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Original Article

Parental upbringing associated with drug use and mental health disorders in adolescent offenders

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Aim: know the relationship between parental upbringing, drug use and mental health disorders in juvenile offenders. **Methods:** study cross-sectional and descriptive-correlational. The sample consisted of 49 juvenile offenders from the state of Zacatecas, Mexico. The scales applied were the Parental Perceived Styles Scale and the Massachusetts Youth Screening Instrument as well as open questions about drug use. **Results:** show that although a significant relationship was not found, we found associations between drug use and mental health disorders; and the substance preferred by teenage offenders was marijuana. **Conclusion:** Thus, early assessment nursing can identify changes in physical and mental health to offer strategies that promote healthy lifestyles and channel appropriate spaces of care to those who require specialized care.

Descriptors: Parental Responsibility; Mental Disorders; Juvenile Delinquency; Illicit Drugs.

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Crianza parental asociada al consumo de drogas y alteraciones en salud mental en adolescentes infractores

Objetivo: fue conocer la relación que existe entre la crianza parental, consumo de drogas y alteraciones en salud mental en adolescentes infractores. Metodo: estudio descriptivo-correlacional de corte transversal. La muestra se conformó por 49 adolescentes infractores del estado de Zacatecas, México, utilizando la Escala de Estilos Parentales Percibidos y el Massachusetts Youth Screening Instrument así como preguntas abiertas sobre el consumo de drogas. Resultados: muestran que aunque no se encontró una relación significativa, adicionalmente se encontraron asociaciones entre el consumo de drogas con alteraciones en salud mental; así mismo la sustancia preferida por los adolescentes infractores fue la marihuana. Conclusiones: de esta forma, enfermería al realizar una valoración temprana pueda identificar alteraciones en salud física y mental para ofrecer estrategias que promuevan estilos de vida saludables y canalizar a espacios adecuados de atención a quienes precisen de una atención especializada.

Descriptores: Responsabilidad Parental; Trastornos Mentales; Delincuencia Juvenil; Drogas Ilícitas.

Criação parental associada ao uso de drogas e transtornos mentais em adolescentes infratores

Objetivo: conhecer a relação entre o criação parental, consumo de drogas e alterações da saúde mental em adolescentes infratores. Métodos: o tipo de estudo foi descritivo-correlacional de corte transversal. A amostra se compôs por 49 adolescentes infratores. Resultados: mostram que ainda que no se tenha encontrado uma relação significativa, adicionalmente se encontraram associações entre o consumo de drogas com alterações da saúde mental; a substância preferida pelos adolescentes foi a maconha. Conclusão: desta forma, a enfermagem, ao realizar, uma avaliação preventiva, poderia identificar alteração em saúde física e mental para oferecer estratégias que promovam estilos de vida saudáveis e canalizar espaços adequados de atenção aos que precisam de atenção especializada.

Descritores: Responsabilidade Parental; Transtornos Mentais; Delinquência Juvenil; Drogas Ilícitas.

Introduction

Family as a social community represents a primary group that is crucial to society. The family environment can influence both the onset and the decompensation of mental disorders, as well as health-risk behaviors. In turn, as a promoter of ethical and cultural values,

the family plays a leading role in the psychosocial development of each its members⁽¹⁾.

An assertive family communication style favors cohesion and adaptability within the family nucleus. In contrast, a dysfunctional environment, characterized by poor communication between parents and adolescents and lack of affection, represents a risk factor closely related to use of

alcohol and other drugs⁽²⁻³⁾. Without a doubt, adolescence is considered crucial for individual development; at this stage, adolescents are exposed to and experience different risk behaviors, such as the use of licit and illicit drugs, which, along with their repercussions to physical, social and emotional health, represent a worldwide public health problem, especially during adolescence because drug use may affect one's transition to adulthood⁽⁴⁻⁵⁾.

