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DRUGS, SEX AND CRIME

EMPIRICAL CONTRIBUTIONS

Author:
Danilo Antonio Baltieri
Department of Psychiatry
ABC Medical School
Brazil

DRUGS, SEX AND CRIME – EMPIRICAL CONTRIBUTIONS

DANILO ANTONIO BALTIERI, MD, MsC, PhD

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FOREWORD

It is both a pleasure and an honor to be asked to write a preface for a book - particularly when the book is excellent and that is the case with the present volume edited by Dr. Baltieri. This is not just another book on drugs, sex, and crime. This book confirms many of the current international findings in the Brazilian context, but more importantly, it also expands the international knowledge base about these issues. For example, there is ample international evidence that alcohol and drug misuse are commonly related to many types of crime - and this is confirmed in the present book. However, this book clearly shows that substance misuse is also intimately connected to sexual crimes and even more interestingly, that different patterns of substance misuse are related to different types of sexual offenders. This latter finding is very important and new, making this book an important contribution to the international forensic literature.

This is ambitious and compelling book - there are three chapters which focus sexual offending: male adult (both against children and adults) sexual offenders, juvenile sexual offenders, and pedophilic children molesters. These three chapters examine patterns of substance misuse, and how these patterns are linked to particular sorts of sexual criminal behavior and diagnostic entities. But the book first sets the scene for these chapters by providing an international overview of the issues, plus a focus on epidemiological data on substance misuse in Brazil, including noting the gaps in the knowledge base.

The three chapters on sexual offenders are tremendously important for both diagnostic and treatment purposes. I realize from my conversations over the years with Professor Lippi of the University of Sao Paulo and Dr. Baltieri of ABC Medical School that sex offender assessment and treatment is still developing in Brazil. However, these three chapters provide a great amount of information that is related to effective treatment of these offenders. For example, if certain types of offenders misuse alcohol more often than drugs (e.g., child molesters), then alcohol misuse is likely to be more commonly part of the offence pathway for such offenders - and a focus of any good multi-modal treatment program. Further, if non-pedophilic child molesters differ from pedophilic child molesters in terms of the dimensions of their substance misuse, then again the focus of treatment in this regard will be somewhat different. Certainly, the evidence presented shows that substance misuse is risk-relevant and one ignores the role of substances in the patients' offence pathways with perilous potential. That is, if substance misuse (not necessarily addiction) is part of an offender's crime pathway, addressing and eliminating the factor will decrease the likelihood that the offender will reoffend.

The ambitious nature of the book really comes out with the scope of the remaining chapters: female violent offenders, filicide/parricide, AIDS and sexual crimes - and how these phenomena may be linked to differing patterns of substance misuse. Admittedly, some of the topics are speculative - but only by informed speculation and discussion can new hypotheses and research be initiated on route to finding effective assessment and intervention strategies. In this regard, these chapters are excellent. The final chapter addresses the important issue of the treatment of substance misuse in the context of the Brazilian legal system.

Substance misuse is a common criminogenic (crime-causing) factor that is unlike almost any other criminogenic factor - it is relatively easily and effectively treated and monitored to ensure compliance. It is not possible for the criminal justice system to address systemic issues such as poverty, over-population, AIDS, or unemployment. However, the criminal justice system can address education, job-skills, sexual disease knowledge, and substance misuse. If the Brazilian prison system wants to save money, it should look abroad to Canada and other countries that provide substance abuse to all inmates who are willing to participate. The evidence shows that this factor alone, if addressed, helps to dramatically decrease the relapse and reconviction rates of substance misusing offenders, saving a great deal of personal anguish and public money.

In closing, this is an important book that sets a challenge for forensic mental health providers in Brazil, the Brazilian criminal justice system, and the country's political leaders. This book states: here is the problem, here are some of the dimensions of the problem, and here are some suggested means of dealing with it.

Can Brazil meet the challenge put forth by this book? With professionals like Dr. Baltieri and his colleagues leading the discussion, there is every reason to be optimistic.

Douglas P. Boer, Ph.D., R.Clin.Psych.
Associate Professor of Psychology
The University of Waikato
Hamilton, New Zealand

PREFACE

DRUGS, SEX AND CRIMES

This book is about crime and drugs. It also is about sex, with special emphasis on sexually offensive behavior. However, this book does not suggest that crime simply leads to drug misuse, wich in turn leads to crimes. The chapters will show that alcohol and drug misuse can be more intimately related to some types of crimes even when we are not considering those crimes properly associated with drug sale or possession with intention to sell. Furthermore, considering a same type of crime, such as rape, different patterns of alcohol / drug abuse can be observed in different types of perpetrators in accordance with the choice of victims.

The co-occurrence of criminal behaviors and substance misuse has frequently affected the public perceptions of the influence of alcohol and drug usage on criminal demeanours. In fact, substance abuse can perform different roles in diverse types of crimes. The idea that violent crimes, such as rapes, homicides and robberies are more commonly committed by delinquent drug users cannot be generalized for all of these crimes; however, some violent crimes are more frequently associated with drug abuse than others. This finding should help to improve the development of more specific and individualized correctional treatments. However, multiple other variables interact and cumulate to lower the violence threshold and must also be considered during all evaluations. For example, drug-dependent people who are known to commit crimes tend to be clustered in areas that are socio-economically deprived, in the same way as people known to commit crimes without drug usage. Thus, the connection between drugs and crime is far too complicated to be summarized as a straightforward relationship.

Anyway, it would be impossible to describe all types of crimes and their connections with substance abuse here. Thus, we provide ten manuscripts that describe different aspects of the relationship between drugs and crimes, always focusing on Brazilian reality.

Brazil is the largest and the most populous country in Latin America and the fifth largest in the world in both area and population. It covers over 3.3 million square miles (8.5 million square kilometers) and spans some 2,700 miles from north to south and roughly the same distance from east to west. Thus, an enormous and rich cultural diversity is observed in different points of this country. However, some 'common denominators' can be noted here. We lived in a phallocentric society, where virility is sometimes viewed as synonymous with power. Men are characterized by strength, virility, activity, potential for violence, and the legitimate use of force. Thus, *machismo* stresses diametrically opposed male / female roles. Male must be tough, aggressive, and worldly, and destined to rule family, community and nation. Some of these 'internalized concepts' can influence criminal demeanors and even the psychosocial management for inmates.

The chapters are organized by a number of phenomena that are known (or supposed) to link drugs and crime. In three out of ten chapters, we emphasized the study on sexual offenders because this is one of the main research lines of the editor. I have also pointed out that the assessment and the management of these types of offenders in Brazil is in its first infancy still and many controversies about an adequate medical treatment for paraphilic sexual offenders have risen. Sometimes, different members of our society reveal intense prejudice and misunderstandings with respect to the medical treatment for sexual offenders in general.

It is opportune to report that Brazilian Sexual Crime Law has changed since August 2009 and established an increase in the penalties, especially for those offenders that perpetrate any sexual acts against children. I believe that many policy actions against sexual crimes have been motivated primarily by the need for policy makers and policy making to be seen to be doing something that looks to the public, particularly the media, to be likely to work. Often, policy simply panders to cruel and naïve opinions on sexual crimes, which sells newspapers and satisfies society's most punitive urges, at least in public. The application of punishment under the guise of deterrence, despite its ineffectiveness, has been preferred to a more adequate management for some types of these offenders. It is our contention that a partnership between specialized mental health professionals, lawyers and policy makers is urgent with respect to this subject in Brazil and other countries.

In chapter 1, we report that the relationship between drug consumption and criminal activities is recognized as a serious social problem around the world. In fact, drugs may cause crime directly (by desinhibition; cognitive impairment); drugs and crime may be linked through a shared third factor (personality; social disadvantage); crime may lead to drug usage; or the relationship may be absolutely spurious. In many different countries, the penal system does not punish the individuals who at the moment of the crime do not have the capacity to understand the unlawfulness of their acts or to behave in accordance with this understanding. However, voluntary or culpable drunkenness does not exclude imputability which should only occur in cases that drunkenness results from accidents or force majeure. Therefore, an adequate knowledge of the laws is essential to psychiatrists involved with clinical and forensic evaluations who should provide the juridical authority with conclusive and good prognostic elements for consideration of penal liability. Besides, the recognizing of the different criminological aspects associated with the genesis of crime is an essential subject in the clinical and forensic contexts.

In chapter 2, we present data on the realities of alcohol, tobacco and illicit drug consumption in Brazil. In fact, epidemiologic studies on drug use may improve our understanding about patterns of usage, changes in these patterns, the impact of hazardous use, abuse and dependence as well as special issues associated with the use of these substances, such as risk consumption and violent behavior.

In chapter 3, we analyse the role of alcohol and drug consumption among adult sexual offenders. In fact, according to different published researches, substance misuse can be an important factor that sets apart rapists from children molesters. The severity of alcohol misuse seems to be higher among children molesters; on the other hand, sexual offenders against adults seem to have more serious problems with drug usage. This difference must deserve more adequate attention by health and law professionals, aiming at delineating effective proposals of management for this complex population.

In chapter 4, we talk about the juvenile sexual offenders, in terms of alcohol and drug abuse and dimensional personality traces. Although this population is also tremendously heterogeneous, some psychosocial and criminological aspects can be used to distinguish some groups of adolescent sexual aggressors. Also, there seems to be some different personality characteristics between the juvenile sexual offenders who acknowledge and those that deny the crime, in terms of adherence to our treatment programme.

In chapter 5, we discuss a medical condition that has been extremely stigmatized, known as Pedophilia. The socially sensitive nature of this disorder and the stigma associated with it has harmed the active involvement of mental health professionals in its treatment. Pedophilia is a serious disorder and, sometimes, other psychiatric problems may co-occur, such as alcoholism, personality disorders and mood disorders. Unfortunately, many different law and health professionals have questioned whether Pedophilia is a disease or simply a criminal activity. Rarely has a medical condition been so stigmatized as Pedophilia. The socially sensitive nature of this disorder as well as the stigma associated with it has harmed the active involvement of mental health professionals in its treatment. In this chapter, we compare pedophilic with nonpedophilic children molesters in terms of alcohol and drug misuse, victims involved, impulsiveness and other aspects and we report some problems related to the adequate medical and psychological treatment in our country.

In chapter 6, we point out that, among women condemned to prison for violent crimes (Homicide and Robbery), a longer criminal career is verified in those that initiated the street drug consumption more precociously. We have verified that the majority of robberies committed by women are economically driven. Furthermore, the vast majority of these women who are financially motivated have revealed that the money would support their drug usage. Also, the women with early-onset drug usage have most likely resided in areas with high concentration of poverty and frequently have family histories of psychiatric problems. In truth, for many women, the own victimization is associated with the involvement in delinquent or criminal demeanors. Although female inmates consist of a highly heterogeneous population, some common crime-related factors have been seen among many of them, such as pressure to commit a crime, lack of social opportunities and necessity of retaliation against an abusive partner.

In chapter 7, we studied alcohol and drug problems among male prostitutes. Male sex work is not a unitary phenomenon but, rather, a multifaceted one. Despite this, we have classified these sex workers into two different groups: those with and those without gender identity disorders. Actually, the motivations, rationales, and life patterns of our respondents vary to such an extent that we could divide them into more than these two categories. However, our sample size has not permitted this yet. Some preliminary differences between both groups that have been found may help us develop more effective proposals of management for this population.

In chapter 8, we reviewed some studies on different psychiatric and criminological aspects of filicides and parricides. Brazilian research on family crimes is very scarce, although several cases of filicides and parricides have been reported by the communication means. The role of alcohol and drug use in filicides and parricides is also unclear, but it is analysed in this chapter.

In chapter 9, we present possible relationships between AIDS and sexual crimes. Certainly, sexual acts without consent increase the risk of HIV infection. In the same way, alcohol and drug misuse before or during sexual act increases the risk of unprotected sex, multiple partners, oral and vaginal non-protected sex and not allowed sex practice. Unfortunately, statistics are not yet available on the rates of HIV transmission during rape and other sexual offences, in part because the prevalence of HIV among sexual offenders is unknown. Also, AIDS can be a consequence of diverse behaviors associated with drug misuse and can also be a "side effect" of forced behaviors inside prisons. Although this theme has been seriously neglected by criminological research, we have pointed out it as an important aspect to be considered during forensic and clinic evaluations.

In chapter 10, we comment on the treatment for addicts with justice problems. Unfortunately, medical and psychological treatments inside prisons have not been carried out in our country adequately. However, proposals of management for inmates with drug problems should be developed and installed as a way to prevent criminal recidivism. Anyway, the current correctional practice must decidedly be evidence-based and public resources should be provided to treat offenders and not only to arrest them. The assessment of criminogenic needs is essential for the provision of appropriate case-based correctional intervention. Although poverty, social victimization and lack of job opportunities or skills are associated with crimes in general, frequently are not

treatable medical and psychological factors. With respect to these relevant social needs, intensive efforts of the governments will be necessary as soon as possible.
This book was written to address the following issues:
a) Are violent crimes related to alcohol and drug consumption ?;
b) Have pedophilic children molesters demonstrated higher alcohol or drug problems than nonpedophilic children molesters ?;
c) How are researches on crime-related factors being carried out in Brazil ?;
d) Despite the high prevalence of alcohol and drug misuse in Brazil, have inmates received adequate medical and psychological treatment for this serious problem?;
e) There are multiple criminological factors associated with the perpetration of violent crimes. Has this been considered in political, medical and psychological contexts ?
It is our position that legal, medical and political sciences need to reach a consensus on what to do with offenders in general and particularly sexual offenders. Thus, an adequate, just and viable management could be effectively carried out in our country.

Danilo Antonio Baltieri
Editor

Department of Psychiatry of ABC Medical School
Avenida, Lauro Gomes 2000
Vila Sacadura Cabral
Santo André
CEP: 09060-870
São Paulo
Brazil

ABOUT THE EDITOR

Danilo Antonio Baltieri, MD, MsC, PhD

Psychiatrist. Coordinator of the Ambulatory for the Treatment of Sexual Disorders of ABC Medical School, Santo André, São Paulo, Brazil (ABSex).
Assistant Professor of Psychiatry at ABC Medical School, Santo André, São Paulo, Brazil.
Research Branch Coordinator of the Interdisciplinary Group of Studies on Alcohol and Drugs of the Clinical Hospital of the Psychiatric Institute of the University of São Paulo, Brazil (GREA).
Post-Graduation Professor at ABC Medical School and University of São Paulo.
Member of the Penitentiary Counseling of the State of São Paulo, Brazil.
Member of the International Association for the Treatment of Sexual Offenders (IATSO).
(e-mail: dbaltieri@uol.com.br)

ABOUT THE CONTRIBUTORS

André Malbergier, MD, MsC, PhD
Psychiatrist. Master of Public Health (University of Illinois at Chicago). Professor of the Department of Psychiatry – Medical School – University of São Paulo, Brazil. Coordinator of GREA – Group of Studies on Alcohol and Drugs.
(e-mail: amalbergier@uol.com.br)

Arthur Guerra de Andrade, MD, PhD
Psychiatrist. Associate Professor, Department of Psychiatry, School of Medicine, University of Sao Paulo, Brazil.
Full Professor in Psychiatry and Medical Psychology, ABC Medical School, São Paulo, Brazil.
Executive Chairman of the Center for Information on Health and Alcohol (CISA), Sao Paulo, Brazil.
(e-mail: arthur_guerra@uol.com.br)

Cíntia de Azevedo Marques Périco, MD, PhD
Psychiatrist. Assistance Branch Coordinator of the Department of Psychiatry of ABC Medical School.
(cazevedomarques@hotmail.com)

Fernanda Cestaro Prado Cortez, MD
Psychiatrist. Medical Researcher, Ambulatory for the Treatment of Sexual Disorders, ABC Medical School, São Paulo, Brazil.
(e-mail: cestaro.f@gmail.com)

Flávia Ismael, MD
Psychiatrist. Medical Researcher, Interdisciplinary Group of Studies on Alcohol and Drugs of the Clinical Hospital of the Psychiatric Institute of the University of São Paulo, Brazil.
(e-mail: flaviaism@yahoo.com.br)

Gabriela Arantes Wagner
Pharmacist. PhD student, Department of Psychiatry, School of Medicine, University of São Paulo, Brazil.
(e-mail: gabrielaaw@usp.br)

Luciana Roberta Donola Cardoso, MsC
Psychologist. Master of Sciences (Catholic University – São Paulo – Brasil). Institute of Psychiatry – Hospital das Clinicas – Medical School – University of São Paulo, Brazil.
(e-mail: lucidonola@uol.com.br)

Lucio Garcia de Oliveira, PhD
Psychologist. Post-doctoral student, Department of Psychiatry, School of Medicine, University of Sao Paulo, Brazil
(e-mail: lucio@cisa.org.br)

Ricardo Amaral, MD, MsC
Psychiatrist. PhD student, Department of Psychiatry, School of Medicine, University of São Paulo, Brazil
(e-mail: adoal@uol.com.br)

CHAPTER 1

Alcohol and Illegal Drug Related-Violence: Criminological Aspects in Brazil

Lucio Garcia de Oliveira[1] , Gabriela Arantes Wagner[1], Fernanda Cestaro Prado Cortez[1,2], Danilo Antonio Baltieri[1,2,3] and Arthur Guerra de Andrade[1,2]

[1] *Department of Psychiatry of the University of São Paulo, Brazil;*
[2] *Department of Psychiatry of ABC Medical School, Santo André, São Paulo, Brazil;*
[3] *Penitentiary Counseling of the State of São Paulo, Brazil*

Address correspondence to: Prof. Dr. Danilo Antonio Baltieri, Department of Psychiatry of ABC Medical School. Avenida Lauro Gomes 2000. Vila Sacadura Cabral. Santo André. CEP: 09060-870. São Paulo, Brazil; Te/Faxl: +55 11 4993.729. E-mail: dbaltieri@uol.com.br

Abstract: The relationship between alcohol or illegal drug use and criminal activity is recognized as a serious social problem around the world and has been widely researched worldwide. Even though there is no direct association between them, it can be suggested that consuming large quantities of alcoholic beverages, for instance, is directly related to violent crimes. However, other criminogenic factors must always be taken into consideration. Alcohol, illegal drugs and crime may also be linked through shared complicating factors such as personality issues and social disadvantages. The Brazilian penal system does not punish individuals who, at the time of their crime, did not have the capacity to understand the unlawfulness of their actions or to behave in accordance with this understanding. Voluntary or culpable drunkenness does not exclude impunity, except in cases in which drunkenness is accidental or is caused by force majeure. Psychiatrists are often called into court to give testimony and offer opinions on the mental state of criminals who have committed crimes under the influence of alcohol and other drug use. They evaluate the need for civil intervention in cases in which the psychiatric and neurological consequences of alcoholic consumption impair the civic duties or work capacity of individuals who drink, for instance. In all these cases, it is imperative that the psychiatrist should have ample knowledge of the penal codes and the detrimental effects of alcohol abuse. Recognition of the different criminological aspects of the genesis of crime is an essential subject within clinical and forensic contexts. Other than knowledge of the laws and penal codes, an integrated understanding of the diverse aspects of criminology is also necessary, given that crime is a multifactorial and complex phenomenon. This frequently impedes establishing a direct association between crime, alcohol and illegal drug use.

