

Alcohol, drugs, and crime

Álcool, drogas e crime

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Abstract

Objective: This article describes two complex and doubly preoccupying situations in terms of public health, either, for its high prevalence and/or its consequences. These problems are the psychoactive substance use disorder and crime. The form will be told as diverse researchers associate them, as well as the situation of the exam of users and alcohol dependents and drugs. **Method:** A revision of publications was become fulfilled on the subject, using Medline and Lilacs as data bases, covering the period of 1986 the 2006. The keywords used had been: "Alcoholism", "drug dependence", "drug abuses" and "crime". Summaries of congresses, articles and excellent books on the subject, published for different authorities in the subject, in diverse phases of research, had been consulted and enclosed. **Conclusion:** The diverse research coincide in the affirmation of an association between psychoactive substances use disorders and crime. What it is possible to evidence is the high ratio of violent acts when the alcohol or the illicit drugs is used by aggressors, its victims or in both. When it carries through an expert examination in authors who allege some relation of the practiced act with alcohol consumption/drugs, this exam must take in consideration the substance in use, the clinical symptom for caused it, as well as verifying the presence of a diagnosis, the existence of causal nexus and possible alterations in the understanding capacity and/or determination of the agent.

Descriptors: Alcoholism; Illicit drugs; Substance-related disorders; Crime; Forensic Psychiatry

Resumo

Objetivo: Este artigo descreve duas situações complexas e duplamente preocupantes em termos de saúde pública, seja, por sua alta prevalência e/ou por suas conseqüências. Trata-se dos transtornos do uso de substâncias psicoativas e a criminalidade. Será relatada a forma como diversos pesquisadores as associam, bem como a situação das perícias de usuários e dependentes de álcool e drogas. **Método:** Realizou-se uma revisão das publicações sobre o tema, utilizando-se, como bancos de dados, o Medline e o Lilacs, cobrindo o período de 1986 a 2006. Os descritores usados foram: "alcoholism", "drug dependence", "drug abuse" e "crime". Resumos de congressos, artigos e livros relevantes sobre o tema, publicados por diferentes autoridades no assunto, em diversas fases de pesquisa, foram consultados e incluídos. **Conclusão:** As diversas pesquisas coincidem na afirmação de uma associação entre transtornos do uso de substâncias psicoativas e criminalidade. O que é possível constatar é a alta proporção de atos violentos quando o álcool ou as drogas ilícitas estão presentes entre agressores, suas vítimas ou em ambos. Quando se realiza um exame pericial em autores que alegam alguma relação do ato praticado com consumo de álcool/drogas, esta perícia deve levar em consideração a substância em uso, o quadro clínico por ela causado, bem como verificar a presença de um diagnóstico, a existência de nexos causal e possíveis alterações na capacidade de entendimento e/ou determinação do agente.

Descritores: Alcoolismo; Drogas ilícitas; Transtornos relacionados ao uso de substâncias; Crime; Psiquiatria legal

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"When I drink, I take leave of my senses and cannot be responsible for anything or anyone, not even for myself . . ." *Kledir Ramil*

Introduction

Criminality is a complex phenomenon which has multiple psychosocial determinants and has been a facet of the human condition since prehistoric times. At the beginning of the 20th century, the most common causes of imprisonment in Brazil were disturbing the peace, vagrancy, public disorder, and drunkenness. Among the crimes committed, crimes against the person, such as murder, attempted murder, and assault, predominated, although some cases of rape and sexual aggression have also been reported.¹⁻² Violent crimes or acts of personal revenge occurred between or among acquaintances and behind closed doors.

During the postwar period, crime rates decreased in Brazil, as well as in Europe and the United States. However, from the 1980s onward, an increase in criminality was reported, specifically in the number of drug-related crimes (drug dealing and use), of crimes against property, and of violent crimes such as theft, kidnapping, and homicide. Drug dealing and drug use were responsible for three times more convictions in 1985 than in 1965. In that same year (1985), crimes against property accounted for 57% of all convictions.² That phenomenon occurred in nearly all the states and large cities in Brazil, principally in the metropolitan regions. In the 1990s, this spread to rural towns, especially those situated along drug distribution routes.

The high rates of violent crime worldwide led the World Health Organization (WHO) to declare it a public health problem.