Substance use can generally be influenced by one's peer group as well as by one's own impulsiveness⁽⁶⁾. Offensive behaviors carried out by adolescents represent a high number of conflicting behaviors; more than 80% of adolescents admit to having committed some type of criminal offense as well as the use of drugs at some time in their lives⁽⁷⁾. Authors agree that crimes reach their peak during adolescence⁽⁸⁾, and data show that juvenile offenders are more likely to present mental disorders or higher incidence for mental care⁽⁹⁻¹⁰⁾. Ibáñez⁽¹¹⁾ highlights substance addictions as one of the most serious public health problems in the world due to their high prevalence.

The search for identity during adolescence is key, marked by the gradual separation from one's parents and the support and security represented by one's family. However, certain individual endogenous factors (low intelligence; difficult behavior during childhood, such as irritability, hyperactivity, early aggressiveness, among others) associated with parenting style can be both critical and very hostile to the individual's development. Further, growing up in single-parent families or living in a large family can influence an adolescent's behavior. Likewise, drug use in adolescents may be triggered or increased by imbalance experienced during parenting⁽¹²⁾.

Family factors such as the absence of parental monitoring of drug use, conflicts between parents and adolescents, and parental alcoholism have been noted as the main drivers for addictive behaviors in the future of the adolescent. Likewise, growing up in dysfunctional families, such as those with drug-related issues, stress and depression, contribute to the onset of mental disorders in adolescents, especially impulse control disorders, delinquency, substance use, sexually transmitted diseases (STD) such as HIV, among others⁽¹³⁾. Thus, juvenile offenders show high psychosocial risk factors, such as impulsive temper, emotional and behavioral issues, poor school performance, substance use such as alcohol abuse, deficient relationship with parents, and mental disorders⁽¹⁴⁾.

Charro (2015) highlights that 85% of adolescents in prison come mainly from single-parent families, where only the mother figure was present⁽¹⁵⁾. Other authors found that 64% of adolescents had committed some offense and had a psychiatric diagnosis; conduct disorder (46.9%), alcohol abuse (26%),

and dependence on other substances (18%)⁽¹⁶⁾ are among the most prevalent cases. Further, in Mexico, the Epidemiological Surveillance System (Sistema de Vigilancia Epidemiológica–SISVEA) conducted the National Addiction Survey (Encuesta Nacional de Adicciones–ENA) in 2011, which shows that 90.7% of juvenile offenders between 15 and 18 years of age were involved in drug use; 24.3% committed a crime under the influence of toxic substances, where theft (72.1%) was the crime most often committed by adolescents who reported using drugs regularly; cannabis was the substance most consumed, followed by alcohol and tobacco (35.0%, 29.8%, and 27.3%, respectively)⁽¹⁷⁾.

In Mexico, this phenomenon has been little studied, hence the importance and interest in determining the behavior of these variables because it is pertinent to find answers to understand the behavior of juvenile offenders and to promote strategies for the prevention of drug use and mental disorders, as well as to strengthen parenting-related factors focused on this highly vulnerable population.

For nursing, as a care-related profession at the individual, family, and collective level, it is highly important to recognize and identify adolescents with drug-related issues and possible mental disorders associated with drug use early on, so as to provide treatment when necessary. The results of this study are expected to improve and facilitate the training for nurses and professionals responsible for the care of juvenile offenders, in order to provide preventive care and attention to help adolescents reintegrate adequately with their families and society, regardless of their legal status.

Therefore, the objective of this study was to determine the correlation between parenting, drug use, and mental disorders in juvenile offenders.

Method

This is a cross-sectional descriptive-correlational study. The sample consisted of 49 male and female juvenile offenders from the state of Zacatecas, Mexico, obtained through a non-probabilistic sampling (census-type) over time. The study was carried out from August to December 2016. The Perceived Parenting Styles Scale [EMBU-I] was used, adapted for the Mexican population by Márquez et al. in 2007, to evaluate parenting perception in four dimensions: acceptance, rejection, control, and favoritism. The minimum and maximum values are 82 and 328, respectively, for both parents; the higher the score, the greater the perception of parenting. The authors reported an alpha value for the father and mother of 0.92 and 0.88, respectively, using this questionnaire. The present study reported

an EMBU-I alpha of 8.5⁽¹⁸⁾. In addition, open questions about drug use were designed.