Introduction

Alcohol and other drug consumption is a worldwide phenomenon and goes beyond national, cultural, social, political and economic boundaries. It can result in various complications relating to individuals' health and work, along with legal and relationship problems, either of family or of social nature.

In Brazil, research has demonstrated high prevalence of diverse substances misuse among youngsters and adults (1,2).

World Prevalence of Alcohol Use and Alcohol-Use Disorders

According to the "Global Status Report on Alcohol", the World Health Organization (WHO) estimates that there are about two billion people worldwide who consume alcoholic beverages and 76.3 million with diagnosable disorders due to alcohol use (3). The net effect of alcohol consumption on health is detrimental, and an estimated 3.8% of all global deaths and 4.6% of global disability-adjusted life years (DALYs) are attributable to alcohol (4).

In the United States (USA), slightly more than half of all individuals aged 12 or older (50.9%) reported that they are current alcohol drinkers. This translates into an estimate of 126.8 million people. Among them, 15.5 million were dependent on or abused alcohol but not illegal drugs (5). Also in the USA, 1.6% of the general population received some kind of treatment for a problem relating to alcohol use (2.5 million individuals aged 12 or older). Here, treatment may be understood as attendance provided at hospitals, as inpatients; rehabilitation facilities, as outpatients or inpatients; mental health centers; emergency rooms; private doctor's offices; prisons or jails; or self-help groups such as Alcoholics Anonymous or Narcotics Anonymous (5).

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The European Union (EU) is the region with the heaviest drinking in the world. Most Europeans drink alcohol, but 53 million adults across the EU – or 15% of the adult population – abstain from alcohol. In most European countries, this means that at least seven out of every eight men and three out of every four women have drunk at least once over the past year. The total alcohol consumption *per drinker* in the EU is 15 liters per year. Looking at addiction, it can also be estimated that 23 million Europeans (5% of men and 1% of women) are dependent on alcohol in any one year. However, this includes considerable variability between countries, largely due to the different methodologies used by the specific national surveys. Finally, alcohol places a significant burden on several aspects of human life in Europe, which can broadly be described as 'health harms' and 'social harms' (6).

World Prevalence of Illegal Drug Use and Illegal Drug-Use Disorders

The United Nations has estimated that approximately 208 million people or 4.9% of the world's population aged 15 to 64 have used psychoactive drugs at least once over the last 12 months. Cannabis, consumed by close to 166 million people, continues to be the most prevalent of all illegal drugs used. Problem drug use (illegal drug-use disorders) remains at around 0.6% of the global population aged 15 to 64 (around 26 million people), but about one in five are treated for their problem. The number of individuals under treatment grew by 9% in 2006 (7).

An estimated 19.9 million Americans were current (past month) illegal drug users, an estimate that represents 8.0% of the population aged 12 years old or older. Among them, cannabis was the most commonly used illegal drug (72.8% of current illegal drug users: 14.4 million past-month users) and illegal drugs other than cannabis were used by 9.3 million people or 46.7% of illegal drug users aged 12 or older. Regarding drug use disorders in the USA, an estimated 22.3 million people aged 12 or older were classified as presenting substance dependence or abuse over the past year (9.0% of the population aged 12 or older, alcohol included): cannabis was the illegal drug that had the highest rate of past-year dependence or abuse, followed by pain relievers and cocaine (5).

In Europe, as pointed out by the "Annual Report 2008", cannabis is the illegal drug most consumed. More than 70 million European adults have used cannabis at least once (lifetime prevalence), i.e. more than one in five (about 22%) of all 15 to 64-year olds. National figures vary widely from 1.7% to 36.5%, but half of the countries are in the range from 10% to 25%. However, opioid consumption is the most problematic. The prevalence of problem opioid use is between one and six cases per 1,000 adult individuals. In 2005–06, drug-induced deaths accounted for 3.5% of all deaths of Europeans 15–39 years old, and opioids were found in around 70% of them. Furthermore, opioids are the principal drug in around 50% of all drug treatment requests (8).

In Brazil

A household survey carried out by the Brazilian Center for Information on Psychotropic Drugs of the Federal University of São Paulo (CEBRID/UNIFESP) on the use of psychotropic drugs in 107 cities with populations of over 200,000 inhabitants, focusing on subjects between 12 and 65 years old, showed that 74.6% of the Brazilian population had already made use of alcohol in their lifetimes, while 22.8% had already made use of some other drug in their lifetimes (other than alcohol or tobacco). Among these, cannabis was highlighted as the drug with highest lifetime use (8.8%) (1). In terms of the development of drug-use disorders, another Brazilian survey conducted by the Alcohol and Drug Research Unit (UNIAD) indicated that 12.0% of the Brazilian population had some problem with alcohol. Among these individuals, 3.0% made harmful use and 9.0% were dependent (2). On the other hand, with the exception of alcohol and tobacco, no other survey has investigated disorders due to the use of other substances.

Alcoholism and Violence - An Overview

Some of the main problems caused by alcoholism and drug addiction are legal problems. Studies on alcohol abuse point out the close relationships between alcohol consumption, illegal drug use and crime (9-11). Consumption of alcoholic beverages has also been associated with greater risk of criminal recidivism (12).

Many eminent criminologists have described associations between alcohol abuse and violent crime. For example, Lombroso (13) wrote that three quarters of all crimes committed in Britain were related to alcohol consumption. In 1918, Howard (14) also wrote on this subject and affirmed that alcohol, "impaired judgment, dulled reasoning and weakened will power, and at the same time, it excited the senses, inflamed passions and liberated the most primitive urges that are contained and restricted by society".

Harmful consumption of alcoholic beverages, especially during episodes of inebriation, carries a risk of perpetration of acts of violence, which often result in homicides, sexual crimes and domestic violence (15,16). Aggressors in violent crimes such as theft, rape and homicide frequently report they consumed alcohol before the criminal acts. Rape victims corroborate this. In the same way, according to Wiesner et al. (17,) repeat criminals involved in violent crimes more often have progressive histories of alcohol abuse than do non-criminal alcoholics (18). Even so, studies on the relationship between crime and alcohol consumption often fail to differentiate alcoholism from harmful use and intoxication.

There are crimes directly relating to alcohol consumption. In general, alcohol consumption is involved in 50% of all homicide cases, 30% of all suicide cases and suicide attempts, and most fatal traffic accidents (19). Driving under the influence of alcohol and disturbing the peace are other such crimes. However, causally associating theft, rape and homicide to alcohol abuse alone is unsubstantiated in courts of law. Thus, the relationship between alcohol consumption and crime is a complex one (20).

Even though there have been many attempts to categorize connections between alcohol consumption, crime and violent behavior, multiple variables need to be considered during any psychiatric evaluation. For instance, Fagan (18) pointed out three factors that could connect alcohol consumption with crime:

- the pharmacological effects of alcohol;
- use of intoxication as an excuse for aberrant behavior and violent actions;
- other factors that induce both alcohol abuse and violent behavior, such as temperament (impulsive inclinations and inability to assess risky circumstances), and other compulsive behaviors that lead to unsociable conduct.

Aggressive behavior associated with alcohol consumption has sometimes been attributed to the pharmacological effects of alcohol intoxication, i.e. diminished inhibition and increased psychological excitement. However, most of the population does not show signs of aggressive behavior when they are intoxicated. One explanation for this could be that, despite the effects of alcohol mentioned above, many individuals who become violent when intoxicated already have a predisposition to act violently and/or present other situational risk factors. For example, this may occur in situations of provocations from third parties, real or imagined persecution, frustrations and social pressure to act aggressively (21).

Despite the importance of several psychosocial and neurobiological issues in the genesis of crime, alcohol use and other drug use are also important complicating factors relating to crime. This association is not always easy to determine, because many of the studies conducted on substance abuse among criminals are retrospective in nature and based on interviews with prisoners. Thus, other important factors leading to crime are left out of these reports. However, Scott et al. (22) stated that inappropriate consumption of alcoholic beverages was still strongly associated with physical violence even after controlling for psychiatric variables (impulsiveness and personality traits) and other variables (gender, marital status and economic status).

Goldstein (23) considered that the relationship between psychoactive substance abuse and violence should be investigated within a complex behavioral model. The factors listed below have been attributed to violent behavior with special attention paid to the relationships between alcohol, drugs and crime:

- influence of offenders' backgrounds on their actions;
- behavioral antecedents of individuals and their families: sexual/physical abuse, negligence, inappropriate social experiences and aggression during childhood and adolescence;
- cultural background: values, beliefs and internalized rules;
- recent factors: pharmacological effects from substances (cognitive impairment, emotional instability, psychomotor excitement, craving and irritability);
- social conditions: lack of social control, family disorganization, unemployment and poor education;
- economic conditions: financial needs, lack of funds to support addiction and debts;
- situational conditions: environment, neighborhood and contact with delinquents (gangs).

To illustrate, a sample of 1,594 homicides in England that occurred between 1996 and 1999 showed that 42% of the crimes involved alcohol and/or drug use by the victim and/or the perpetrator. In general, the murderers were males who presented criminal histories, had violent backgrounds, showed personality disorders and had had some prior contact with mental health services (24).

There seems to be a relative consensus in the literature on criminal activity, pointing towards two factors that may be closely connected with crime: concomitant diagnoses of alcoholism and antisocial personality (11). In fact, criminals who were diagnosed as presenting antisocial personality disorders often had police records and presented early signs of substance and alcohol abuse. Severe antisocial behavior during childhood usually led to academic failure, relationships with delinquent peers, alcohol and drug abuse, depression, risky sexual behavior and difficulties in maintaining employment (25). According to Wiesner et al. (17), studies show that there is a significant correlation between alcohol abuse among recidivist juvenile delinquents and consequent appearance of severe depression at the onset of adulthood. Continuous lack of opportunities, low financial resources and unsociable environments contribute towards continuity of criminal activities into adulthood. In addition to these factors, associations with delinquent groups can reinforce deviant behavior as well the use of drugs and alcohol. Antisocial personality, criminal histories within families and sociodemographic factors relating to juvenile delinquents were investigated. The authors found high rates of aggressive behavior among individuals with heavy consumption of alcohol and drugs, along with depressive symptoms.

Although the combination of antisocial behavior and illegal substance consumption contributes towards the criminal lifestyle, Taylor (26) and Draine et al. (27) affirm that, out of all drugs, alcohol abuse has the highest correlation with criminal recidivism.

Illegal Drug Use and Violence

In a longitudinal study comparing individuals with dependence on different drugs in relation to crime incidence, Friddel et al. (28) concluded that stimulants such as amphetamines were associated with crime among patients who suffered from antisocial personality disorders. It seemed to be difficult to separate this trait from substance use, in the same way as previously described in relation to alcohol use. According to these authors, being under the influence of stimulants could cause aggressiveness and impulsiveness, thereby leading such individuals to commit a range of unlawful actions. However, being under the influence of opiates (especially heroin) was also associated with committing robbery and fraud, always in relation to raising funds to acquire drugs for consumption.

Within the category of illegal drugs, although derivatives of Cannabis sativa present the highest worldwide prevalence, their users have lower propensity to crime, probably because such substances are cheaper and because individuals with dependence on them are more passive than other users are (28).

Goldstein (29) pointed out three factors that connect the consumption of alcohol and illegal drugs to criminal activities:

- the psychopharmacological effects of alcohol and drugs provoke antisocial and violent behavior that results in illegal acts;
- the economic necessities of drug addicts and alcoholics lead them to commit crimes to support their addictions;
- the violence associated with drug dealing and organized crime.

The above tripartite model is very useful for demonstrating the association between alcohol and illegal drug use and criminal activity. Even so, the indications in the scientific literature are that the psychopharmacological effects of illegal drugs do not explain the violence inherent to drug consumption. The evidence that there could be some relationship between drug addiction and crime is weak when other factors are taken into consideration, such as demographic distribution and criminal history (30). Other connecting factors such as economic necessity for maintaining drug dependency and illegal drug trafficking appear to be able to make a stronger connection between drug abuse and crime (31,32).

To illustrate this relationship, crack abuse and dependence can be taken as an example. It has been found that because crack craving causes feelings of urgency, users rapidly run out of money and find themselves obliged to undertake activities outside of the legal work market. Such individuals report that undertake many illegal activities, such as prostitution, drug trafficking, robbery and kidnapping. They sell not only their own but also their families' belongings and become involved in financial scams of various natures (33). Maybe for this reason, Ribeiro et al. (34) found that the mortality risk among crack cocaine users was greater than the rate seen in the general population. Homicide and AIDS were found to be the most common causes of death among such individuals. More than half of the deaths (56.6%) among crack users in that study were homicides, and gun-related deaths predominated (34).

Because of these findings, there has been an increase in psychiatric and forensic evaluations among criminal drug addicts. The aim is to thoroughly evaluate such criminals so that proper diagnoses of the drug addiction or alcohol abuse can be made, along with investigations into the existence of any psychiatric comorbidity and evaluations of the potential benefits of psychiatric or psychological treatment.

Alcohol Use-Related Sexual Crimes

Alcohol acts as a depressant on the central nervous system and it interferes with the inhibition centers that normally control behavior. Therefore, alcohol causes uninhibited sexual behavior. This is perhaps a plausible explanation for the observation that problematic drinkers and individuals with alcohol dependence have greater numbers of sexual partners, with a 2.5 times greater chance of being sexually involved with 10 or more partners. Since alcohol use diminishes individuals' capacity to evaluate the inherent risk in certain situations, the risk of engaging in activities with negative consequences for health and social life are increased (35).

Wildom & Hiller-Sturmhöfer (12) also found a direct relationship between sexual violence and the consumption of alcoholic beverages. Alcohol abuse by the victim and/or their aggressor occurs in 30 to 70% of all cases of rape (36,37). Thirty to 55% of sexually abused women have histories of regular use of alcohol and other substances (37-41). Lipsky et al. (42) pointed out that there is a strong relationship between sexual abuse and alcohol dependence among women who are frequently sexually abused by members of their own family. In a study on drug use and the perpetration of aggression, the victims reported that their aggressors were under the influence of alcohol in 53.3% of the cases of sexual abuse (43). In cases in which the victims were inebriated, the offensive sexual behavior of the aggressor was reported as being more violent (44).

To worsen the situation, female victims' alcohol consumption may in some cases even count against them. Thus, in a survey of opinions, although the perpetrator was unanimously held to blame and responsible for the crime, female victims may also be held responsible in situations in which alcohol use is present. This transmits the idea that, through drinking, the woman is sexually available and therefore placing responsibility for the act on her (45,46).

Baltieri and Andrade (47) pointed out that the influence of alcohol may interfere with the aggressor's ability to interpret erotic signals, and that the influence of alcohol may also reinforce the desire for immediate satisfaction, to the detriment of socially acceptable behavior. These authors also demonstrated that alcohol consumption among adults who abuse male children is significantly greater than among those who abuse female children. This could be related to a greater risk of criminal recidivism (48).

Even though there is an association between sexual crimes and alcohol, it is hard to substantiate the causal impact of alcohol abuse on sexually offensive behavior. Some researchers have shown that, in most cases of sexual crimes, the perpetrators were usually under the influence of alcohol, in the same way that they would have been in other unlawful situations. Other studies have shown that alcohol consumption may instigate sexually offensive behavior among individuals who are prone to sexually deviant or impulsive acts. Other authors have even suggested that the consumption of alcoholic beverages is used by sexual aggressors as an excuse for adopting inappropriate and illegal behavior (49).

The lack of clarity in the relationship between the consumption of alcoholic beverages and sexual crimes is not surprising, given that a whole array of factors including some of psychological, neurobiological and criminological nature are also involved. Nowadays, one of the main concerns of society is sexual aggression against minors. Miller et al. (50) suggested three theories that would explain the direct relationship between alcohol abuse and sexual violence involving children. During intoxication, drinkers may present changes in behavior and language that can be interpreted by others as erotic, abusive or menacing. Aggressors attribute their unsociable behavior to alcohol use and end up not taking any responsibility or culpability for their preexisting pathological sexual behavior or abnormal behavior.

Drug-Facilitated Sexual Assault

Since the middle of the 1990s, psychoactive substances have been used with the aim of removing inhibitions, sedating and inducing states of amnesia in order to facilitate episodes of sexual aggression (51). In the literature, this type of crime is commonly referred to as drug-facilitated sexual assault and the drugs used for such purposes are called "date rape drugs" (46). In such situations, female victims are subjected to non-consensual sexual intercourse at a time when they have been incapacitated through the use of alcohol and/or other drugs. They are deprived of the capacity to defend themselves or stop the criminal act. Thus, in this context, three situations are possible: (A) the victim may have involuntarily taken incapacitating substances; (B) the victim may have voluntarily and involuntarily taken incapacitating substances; (C) the victim may have voluntarily taken incapacitating substances (52). Although flunitrazepam has particularly been reported in the literature as the drug most used for these purposes (53), other easily accessible substances have also been used to facilitate sexual aggression. These include alcohol, paracetamol, ibuprofen, alprazolam, chloral hydrate, GHB, ketamine and lorazepam, among other antidepressives, antipsychotics and antiepileptics (54). In the United States, according to a survey on sexual aggression that was conducted by telephone, around 2.3% of the adult women who suffered sexual violence had been deliberately incapacitated through the effects from alcohol or other drugs (55). In a retrospective analysis on sexual abuse carried out in Vancouver, Canada, McGregor et al. (56) observed that, in comparison with other female victims, those were suspected of having consumed drugs shortly before being raped waited for a longer time before going to hospital. Moreover, this group had fewer occurrences of genital and extragenital lesions.

The risk that individuals may be sexually assaulted after voluntary consumption of alcohol and drugs is higher and necessitates policies for increasing these individuals' awareness of and control over such risks. For this, public health campaigns and warnings about the risks and dangers of being victims of sexual abuse should primarily be focused on individuals who voluntarily consume alcohol and other drugs (54).

