>
<td>.97</td>
<td>.014</td>
</tr>
<tr>
<td>CEDIA</td>
<td>-.022</td>
<td>.009</td>
<td>5.403</td>
<td>1</td>
<td>.99</td>
<td>.020</td>
</tr>
<tr>
<td>Constant</td>
<td>3.759</td>
<td>1.067</td>
<td>12.402</td>
<td>1</td>
<td>42.917</td>
<td>.001</td>
</tr>
</tbody>
</table>

EMBU-I = Escala de Estilos Parentales Percibidos: Mis Memorias de Crianza – Perceived Parenting Style Scale: My Childhood Memories
CEDIA = Cuestionario de Evaluacion de Dificultades Interpersonales en la Adolescencia – Questionnaire Evaluating Interpersonal Difficulties in Adolescence
$B$ = Estimated parameter $B$
$SE = Standard error$
$W = Wald test$
$OR = Odds Ratio$
$n = alcohol consumers$

**Discussion**

The mean age at which consumption of legal and illegal drugs begins was 13 for alcohol and 14 for tobacco and illegal drugs. These findings are similar to those of the national addiction survey$^{[1]}$. It is important to note that the participants who decided to consume alcohol probably also consume tobacco simultaneously and that those adolescents who begin to use
illegal drugs can probably also be found within this group, perhaps because they are at more risk of consumption due to what is known as escalating consumption.

There was a high prevalence of having used illegal drugs at least once and it was observed that alcohol is the preferred drug among adolescents, data similar to those already presented by various authors \(^{(1-2)}\) in adolescents from Guanajuato, Mexico. Alcohol consumption is socially acceptable, something which probably influences its use by adolescents for a variety of motives, of which being able to socialize with peers and copying an adult activity when faced with lack of recognition as such stand out. Easy access to alcohol may be associated with greater consumption and increase exposure to more risky behavior.

A lower prevalence of illegal drug consumption was found in our participants, differing from another study \(^{(13)}\) that mentions that consumption of such drugs is increasing and may be influenced by the lack of information on their negative consequences. The low prevalence of illegal drug consumption in this study may be explained by family structure; the majority of our adolescents lived in nuclear families, the supposed optimal upbringing. The location of the preparatory school may also be a protection factor against drug use, distant from points of sale of alcohol and tobacco and from popular gathering places, with several educational institutions nearby. It has been documented that the shorter the distance from alcohol and tobacco points of sale, the lower the exposure to risk of this conduct \(^{(22)}\).

The upbringing rate showed higher perception in those adolescents who did not consume tobacco. Having consumed alcohol at least once and within the last year also showed lower perception of upbringing in consumers of this drug. This is similar to findings reported by other authors \(^{(5,6,9,16)}\) who mention that the offspring’s negative perception of his parents, lack of communication and little show of support are related to drug use.

The interpersonal difficulty rate showed higher scored for those who did not consume alcohol. This data is in contrast with the proposed theory \(^{(22)}\) and non consumers probably indicated greater difficulty than those who consume alcohol, probably because alcohol is a vehicle that impedes them from recognizing or identifying interpersonal difficulties. Interpersonal problems are a risk factor for consuming alcohol as the adolescent may use the drug to deal with the problems.

The upbringing rate corresponding to the mother showed a significant negative correlation with dependent alcohol use, in contrast to what was reported in another study \(^{(9)}\), which stated that adolescents with a negative perception of upbringing: mother showed higher levels of drug use, with the exception of alcohol. In Mexican culture, the role of the mother is essential for the child’s successful emotional development, especially in boys, and perceiving that the mother cares for the adolescent, worries about him and shows affection and emotion enables him to reject alcohol consumption and, on the contrary, if it is perceived that the mother has little interest in bringing up the child, it is probable that consumption of this substance will increase \(^{(5)}\).

For having consumed alcohol at least once and within the last year, it was found that both the upbringing rate and the interpersonal difficulty rate could predict consumption of this drug, that is, those adolescents with negative upbringing and a lower number of interpersonal difficulties had a higher probability of consuming alcohol. The former datum agrees with what has been reported in diverse studies \(^{(6,8,12,14)}\) which highlight that family interaction and showing support and emotion are important when adolescents decide to consume alcohol for the first time.

Those adolescent who tend to be introverted or emotionally unstable present a greater number of interpersonal difficulties, which has been linked to using alcohol to facilitate problems with social interaction. Moreover, it is also probable that the adolescents are influenced by the media, which shows them images of attractive women and that men can establish more contact and social interaction with the opposite sex when consuming alcohol. On the other hand, the adolescent’s idea or expectation of alcohol as a social facilitator is also encouraged among peers and is observed in the social and family medium \(^{(7,24-26)}\).
Conclusions

The most commonly consumed drug was alcohol, with 68.9% of the adolescents having consumed it at least once, of whom 20.3% had consumed it in the last week. The second most commonly consumed drug was tobacco, 32.6% had consumed it at least once, and 7.7% within the last week. Having used inhalants or marihuana at least once was reported by 13 (4%) and 9 (2.8%) of students, respectively and the rate decreased to one within the last month (0.3%). The age of starting to consume alcohol was lower than for the other drugs, with a mean of 13.7 years old. The males indicated higher consumption of tobacco and alcohol.

The upbringing rate related to the mother showed a significant negative connection with dependent alcohol consumption. When the rate is observed using a Linear Regression Model, it can be seen that it is capable of predicting having consumed alcohol at least once and within the last year; when there is a negative perception of upbringing, alcohol consumption is probable.

When the interpersonal difficulty rate is introduced into the Linear Regression Model, it predicts having consumed alcohol at least once, within the last year, within the last month and within the last week. Lower numbers of interpersonal problems means a greater probability of the adolescents consuming alcohol.

These findings can be taken into account in preventative care in order to reduce drug consumption in adolescents, reinforcing the role of upbringing as a protective factor against this conduct, and encouraging the successful development of interpersonal skills.

References