Likewise, the Massachusetts Youth Screening Instrument (MAYSI-2) was used to assess alterations and/or mental disorders in juvenile offenders. The MAYSI-2, a non-diagnostic screening instrument, aims to detect mental disorders in juvenile offenders and has been prepared specifically for this population. Each scale on this instrument has a cutoff point, which according to score, is determined as "caution" or "at risk"⁽¹⁹⁻²⁰⁾.

Regarding the instrument's reliability, Santos Ferreira reports internal consistency of $\alpha = .36$ and $.81$. These results are partially consistent with previous studies by the authors themselves, where an alpha between $.61$ to $.86$ was obtained, and a range from $.50$ to $.86$ in further studies. The present study reported a MAYSI-2 reliability of $.89$ ⁽²⁰⁻²²⁾.

In turn, the participants were identified by codes (A1, A2... A5) to preserve their confidentiality and anonymity and responded to the open questions on drug use.

The Bioethics Committee of the Autonomous University of Zacatecas (Universidad Autónoma de Zacatecas) approved the implementation of this study (registration number BIOETICA-ACS/UAZ AVAL 006 A/2016), complying with the research regulations of the General Health Act [SSA, 2014]⁽²³⁾, which establishes the ethical guidelines for the development of this research and guarantees the dignity and welfare of the participants. Therefore, informed consent was obtained from parents and/or guardians, as well as from the participants; they had the right to withdraw from the study at any time. It should be mentioned that, in addition to the participants, some adults were included for the purposes of this study. Although the instrument MAYSI-2 is designed to assess mental disorders in adolescents from 12 to 17 years of age, this study included participants that exceeded said range due to the limitation of having a small population and by request of the institution responsible for the study.

The statistical package SPSS for Windows, version 18, was used for the analysis and processing of data. Descriptive and inferential statistics were used. The Kolmogorov-Smirnov test, corrected by Lilliefors, was used to determine the normality of the variables. Once the normality data were obtained, the use of non-parametric statistics was decided. Likewise, the reliability of the measuring instruments was obtained using Cronbach's alpha.

Results

Regarding the sociodemographic characteristics of juvenile offenders, it was identified that male offenders had the highest prevalence, 89.8%, compared to 10.2%

for females; the mean age for the participants was 18.10 years (SD=1.57); 81.6% reported living in urban areas. Regarding the number of years of education completed, the mean was 7.73 (SD=3.10); 98% reported not being an only child, of which 20.4% had between two and three siblings; 38.8% mentioned that they lived with both parents, while 28.6% of the participants lived only with the mother, and the remaining participants lived alone or as a couple, or with grandparents, uncles, or friends.

Regarding the overall prevalence for alcohol use, 100% of juvenile offenders admitted to using alcohol at some point in their lives, while the period prevalence for alcohol use was 38.8% (CI 95%=.23-.49), and the mean onset age was 13.4 years (SD=1.91). The overall prevalence for drug use by juvenile offenders showed that 87.8% have used drugs at some point in their lives, with a mean onset age of 11.71 years (SD=4.87). The drug most commonly used was cannabis, 65.3%, while 49% of the participants mentioned having a high level of drug use.

Regarding the specific objective of determining the prevalence of alcohol and drug use by age, younger juvenile offenders showed higher period prevalence (57.9%) than older juvenile offenders (26.7%), with a statistically significant difference ($\chi^2 = 4.77$, $p = .029$). In turn, the global prevalence of alcohol and drug use, as well as of mental disorders (MAYSI-2), between the younger and older group ($\bar{X} = 18.10$, $LI = 15$, $LS = 21$), was not statistically significant ($U = 262$, $p = .634$; $U = 234$, $p = .299$).