Alcohol-Legal Aspects

The Code Of Hammurabi

§ 110 – *If a naditum or ugbabtum priestess who lives in a convent opens a tavern or ever enters a tavern to drink some beer, this woman shall be burned.*

The Code of Hammurabi is one of the oldest sets of laws of humanity and it is interesting to note that it concerns the use of alcoholic beverages. This is the only article among the 282 articles of the Code of Hammurabi (promulgated in the years between 1825 BC and 1787 BC) that deals with alcoholic beverages, and it sets severe punishment (death at the stake by burning) for women from the upper classes of the Babylonian priesthood (57). It is important to note that this punishment was not applied to men of any social class or to women of the lower classes of society.

Code of Canon Law

Canon 1324 - § 1. *The perpetrator of a violation is not exempted from penalty, but the penalty prescribed in the law or precept must be diminished, or a penance substituted in its place, if the offence was committed by: 1º one*

who had only an imperfect use of reason; 2º one who was lacking the use of reason because of culpable drunkenness or other mental disturbance of a similar kind.

Canon 1325 – *Ignorance which is crass or supine or affected can never be taken into account when applying the provisions of canon 1323 and 1324. Likewise, drunkenness or other mental disturbances cannot be taken into account if these have been deliberately sought so as to commit the offence or to excuse it; nor can passion which has been deliberately stimulated or nourished.*

Canon 1345 – *Whenever the offender had only an imperfect use of reason, or committed the offence out of fear or necessity or in the heat of passion or with a mind disturbed by drunkenness or a similar cause, the judge can refrain from inflicting any punishment if he considers that the person's reform may be better accomplished in some other way.*

The current Canonical Codes promulgated by Pope John Paul II on January 25, 1983, and on November 27, 1983, also deal with impunity among the agents of crimes committed under the influence of alcohol. The punishments imposed in these canons are excommunication, expiatory punishments (dismissal from clerical office, prohibition from living in a given territory, and impingement of rights, office and duty), repentance and prison (58). It can be seen that there is concern for the offender's mental health and an attempt to protect from punishment those that do not possess the means to make proper judgments and do not possess enough self-determination to avoid crime. Nevertheless, the consumption of alcohol with the purpose of committing a crime under its influence adds to the punishment for a crime, as stated in the Brazilian Penal Code.

Brazilian Penal Code

According to Article 28 of the Brazilian Penal Code, any person who becomes intoxicated either deliberately or unintentionally, and commits a crime under the influence of alcohol, may receive punishment (59). According to Szinck (60), alcohol consumption is the main factor that leads to intoxication, followed by narcotic drug consumption.

Pedroso (61) stated that the word "inebriation" in legal terms means an acute state of intoxication that is transitory in the human body and is caused by ingestion of mind-altering substances (alcohol, ether, chloroform, barbiturates or hallucinogenic drugs) that would impair the individual's physiological, physical and mental functions.

Thus, the law adopts the principle that a person's responsibility for his actions stems from the time at which he begins to drink and not the instant at which he commits a crime under the influence of alcohol. The Brazilian Penal Code therefore deals with drunkenness from the point of view of legal responsibility, which is taken to apply at all times, i.e. using the theory of actio libera in causa, which means that the "action is free in its origin". According to this theory, even if the crime was not committed before the act of drinking, it was contemporary to the events that led up to the crime.

Sznick (62) described five stages in the development of actio libera in causa. These are as follows:

- free will: the subject wants to drink and does so of his own free will;
- willful state of unknowingness: the acts that were voluntary in nature and desired in the previous phase need to be enough to cause impairment of judgment;
- conduct: the person's conduct under any given circumstance was caused by momentary incapacity;
- premeditation and volition of the act: the person that committed the act had the possibility to foresee its consequences at the time at which he became incapable;
- causal nexus: between volition and committing the act, there needs to be an objective and subjective nexus that makes the person responsible for his actions.

According to Pedroso (61), the theory of free will not only applies to situations in which the subject wanted the crime to happen (direct intention) or took on the risks of it (possible intention), but also applies to criminal violations that could have been foreseen.

In the Treatise on Italian Penal Rights, Manzini (63) defended the idea that in cases of complete drunkenness, there are original intentions and a conscious will that are arguable even when not present at the moment of the crime.

Criminal responsibility is aggravated according to the law if the criminal agent drank alcohol with the intention of facilitating the committing of a violation, as stated in Article 61 (II, l) of the Brazilian Penal Code (premeditated drunkenness). This article also affirms that if the criminal agent, through complete inebriation, was entirely incapable of understanding the illegal nature of his acts, or was unable to understand that an illegal act was being committed through his force of will, or due to force majeure or omission, this individual cannot be accused of committing a crime. Furthermore, if the criminal agent, through inebriation, was not entirely capable of understanding the illegal nature of the actions or was unable to avoid committing an illegal act through his

force of will or due to force majeure or omission, can be accused and given a lighter sentence. Thus, it can be said that simple drunkenness whether voluntary or culpable will not escape criminal judgment.

According to França (64), drunkenness due to force majeure and unexpected drunkenness can be defined as follows:

- drunkenness due to force majeure: this refers to situations that an individual is incapable of resisting or preventing. In cases of celebrations, such as Carnival, in which everybody drinks and it is common that individuals consume alcohol so as not to be out of step with the circumstances and with other people who are drinking, or for reasons of work in which the person is exposed to alcoholic vapors, a reduction in sentencing is possible. Drunkenness due to force majeure implies a situation in which the person is obliged to drink;
- unexpected drunkenness: this refers to a rare occasional state of inebriation that occurs at moments of celebration and originates from an understandable error and not from a predetermined or imprudent action. For example, it might relate to a person who mistakenly takes a drink without knowing that its alcohol content is high, or an individual who has taken medicine beforehand without knowing that, in combination with this medicine, small doses of alcohol that are considered harmless can act more potently in the organism.

According to Bittencourt and Conde (65), the events can be foreseen but not avoided in situations of drunkenness due to force majeure. On the other hand, in situations of fortuitous drunkenness, the events could have been avoided but were never foreseen. According to the law, complete inebriation is not reason enough to avoid culpability. For this, the consequence of drunkenness would need to come from causes that were of an accidental or unavoidable nature; or the person would need to be entirely incapable of understanding the illegality of the acts or unable to determine his or her own actions (absence of intellectual capacity or volition). It is not necessary, however, for both incapacities to be present.

Many authors believe that continual drunkenness, as in the case of alcohol dependence, does not exclude or diminish responsibility. An alcoholic or an individual with chemical dependence, who often presents faulty reasoning and misperceptions, should merit different penal treatment. In the legal field, drunkenness is classified as:

- accidental: drunkenness caused accidentally or by forces beyond the control of the drinker;
- culpable: due to imprudence or negligence while under heavy influence of alcohol, or ignorance of its effects;
- intentional: when the person wishes to get drunk, but does not intend to commit a crime. The subject knows that in a drunken state he might commit a crime, but takes on the risk of drinking alcoholic beverages regardless;
- premeditated: a state of drunkenness in which the person gets drunk on purpose with the idea of committing a crime;
- habitual: the person is an alcoholic;
- pathological: resulting from ingestion of small amounts of alcohol that result in aggressive and violent manifestations (60).

Many psychiatric and forensic models classify individuals with chemical dependence as light, moderate or heavy users. Light users are individuals who do not have symptoms of abstinence syndrome and drink alcoholic beverages or ingest narcotic drugs at parties or on weekends. Moderate users take drugs or drink alcohol frequently and do it almost every day. They may or may not show signs of abstinence syndrome. Heavy users are dependent on drugs and alcohol and have completely lost control over their use.

In a static model, some manuals advise that responsibility for actions should be considered in cases of light use of alcohol and that responsibility should be reduced for moderate users and no responsibility should be claimed for heavy users. However, the Brazilian Penal Code advises that a detailed physical examination needs to be performed on the accused, to determine what capacity to discern right from wrong he had at the time the crime was committed, either through act or through omission. This signifies that a heavy user does not know right from wrong at the moment he commits a crime, while light users do, and therefore, light users are held responsible for their actions. The law gives more importance to the degree of intoxication and less to the effects of intoxication on the awareness and free will of the person at the time the crime was committed (66).

Anti-Toxic Substance Laws

Law nº. 11,343/2006 came into force on August 23, 2006, and repealed eleven provisions of Law no. 10,409/2002. Some of the modifications were:

- the National Institution of Public Policies on Drugs (Sisnad) was given powers to prescribe methods for preventing illegal drug use and for rehabilitating drug users and returning them to society, as well as powers to repress non-authorized production and trafficking of drugs, and to define the crimes committed in this area;

- suspension of penal punishment for drug addicts who are caught acquiring, harboring, transporting or using narcotic drugs for personal use in violation of the law as stated in Article 28. Such individuals will be sentenced to do community service and, furthermore, to attend educational programs on drug addiction;
- specification of activities that are considered crimes (Articles 33 to 39), such as the importing or exporting of narcotic drugs, unauthorized manufacture and commerce of such drugs in violation of the law, inducement of third parties to consume drugs or the selling or prescription of drugs to patients or third parties that are not in need of them for medical reasons.

The new Brazilian legislation on toxic substances (Law no. 11,343/2006) is in accordance with European measures to reduce the harm caused by the association between personal drug use and criminalization. This constitutes a minimalist political cultural option, characterized by minimal intervention.

Penal Law Articles 45 and 46 specify the following:
In cases of ***dependence*** *or if under the effects of drugs accidentally or due to force majeure at the time of the action or omission, whatever the criminal violation committed, the accused is exempt from punishment if it is proven that he was entirely incapable of understanding the illegal nature of his acts or omissions or was unable to act in accordance with his own free will.*
Sole paragraph: when the accused is absolved of guilt or responsibility, through physical examination and recognition of facts presented and provided for in this article, the judge may determine through the sentencing handed down that the accused should be committed to a hospital for appropriate treatment.
The sentence may be reduced by as much as one third to two thirds if, through the force of the circumstances foreseen in Article 45 of this law, the accused did not possess full capability to discern right from wrong or was unable to act in accordance with his own free will, at the time of his actions or omissions (67).

Article 26 of the Brazilian Penal Code deals with the definitions of responsibility in the area of chemical dependence. The law specifies that:
Any accused who is ***mentally ill****, or had incomplete or delayed mental development at the time of the action or omission, whatever the criminal violation committed, and who was proven to be entirely incapable of understanding the illegal nature of his actions or omissions or was unable to act in accordance with his own free will, is exempt from punishment.*
Sole paragraph: The sentence may be reduced by as much as one-third to two-thirds if the accused is regarded as mentally ill or had incomplete or delayed mental development at the time of his action or omission and was not entirely capable of understanding the illegal nature of his acts or omissions or was unable to act in accordance with has own free will.

The similarity between these two articles is evident and the bold type has the purpose of emphasizing the existence of two legal terms: "mentally ill" and "dependence". According to Jesus (59), and according to jurisprudence, only those recognized as mentally ill by psychiatrists are exempt from punishment. Individuals with chemical dependence are also included in this category when diagnosed with defined characteristics.

Law of Penal Violations

Article 62 of the law of penal violations (Law Decree no. 3,688, October 3, 1941) aims to protect public safety. Individuals are prohibited from appearing in public inebriated in a manner that would cause scandal or put in risk their own safety or the safety of others. The Sole Paragraph of this Article says that if the drunkenness is habitual, the violator should be committed to a rehabilitation center for treatment.
Article 63 prohibits the sale of alcoholic beverages to individuals under 18 years of age, people who are already drunk, individuals who are mentally ill, or individuals who by law are prohibited from frequenting places where alcohol is sold and consumed (68).

Civil Code

According to Article 4 of the new Civil Code (Law no. 10,406 of January 10, 2002), are habitual drunks, drug addicts and individuals with mental deficiencies are considered to be incapable in relation to their actions and behavior.

Military Penal Code

Criminal responsibility regarding drunkenness occurring accidentally or due to force majeure is in accordance with the articles listed in the Penal Code.
In Article 178, the act of *"intoxicating oneself when in service or presenting oneself for service while intoxicated"* is qualified as an infraction, punishable with detention.

National Traffic Code

The new law promulgating the national Traffic Code (Law no. 11,705, of June 19, 2008), alters Law no. 9,503/1997 (which instituted the Brazilian Traffic Code) and aims to establish a zero limit for blood alcohol concentration while driving, imposing heavier punishment for driving under the influence.

Article 165. *Driving under the influence of alcohol or any other psychoactive substance that leads to addiction: violation is classified as very serious. Penalty: fine (five times) and suspension of driver's license for 12 months. Administrative measures: impounding of vehicle until presentation of driver's license and retention. Proving that a motorist is unable to drive a motor vehicle because of the suspicion that the driver is under the influence of any quantity of alcohol will be confirmed through one of the following procedures:*

- *breathalyzer test;*
- *clinical examination with conclusive evidence of blood alcohol content confirmed by a medical examiner of the Judicial Police;*
- *tests done by laboratories indicated by the traffic authorities or Judicial Police.*

Similar measures are applied in cases of suspicion of narcotic drug use, in accordance with technical and scientific criteria.

Article 296. *If the accused is a repeat offender, the judge may penalize the driver by suspension of his driver's license or permit, without any diminishment of other applicable sanctions.*

Safeguard Measures for Individuals with Chemical Dependence who are not Responsible for their Actions

The current Penal Code determines safeguard measures for treating individuals with chemical dependence, so that they can be rehabilitated and returned to society.

If the accused is considered not responsible (Article 45 of Law no. 11,343/2006 and Article 26 of the Brazilian Penal Code), through the concomitance of chemical dependence and full incapacity to understand and exert his own free will, the judge may determine that the accused should undergo medical treatment, since a penal sentence is inappropriate. In cases of completely accidental inebriation, the sentence handed down will not include any sanction or safeguard measure.

Compulsory treatment for violators who are not held responsible for their violations may consist of hospitalization or clinical assistance, which ceases when the violator is officially deemed to have recovered and this recovery has been communicated to the judge. The duration of treatment will be long enough for the violator to recover. When no duration is stipulated prior to sentencing, it is reasonable to set a time frame of one year until the first evaluation. This is in accordance with the duration set in the Penal Code in similar situations (66).

Compulsory Treatment

A reduced sentence for an individual who has been deemed to present chemical dependence is not applicable in substitution for the sentence of safeguard measures, as determined by the Penal Code. Nevertheless, it is possible and desirable to commit dependent individuals for treatment as detailed in Article 26 of the new law on toxic substances, Law no. 11,343/2006, i.e. the article on compulsory treatment for dependent individuals (66).

Treatment of Individuals With Chemical Dependence who have received Prison Sentences

Treatment for inmates who present chemical dependence can be provided in prison while they serve their sentences (26).

Even though Swartz and Lurigio (69) showed that there are advantages in treating individuals with chemical dependence while they are in prison, and stated that one of these advantages is the fact that they are already confined, thereby representing much lower treatment costs in prison than in rehabilitation clinics, therapeutic treatment within the prison system has its drawbacks and structural limitations. Specifically, these consist of the overpopulation, violence and drug trafficking in prisons, and the lack of qualified professionals to evaluate the reasons for chemical dependence among the prisoners.

On the other hand, any form of socializing treatment undertaken while prisoners serve their sentences seems to be unsatisfactory. They return to society fully rehabilitated but have not had any other social assistance regarding family, social and work relationships. This lack of social assistance undermines their full recovery. Therefore, according to some authors, there are better means of therapeutic intervention outside of prisons, in the form of alternative and conditional sentencing, through which prisoners are allowed to serve their sentences under open regimes outside of prisons. These regimes have much higher rehabilitation rates because they reinforce positive conduct among prisoners in open society.

Nonetheless, despite all these limitations, prisons are important centers for drug rehabilitation and proper treatment of individuals with chemical dependence in prison could contribute towards avoiding criminal recidivism.

Final Considerations

Overconsumption of alcohol and psychoactive substances is an important medical and social problem worldwide. The legal and social repercussions of such consumption have been researched with the highest scientific rigor over past decades, and this has contributed towards obtaining better comprehension of the relationship between drugs and crime. Between 2006 and 2008, there were many changes in the Brazilian legislative framework relating to drugs, with the drafting of the Toxic Substances Law. This aims to decriminalize personal use of narcotic drugs, and focuses on education, orientation and treatment of drug addicts and alcoholics. On the other hand, the new law for the Brazilian Traffic Code tries to repress the consumption of alcohol by drivers and has devised systems to apprehend and fine motorists who drive after drinking. Precise knowledge of the current laws relating to alcohol and drug consumption and the parallel aspects of criminal activity becomes increasingly necessary within the national scenario, in view of the high frequency of alcohol and drug abuse, and the consequent crime and violence that assails Brazil.

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CHAPTER 2

Epidemiologic Data on Alcohol and Illicit Drugs in Brazil

Ricardo Amaral[1]

[1] *Department of Psychiatry of the University of São Paulo, Brazil.*

Address correspondence to: Dr. Ricardo Amaral, Interdisciplinary Group of Studies on Alcohol and Drugs of the Psychiatric Institute (PROGREA), Clinical Hospital, University of São Paulo, Brazil. Rua Dr. Ovídio Pires de Campos,785, Caixa Postal 3671, CEP: 01060-970, São Paulo, Brazil. Tel: + 55 11 3069.6960. E-mail: adoal@uol.com.br

Abstract: According to The First Brazilian Household Survey of Patterns of Alcohol Use, 52% of the 18 years age or older Brazilians drunk at least once in a year, and 60% of males and 33% of females, drunk 5 or more drinks for occasion in the preceding year. Binge drink once in the last year was reported by 28% of the sample and alcohol abuse had a prevalence of 3%. Alcohol dependence ranged from 9% in the over mentioned study to 12.3%, in the Second Household Survey on Drug Abuse, with male prevalence almost three times bigger than female. The latest study, carried out in 2005, showed a prevalence of tobacco lifetime, last year and last month use of 44%, 19.2% and 18.4%, respectively, with quite over 10% of tobacco dependents. Cannabis was the largest lifetime illicit drug used and the rates of last year use of cannabis and cocaine increased between 2001 and 2005 (from 1.0% to 2.6%, and from 0.4% to 0.7%, respectively). Cannabis dependence was found in 1.2% of the sample, mainly among males, and close to 6% at those aged 18-24. In a study performed among street children, last month tobacco cigarette use was the most reported, followed by alcohol, inhalants and cannabis. Data from elementary and high school students reported that the most often drug used among them was alcohol and inhalants. Undergraduate college student surveys pointed towards a significant increasing in both lifetime and last 30 days of cannabis, inhalants and any illicit drug. The First Household Study on Drug Abuse revealed that males had a higher prevalence than females for exposure to situations of physical risk under the influence of alcohol or afterwards, from drink-related personal problems, and from more frequent use or larger quantities of alcohol than intended. Reporting on fights and sexual relation under the influence of alcohol was found in a quarter of the public high school students and in a third of the private high school students from the state of São Paulo. Among urban Brazilian population, history of sexual abuse was a risk factor for drug abuse and regular alcohol use. Leisure activities and absence of religious practice were related to drug use. Injection drug use of cocaine is declining in Brazil, in exchange of increased crack consumption. Driving under the influence of alcohol showed an overall prevalence of 34.7% (42.5% among males and 9.2% among females).