In an epidemiological study conducted by the WHO in 14 countries, within the context of primary health care, the most common psychiatric diagnoses were depression (10.4%), anxiety (7.9%), and psychoactive substance use disorder (2.7%). Anxiety disorders and depression were found to be more common among women, whereas psychoactive substance use disorders were more common among males.³

The worldwide prevalence of alcohol use disorders (harmful use or dependence) in adults was estimated to be approximately 1.7%. These rates were found to vary considerably in different regions of the planet, ranging from very low levels in Middle Eastern countries to over 5% in North America and parts of Eastern Europe. However, during the period studied, the prevalence of drug abuse and dependence (heroin, cocaine, and cannabis) varied from 0.4% to 4%, and the type of drug used differed from one region to another.

In a multicenter Brazilian study of psychiatric morbidity in urban areas, alcohol abuse and dependence, which principally affect men, reached an overall prevalence of up to 9%.⁴ However, the rates for the urban population of Porto Alegre were 8.6% for alcohol use disorder and 3.6% for other psychoactive substance use disorders.⁵

The WHO has expressed concern regarding the higher prevalence of alcohol use among the indigenous populations of various countries. The prevalence of alcohol abuse is also high in the homeless population. A study conducted in the city of Porto Alegre revealed that 69% of homeless individuals consumed alcohol daily, compared with the 4% that use drugs. In a similar study, carried out in European countries, the rates of alcohol use disorders were found to range from 15% (in France) to 74% (in Germany).⁶⁻⁷

Psychoactive substance use disorders have a considerable impact on individuals, their families, and the community, having a prejudicial effect on physical and mental health, affecting relationships, causing financial losses, and occasionally leading to legal problems. Various authors have found that psychoactive substance use disorder is associated with domestic violence, traffic accidents, and crime.

Method

We conducted a review of the literature on this topic, using the Medline and Latin American and Caribbean Health Sciences Literature databases. We limited our searches to articles published within the last ten years (since 1986). The search terms were: "alcoholism", "drug dependence", "drug abuse" e "crime". In addition, conference abstracts, articles, and books on this topic, written by different authorities and covering the diverse stages of research, were consulted.

Community studies

Hodgins, in an unselected birth cohort study conducted in Sweden, monitored 15,117 individuals from birth to the age of 30. The relationship between crime and mental illness, as well as between crime and mental retardation, was assessed. The findings indicated that men with major mental disorders were 2.5 times more likely to have committed a crime and were at a 4-times greater risk of exhibiting violent behavior than were those who had not been diagnosed with such disorders. However, women with major mental disorders had a 5-times greater chance of committing a crime and a 27-times greater chance of exhibiting violent behavior than did those who had not been diagnosed with such disorders. Men with mental retardation were found to be 3 times more likely to commit a crime and 5 times more likely to exhibit violent behavior than were men without mental retardation. Women with mental retardation were found to be 4 times more likely to commit a crime and 5 times more likely to exhibit violent behavior than were those without such retardation. The highest rate, however, was that found among men diagnosed with substance abuse/dependence, for which the chance of committing a crime was 20 times greater than that observed for the men who were not diagnosed with a psychiatric disorder.⁸

In 1996, Hodgins et al. published the results of another unselected birth cohort study, conducted in Denmark, in which 358,180 individuals were monitored from birth to the age of 43. The authors demonstrated that individuals with a history of psychiatric hospitalization had a greater chance of being convicted of a crime than did those with no such history. Likewise, individuals with mental illness were found to be at a greater risk of being convicted for violent crimes than of being convicted for non-violent crimes. Comorbidity between major mental illness and alcohol consumption increases the risk of violent behavior.⁹

In yet another birth cohort study, this one carried out in Finland, Räsänen et al. monitored individuals from birth to the age of 26 and concluded that schizophrenic men diagnosed as alcohol abusers were at a 25.2-times greater risk of committing violent crimes than were healthy men. A diagnosis of schizophrenia alone would increase the risk of committing a violent crime by a factor of 3.6.¹⁰

Alcohol and drugs among examinees and prisoners

From 1980 to 1983, Jeffrey et al. studied a population of 133 defendants submitted to expert examination in the state of Colorado (USA) and reported rates of 64% for prior alcohol abuse and 64% for prior drug abuse.¹¹ Telles studied the prevalence of mental illness among prisoners who had committed various crimes, submitting them to the Criminal Culpability exam at the Maurício Cardoso Institute of Forensic Psychiatry in Porto Alegre, Brazil. The most prevalent diagnosis, at 60.1%, was that of alcohol/substance use disorder.¹²