Regarding our general objective, no statistically significant relationship was found between parenting, drug use, and mental disorders in juvenile offenders. However, additional results show a significant correlation between the sum of the traumatic experiences in men (MAYSI-2) related to alcohol and drug use ($r_s = .405$, $p = .006$) and the sum of the MAYSI-2 ($r_s = .716$, $p = .00$), and, in turn, a statistically significant relationship of alcohol and drug use with traumatic experiences (juvenile offenders) in men ($r_s = .405$, $p = .008$). These results indicate that the greater the traumatic experiences in the juvenile offender, the greater is the use of alcohol and drugs, and the greater the use of alcohol and drugs, the greater is the probability of mental disorders. This finding urges family members and care institutions to focus on this specific population, who require attention, care, and pertinent follow-up regardless of their legal status.

Additionally, a statistically significant correlation was found between irritability and traumatic experiences in men ($r_s = .405$, $p = .006$), suggesting that greater irritability leads to more traumatic experiences because criminal acts or violence are more likely to occur while

experiencing irritability, which may result in traumatic experiences over time for this population.

A simple linear regression model was conducted to respond to one of the specific objectives of the study. The model that best explained the effect of parenting on drug use and mental disorders in juvenile offenders used mental disorders such as depression, anxiety, irritability, and somatic complaints as independent variables. Just as alcohol use (overall and period prevalence), drug use (period prevalence), and age were significant ($F=2.00$, $p=.001$), these variables explain 24.9% of the parenting variance. Similarly, the variables that contributed significantly were the sum of alcohol and drugs ($\beta=.401$, $p=.016$) and the period prevalence of drugs ($\beta=.570$, $p=.016$).

Discussion

The literature allows us to categorize the family as a source of primordial support in the human lifespan, especially during adolescence. Dysfunctional and single-parent families have grown exponentially in recent years. Moreover, numerous factors are involved in this phenomenon, such as unemployment, the physical and emotional absence of parents, economic problems, violence, or migration of one or both parents in search of higher income. These conditions unfortunately cause negative alterations in the family, mainly affecting the children. The state of Zacatecas, although a rather small territory, has one of the highest migration rates, according to the National Institute of Geography and Statistics (Instituto Nacional de Estadística y Geografía-INEGI) 2015⁽²⁴⁾.

It is important to mention that a study conducted by Charro⁽¹⁵⁾ reported that more than 85% of adolescents confined in prisons come from single-parent families, where only the mother figure was present. According to this study, only 28.6% of juvenile offenders lived with their mother, while 38.8% mentioned living with both parents. The remaining participants lived alone, as part of a couple, or with grandparents, uncles, or friends. Undoubtedly, family plays an important role in parenting, but this role may be either protective or a risk factor. This duality is reported by other authors⁽¹⁶⁾, who highlight the family as one of the risk factors for developing delinquent behavior in adolescents, especially when they come from large (more than 4 children), single-parented, or poor families, among others. This study found that families of juvenile offenders consisted primarily of either 2 or 3 siblings. Although the study sample was small, it is considered a representative sample.

Regarding drug use, mainly alcohol, our findings show an onset age of 13.4 years, with a global

prevalence of 100% for this population, while 87.8% have used other drugs at some point in their life. Cannabis was the preferred substance by juvenile offenders, at 65.3% and an onset age of 11.71 years, followed by other drugs such as cocaine, crack, pills, and solvents, among others. These results agree in certain points with those reported by SISVEA through the ENA⁽¹⁷⁾, where data show that 90.7% of the participants are between 15 and 18 years old, and cannabis is the substance most commonly consumed (35.0%), followed by alcohol (29.8%). These findings confirm that juvenile offenders begin using illicit drugs at an early age.

These first results show the negative consequences of the early consumption of the main drugs of abuse in juvenile offenders, such as alcohol and cannabis, substances that most participants verbally declared not to be harmful to health. On the contrary, they expressed the following thoughts: *no, cannabis is medicinal (A1), it feels cool (A2), nothing has happened to me, and I was drinking a lot (A3), I control it (A4), I have tried everything, and here I am (A5)* (exact words expressed by juvenile offenders), among other opinions expressed by the participants. Thus, it is very important for care professionals, schools and especially parents to educate young adolescents on the negative neurobiological consequences of the long-term use of psychoactive substances at an early age.