Introduction

Data on the realities of alcohol, tobacco and illicit drugs use are necessary in order to establish prevention programs regarding social and health consequences of such substances. Epidemiologic studies can improve the understanding of patterns of use, changes in these patterns, the impact of hazardous use, abuse, dependence as well special issues linked to psychoactive substance use, as risk consumption and risk behaviors.

Scarce or limited studies done before the 1990-decade relied on reports of treatment seeking, convenience samples, and narcotics trafficking to estimate the intensity of international drug use (1). However, over the last 10 years, population-based studies were worldwide performed.

The most comprehensive studies concerning alcohol, tobacco and illicit drug use in Brazil were the First (2) and the Second (3) household survey on drug abuse conducted by SENAD (Secretaria Nacional de Políticas sobre Drogas) in a partnership with CEBRID (Centro Brasileiro de Informações sobre Drogas Psicotrópicas), here called I and II CEBRID. Both studies were held in the largest cities of Brazil, with 200,000 or more inhabitants. The First Brazilian Household Survey of Patterns of Alcohol Use (4), a multistage sample study of 3,007 adults (14 years of age and older) in 143 Brazilian cities, also conducted by SENAD, in a partnership with UNIAD-UNIFESP (Unidade de Pesquisa em Álcool e Drogas do Departamento de Psiquiatria da Universidade Federal de São Paulo), here called I UNIAD, had a more comprehensive sample of Brazilian population but aimed only information about alcohol.

The present chapter will condense the highlights of I and II CEBRID, and I UNIAD studies, in order to bring the reader in this issue, but will also include other studies relying on special populations and scenarios, because of its particular concerning.

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Use of Alcohol

The average annual alcohol consumption per capita among Brazilians is more than 30% higher than world average (8.32 L versus 5.8 L, respectively) (5). It is not surprising that Brazil has a score of 3, in a range of 1 to 4, related to changes in population health resulting from exposure to hazardous drinking. According to I UNIAD, 52% of the 18 years age or older Brazilians drunk at least once in a year (with a gender difference of 65% for male and 41% for female). Among those who consumed alcoholic beverages in the last year, 60% of males and 33% of females drunk 5 or more drinks for occasion. Meanwhile the biggest proportion of drinkers was among the two highest social classes and in South region, the biggest number of drinks drunk were in North, Western-Central and Northeast states and in the low status class.
On the II CEBRID, lifetime use of alcohol was informed by 74.6% of the sample (83.5% of the males and 68.3% of the females). Last year alcohol use (49.8%) among Brazilians was quite similar to I UNIAD, and 18.4% of the sample reported last month use.
Mean age of the first alcohol consumption (4) was observed among adolescents (14 to 17 years old) and among young adults (18 to 25 years old), showing differences between the groups. The first group revealed starting use of alcohol at mean age of 13.9 years (boys) and 15.3 years (girls), with the second group reporting latter mean ages of alcohol use onset (14.6 years old for male and 17.3 years old for female).

Use of Tobacco

The change in tobacco lifetime use from 2001 (2) to 2005 (3) was discreet; in fact, confidence intervals didn't allow making difference between prevalence of 41.1% and 44%, respectively. Last year tobacco use in 2005 was reported by 19.2%, and 18.4% answered positively for last month tobacco use. More than half of the oldest (≥ 35 years old) had used tobacco once in their life, 60.7% of the males and 46.8% of the females. Male gender leads tobacco consumption in all ages from 12 to 65 years old.

Use of Illicit Drugs

Concerning illicit drugs use, cannabis is the largest lifetime drug used among Brazilians, and the rates of such substance last year use more than doubled between 2001 (1%) (2) and 2005 (2.6%) (3). In the latest survey, male gender showed bigger rates of cannabis lifetime use than female gender, but among the youngest (12-17 years old), gender use seems to be convergent (3.9% vs. 2.5%, respectively). The peak of lifetime use of cannabis is reached along the adolescence and the beginning of adulthood (17% for those aged 18 to 24), decreasing after that till 5.6% in ≥ 35 years olds.
For last year cocaine use, just as for cannabis, an increasing was also observed, what is up to 0.7% of the population aged 12-65 in 2005, from 0.4% in 2001. Results of the II CEBRID showed that, starting both for males and females at a prevalence of lifetime cocaine use of 0.4% in the 12-17 aged, the rates ranged up to 9.4% for males in 25-34 years olds. For females, the range was 0.4% to 2.8%, the highest prevalence among the 18-24 years old. Crack cocaine use among Brazilians was mainly between males (3.2%) at the ages from 25 to 34. Overall estimation of lifetime crack use was 0.7%. Merla, what is a composed by cannabis and cocaine crack, was mentioned by 0.2% of the sample, the vast majority of them representing males in 18-24 years olds (1.4%).
Inhalants was the second illicit drug most used among Brazilians, with 6.1% lifetime use. Females showed bigger rates of lifetime inhalants use than males among the youngest (3.2% vs. 2.7%, respectively). Along the ages, male prevalence rates rose to 14.5% (18-24 years), declining thereupon to 13.3% (25-34 years), and to 8.2% in ≥ 35 year olds. Female lifetime use of inhalants ranged from 3.2% to 7.5% (3).
Prescription drugs like benzodiazepines had an average lifetime use of 5.6%, with female gender showing higher prevalence at all ages. The peak of female lifetime benzodiazepines use was at ≥ 35 year old (8%) (3).
Brazil also has the biggest number of consumers of metamphetamines and opioid in South America (6). Data about amphetamines were included in the II CEBRID as stimulants or anorexigens. Prevalence of lifetime use among female was almost three times the male prevalence. All ages showed prevalent use among females.
The number of opioid users was 635,000, or 0.5% of those aged 12-65, most of them synthetic opioid users rather than heroin (6). Opioid substances were classified at the II CEBRID as opioid syrups (codeine), pain killers (meperidine, dolantine, morphine) and heroine. Lifetime use prevalence was 1.9%, 1.3% and 0.09%, respectively. Codeine was more frequent among females from 12 to 34 years than males; reaching lifetime use prevalence of 2.3% of those at 35 years or older males and females. For pain killers, female use was more frequent than male at all ages.
Experimental lifetime use of anticholinergics was observed among about 0.5% of the sample. Hallucinogens lifetime use was described by 1% of all ages, with major prevalence (1.9%) in 18-24 years olds. Over the counter experimental use of barbiturates was related by 0.7% of the interviewees (3).
In 2003, a survey including the 27 Brazilian state capitals (7) evaluated patterns of alcohol, tobacco and illicit drugs between 2,807 street children who were in institutions, found that inhalants were the first drug used for 27.1% and cannabis for 20.4%. Male gender presented bigger prevalence of last month and daily drug use than females. The older was the age, the bigger was daily and last month drug use. Tobacco cigarette was the most

reported drug, with lifetime prevalence of 63.7%, last year 52.5% and last month 44.5%. Lifetime, last year and last month alcohol use prevalence were 76%, 62.4% and 43%, respectively. The most frequent illicit drugs used were inhalants and cannabis, with more than 40% of the sample reporting lifetime use.

Substance abuse

Substance abuse still being less studied among Brazilian population than other conditions. Of the three major studies previous cited, only the I UNIAD have focused on ICD-10 criteria for alcohol abuse, which means that a pattern of alcohol use causes a real physical or mental health damage and is frequently criticized by another persons. Among Brazilian population aged 18 years or more, 3% are alcohol abusers; almost 3 in 4 are males and have up to 44 years.

Alcohol Dependence

In the I CEBRID, 11.2% were considered alcohol dependents, 17.1% of males and 5.7% of females, meanwhile at the II CEBRID, alcohol dependence was observed among 12.3% of the sample (19.5% males and 6.9% females). At the I UNIAD, rate of dependents was 9%, with over three times more males than females and significantly more frequent among the youngest (18 to 24 years, 15%). In the three studies, alcohol dependence was identified predominantly at the youngest adults (those aged 18 to 24 years).

Tobacco dependence

Quite over 10% of the Brazilians interviewed in 2005 (3) were tobacco dependents, and the percentages between males and females were very close (11.3% versus 9%, respectively). Only at the ages of 18-24, there are more female than male dependents (9.4% vs. 8.8%), and the major prevalence of dependents was observed among the oldest, what is, those aged 35 years or more (12.2%). Almost 3% of the interviewees with 12 to 17 years were dependents.

Illicit drug dependence

The main illicit drug related to dependence in Brazil (3) was cannabis, with 1.2% of the sample, male gender having a five time bigger prevalence of cannabis dependence than female gender. At those aged 18-24, cannabis dependence is close to 6%. After cannabis dependence, there was benzodiazepines dependence (0.5%), with a five times bigger prevalence among females than males.

Dependence of substances like inhalants and amphetamines (3) was observed in 0.2% of the sample, for each one substance. For inhalants, a little difference between genders was observed, with a discreet predominance of male dependents, meanwhile stimulant dependence was observed nearly only among females.

Risk consumption

Binge drinking, which is characterized by having five drinks (for males) and four drinks (for females) or more each time, was observed by I UNIAD. From the adult Brazilian population, 28% had ever a binge drunk once in the last year, significantly more males (40%) than females (18%), with bigger vulnerability among the youngest.

Binge drinking is also frequently called Heavy Episodic Drinking. The SP-ECA study (8), which covered a representative sample of adult population living in households from two middle-class boroughs in the city of São Paulo, found an overall 12-month prevalence of 10.7%, 15.4% of the men and 7.2% of the women reporting that pattern of alcohol use. The odds of Heavy Episodic Drinking were increased among women between 18 and 44 years of age and who were not married (separated, divorced, widowed, and never married). Among men the risk was increased for those between 18 and 24 years of age.

Drug use among students

Four surveys were carried out among elementary and high school students from some of the Brazilian Capitals. The Fourth National Survey (9) showed that the most often drug used by Brazilian students are alcohol and inhalants. From 1993 (Third Survey) (10) to 1996 (Fourth Survey), lifetime use of illicit drugs rose from 22% to 25%, with increasing lifetime and frequent use of cannabis. Considering both lifetime and frequent use of cocaine, a significant increase was observed over the ten years covered by the four surveys.

A study with a similar methodology of the four national surveys, which took place in one of the 10 highest populated growth cities of São Paulo State (11), among students with < 10 or > 20 years old, a relatively high prevalence of frequent use (defined as 10 or more times a month) of alcohol (9%) and tobacco (14.5%) was observed. For cannabis, inhalants, cocaine, uppers and ecstasy, the highest prevalence rates were related to occasional use (one or two times per month). The prevalence of cocaine use in the previous 30 days was 3%. A very low use (< than 1%) of steroids, ecstasy, uppers and downers was reported. Along with this study and the Third and Fourth Survey, similar results were found in other cities indicating an increase in cannabis consumption among elementary and high school students in Brazil (12, 13).

The Global Youth Tobacco Survey (14) was placed in 7 cities of Brazil (Belem, Cataguases, Curitiba, Fortaleza, João Pessoa, Natal and Rio de Janeiro) in 2005, including students in the last two years of first grade and in the first year of the secondary grade. Highlights showed that, at the period of the survey, use any form of tobacco ranged from nearly 14% (Natal) to 25% (João Pessoa). About 10% (Natal) to 19% (Belem) were cigarette smokers, and 4.7% (Fortaleza) to 7% (Rio de Janeiro) were users of some other form of tobacco. Concerning exposure to environmental tobacco smoke (ETS), from one third to 40% (Curitiba) of students lived in homes where others smoke in their presence, and up to 46.6% (João Pessoa) were exposed to smoke around others outside of the home.
Undergraduate students use of alcohol, tobacco and illicit drugs was the focus of two major studies carried out at the University of São Paulo (15). Data from the comparison between the years of 1996 and 2001 showed a significant increasing in lifetime use of alcohol, tobacco, cannabis, inhalants, hallucinogens and any illicit drug. A significant increasing was also observed in last 30 days use of cannabis, inhalants, amphetamines and any illicit drug. In 2001, prevalence of lifetime alcohol use was 91.9%, tobacco 50.5%, cannabis 35.3%, hallucinogens 11.4%, amphetamines 9%, anticholinergics 2.9%, and barbiturates 1.7%.

Risk behaviors and use of substances

In our country, the consumption rate ratio of alcohol between men and women varies from 3/1 to 11/1, and excessive alcohol consumption and drinking to get drunk were also related to male gender (16). Other studies showed the same for young males, likewise the use of illegal drugs (17, 18). From a national sample (2), males had a higher prevalence than females for exposure to situations of physical risk under the influence of alcohol or afterwards, from drink-related personal problems, and from more frequent use or larger quantities of alcohol than intended. In Brazil, another study (19), found a risk of drinking in 21.6% of pregnant women, most with a family history of alcohol abuse.
A study among Brazilian private and public high school students (20) that evaluated exposure to risk situations while under the effect of alcohol, 23.6% of public school students and 35.5% of those from private schools who reported at least one fight in the last 12 months stated that they were under the influence of alcohol in most of the fights. Among those sexually active, sexual relation under the influence of alcohol was reported by 21% of the students from public schools and 34.7% of those from private schools.
Findings from a national survey on sexual behavior and perceptions of the Brazilian population (21), carried out in 2005, showed that history of sexual abuse was a risk factor for drug abuse and regular alcohol use. Those whose leisure activities are going to parties, bars and clubs were more likely of using drugs than those who engaged in cultural, sport and religious activities. Absence of current religious practice was associated with drug use. In the context of the HIV, injection drug use (IDU) of cocaine is declining in Brazil, in exchange of increased crack consumption (22).
Other risk behavior that is taking more attention from researchers is driving under the influence of alcohol (DUI). I UNIAD showed a DUI overall prevalence of 34.7% among Brazilians (42.5% among males and 9.2% among females). Male gender, having previous DUI accident, binging in the last year and having an unfavorable opinion towards policies remained associated with heavy drinking and driving (23).

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CHAPTER 3

Alcohol and Drug Consumption among Adult Sex offenders in Brazil

Danilo Antonio Baltieri[1,2,3]

[1] *Department of Psychiatry of the University of São Paulo, Brazil;*
[2] *Department of Psychiatry of ABC Medical School, Santo André, São Paulo, Brazil;*
[3] *Penitentiary Counseling of the State of São Paulo, Brazil*

Address correspondence to: Prof. Dr. Danilo Antonio Baltieri, Ambulatory for the Treatment of Sexual Disorders of ABC Medical School (ABSex), Department of Psychiatry of ABC Medical School. Avenida Lauro Gomes 2000. Vila Sacadura Cabral. Santo André. CEP: 09060-870. São Paulo, Brazil; Te/Faxl: +55 11 4993.729. E-mail: dbaltieri@uol.com.br

Abstract: Some studies indicate that drug misuse is significantly more frequent among sex offenders against adults than among those against children. Data suggest that the inappropriate consumption of drugs, mainly cannabis and cocaine, can be one of the factors that differentiate sex offenders who prey on children from those who prey on adults. In addition, children molesters usually demonstrate higher alcohol problems than those offenders against adults.This chapter provides some findings related to adult sexual offenders in Brazil, with respect to the alcohol and drug problems and impulsiveness levels. Unfortunately, research on sex offenders is still in its infancy in Brazil, but our knowledge about this population has increased in the last two decades.

1. Introduction

The study of sex offenders is a new field in Brazil. In our country, specialized services for treating and dealing with individuals who exhibit inappropriate and offensive sexual behaviors are still in their primary phases of development. Approaching the issue of sex offenders with or without psychiatric disorders needs to be more widely disseminated in order to better evaluate sex offenders, as well as to individualize their treatment, modify their inappropriate demeanor and improve their quality of life.

Around the world, researchers in various fields have studied sex offenders. However, different and confusing generalizations regarding the criminal profile of this population continue to be proposed (1). Over the last three decades, various types of studies involving sex offenders have been conducted, showing the heterogeneity of this population.

In truth, there are individuals who exhibit sexually aggressive and inappropriate behavior directed toward children, adolescents and / or adults. Sex offenders can themselves be adults, adolescents or even children. In addition, sex offenders can be found in places of confinement (prisons, penitentiaries and specialized institutions), as well as on the streets or in any social setting.

It is important to be able to recognize potential sex offenders, establish effective intervention protocols and guide offenders through the behavior modification process. This can diminish or even suppress their inappropriate behaviors, as well as avoiding any possibility of further victimization. The objective should never be to "demonize" or "deify" the sex offender. With respect to the evaluation of these individuals, as well as to the effectiveness of the proposed treatment, the approach taken should always be based on scientific evidence.

The number of adult sex offenders in the prison system has increased in recent years, and sexual violence represents a major public health problem in various countries around the world. In the state of São Paulo, approximately 4% of prison convicts are serving sentences for rape or indecent exposure, and most of them will return to the community without having received any medical or psychosocial intervention to prevent criminal recidivism. Karpman (1960) (2) stated the need for better professional training of health care providers who identify and treat sex offenders.

2. Adult Sex Offenders – Who are They?

Sex offenders constitute a highly heterogeneous, generally male, population. Adult female sex offenders exist in fewer numbers and have therefore been less extensively studied than have their male counterparts.

The categorization of sex offenders has progressively received greater attention from criminologists and mental health professionals the world over. An appropriate system of classification can represent a broad understanding of the behavior of the perpetrator and of socially aggressive sexual conduct, as well as being related to a

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therapeutic proposal, to a possible prognosis and to different forms of approach. However, there are two interrelated points in the classification process:

a) Sex offenders can exhibit a wide range of sexual behaviors.
a) Due to the heterogeneity of the sexual behavior associated with sexual aggression, classification could lead to diagnostic and therapeutic reductionism.

Non-diagnostic systems of classifying sex offenders have become more elaborate in the last 60 years. In many such systems, aggressors of adults are viewed as a group apart from child molesters, despite the possibility of great heterogeneity within each of these two groups, as well as the relative arbitrariness of the legal codes worldwide in defining the concepts of "child", "adolescent" and "adult".