Coid reviewed comparative studies of the prevalence of psychiatric morbidity among prisoners, as well as in the general population, conducted between 1900 and 1980. The findings

indicated that the prison population presented higher levels of disorders than did the general population. Such disorders included alcohol dependence, drug dependence, and personality disorder.¹³

Arboleda-Florez studied a population of 1200 detainees awaiting trial (remanded population) in Calgary, Canada. The author concluded that 728 individuals presented at least one psychiatric diagnosis, the most common being alcohol/substance abuse. The factors associated with mental illness were as follows: having a low educational level; being of indigenous or Caucasian descent, having previously been detained more than five times; and having previously been evaluated by a forensic psychiatrist.¹⁴

Teplin et al. evaluated 1,272 female prisoners who were awaiting trial in Chicago. The most common disorders were alcohol/drug abuse/dependence, posttraumatic stress disorder, and episodes of major depression.¹⁵ Jordan et al. evaluated the population of incarcerated women in Raleigh, North Carolina and found high rates of substance abuse/dependence, antisocial personality disorder and borderline disorder.¹⁶

Alcohol and drugs among murderers and their victims

The homicide rate is considered to be the best international indicator of the dimensions of violence in any part of the planet.

Data from the 2000 census, conducted by the Brazilian Institute of Geography and Statistics, showed that violence was the third leading cause of death, accounting for 14.5% of the deaths occurring during that year.¹⁷ In the same year, murder accounted for 38.3% of deaths from external causes.¹⁸

In a study involving prisoners convicted of murder in Pereira, Colombia, a significant percentage of substance consumption was observed, 35.9% of the murderers having been under the effect of alcohol at the time of the crime and 24% of the victims having consumed alcohol (73%) or cocaine (27%).¹⁹ In the city of Curitiba, Brazil, 130 homicide cases submitted to trial by jury were studied. The results showed that 58.9% of the murderers and 53.6% of the victims had been under the effect of alcohol at the time of the crime.²⁰

Hunt et al. studied the prevalence of mental illness in 2662 murderers of different ages in England and Wales. The authors concluded that alcohol abuse is common among murderers of all ages, but is more likely to be found in the over-50 population. In contrast, drug abuse is more common in the younger population.²¹

Gawryszewski et al. analyzed the data of homicide victims who had resided in the city of São Paulo. Among those for whom a toxicological exam was performed, 42.5% tested positive for alcohol, and 0.7% tested positive for cocaine. There was a predominance of young males (93.2%) who were gunshot victims (88.6%), with the head being the location most frequently hit (68.9%). Significantly higher alcohol levels were reported for male victims than for female victims.²² In another study, conducted in the metropolitan area of the city of São Paulo, 48.3% of all fatalities were found to have a positive blood alcohol concentration (BAC). The indices varied from 36.2% in suicide victims to 64.1% in victims of drowning.²³ The authors of a study of victims of various non-fatal incidents of external causes, conducted in a trauma center in the city of São Paulo, reported a positive BAC in 28.9% of cases, the highest prevalence being among young, male victims of aggression.²⁴

Alcohol and domestic violence

The incidence of domestic violence, which is seen in various economic groups, has been considered to be higher among psychoactive substance abusers in most societies and cultures.²⁵ In a cross-sectional study on domestic violence, 384 married women, of various social classes and living in a city in Mexico, were interviewed. The authors reported a 42% prevalence of sexual violence, a 40% prevalence of physical violence, and a 38% prevalence of emotional violence. The study showed that a background of violent behavior and the use of alcohol or other drugs by a family member are factors

that are consistently observed in the three dimensions explored.²⁶

Espi, who studied the relationship between alcohol consumption and domestic violence in the region of Murcia, Spain, found a history of alcohol consumption in 60% of the domestic violence cases examined. The author considered alcohol consumption to be an inductor of aggression and violence.²⁷

Women whose partners were alcohol users presented a greater risk of being abused.²⁸

Alcohol and violent behavior in traffic

The use of alcohol and other drugs is associated with an increase in traffic accidents and a consequent increase in infractions carrying fines. Brismar and Bergman evaluated the relevance of alcohol to violent behavior and accidents in Sweden. The authors reported a clear dose-response association between alcohol use and the risk of having an accident, as well as between alcohol use and the severity of such accidents. The authors considered it necessary to also take into account other questions such as the abuse of other substances, unemployment, and sociodemographic factors.²⁹