Regarding alterations and/or mental disorders, some authors⁽⁹⁻¹⁰⁾ note that juvenile offenders are more likely to suffer mental disorders or to require more attention in this area. Similarly, in another study, 86.5% of young people reported having received help from mental health services, while 37.8% reported receiving help within the last 3 months, mainly due to depression, anxiety, substance use/dependence, or dysthymia, among others⁽²⁵⁾. According to our findings and the results of the MAYSI-2, 49% of adolescents were at risk due to alcohol and drug use, while 30.6% were in the caution zone. Concerning irritability, 40.8% were in the caution zone, with symptoms of depression; 69.4% were in the caution zone, with symptoms of somatic complaints; 18.4% were in the caution zone, with suicidal thoughts; 40.8% of men were at risk of thought disorder; 85.7% of men had traumatic experiences; and 8.2% of women also had traumatic experiences. These data are highly interesting because it is important to understand the general behavior of adolescents, especially when they are confined in institutions because this situation or past and present experiences could increase the risk for mental disorders.

Our findings show a significant association between the scale of traumatic experiences and alcohol and drug use in men, as well as with the general summation of MAYSI-2. In addition, there is a significant relationship

of alcohol and drug use with traumatic experiences in men. This result indicates that the greater the traumatic experiences in the juvenile offender, the greater is the use of alcohol and drugs, and the greater the use of alcohol and drugs, the greater is the probability of mental disorders. These findings urge family members—who are key for their children's evolution, especially during adolescence—and care institutions to focus on this specific population, who, regardless of their legal status and according to the Justice Act for Adolescents, require attention, care, and pertinent follow-up⁽²⁶⁾.

Additionally, a statistically significant association was found between irritability and traumatic experiences in men, indicating that greater irritability leads to greater traumatic experiences because criminal acts or violence are more likely to occur while experiencing irritability, which may result in traumatic experiences over time for this population.

It is important to be able to work with families since, as already mentioned, they are key for adolescents' evolution. For example, "multiproblem and/or dysfunctional families affect at least one member of the family in terms of vagrancy, moving out from home, criminal behavior, drug abuse, among other high-risk behaviors. Likewise, psychopathology and character traits in adolescents are influenced by the family structure, an excessive rigidity in the norms and values of the family and social environment can harden the character traits of the young person, showing certain maladaptive behaviors"⁽²⁷⁾. In relation to the aforementioned, and based on the results of this study, parenting is essential because a high percentage of participants come from single-parent families, while the rest live alone at an early age, others are already living as part of a couple, others mention living with grandparents, and others live with friends. In this sense, it is important to take care of the adolescent, but above all, and especially, such care is the responsibility of the person in charge of parenting.

Conclusions

The study participants had a high rate of drug use. It was observed that all the study participants had consumed alcohol at some point in their lives, and most of them had consumed illicit drugs at an early age, cannabis being the most consumed. The use of alcohol and other drugs was higher in younger adolescents in the last year. No relationship was found between parenting, drug use, and mental disorders in juvenile offenders. However, those who reported having traumatic experiences had greater alcohol and drug use, especially in males. It was also observed that

irritability was associated with traumatic experiences in men. Parenting has an effect on depression, anxiety, irritability, and somatic complaints, as well as drug use.

The size of the sample was a limitation for this study, which does not represent the entire study population. Likewise, the lack of studies concerning this population group makes it difficult to explain the phenomenon with greater clarity.

The data obtained in this study as a first approach to this population could be used as reference by health professionals in charge of juvenile offenders and families in corresponding instances, as well as to respond to the needs that affect this specific population, regardless of their legal status. Nurses must also respond, based on their training, to the needs of adolescents by promoting health, prevention, and care in the first, second, and third levels of healthcare.

Nursing assessment should seek to identify physical and mental health disorders based on the growth and development of the adolescent, in order to provide strategies that promote healthy lifestyles and refer to the appropriate care institutions those who need specialized attention, so as to prevent or reduce adolescent risk behaviors that may lead to criminal acts, drug use, and mental disorders.

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