The so-called "typologies" are generally non-diagnostic categories that are based on the following: sociodemographic characteristics; personality traits; motivation toward the illicit act; denial of the fact that the criminal act was committed; age, type and number of victims involved; aspects of the crime scene; or other aspects. Therefore, many of the typologies consist of real syndromes with diverse variables and not of nosological entities *per se*.

Sex offenders with or without psychiatric disorders can also constitute a typology. The variability among samples of sex offenders evaluated for mental disorders is considerable, 30–67% being classified as having one of the diagnosable mental disorders (3). In addition, there are typologies that combine the psychiatric diagnosis or clinical aspects with other inconclusive characteristics, thereby increasing the complexity of the groups created.

Despite the number of new classification proposals, many of the existing classification systems are little more than efforts to categorize sex offenders according to random variables that are difficult to replicate. This makes it impossible to evaluate the various types of grouping in a positive and reliable manner.

3. Profile of Sex Offenders in Brazil

Of the various proposed forms of typologies or classifications, we draw attention to those that separate, *a priori*, child molesters from sexual offenders against adults, those that set apart offenders against one victim from aggressors against more than two victims (serial offenders), and those classifications that evaluate some psychometric variables in the samples through statistical grouping techniques.

We present some characteristics found among sex offenders studied in Brazil, based on some studies reporting a high prevalence of inadequate alcohol consumption among sexual offenders, as well as a high level of impulsiveness, a history of sexual abuse and fulfillment of diagnostic criteria of pedophilia. According to Baltieri and De Andrade (4), alcohol abuse can be more severe in molesters of male children than in molesters of female children. This finding might somehow be related to the fact that the rate of criminal recidivism is higher among child molesters preying on male children than among those preying on female children. Baltieri and De Andrade (5), also stated that sex offenders who prey on adult females have illicit drug abuse problems that are more pronounced than are those observed in sex offenders who prey on adolescent girls or female children. In addition, the authors constructed a typology based on a sample of 198 criminal sex offenders evaluated at a penitentiary in the state of São Paulo, using tools to evaluate the abuse of alcohol and other drugs, as well as impulsiveness. They found that approximately 20% had severe alcohol problems, and that another 20% had severe alcohol and other drugs problems, as well as high impulsiveness.

According to Baltieri and De Andrade (6), serial sex offenders (those with three or more victims) have revealed more frequent history of being sexually abused during childhood and higher impulsiveness levels than nonserial sexual aggressors. In addition, serial sex offenders meet the diagnostic criteria for pedophilia and other preference sexual disorders significantly more often than do nonserial sex offenders.

4. Typologies and Alcohol and Drug Problems

According to a study conducted by Craissati and Beech (7), sex offenders who victimize only adult women more often prey on unknown victims and more frequently use physical force or verbal threats. Our findings (8) confirm these findings, demonstrating that child molesters victimize family members more often than do sex offenders who prey on adults.

Various typologies have been developed in order to classify sex offenders. Some are related to the medical field (9, 10), whereas others are legal in nature (11), and the degree of methodological sophistication varies. Unfortunately, some of these typologies have little clinical applicability due to the their complexity.

Peugh and Belenko (12) devised a typology of sex offenders based on the consumption of alcohol and other drugs, grouping offenders into three clusters:

a) sexual aggressors who do not use alcohol or drugs (30.5% of the sample)
b) sexual aggressors who use only alcohol (16.9% of the sample)
c) sexual aggressors who use alcohol and other drugs (52.6% of the sample)

In our study (8), based on the same criteria, our classification of sexual aggressors also generated a three-cluster typology:

a) sexual aggressors who do not abuse drugs or alcohol (57.58%)
b) sexual aggressors with severe alcohol dependence but with no dependence on other drugs (22.22%)
c) sexual aggressors who abuse alcohol and other drugs, with extremely high levels of sexual and general impulsiveness (20.20%)

While our classification presents typological differences from that proposed by Peugh and Belenko (12), especially in terms of the frequency in clusters A and C, there are no other studies that have used the same concept for comparison. Nevertheless, about it is known that up to 60% of sex offenders have no diagnosable psychiatric traits (3). We used K-means cluster analysis method to construct our typology, in which we used continuous variables in order to make the comparison.

Alcohol abuse seems to be more common among sex offenders who prey on non-relatives or strangers (13). According to Testa (14), sex offenses in which alcohol consumption is involved primarily occur between individuals who do not know each other. A few studies have suggested that alcohol abuse is more severe among child molesters who prey on male children than among those who prey on female children (15). Alcohol abuse might be a major predisposing factor and trigger of sexual aggression, which could contribute to criminal recidivism. Our study demonstrated that, among child molesters who choose victims outside of their families, alcohol abuse is more severe in those who prey on male children than in those who prey on female children.

Although the role that alcohol consumption plays in sex crimes has been examined in many studies, only a few have evaluated the role of alcohol in the choice of victim in terms of gender (16). Cabaj (17) provided evidence that alcohol abuse is more severe among homosexuals than among heterosexuals. Despite the fact that male child molesters who prey on male children involve themselves sexually with victims of the same sex, only 12.96% of such molesters describe themselves as homosexual. According to Quinsey et al. (18), the "myopia" induced by the consumption of alcohol encourages the drinker to seek immediate gratification and to lose all concern for social acceptance. The authors found that the quantity of alcohol consumed by a child molester is a predictive factor not only for the victim being unknown to the aggressor but also for the victim being male. This is in agreement with the statements made by Rice and Harris (13).

It is of note that these typological characteristics do not provide much information regarding the degree to which the behavior of the sex offender is altered, in terms of the abuse of or dependence on these psychoactive substances; nor do they necessarily suggest the level or type of treatment recommended for each offender in each cluster. This type of classification provides an overview of the problems inherent to each group and simplifies the decision-making process.

Furthermore, in our study (8) we found no significant differences between sex offenders who victimize adolescents and sex offenders who victimize adults in terms of the score on the Barratt Impulsiveness Scale, version 11. In fact, according to Murray (19) and to Overholse and Beck (20), determining the levels of impulsiveness and aggressiveness is not a satisfactory method of differentiating between child molesters and sex offenders who prey on adults, since these features manifest themselves similarly in both groups. The most impulsive behavior has been related to the repetition of illicit acts, which has been confirmed among serial sex offenders.

Impulse control disorders include aggressiveness, impulsiveness, and loss of control. Some studies have associated high levels of impulsiveness with illegal activities and aggressiveness, as well as with risky sexual behavior (21, 22). Lynam et al. (23) reported that impulsiveness is an important factor associated with criminal activity, even when other psychosocial aspects are included in the analysis. According to Eher et al. (24), the concept of impulsiveness shares some similarities with the concept of psychopath. Other studies have linked high levels of impulsiveness to the consumption of psychoactive substances (25).

5. Serial Offenders

The concept of "serial" implies aggression against two or more victims (11). In our study, serial aggressors more often had a history of criminal recidivism, including prior convictions for sex crimes. This supports the idea of the serial criminal, an idea that, although classic in the legal and literary fields, is still incipient in the medical field.

In the present study, the mean age of serial aggressors was higher than was that of nonserial aggressors. Although the difference was not statistically significant, it could indicate that many nonserial aggressors have not yet had "time" to become serial aggressors. We did find statistically significant differences between serial and nonserial aggressors, especially in terms of a history of sexual abuse during childhood, meeting the diagnostic criteria for pedophilia and the level of impulsiveness.

In our study, we found no differences between the sexual aggressors with one victim and the sexual aggressors with two victims. We therefore combined these two types of aggressors and compared this new group with the group composed of serial aggressors. Perhaps the concept of serial aggressor is more consistent when defined as an aggressor with three or more victims.

Burgess et al. (26) evaluated 41 detained serial sex offenders in 12 American penal institutions and found a high frequency of a history of having been sexually abused. The authors suggested that the pattern of repeat sexual aggression is associated with early sexual fantasies developed from experiences of abuse or sexual violence.

6. Choosing the Victim

Some studies have indicated that sex offenders prefer certain types of victims. Despite the heterogeneity of sex offenders, some authors, mostly criminologists, have proposed systems of classification related to the victims' characteristics. Few studies have investigated differences between serial sex offenders (with three or more victims) and nonserial sex offenders (with less than three victims). According to Guay et al. (27), serial sex offenders tend to choose victims of the same age: child molesters who are repeat offenders tend to frequently choose children as their victims; and repeat-offender sexual aggressors of adults tend to commonly victimize other adults. According to these authors, the same pattern is observed in relation to whether an aggressor chooses victims who are family members or who are strangers. Therefore, it seems that sex offenders have a certain level of "specialization" when it comes to their preference of victim types (among children, adolescents and adults, as well as between family members and strangers). Despite the general consensus that there is a distinction between sex offenders preying on children and those preying on adults, Heil et al. (28) posited that some aggressors, known as "crossover sex offenders", exhibit a wide range of victim preference. The authors stated that many aggressors exhibit various types of deviant behavior, with little homogeneity in terms of victim gender, age and relationship with the perpetrator. In our study (8), we found that repeat sex offenders preyed on victims of the same gender and similar age, as confirmed in the available legal registries.

Hanson et al. (29) also suggested that sex offenders also "specialize" in terms of the victim gender, child molesters who first choose male children tending to repeat the offense with other male children. The authors stated that, among child molesters, the rates of recidivism are highest for those who prey on male victims outside of their families. Among sex offenders who prey on adult women, the recidivism rate for the same crime tends to be low.

Alcohol abuse and, to a lesser degree, the abuse of other drugs have been associated with criminal recidivism. Despite this, and considering the higher rate of criminal recidivism for the same crime among sex offenders who prey on male children, there have been no enough studies evaluating the role that inappropriate consumption of alcohol and other drugs by the aggressor plays in the sexual molestation of children.

Finney (30) also called attention to gaps in the research involving sex offenders and suggested that the following items should be more extensively studied:

a) the role of alcohol (intoxication at the time of the illicit act and chronic consumption) in sexual violence
b) the role of alcohol in sexual aggression, evaluating the different combinations of victim-offender relationships (whether the victim is a child, adolescent, adult, family member, stranger, etc.)
c) the role of alcohol and other drugs among offenders who victimize various age groups

7. Child Molesters and Sex Offenders against Women

Some studies indicate that drug misuse is significantly more common among sex offenders against adults than among those who prey on children, and that the former are younger than are the latter. Data suggest that the inappropriate consumption of drugs, principally cannabis and cocaine, can be one of the factors that differentiate sex offenders who prey on children from those who prey on adults.

Despite this, Looman et al. (31) found no differences between child molesters and sex offenders who victimize adults in terms of the abuse of alcohol or other drugs.

Various studies have demonstrated that there is an age difference between child molesters and sex offenders who victimize adults, although the reason for that remains unknown. Perhaps there are cultural differences among aggressor types. According to Siegel (32), child molesters more often express the desire to have "power" over their victims, whereas sex offenders who prey on adult women exhibit greater aggressiveness and hostility, with the objective of humiliating and degrading their victims. Firestone et al. (33) also reported that, among nonserial sex offenders, those who prey on adults exhibit higher levels of hostility than do those who prey on children.

It is possible that sex offenders against adolescents do not constitute a distinct type of offender. An adolescent victim might be chosen as an alternative in the absence of the desired victim type or might even be chosen due to unexpected circumstances. According to Rice and Harris (13), one of the contributing factors to sexual aggression against children and adolescents, especially against those who are known to the aggressor, is a lack of available sexual partners. In our published studies on sexual offenders (4-6), we found that, in terms of drug use and the choice of victims, sex offenders who victimize adolescents behave in a manner similar to that of those who victimize children (showing few drug problems and choosing victims who are relatives), whereas they behave similarly to sex offenders who victimize adult women in terms of alcohol use and criminal history (often demonstrating fewer alcohol problems than children molesters and having previously been convicted of other nonsexual crimes).

According to Murray (19), child molesters with or without pedophilia share common characteristics: the majority are men (homosexual, heterosexual or bisexual); some have relationships with adult women, but choose children because they are vulnerable or available; when they choose female victims, the victims are usually related to or known to them; and when they choose female victims, the victims are usually unknown to them. Among child molesters with or without pedophilia, intense alcoholic beverage consumption has been reported in more than 50% of the cases. However, among those who are actual pedophiles, children are the principal source of sexual excitement, which means that the sexual fantasies or activities involving these victims are recurrent, intense and persistent (34). Our study showed that among child molesters, the seriousness of alcohol consumption was greater than with sex offenders preying on women.

8. History of Being Sexually Abused

Many authors have also discussed the direct relationship between a history of sexual abuse during childhood and sexually aggressive behavior in adult life. Weeks and Widom (35) reported that, among adult male inmates, sex offenders more frequently have a history of having been sexually abused during childhood than do those convicted of other violent and nonviolent crimes. Haapasalo and Kankkonen (36) showed that those convicted of sex crimes more often have a history of sexual and physical abuse during childhood than do those convicted of other violent crimes. There are also studies demonstrating that, of all those convicted of sex crimes, child molesters are more likely to have been abused during childhood than are other sex offenders, such as those who abuse adult women. Ward et al. (37) reported that child molesters rarely exhibited any affective bond with their mothers and frequently suffered affective negligence in childhood. In our researches (8), we have found that child molesters are 11 times more likely to have been sexually abused during childhood than are sex offenders who victimize adult women. Sexual abuse during childhood has been described as having various psychiatric consequences, increasing the risk of developing depressive syndromes, conduct disorders or personality disorders, as well as the likelihood of substance abuse, suicidal tendencies or aggressive sexual behavior. There are indications that a history of sexual abuse during childhood can increase the severity of sexually violent behavior in adult life, as well as increasing the likelihood of criminal recidivism among sex offenders. This was confirmed in our studies, in which serial sex offenders were found to be 6 times more likely than were nonserial sex offenders to have been sexually victimized during childhood.

In truth, early experiences of sexual abuse can interfere with cognitive development, decrease the capacity to deal with adverse situations, complicate the improvement of social adaptive strategies and increase impulsiveness. In the present study, we found that the serial sex offenders exhibited greater impulsiveness and more often had a history of being sexually abused.

9. Interviewing the Sex Offender

The treatment of sex offenders is a great challenge for mental health professionals. In all evaluations of these individuals, the possibility that they may be downplaying, denying, exaggerating or faking psychopathological symptoms in order to obtain a desired result must be considered. Sex offenders in particular can be dishonest in their own declarations to doctors and psychologists for many reasons, the most obvious being the desire to avoid the consequences of their actions. In addition, sex offenders might have learned not to reveal all of their acts and fantasies to anyone, since “no one is completely trustworthy”. Sex offenders often do not admit, even to themselves, their sexually deviant and offensive practices and intentions.

10. Deniers and Accepters

Sex offenders often deny the fact that the aggression occurred, which can make it difficult to identify existing mental disorders and to provide appropriate treatment (38). According to Gibbons et al. (39), despite the fact that some authors have evaluated this as a dichotomous variable (denial versus acceptance), such denial can constitute a more complex phenomenon, with multiple dimensions. In our present study (8), denial/acceptance of the fact that the aggression occurred was evaluated as a dichotomous variable, the sex offenders who denied having a problem accounting for 57% of the sample, with no difference between child molesters and sex offenders who preyed on adults or adolescents. Again according to Gibbons et al. (39), the proportion of individuals who deny the fact that the aggression occurred does not appear to differ among the types of offenders (type of victim involved).

Our study (8) showed that denial of the fact that the aggression occurred was more common among abusers of male children, which might be attributable to the greater difficulty that men who describe themselves as heterosexual have in admitting having had sexual contact with other males. Although such denial represents the complete refutation of an event, it frequently exists on a continuum that includes downplaying the impact on the victims, social disgrace and a refusal to admit or recognize how serious and chronic their own behavioral problems are (40).

11. Socio-Demographic Features and Crime-Related Factors

West and Templer (41) demonstrated that the number of White child molesters is far greater than is the number of White sex offenders who prey on adult women. This might represent a qualitative or cultural difference among ethnic groups. In our study, we found no statistically significant differences among the three classes of sex offenders in terms of race. However, among the child molesters, White offenders accounted for a greater proportion of those preying on male children than of those preying on female children. Despite the difficulty, and perhaps prejudice, of suggesting any etiological implication related to race, this might also constitute a cultural difference within the group of child molesters.

Among the child molesters, those having preyed on female children were given longer sentences than were those having preyed on male children. This is attributable to the text found in article 226, Paragraph II, of the Brazilian Penal Code: "*The sentence is increased by one fourth if the agent is an ascendant, adoptive parent, stepsibling, sibling, tutor or employer of the victim*". The victims of sex offenders preying on female children were statistically more likely to be related to the perpetrator than were those of sex offenders preying on male children.

According to Bitencourt (42), it is important to note that the majority of prison convicts are individuals of low socioeconomic and cultural status, which has historically been the case. It has been argued that the growth in the number of prisons is directly related to the increase in poverty rates. In our research on sexual offenders, child molesters were more often of low socioeconomic status and more often had low levels of education than did sex offenders who prey on adult women.

12. Risk Assessment

Various authors have studied instruments designed to quantify the risk of criminal recidivism (43-46). Different types of instruments are generally based on systematic revisions of the risk factors related to criminal recidivism among sex offenders. It has been stated that the age of the aggressor constitutes a moderate predictor of criminal recidivism, which occurs more often among younger sex offenders than among those who are older. Studies on human sexuality indicate that, with advancing age, there is an overall decline in sexual interest. Rowland et al. (47) showed that, as age advances, penile erection during visual erotic stimuli diminishes and the delay in erectile response increases. According to Barbare et al. (48), serum levels of testosterone, which decrease with age, might play a significant role in reducing criminal recidivism among older sex offenders. Studer et al. (49) posited that serum levels of testosterone constitute another factor to be considered in the systematized evaluations of the risk of criminal recidivism among sex offenders. Marques et al. (50) demonstrated that rates of recidivism are higher among sex offenders who prey on adult women than among child molesters. In our study (8), we found that the mean age of sex offenders who prey on adults was 33 years, whereas the average age of child molesters was 41 years, and that the former had committed a greater number of crimes. However, in the univariate analysis of the average scores obtained using the Static-99 assessment instrument, there were no statistically significant differences. This is probably because one of the Static-99 items refers to a preference for male victims as one of the risk factors for recidivism. In this study cited, we found that the victims of the sex offenders were female for all of those whose crimes were committed against adults, whereas the victims were male for 53.46% of the child molesters and for 23.21% of the sex offenders who victimized adolescents.

Deviant sexual interests, such as in pedophilia, have been widely described as occurring among child molesters and, on a much smaller scale, among sex offenders who victimize adults (7). Also, according to Dunsieth et al. (51), paraphilia is a major factor related to criminal recidivism among sex offenders. In the present study, pedophilia was found to be a significant predictive factor of serial sexual aggressiveness.