In a study of carried out by the Department of Hygiene and Epidemiology of Greece, human factors as the cause of traffic accidents were evaluated. The results revealed that a substantial portion of the overall morbidity and mortality is attributable to traffic accidents, and that such accidents are responsible for more years of life lost than are most diseases. The behavioral factors were classified as follows: 1) factors that reduce aptitude on a long-term basis (inexperience, aging, disease/disability, alcoholism, and drug abuse); 2) factors that reduce aptitude on a short-term basis (drowsiness, fatigue, acute alcohol intoxication, consumption of other drugs, acute psychological stress, and distraction); 3) factors that promote high-risk behavior and have a long-term impact (overestimation of capabilities, "macho" attitude, habitual speeding, habitual disregard for traffic regulations, inappropriate driving behavior, not using a seat belt or helmet, and being accident prone); 4) factors that promote risk taking behavior with short-term impact (moderate alcohol intake, psychotropic drugs, suicidal behavior, compulsive acts).³⁰

The Brazilian National Traffic Code (1988) was crafted had the intention of severely restricting the use of alcoholic beverages, both by criminalizing the act of driving under the effect of alcohol/drugs with similar effects and by applying the Criminal Code in cases of crimes committed while driving motor vehicles.³¹

A multicenter study of BACs in traffic accident victims conducted in emergency rooms and forensic institutes in the cities of Brasilia, Curitiba, Recife, and Salvador, revealed that 61.4% of the victims of non-fatal incidents presented BAC positivity. Among the fatalities, the prevalence of BAC positivity was 52.9%.³²

Expert opinions regarding chemical dependence

The medico-legal study of the social and juridical problems caused by psychoactive substance use encompasses two major issues that must be addressed in the evaluation of criminal culpability when such use is alleged: the substance used and the relevant clinical profile. According to the tenth revision of the International Classification of Diseases, the clinical profiles caused by psychoactive substances are as follows: acute intoxication; harmful use; dependence; withdrawal state with delirium; psychosis; amnesia; residual or late onset psychosis.

1. Alcoholism

1) Inebriation

Brazilian criminal law treats the use of alcohol differently from that of other substances. Inebriation caused by alcohol

or substances with similar effects, either voluntary or culpable, can be punishable by law, as stated in item II of article 28 of the Criminal Code. The article makes two exceptions in terms of responsibility: a) If the inebriation, at the time of the act or omission, is the result of an "act of God" or *force majeure*, is total, and thoroughly negates the capacity of the perpetrator to understand the illicit character of the incident or to decide to engage in/neglect to perform the act in accordance with that understanding (leading to a judicial finding of complete mental incompetence and therefore an exemption from any penalty)...b) If the inebriation, at the time of the act or omission, is the result of an "act of God" or *force majeure* and partially impairs the capacity of the perpetrator to understand the illicit character of the incident or to decide to engage in/neglect to perform the act in accordance with that understanding (leading to a judicial finding of impaired mental competence and therefore to an optional reduction in punishment).

The mental health assessment, in general, is conducted long after the act or omission, and the proof of inebriation thus depends on the medico-legal sobriety test, which is not commonly performed, on the version of the events recounted by the accused, and on the evidence collected from the automobiles. In the version recounted by the examinee, the behavior before, during, and after the commission of the crime should be scrutinized. The testimony of individuals who witnessed the incident or were in contact with the perpetrator immediately before or after the incident should be taken into account, assuming that their veracity has not been called into question based on conflicts of interest that might have come to light.

Currently, although the law makes provisions for "acts of God" (e.g., accidental ingestion) and *force majeure* (e.g., forced ingestion), these defenses are rarely invoked.

It is fundamental to determine whether or not there is a causal relationship between the inebriation and the crime, as well as to evaluate the ability of the examinee to understand and make decisions, since it will be the state of these psychic faculties (normal, reduced, or absent) that will be used to determine culpability. Acute intoxication, with delirium or with perceptive distortions, and pathological intoxication should be dealt with on the basis of the guidelines established in article 26 of the Criminal Code.

2) Harmful use of alcohol

Harmful use of alcohol neither reduces nor eliminates criminal culpability. If the crime is committed in a drunken state, it should be dealt with as described above.

3) Dependence syndrome

Criminal culpability, in the case of crimes committed as a result of psychoactive substance dependence, should only be investigated in cases of physical dependence. It must be acknowledged that the physical symptoms affect cognitive function and volition in such a manner that the capacity of the individual to understand and comprehend can be reduced or abolished.

Although alcohol causes physical dependence, the laws that govern substance abuse (no. 6.368, in effect since 10/21/1976, and no. 10.409, in effect since 01/11/2002) do not address the issue of alcohol abuse.