13. The General Relationship between Sex and Drugs

Donnelly et al. (52) showed that the consumption of alcohol and other drugs among adolescents is associated with an early onset of sexual activity, as well as with risky sexual behavior. Rosenthal et al. (53) stated that the initiation of sexual activity among adolescents is influenced by various factors, especially the self-perception of physical maturity, as well as the expectation of greater autonomy and consumption of psychoactive substances.

Strote et al. (54) demonstrated that adolescents who use 3,4-methylenedioxymethamphetamine (ecstasy) have more sexual partners, spend more time with friends and dedicate less time to studying.

Halkitis and Parsons (55) and Stall et al. (56) showed that, among homosexual men, the consumption of substances such as alcohol and synthetic drugs has been used to voluntarily engage in unsafe sexual practices with one or more partners. Although such substances are often used in order to enhance sexual performance, many users have in fact experienced negative consequences for sexual performance. Okulate et al. (57) reported that approximately 10% of erectile dysfunction is etiologically attributed to alcohol abuse. Fagan and McHugh (34) stated that users of alcohol and cocaine often experience difficulties in the phases of arousal and orgasm.

The expectation of the possible effects of psychoactive substances, as well as their actual pharmacological effect, is also related to violent sexual behavior.

14. The General Relationship between Sex and Crime

Distinctions can be drawn between the sex crimes typified in current legislation and sexually motivated crimes. For example, an individual motivated by sexual desire (related to jealousy, erotic rituals, etc.) can kill and be charged with murder; a voyeur can enter a garden to spy on the intimate activities of the owner, be taken by surprise and be arrested for breaking and entering; and a fetishist can steal an inanimate object as a source of pleasure and be accused of larceny. We can suppose that many nonsexual crimes are rooted in sexual motivation, which might be perceived during the legal process.

The belief that there is a correlation between mental illness and sex crime seems to be widely accepted. However, to speak of the etiology of sexually criminal behavior, as well as the treatment and prognosis of sex offenders, surely confuses criminal behavior with mental illness, without sufficient evidence of a direct association between sex crimes and mental illness. Nevertheless, there are abnormal behaviors that favor criminal activity. There are certain circumstances in which sexual behavior constitutes illicit activity:

a) those in which the sexual act is not accepted by the partner
b) those in which the sexual act involves an adult and a partner younger than 14 years of age
c) those in which the sexual behavior is prohibited by law
d) those in which the sexual behavior provokes outrage related to indecent exposure

Individuals with sexual preference disorders can perform criminal acts. Among such individuals, those that most often suffer legal sanctions are the pedophiles and exhibitionists.

Many sex offenders are dealt with only by the legal system. In certain cases, psychiatrists and other mental health professionals are involved in the evaluation and care of these individuals. However, few sex offenders seek specialized medical treatment services before being apprehended by the authorities.

15. The Relationships among Drugs, Sex and Crime

The consumption of alcoholic beverages is frequently considered a major factor associated with sexual violence. The personality traits of the aggressor, as well as the attitudes or beliefs of the aggressor toward violence and alcohol/drug use, are all related to the perpetration of illicit sexual acts.

Widom and Sturmhöfel (58) also emphasized the close relationship between sexual violence and the consumption of alcoholic beverages, suggesting three theories that would explain the connection between the abusive consumption of alcohol and sexual child abuse:

a) Alcohol-dependant individuals use different language or behavior while intoxicated, and these behaviors are interpreted by third parties as eroticized, rude, abusive or threatening.
b) Aggressors attribute their inappropriate behavior to the use of alcoholic beverages and therefore consider themselves exempt from any responsibility or blame for their previous deviant sexual behavior.
c) Since alcohol is a depressor of the central nervous system, it interferes with the behavioral control normally exercised by the central cerebral inhibitors, resulting in uninhibited sexual behavior.

In general, the consumption of alcoholic beverages might incite criminal activities. Alcohol consumption and crime might be accompanied by other complicating factors, such as personality traits and social disadvantages. Criminal activity might incite alcohol consumption. However, it is equally possible that this interrelationship among alcohol, drugs and crime is spurious. Nevertheless, in relation to sex crimes, studies have demonstrated that the quantity of alcohol consumed is directly proportional to the level of violence employed during illicit acts (14).

Ullman (59) reported that approximately 77% of sex offenders consume alcoholic beverages prior to the illicit act. In contrast, Scott et al. (60) showed that only 20–50% of the victims of sex crimes consume alcoholic beverages prior to being victimized.

In summary, although the consumption of alcoholic beverages and sex crimes frequently co-occur, there is no direct evidence that the use of alcohol causes sex crimes. In some cases, the desire to commit an aggressive, nonconsensual, sexual act might in fact induce the consumption of alcoholic beverages. In addition, certain factors can provoke the consumption of alcohol and other drugs simultaneously to sexually aggressive behavior; as in the example of certain “fraternities” that encourage not only the heavy consumption of alcoholic beverages but also the sexual exploitation of women (61).

16. Conclusions

These findings point out the need for the development of programs to treat psychoactive substance abuse among individuals convicted of sex crimes. The implementation of such programs, together with the management of other psychopathological behavior, can be an important socio-legal step toward the prevention of criminal recidivism.

The differences between sex offenders against children and those against adults can inform decisions regarding the development of prevention strategies, as well as of programs for the treatment of chemical abuse and dependency in halfway houses.

Given the heterogeneity of the prison population, expanding the knowledge of behavioral characteristics among different types of criminals is a complex task. Nevertheless, identifying different behavioral types for different types of crime can further the development of halfway houses with appropriate action plans.
Most of those convicted will return to their communities without having been the object of any intervention in terms of psychosocial rehabilitation. Marked by discrimination, they will continue to face the stigma of prejudice and social rejection. It is within this context that research on different types of criminals can be a useful tool in the medical, legal and social fields.

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CHAPTER 4

Drug Problems among Juvenile Sexual Offenders

Danilo Antonio Baltieri[1,2,3]

[1] *Department of Psychiatry of the University of São Paulo, Brazil;*
[2] *Department of Psychiatry of ABC Medical School, Santo André, São Paulo, Brazil;*
[3] *Penitentiary Counseling of the State of São Paulo, Brazil*

Address correspondence to: Prof. Dr. Danilo Antonio Baltieri, Ambulatory for the Treatment of Sexual Disorders of ABC Medical School (ABSex), Department of Psychiatry of ABC Medical School. Avenida Lauro Gomes 2000. Vila Sacadura Cabral. Santo André. CEP: 09060-870. São Paulo, Brazil; Te/Faxl: +55 11 4993.729. E-mail: dbaltieri@uol.com.br

Abstract: Studies on adult sexual aggressors have continuously demonstrated that the majority admit the onset of some form of sexual offending before 18 years of age. Although alcohol and drug abuse has been frequently associated with violent crimes in general, studies on alcohol and drug problems among adolescent sexual offenders have been seriously neglected. In truth, juvenile sexual offenders are a heterogeneous population, and some of them demonstrate profile characteristics similar to other nonsexual violent offenders. Research has shown that many adolescents who commit sexual crimes also perpetrate nonsexual offenses; thus, to draw a complete distinction between sexual aggressors and nonsexual offenders is a difficult task. In fact, the criminal versatility should be taken into account when sexual offenders in general are evaluated and treated. This study evaluates the alcohol and drug consumption, the impulsiveness levels and the dimensional aspects of personality between adolescent sexual aggressors who offended children and those who offended adults. Also, it verifies possible distinguishing psychological characteristics between those offenders who adhered or not to our treatment programme. The study was carried out by the Ambulatory for the Treatment of Sexual Disorder of ABC Medical School (ABSex). The offenders against adults showed more alcohol and drug problems than the group who offended children. In addition, the sexual offending behavior of the aggressors against adults showed to be one more facet of the opportunistic exploitation of others. Offenders against children revealed significantly fewer mean scores on "persistence" than aggressors against adults. Furthermore, there seems to be some different personality characteristics between the juvenile sexual offenders who adhere to the treatment in comparison with those that do not, mainly in terms of reward dependence and novelty seeking.

1. Introduction

Since the 1970s, society has become concerned about the adolescents' proneness to commit serious sexual crimes, and this has provoked a boost in the studies on different aspects of juvenile sexual offenders around the world. Running parallel with this, a number of specific treatment programs have also been developed. Nevertheless, the lack of reliable insight into the specific characteristics of juvenile sexual offenders has harmed the adequate development of efficacious models of treatment for all of these adolescents.

In truth, juvenile sexual offenders are a heterogeneous population, and some of them demonstrate psychological characteristics similar to other nonsexual violent offenders. Studies show that many adolescents who commit sexual crimes also perpetrate nonsexual offenses, making it tremendously difficult to establish a complete distinction between sexual aggressors and nonsexual offenders. Actually, the criminal versatility should be taken into account when sexual offenders in general are evaluated and treated. Despite this, there are juvenile sexual aggressors who are totally different from nonsexual violent offenders in terms of psychological characteristics. Therefore, treatment programs should be specific for sex offenders and nonsexual offenders in some situations.

Becker and Hicks (1) have classified juvenile sexual offenders in four different types, based on the most probable causal determinants and pathways to sexually aggressive behaviors:

a) Truly paraphilic behaviors, such as pedophilia and sexual sadism;
b) The inadequate sexual behavior is seen as one more facet of a pattern of opportunistic exploitation of others;
c) The aggressive sexual behavior is associated with a psychiatric or neurologic disorder so that an adolescent shows difficulty to control his impulses;
d) Adolescent sexual offenders manifest impairment of social and interpersonal skills and, consequently, can turn to younger children for sexual gratification.

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Although some juvenile sexual offenders show more than one of the characteristics above at the same time, this classification is clinically attractive and feasible to apply.

Typologies have been developed as an attempt to reduce the heterogeneity of sexual offenders as well as to establish specific therapeutic proposals and recidivism risk evaluation among them. Burton (2) classified adjudicated juvenile sexual offenders into three groups based on the age of onset of sexual criminal activities and whether such inadequate demeanor is chronic or limited to a period of their lives. According to this author, juvenile sexual offenders can be assigned to one of the following categories: “early offenders”, “teen offenders”, and “continuous offenders”. The “early offenders” are those youngsters that committed sexual offenses prior to the age of 12, whereas the “teen offenders” are those that perpetrated sexual offenses after the age of 12. The “continuous offenders” would be the adolescents who reported to have committed sexual offenses before and after the age of 12. Curiously, the “continuous offenders” usually show elevated rates of physical and emotional abuse. This also seems to be true for adult serial sexual offenders (3).

Another typology by Hunter et al. (4) has classified juvenile sexual offenders in two groups: children molesters and offenders against adults or peers. In truth, these authors verified that those offenders who targeted children had greater psychosocial deficits, were less aggressive in their sexual acts, and were more likely to victimize a relative. In fact, adolescent children molesters are found to exhibit more socially inadequate behavior and isolation, and a more frequent history of being sexually abused (5, 6) This also seems to be similar to adult children molesters (7).

Also, diverse psychiatric problems have been found in adult sexual offenders, such as personality disorders (8, 9), preference sexual disorders (10), substance misuse (7, 11), anxiety and mood disorders (12). However, little is known about the prevalence of major mental illness among juvenile sexual offenders (13, 14). Only a handful of studies on psychopathology in juvenile sexual offenders have pointed out high rates of psychiatric disorders, mainly externalizing disorders (e.g. Conduct Disorder, Attention Deficit Hyperactivity Disorder) in offenders against adults and internalizing disorders (e.g. Depression, Anxiety Disorders) in children molesters (5). In terms of long-term outcome, research on adolescent and adult sexual offenders has demonstrated that aggressors against adults reoffended more frequently on a non-sexual crime than children molesters (15). Various authors have also compared adolescent sexual offenders with juvenile nonsexual violent offenders and some of them have not verified reliable differences between both groups in terms of psychopathology (16, 17). Regarding alcohol and drug problems, some authors have verified lower levels of drug consumption in sex offenders than in nonsexual offenders. However, other studies have pointed out that sex and nonsexual offenders do not demonstrate differences in terms of alcohol and drug misuse. As juvenile sexual offenders tend to resemble violent nonsexual offenders in many characteristics, it is possible that these groups show more similar alcohol and drug problems than children molesters (13). Alternatively, poor social skills, social isolation, and low self-esteem seem to discriminate child molesters from sex offenders against adults and violent nonsexual offenders. The following table shows differences commonly reported between juvenile sexual offenders against children and those against peers or adults.

Table 1. Typology according to the age of victims

	Juvenile Sexual Offenders Against Children		Juvenile Sexual Offenders Against Peers / Adults
■	Known victims;	■	Unknown victims;
■	Low level of aggression;	■	High level of aggression;
■	Depressive symptoms;	■	Conduct Disorders;
■	Low self-esteem;	■	Other nonsexual criminal behaviors;
■	Social ineptitude	■	Antisocial behavior

Notwithstanding the different types and classifications of juvenile sexual aggressors, some common characteristics have been generally found in their clinical histories, such as impaired social and interpersonal skills, impulsiveness, academic difficulties, family instability, family violence and history of abuse and neglect (18).

In reality, juveniles and adults who commit sexual offenses show similar ways to commit sexually criminal behavior. As with adults, juveniles have molested both male and female children and adult women. The age of their victims may vary a lot. Also, sexual behavior can range from noncontact offenses (e.g., exposure, forcing a victim to pose nude, etc), contact offenses (e.g., fondling) to penetrative acts (e.g., digital, oral, or penile penetration) (1).

It is currently believed that juvenile males account for a relatively high percentage of the sexual assaults committed against women and children in our society. Studies have revealed that juveniles are responsible for 30% to 50% of the cases of child sexual abuse and about 20% of the sexual violence against adult females (18).

In São Paulo, an important state in Brazil, about 4% of male prison inmates and 1.2% of male adolescents under correctional treatment committed a serious sexual offense, defined as Rape (the crime of having sexual

intercourse with a woman or girl forcibly and without her consent, OR with a girl below the age of consent – 14 years old according to Brazilian Laws, also called "Statutory Rape") and / or Indecent Assault (libidinous acts committed by a man against women, girls or boys). In spite of these relatively high prevalence rates of adolescents and adults serving a sentence for sexual crimes, a few of them have received specialized treatment to reduce the recidivism risk.

In Brazil, the criminal records of children and adolescents are erased from their files after their eighteenth birthday. Their penalties are sometimes just educational measures in "educational centers", and the sentence has to be less than three years. Educational centers are comparable to prisons but are not called "prisons" because it is not an official form of prison. The main proposal is to withdraw the youth from circulation (19). When adolescents under 18 years old are accused of committing a crime, they are typically placed under the jurisdiction of the juvenile court. In Brazil, these minors may never be waived to adult court. Although the rehabilitation is the only mission of juvenile courts, the treatment post-release from correctional facilities for adolescents is not well established yet in our country.

Fortunately, scientific evidence has demonstrated that juvenile and adult sexual offenders can be treated. The validation of effective interventions could decrease the social costs to victims, offenders, and society by reducing future sexual aggression and increasing the likelihood that juvenile sexual offenders become productive citizens. But, it is unfortunate that an insufficient number of studies have been published on the efficacy of different therapeutic proposals for this complex population to date (20).

The National Task Force on Juvenile Sex Offending – USA - created standards for the assessment and treatment of this population and published them in 1993. Thus the Task Force identified 22 treatment goals to be addressed during the treatment of these adolescents, such as:

a) *acceptance of responsibility for behavior without minimization or externalizing blame;*
b) *identification of pattern or cycle of abusive behavior;*
c) *interruption of cycle before sexually inadequate behavior occurs and control of this behavior;*
d) *resolution of victimization in the history of the abusive youth (for instance, sexual abuse, sexual trauma, physical abuse, emotional abuse, abandonment, rejection, loss, etc);*
e) *development of victim awareness / empathy to a point where potential victims are seen as people rather than objects;*
f) *development of an internal sense of control;*
g) *understanding of the role of sexual arousal in sexually abusive behavior, reduction of deviant sexual arousal, definition of non-abusive sexual fantasy;*
h) *development of positive sexual fantasy;*
i) *understanding of the consequences of offending behavior for the self, the victim, and their families in addition to developing victim empathy;*
j) *identification (and remediation to the extent possible) of family issues or dysfunctions, which support or trigger offending: attachment disorders and boundary problems in families);*
k) *identification of cognitive distortions, irrational thinking or thinking errors, which support or trigger offending;*
l) *identification and expression of feelings;*
m) *development of pro-social relationships with peers;*
n) *development of realistic levels of trust in relating to adults;*
o) *management of addictive / compulsive problems contributing to reinforcement of deviancy;*
p) *remediation of developmental delays / development of competent psychological health skills;*
q) *resolutions of substance abuse and / or gang involvement;*
r) *reconciliation of cross-cultural issues;*
s) *management of concurrent psychiatric disorders;*
t) *remediation of skill deficits, which interfere with successful functioning;*
u) *development of relapse prevention strategies;*
v) *restitution / reparation to victims and community (21).*

After this publication, clinicians and researchers have refined these goals and selected some essential components for the therapeutic process. For example, Shaw (18) listed the following ones:

a) *confronting the user's denial;*
b) *decreasing deviant sexual arousal;*
c) *facilitating the development of non-deviant sexual interests;*
d) *promoting victim empathy;*
e) *enhancing social and interpersonal skills;*
f) *assisting with values clarification;*
g) *clarifying cognitive distortions;*
h) *teaching the adolescent to recognize the internal and external antecedents of sexual offending with appropriate intervention strategies.*

In spite of these steps described above, a "one size fits all" approach is not recommended, due to the different psychological needs of these patients. Therefore, treatment programme should permit certain flexibility, focusing on specific problems, when they appear.
Given that studies have found some differences between juvenile sexual offenders against children and those against adults, in terms of drug consumption, involvement in other types of crimes and impulsiveness levels, we have hypothesized that the group of aggressors against adults demonstrate higher drug use problems and impulsiveness levels and more frequent engagement in other types of crimes than offenders against children. With respect to the treatment programme, our preliminary aim was to evaluate the juvenile offenders' adherence to it. Because of the lack of published studies on individual therapy for juvenile sexual offenders, we did not make any previous hypothesis about this.

2. Methods

2.1 Design

This study comprised two phases: the first was a sectional one aiming at comparing juvenile sexual offenders against children with those against adults, in terms of alcohol and drug misuse, impulsiveness, sociodemographic features, crime-related factors, and dimensional aspects of personality; the second consisted of a prospective and longitudinal study to evaluate factors related to the adherence to the therapeutic programme at our service.
For the purposes of this research, the duration of the treatment was 24 weeks. However, our treatment programme can last longer depending on the severity of our patients' psychiatric and psychological problems.

2.2 Participants

This research involved 49 adolescents, between 16 and 20 years old, who were referred to our service after having committed a serious sexual offense against children (below 10 years old) and / or adults (over 18 years old). In our sample, there were no adolescents who offended victims between 12 and 17 years old.
Given the characteristics of the index offense, adolescent sexual offenders were divided into two subgroups:
a) Children molesters: offenders who had sexually abused children below 11 years of age;
b) Offenders against adults: adolescents who had raped or sexually assaulted older people (over 18 years of age).

All adolescents were treated in the Ambulatory for the Treatment of Sexual Disorders of ABC Medical School. Some of them were under correctional treatment and others had never been denounced to the police. Those adolescents under correctional treatment came to our service in official cars, at times escorted by policemen. The others came with their parents.
Families were recruited by a researcher who obtained written consent and assent, with procedures approved by the Ethical Department of ABC Medical School. When parents were not available, the consent was provided by the adolescents' guardians. Also, all adolescents provided written consent. In case of refusal to participate in this study, the adolescents were assured that they would not be withdrawn from our therapeutic programme and that they could choose to leave the programme at any time. In truth, refusal to participate in our study is not the same as the refusal to partake in our treatment programme.
It is important to note that the treatment for sexual offenders in Brazil is not compulsory, except when the accused is considered not responsible, by the conjunction of mental disease or incomplete / delayed mental development and full or partial incapacity of understanding and exertion of will. In these cases, the judge may rule that the accused must be submitted to medical treatment. In addition, therapeutic programs for juvenile or adult sexual offenders are not adequately established in Brazil yet.
Inclusion criteria were (A) evidence of a serious sexual crime; (B) age between 16 and 20 years old; (C) availability of official / police registers, when the youth was under correctional treatment; (D) written consent of the adolescent to participate in this study; (E) absence of current psychotic symptoms or serious mental retardation. To maximize generality of results, youth with other co-morbid psychiatric disorders (e.g., depression, anxiety) or co-occurring conduct problems (e.g., school truancy, nonsexual offenses, substance misuse) were included in this study. If the patients demonstrated a glaring lack of cognitive ability or willingness to examine their behavior, then they were not included in our study.
Serious sexual crimes were defined as Rape (the crime of having sexual intercourse with a woman or girl forcibly and without her consent, OR with a girl below the age of consent – 14 years old according to Brazilian Laws, also called "Statutory Rape") and Indecent Assault (libidinous acts committed by a male against females or males).

2.3 Treatment Programme

All youths were referred for sexual offender specific treatment in our service. Each one was enrolled in an individual manualized treatment programme. This treatment was cognitive behavioral and psycho-educational in nature and was conducted by three doctors intensively trained in managing sexual offenders.

Our program usually includes components that address deviant arousal, victim empathy, cognitive distortions, relapse prevention, and family counseling. Key treatment goals involve youth acceptance of responsibility for the offence(s), breaking the sexual offense cycle by increasing the awareness of triggers, identification and exercise of internal and external behavioral controls, and development of a relapse prevention protocol to reduce the recidivism risk. Our programme also seeks to achieve an improved skills set as well as a shift in personality style and perceived locus of control. Given that family therapy is often essential to the treatment of adolescent sexual offenders due to family dynamics and histories, family members of all patients are always invited to partake in our therapeutic programme.

For the purposes of this research, juvenile sexual offenders were considered non-adherents if they had refused to continue or simply abandoned the treatment. Those juvenile offenders who refused to enter into our research have not been included in our analysis.

Our programme is based on individual sessions of cognitive-behavior therapy. Because of this, our sample size was smaller than that frequently described in studies whose therapeutic programmes are based on group therapy. All therapists have been supervised by the author of this chapter and they have carried out very similar steps at each weekly session.

2.4 Psychometric Measures

The TCI (Temperament and Character Inventory) is a self-administered psychometric instrument (22) validated in Brazil (23). It measures seven personality dimensions following a theory in a psychobiological and dimensional model that integrates the role of certain neurotransmitters (serotonin, dopamine, noradrenalin) in regulating behavior.

TCI scores were converted into T-scores according to published normative data and previous research (24). T-score has a normal distribution with a mean of 50 and a standard deviation of 10. These dimensions are divided into four scales of Temperament and three of Character.

The temperament scales are considered to be stable in time, genetically based, and measure the adaptation of four psychobiological mechanisms of the individual to the variations in his / her environment:

1) Novelty seeking (NS): tendency towards exploratory activity in response to novelty, lack of inhibition, impulsiveness (hypothetically related to dopaminergic activity). This dimension is related to the level of control and excitability and corresponds to the sum of four subscales measuring more specific traits: Exploratory excitability (11 items), Impulsiveness (10 items), Extravagance (9 items), and Disorderliness (10 items);

2) Harm avoidance (HA): tendency to anxiety, shyness, worry and avoidance of punishment (empirically associated with serotoninergic activity). This dimension is assessed by means of four subscales: Antecipatory worry (11 items), Fear of uncertainty (7 items), Shyness (8 items), and Fatigability (9 items);

3) Reward Dependence (RD): attachment and social attachment systems (hypothetically related to the activity of oxytocin). It is associated with dependence on external approval. This dimension encompasses three subscales: Sentimentality (10 items), Attachment (8 items), and Dependence (6 items);

4) Persistence (P): capacity to maintain behavior in adverse conditions (hypothetically related to noradrenergic activity). It is characterized by making demands on self, hard working, striving for excellence. It has a single 8-item scale.

The Character scales are:

1) Self-directedness (SD): related to maturity, strength and self-sufficiency. Capacity to manage behavior guided by goals chosen voluntarily and individually and not by circumstances, impulses or external stimulus. This dimension is assessed as the sum of five subscales measuring more specific related traits: Responsibility (8 items), Purposefulness (8 items), Resourcefulness (5 items), Self-acceptance (11 items), and Congruent second nature (12 items);

2) Cooperativeness (C): reveals an inclination towards social tolerance, empathy, friendliness, altruism, respect for others. This dimension includes: Social acceptance (8 items), Empathy (7 items), Helpfulness (8 items), Compassion (10 items), and Pure-heartedness (9 items);

3) Self-transcendence (ST): reflects a tendency towards spirituality, idealism, religious or mystical feelings and identification with the wider world, as well as the ability to accept ambiguity and uncertainty, and a sense of communion with others. This dimension encompasses three subscales: self-forgetfulness (11 items), transpersonal identification (9 items), and spiritual acceptance (13 items).

The Drug Abuse Screening Test (DAST) was constructed to provide a quantifiable self-report instrument for use in clinical and nonclinical settings to detect drug misuse pertaining to a range of psychoactive drugs (25). Its version to be used as a drug misuse screening measure in adolescents (DAST-A) has also been developed (26).

The Alcohol Use Identification Test (AUDIT) was designed to detect alcohol consumption that has become hazardous or harmful to health in a range of clinical and nonclinical settings. It was constructed to recognize people with early-stage alcohol problems (27, 28).

The Barratt Impulsiveness Scale (BIS-11) is a self-applied scale composed of 30 items with Likert-type questions which provide a total score of impulsivity and three sub-scores: attention, lack of planning and motor impulsivity. Scores vary from 30 to 120 and there is no established cut-off point (29, 30).
In this research we also employed a questionnaire on socio-demographic characteristics and alcohol and drug consumption history which is commonly used in the Ambulatory for the Treatment of Sexual Disorders of ABC Medical School, Santo André, São Paulo.
In addition, items of the Sexual Offender Risk Appraisal Guide (SORAG) were applied to our sample. Information on childhood, adulthood adjustment and offense-related variables were the selected items for use. We decided not to apply this instrument as a whole because the SORAG is not an validated inventory in our country. Instead of using it as a risk assessment method, we have used it more precisely as an anamnestic approach to evaluate violence-related factors. In fact, the SORAG was developed by Quinsey et al. (31) based on their many years of work in the Ontario correctional system. The SORAG is a 14-item actuarial instrument for assessing the recidivism risk of previously convicted sexual offenders. Several studies on sexual offenders have demonstrated its high accuracy in the prediction of violent crimes in general but moderate correctness to predict sexual violence recidivism.

3. Statistical Analysis

3.1 Differences between juvenile sexual offenders against children and juvenile sexual offenders against adults

Differences between both groups (juvenile sexual offenders against children and against adults) were determined using the parametric *t* test for continuous variables, except when the variances between two variables of the samples were unequal, according to the Levene's criteria. In these situations, the non-parametric Mann-Whitney-U test was applied. Categorical variables were compared by using χ^2 test. Multiple variance analyses (MANOVA) were also used because this research evaluated many dependent variables and only a univariate analysis could increase the chance of missing data.

3.2 Adherence to the treatment programme

If a patient discontinued the programme or simply refused to continue the treatment during these 24 weeks, he was considered non-adherent. Thus, the outcome measure – time from the beginning of the treatment programme until the withdrawal from it – was analysed by Kaplan-Meyer survival analysis, censoring missing data (log-rank test).
For all statistical tests performed, differences between the two groups were accepted as significant if they achieved the 0.05 level with two-tailed tests. Data were analysed using SPSS 17, Stata 9 and power analysis and sample size (PASS). After the conclusion of the study, we calculated the power of our sample size to detect differences between the means obtained for the severity of drug use (DAST means) *versus* the alternative of equal values, using an F-test with a 0.05 significance level.

4. Results

4.1 Sample characteristics

As shown in Table 2, there were no significant differences between both groups of juvenile sexual offenders at baseline in terms of age, race, educational level, history of being sexually abused and elementary school maladjustment history. With respect to the crime-related factors, JSO against adults offended unknown victims more frequently, were more commonly involved with other violent crimes (such as robbery and drug dealing), and showed more frequent history of criminal recidivism than the group of JSO against children. The criminal versatility was a clear finding among the JSO against adults.

4.2 Baseline multivariate analysis

A 2 X 3 MANOVA was conducted, with the groups of JSO against children and those against adults as the independent variable, and the DAST-A, AUDIT and BIS-11 total mean scores entered as the dependent variables. The overall MANOVA was significant, Pillai's $F(3, 45) = 5.57$, $p = 0.003$, $\partial n^2 = 0.27$. An analysis of univariate effects revealed significant effects for the DAST-A mean score, $t = 3.84$, 47 df, $p < 0.01$, and AUDIT mean score, $t = 2.07$, 47 df, $p = 0.04$. Mean and standard deviations for these measures are listed in Table 03.
Also, a 2 X 7 MANOVA was carried out, with the two groups of offenders as the independent variable, and the dimensions of the temperament (NS, HA, RD and P) and the dimensions of the character (SD, C and ST) mean T-scores entered as the dependent variables. The overall MANOVA was not significant, Pillai' s $F(7, 41) = 0.92$, $p = 0.50$, $\partial n^2 = 0.14$. Despite this, an analysis of univariate effects demonstrated reliable effects for the "persistence" mean T-score, $t = 2.15$, 47 df, $p = 0.04$. Mean and standard deviations for these variables are shown in Table 04.

Table 2. Sociodemographic features and crime-related factors among juvenile sexual offenders

Variables	JSO against children (n = 26)	JSO against adults (n = 23)	Test	p
Age, mean (SD)	16.81 (1.09)	17.39 (1.08)	t = 1.88, 47 df	0.07
Race, n (%)				
White	13 (50)	5 (21.74)		
Black	2 (7.69)	5 (21.74)	χ^2 = 4.84, 2 df	0.09
Mixed Races	11 (42.31)	13 (56.52)		
Educational level, n (%)				
Fourth grade or less	8 (30.77)	4 (17.39)	χ^2 = 1.18, 1 df	0.28
More than fourth grade	18 (69.23)	19 (82.61)		
Elementary school maladjustment, n (%)				
No problems				
Minor to moderate problems	5 (19.23)	3 (13.04)		
Severe problems	14 (53.85)	10 (43.48)	χ^2 = 1.52, 2 df	0.47
	7 (26.92)	10 (43.48)		
History of being sexually abused, n (%)	7 (26.92)	6 (26.09)	χ^2 < 0.01, 1 df	0.95
Lived with parents to age 16, n (%)	9 (34.61)	11 (47.83)	χ^2 = 0.88, 1 df	0.35
Victim's age, mean (SD)	6.73 (2.34)	23.96 (6.94)	U < 0.01	< 0.01**
Relationship with victims, n (%)				
Related victim	7 (26.92)	1 (4.35)		
Known victim	15 (57.69)	5 (21.74)	χ^2 = 17.43, 2 df	< 0.01**
Unknown victim	4 (15.39)	17 (73.91)		
Number of victims involved, n (%)				
1 victim	18 (69.23)	18 (78.26)		
2 victims	3 (11.54)	2 (8.70)	χ^2 = 0.52, 2 df	0.77
3 or more victims	5 (19.23)	3 (13.04)		
Age of initiation into criminal activities, mean (SD)	14.54 (2.83)	13.39 (3.34)	t = 1.30, 47 df	0.20
Sexual crimes recidivism history, n (%)	2 (7.69)	4 (17.39)	χ^2 = 1.07, 1 df	0.40
Nonsexual crimes recidivism history, n (%)	5 (19.23)	17 (73.91)	χ^2 = 14.75, 1 df	< 0.01**
Other violent crimes concurrent with sexual crimes, n (%)	0	16 (69.56)	χ^2 = 26.86, 1 df	< 0.01**
Acknowledged the crime, n (%)	19 (73.08)	13 (56.52)	χ^2 = 1.48, 1 df	0.22
Killed the victim, n (%)	1 (3.85)	3 (13.04)	χ^2 = 1.38, 1 df	0.24

** p < 0.01

Table 3. Alcohol and drug problems and impulsiveness between JSO against children and JSO against adults

Variables	JSO against children (n = 26)	JSO against adults (n = 23)	Test	p
DAST-A, mean (SD)	3.77 (5.51)	10.35 (6.46)	t = 3.84, 47 df	< 0.01**
AUDIT, mean (SD)	5.88 (8.48)	11.09 (8.96)	t = 2.07, 47 df	0.04*
BIS, mean (SD)	70.96 (10.93)	67.87 (13.07)	t = 0.89, 47 df	0.38

** $p < 0.01$
* $p < 0.05$

Table 4. Temperament and character dimensions between JSO against children and JSO against adults

Variables	JSO against children (n = 26)	JSO against adults (n = 23)	Test	p
NS, mean (SD)	50.01 (11.33)	49.98 (8.58)	t = 0.01, 47 df	0.99
HA, mean (SD)	50.63 (9.97)	49.31 (10.21)	t = 0.45, 47 df	0.65
RD, mean (SD)	50.63 (7.78)	49.32 (12.11)	t = 0.45, 47 df	0.65
P, mean (SD)	47.13 (9.33)	53.12 (9.95)	t = 2.15, 47 df	0.04*
SD, mean (SD)	51.02 (9.85)	48.89 (10.26)	t = 0.73, 47 df	0.47
C, mean (SD)	49.93 (7.80)	50.07 (12.13)	t = 0.96, 47 df	0.96
ST, mean (SD)	48.30 (9.04)	51.84 (10.84)	t = 1.23, 47 df	0.22

* $p < 0.05$

4.3 Correlation between Drug Problems and Age of the Beginning of Criminal Activities

The association between the variables 'scores on DAST' and 'age of the beginning of criminal activities' was negative and statistically significant for the overall sample ($r = -0.52$, $p < 0.01$). Considering each group of juvenile sexual offenders, the correlation between both variables was negative and statistically reliable for both groups($r = -0.59$, $p < 0.01$, for JSO against children; and $r = -0.45$, $p = 0.03$, for JSO against adults). The inverse correlation between these variables is depicted in Figure 1.

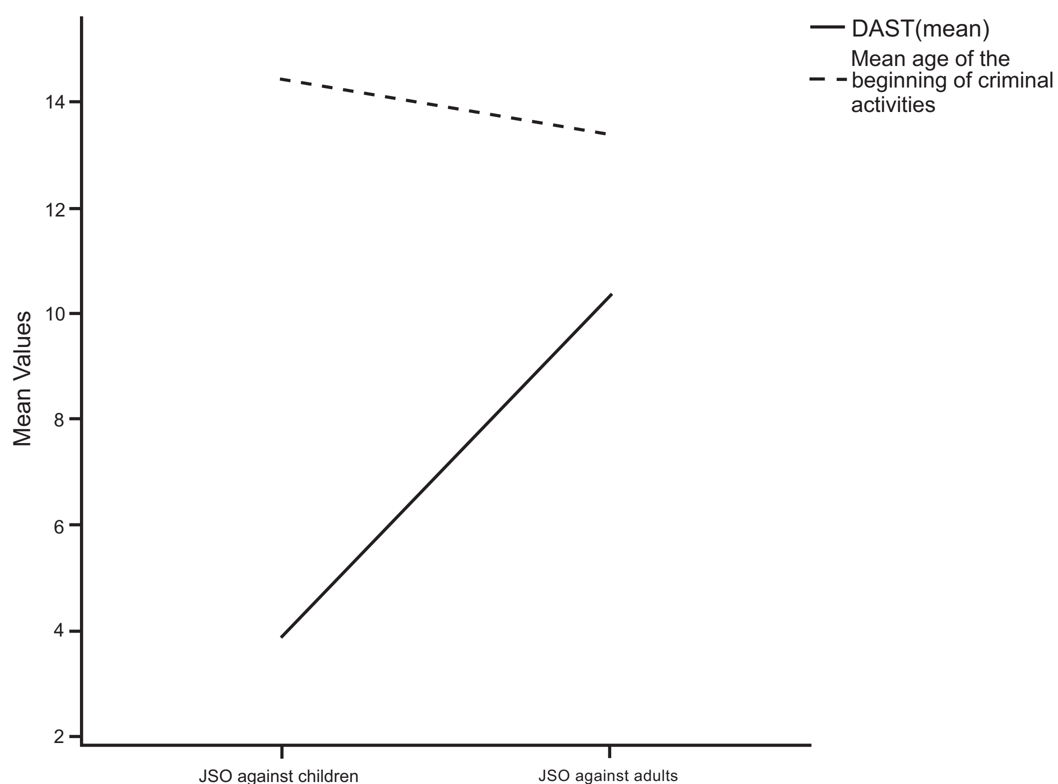

Figure 1. Correlation between means of the DAST and Age of the beginning of criminal activities between JSO against children and JSO against adults

4.4 Adherence to the treatment

Thirteen (50%) JSO against children and 13 (56.52%) JSO against adults adhered to this treatment (χ^2 = 0.21, 1 df, p= 0.65).