Therefore, the forensic psychiatry solution for the case of a crime committed as a result of alcohol use (in a causal relationship with alcohol dependence) and in which it is agreed that there was either a total or partial effect on the comprehension or decision-making abilities of the perpetrator, is to consider it as an incidence of "*force majeure*", provided that the crime had been committed in a state of drunkenness, either complete or not. In case there was no drunkenness (at the moment of the crime), the dependence can be attributed to a disturbance in mental health or to a mental illness, with the expert assessment being dependent on a prudent psychopathological study of the situation.

4) State of withdrawal

It is necessary to determine the following: a) whether the crime: was committed as a result of withdrawal; b) whether a causal relationship exists between the withdrawal and the crime; c) whether the ability of the perpetrator to understand or to make decisions was reduced or abolished.

The withdrawal with delirium, the psychosis, and the residual or late-onset amnesia leave no doubt: this is a true mental illness.

2. *Actio libera in causa*

The Latin expression *actio libera in causa* means "an action free in its cause" and is applicable to cases in which, despite the fact that at the moment of the crime there had been some type of exclusion or attenuation of culpability, the perpetrator knew that adopting a certain behavior increased the risk of committing the crime. Therefore, in the case of acute alcoholism, even perpetrators who, while committing the crime, are completely under the influence of alcohol or some other psychoactive substance, with an altered state of consciousness and sensorial disturbance, would still be held responsible for their actions. When taking that step (drinking alcohol), such individuals know that they will become inebriated, and being in that state, are likely to commit a reproachful act.

3. Other psychoactive substances

From the perspective of forensic psychiatry, the topic of other psychoactive substances continues to be covered by Law no. 6.368, Chapter III, article 19 (passed in 1976). Unfortunately, a similar chapter (also Chapter III, coincidentally) of a new law (no. 10.409) that would have, in part (articles 14 and 26), superseded the old one was vetoed by the president of the Republic in 2002. The law currently in effect foresees the following situations:

1) Crime committed as a result of dependence

- Crime foreseen in article 16 of the law
- Any other criminal infraction.

The causal relationship is evident if the crime was committed as a result of obtaining the psychoactive substance and if it arises from physical dependence. Therefore, the causal relationship is easily understood in crimes against property. When dealing with crimes against life or bodily security, morbid causality needs to be very well analyzed.

2) A crime committed under the effect of a narcotic substance or of one that leads to physical or mental dependence arising from an "act of God" or *force majeure*.

Similar to the way in which alcoholism has been studied, substance dependence (always physical) can be considered "*force majeure*", as can substance withdrawal. Despite being common in the news, "acts of God" are in fact rare occurrences.

3) Limited or nonexistent ability to understand and make decisions

It is important to mention that the biopsychological criterion used to ascertain criminal culpability has been retained in its entirety in Law no. 6.368/76. Therefore, after the dependence (or inebriation due to an "act of God" or *force majeure*) has been investigated and the causal relationship between the act/omission and those conditions has been established, it is necessary to evaluate the status of perpetrator ability to understand and make decisions (to determine whether this ability was preserved, reduced, or abolished).³³

Final comments

The high prevalence of substance use disorder in the community of examinees and prisoners constitutes an important public health problem. Cohort studies have revealed that, within this population, those presenting substance use disorders are at a greater risk of committing a crime than are those presenting no psychiatric disorder, as well as that comorbidity between substance use

disorder and schizophrenia increases the chance of violent crime. The majority of studies addressing the subject have shown a association between substance use disorder and criminality. The proportion of violent acts involving alcohol or drug use by the perpetrators, the victims, or both, is high.

The variability of the effects caused by drugs and alcohol in different individuals suggests the contribution of organic, sociocultural, and personality factors. It is known that people with the same level of intoxication have different emotional responses and present diverse types of behavior.³⁴

This association between violence and the use of alcohol or drugs merits further study in order to increase knowledge and identify practices that might contribute to the health of the population and to the prevention of violence.

Attention and treatment must be given to members of the prison population who have been diagnosed with substance use disorder, whether in isolation or in comorbidity with other psychotic symptoms.

Expert opinions regarding chemical dependence need to take into consideration the following aspects: the substance used and the clinical profile it creates; any condition, disorder, or disease with which the individual has been diagnosed; the existence of a causal relationship; and possible alterations in the ability of the perpetrator to understand and to make choices.

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