We have verified if any variables could predict the higher adherence to our treatment programme. As we had not formulated any hypothesis about this at the beginning of our research, we have tested all variables applied in our study. Although this conduct cannot be considered methodologically adequate because it was not hypothesized at the beginning of this research, we based our thinking on empiricism. As a result, two variables could predict the higher adherence to the treatment programme: the acknowledgement of the crime at the beginning of the study and the history of offending more than one victim.

We used the *Cox Proportional Hazards Regression Model* to control the effects of both variables – "the acceptance of the crime" and "the history of offending more than one victim" – at the time to discontinue the treatment. According to the Wald criterion, the acceptance of the sexual crime reliably predicted survival time, after adjustment for the offenders of one or more than one victim (Wald = 4.77, 1 df, p = 0.03, OR = 0.29, 95% CI = 0.17-0.91). In this analysis, the OR of 0.29 means that the acceptance of the sexual crime at the beginning of the treatment decreases the odds of failing by 71%. In addition, according to the same criterion, the history of offending against more than one victim also predicted survival time, after adjustment for the denial or acknowledgement of the crime (Wald = 4.03, 1 df, p = 0.04, OR = 0.22, 95% CI = 0.05-0.96). In this analysis, the OR of 0.22 means that the history of offense against more than one victim decreases the odds of failing by 78% (Table 05). It is important to note that this model with all predictors proved to be significant, χ^2 = 10.65, 2 df, p < 0.01.

Table 5. Adherence related factors among juvenile sexual offenders (Cox Regression)

	SE	Wald	df	p	OR	CI (95%)
Variables						
Acceptance of the sexual crime	0.43	4.77	1	0.03*	0.29	0.17-0.91
Sexual Offense against more than 01 victim	0.74	4.03	1	0.04*	0.22	0.05-0.96

* p < 0.05

4.5 Survival Analysis

As shown in Figure 2, the proportion of subjects who remained without discontinuity was higher in the group of JSO that acknowledged the sexual crime than in the group that denied this fact throughout the 24 weeks of treatment (p = 0.01, log-rank test).

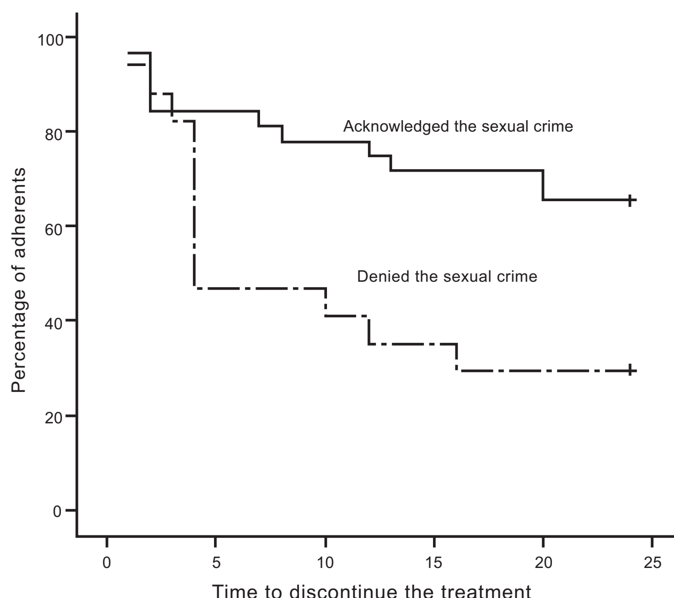

Figure 2. Survival curve of time to discontinue the treatment between JSO that acknowledged and those that denied the sexual crime

4.6 Psychometric variables between JSO that acknowledged and denied the sexual crime at the beginning of the treatment programme

Given that JSO who denied the sexual crime showed fewer compliance with our treatment program than those offenders that acknowledged the crime, we decided to verify if there were differences between these two new groups with respect to the psychometric variables applied.

A 2 X 3 MANOVA was conducted, with the group of JSO that denied and the group that accepted the crime as the independent variable, and the DAST-A, AUDIT and BIS-11 total mean scores entered as the dependent variables. The overall MANOVA was not significant, Pillai's F (3, 45) = 2.43, p = 0.08, $\partial n^2 = 0.14$. In spite of this, an analysis of univariate effects revealed significant effects for the BIS-11 mean score, *t* = 2.37, 47 df, p = 0.02. Mean and standard deviations for these measures are listed in Table 06.

Table 6. Alcohol and drug problems and impulsiveness levels between JSO who acknowledged and those that denied the sexual crime

Variables	Acknowledged the crime (n = 32)	Denied the crime (n = 17)	t test	p
DAST-A, mean (SD)	8.06 (6.78)	4.87 (6.47)	1.56, 47 df	0.13
AUDIT, mean (SD)	8.75 (9.09)	7.62 (9.09)	0.40, 47 df	0.69
BIS, mean (SD)	72.25 (11.99)	63.94 (10.17)	2.37, 47 df	0.02*

* p < 0.05

Also, a 2 X 7 MANOVA was carried out, with the two groups of offenders (deniers and accepters) as the independent variable, and the dimensions of the temperament (NS, HA, RD and P) and the dimensions of the character (SD, C and ST) mean T-scores entered as the dependent variables. Also, the overall MANOVA was not significant, Pillai' s F (7, 41) = 2.07, p = 0.07, $\partial n^2 = 0.26$. However, an analysis of univariate effects demonstrated reliable effects for the "Novelty Seeking" mean T-score, *t* = 2.16, 47 df, p = 0.04, and for "Reward Dependence" mean T-score, *t* = 2.08, 47 df, p = 0.04. Mean and standard deviations for these variables are depicted in Table 07.

Table 7. Temperament and character dimensions between JSO who acknowledged and those who denied the sexual crime

Variables	Acknowledged the crime (n = 32)	Denied the crime (n = 17)	t test	p
NS, mean (SD)	52.13 (10.61)	45.75 (7.19)	2.16, 47 df	0.04*
HA, mean (SD)	49.95 (11.12)	50.09 (7.61)	0.04, 47 df	0.96
RD, mean (SD)	47.94 (10.94)	54.11 (6.22)	2.08, 47 df	0.04*
P, mean (SD)	48.94 (9.28)	54.03 (10.82)	1.03, 47 df	0.31
SD, mean (SD)	47.98 (9.08)	54.03 (10.82)	2.04, 47 df	0.05
C, mean (SD)	48.74 (9.82)	52.52 (10.18)	1.24, 47 df	0.22
ST, mean (SD)	49.73 (9.63)	50.53 (11.01)	0.26, 47 df	0.80

* p < 0.05

4.7 Power Analysis and Sample Size (PASS)

As the main goal of this study was to detect drug problems among the juvenile sexual offenders that participated in our treatment programme, we have evaluated the sample power based on the mean scores of the DAST-A.

In truth, our sample was able to show differences between the group of JSO against children and the group of JSO against adults with reference to the severity of drug problems. The PASS statistical program was used in a *t*-test for 2 (independent) groups with common variance.

One of the aims of the proposed study was to test the null hypothesis that the means of the two groups were equal. The criterion for significance was 0.05 and the test was 2-tailed. With the proposed sample of 26 and 23 for the two groups, this research provided a power of 96% and the common within-group standard deviation was 6.

The second goal of this study was to estimate the mean difference between these two groups. On average, this research has enabled us to report the mean difference with a precision (CI 95%) of plus / minus 3.42 points.

5. Discussion

Although juvenile sexual offenders are a heterogeneous population, it is possible to divide them into different groups. In fact, juvenile sexual aggressors against adults as a group have shown distinguishable characteristics from juvenile children molesters. In this study, the first group has demonstrated more drug problems, earlier beginning of criminal activities, higher criminal versatility and higher persistence mean scores.

There was no significant difference between both groups of adolescent sexual offenders in terms of time to discontinue the treatment. However, the youngsters that acknowledged the crime at the beginning of the treatment adhered more to our programme than those that denied the crime. Although this finding can seem extremely obvious, we have verified some psychological differences between the groups of deniers and accepters. Actually, those that denied the crime revealed higher reward dependence and lower novelty seeking than the group of accepters. In addition, the impulsiveness levels were lower among those adolescents that denied the crime.

Different studies have pointed out that sexual offenders against adults show higher drug problems than children molesters. However, although alcohol problems have more frequently been associated with children molesters, this study demonstrated that the group of juvenile sexual offenders against women had also higher scores on the AUDIT. In this period of life, the usage of drugs is strongly mixed with alcohol use, before the development of a possible preferential consumption in adulthood takes place. It is unfortunate that many adolescents are inserted into a permissive culture where the drug use is the norm, and this can be a disturbing fact among those adolescents who are also involved in multiple criminal activities, as it is the case of juvenile sexual offenders against women.

Youngsters are often aware of the excessiveness of the violent behaviors performed, but because violence has been learned in the streets and, sometimes, inside their homes, violence becomes a natural and expected part of these adolescents' lives. Poor economic means, along with unstable homes, collaborate to subscribe to society's goals of power and materialism. Power can be attained by causing fear and submission, whereas materialism is often obtained by selling drugs and stealing.

Furthermore, persistence, as a dimensional aspect of temperament, means a tendency to maintain certain behaviors, in spite of negative consequences. The group of adolescent sexual offenders against women has been more commonly stuck in a criminal environment, where they can be introduced to other "members". A higher persistence or perseverance in these youngsters can indicate that they enjoy their activities, irrespective of legal and social consequences. According to Siegel (32), persistent young offenders are more likely to engage in a variety of criminal acts, including theft and violent offenses.

With reference to the specific treatment programmes for sexual offenders, although many different studies have contended that the adequate treatment can decrease the recidivism risk among sexual aggressors, we have to evaluate multiple variables before coming to any precise conclusions. For example, some studies have affirmed that treated participants show reduced recidivism risk ranging from 30% to 40% when compared to those nontreated (33, 34). However, this conclusion has been criticized because many of these studies have included voluntary participants who can have lower risk of re-offending than those offenders who refused to participate in these treatments. Thus, according to these studies, treatment may not cause the lowering of risk but can be a way to differentiate offenders with high recidivism risk from those with low risk (35). It is possible that many studies on therapeutic outcomes are not including participants with high recidivism risk, that is, those who do not accept to participate in these therapeutic programs and presumably with high scores on certain inventories or scales that measure the severity of recidivism risk or that point to the presence of serious personality disorders, such as the Psychopath Checklist-Revised (PCL-R) (36). If this is true, the formulation of a consistent theory about the efficacy of the specific managements for this complex population will be partially harmed. In addition, considering offenders that volunteer to participate in a specific treatment, there are those that adhere to it and those that do not. In a society where the treatment for sexually aggressive and criminal behaviors is a voluntary choice, the compliance with a certain type of treatment can mean higher possibilities of personal changes. Therefore, the factors associated with dropouts should also be considered during the evaluation of treatment programme effectiveness. Comparisons among adherent, non-adherent and refusers should be better carried out in future research. In fact, the "high risk" offenders would be most likely to be judged to "need" treatment and it would be unfair to evaluate treatment by comparing treated and untreated groups only.

In addition, it is also attainable that some offenders can be wrongly considered unsuitable to treatment by inexperienced mental health professionals and thus not referred to specific therapeutic programmes. It would also be important to consider that some of these professionals can think that nonspecialized treatments are as adequate as those based on more appropriate scientific evidence. Besides, some juvenile sexual offenders prefer not to receive specialized treatment, due to different reasons such as the possibility of the other types of treatment being less personally demanding.

Our study demonstrates that there are intriguing differences between the juvenile sexual offenders that acknowledged the crime and those that did not. The offenders that denied the criminal act showed higher reward dependence and lower impulsiveness, which can mean that their compliance with a certain activity, specially a personally demanding one, will depend on an external approval of their demeanors and beliefs. Our treatment programme usually aims to change behaviors, to adequate the deviant sexuality to a healthier one, to establish limits and to develop social and affective abilities, among other proposals. Unfortunately, not all steps of our programme are rewarding for these patients, due to the fact that changing thoughts and actions as well as handling feelings are arduous and sometimes uncomfortable processes.

Among juvenile sexual offenders, also much similarly to adults, the more frequently cited sexual re-offense predictors are:

a) poor social skills;
b) deviant sexual interests;
c) prior criminal sanctions for sexual assaults;
d) drop out from specific treatment;
e) victim related characteristics, such as non-relative ones and history of offense against more than one victim.

Therefore, a treatment focused on different aspects of the personality of offenders would be suitable to increase the adherence and, consequently, make personal changes and possibly reduce the recidivism risk.

Among these diverse factors related to the risk of reoffending, the lack of social skills and the deviant sexual behavior must call our attention. Thus, the participation in adequate programmes would be highly necessary to help these adolescents to cope with harmful sexual urges and to improve their healthy skills. At least, we would be trying to improve the quality of life of these youths, providing them with further chances to revise their choices and demeanors. Thus, mental health professionals must intensify efforts to increase the adherence to the treatment.

Anyway, it is important to point out that sexual offending can be considered an experimental behavior as a part of normal sexual development in some situations. However, many adolescent sex offenders demonstrate deviant sexual arousal and paraphilic sexual impulses, similar to adult sexual aggressors. In order to differentiate these groups, a rigorous psychiatric and psychological evaluation must be carried out.

Around the world, there has been intense pressure of the political spectrum to recognize the phenomena related to sexual offenses as worthy of further effort to achieve change. Parents in general are also concerned about the risk represented by sexual offenders who target children. In this arena, mental health professionals have divulged that sex offenders can show psychological and psychiatric problems that are amenable to evaluation and treatment (37). Consequently, some sexual offenders have received treatment to reduce their chance to commit such crimes in some countries, but this is not taking place in many different societies.

Unfortunately, many juvenile sexual offenders in our service do not continue the treatment after release from correctional facilities, even if they are counseled to do this by judges and other law professionals. In truth, there is no legislation that strongly recommends medical and psychological treatment for juvenile offenders after releasing them from correctional facilities and this profoundly harms their adequate management, control and follow-up.

6. Limitations

Some experts would agree that something can be learned from imperfect research, since no study is totally perfect. Below, we present some weaknesses related to our study and some defenses against them.

Frequently, group therapy has been suggested as the more suitable treatment format for this population. Marshall et al. (1999) (38) affirm that individual therapy can be less effective and less efficient than group therapy. According to these authors, some offenders are more likely to challenge the other offenders' views during the group sessions. In fact, other offenders can be seen as more credible than the therapist who, after all, has no personal experience with being an offender. Group therapy may also allow higher mutual support among the patients not only during the sessions, but also in other situations. Furthermore, given that many offenders are deficient in social skills and intimacy abilities, the participation in a group might improve these capacities as a whole. However, there are differing views regarding the appropriateness of individual treatment for sexual offenders (39). Maletsky (40) argues that there is little evidence to advocate group or individual therapy as the most effective format. Other authors (41) reported a comparison of two groups of sexual offenders who underwent either a combination of group and individual therapy or individual treatment alone. They were not able to find any reliable differences between both groups, in terms of recidivism rates. Thus, the differences and the best recommendations of group or individual therapy for sexual offenders need to be more intensively tested and evaluated in different contexts and cultures. Given the heterogeneity of sexual offenders in general, it is possible to think that some of them will benefit from group therapy while others will be better off receiving individual treatment.

Although our service (Ambulatory for the Treatment of Sexual Disorders of ABC Medical School – Santo André – São Paulo, Brazil) has been able to provide patients with group or individual therapy depending on the psychological recommendations, it is not always possible to arrange group sessions with these adolescents, due to the fact that many of them come from different correctional institutions. Besides, as these youngsters are commonly interned in the same facilities where there are also non-sexual violent juvenile offenders, and the former group is not enjoyed by the latter, putting our patients together could represent a risk of spreading information of their crimes to non-sexual offenders in different correctional facilities. In fact, a certain vying is frequently noted among our juvenile sexual offenders, specially when they had already been introduced to one another outside these institutions.

Also, although our psychoterapy programme has not followed a rigid protocol for all of these patients, this cannot be properly considered a methodological flaw. Marshall (2005) (42) highlights the need for therapeutic interventions to be client centered. In reality, the use of manuals and procedures that rigorously provide the same psychotherapeutic approaches for all subjects may be dismissing important necessities of each individual. In addition, a lot of these rigidly standardized psychotherapeutic procedures may be losing some elements of what in fact is done in daily clinical practice. Furthermore, studies examining developmental pathways and the development of typologies have important implications for the treatment of adolescent sexual offenders. Given the heterogeneity of this group, the treatment should be adequately individualized to address the specific needs of each offender. A "one size fits all" approach is not recommended, given the differing psychological needs of these youths. Furthermore, with reference to the most suitable practices, it appears that cognitive-behavioral approaches are the best choice of treatment for sexual aggressors.
We have not recruited a control group and comparisons with other offending groups, such as nonsexual violent and nonviolent offenders, would also be particularly interesting.

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CHAPTER 5

Alcohol and Drug Problems Between Pedophilic and Nonpedophilic Children Molesters

Danilo Antonio Baltieri[1,2,3]

[1] *Department of Psychiatry of the University of São Paulo, Brazil;*
[2] *Department of Psychiatry of ABC Medical School, Santo André, São Paulo, Brazil;*
[3] *Penitentiary Counseling of the State of São Paulo, Brazil*

Address correspondence to: Prof. Dr. Danilo Antonio Baltieri, Ambulatory for the Treatment of Sexual Disorders of ABC Medical School (ABSex), Department of Psychiatry of ABC Medical School. Avenida Lauro Gomes 2000. Vila Sacadura Cabral. Santo André. CEP: 09060-870. São Paulo, Brazil; Te/Faxl: +55 11 4993.729. E-mail: dbaltieri@uol.com.br

Abstract: Introduction: In spite of the heterogeneity among children molesters, some research has investigated these offenders based on the presence or absence of the diagnosis of pedophilia. The purpose of a distinction between these groups (with and without pedophilia) is to establish a more accurate prognosis and an effective treatment.
Method: This study examined a sample of 143 children molesters serving a sentence in a Penitentiary in São Paulo State, Brazil. Pedophilic children molesters were defined in two ways: (1) those offenders who acknowledged to the study interviewer that they were primarily sexually interested in children; and (2) those offenders against children who did not admit this recurrent sexual interest, but had high scores on the Screening Scale for Pedophilic Interest (SSPI). Both groups were compared with relation to impulsiveness, sexual addiction, severity of alcohol and drug use and recidivism risk.
Results: Children molesters showed higher impulsiveness levels, were more commonly single, revealed more frequent history of sexual abuse in childhood and offended a greater number of victims than nonpedophilic children molesters. Furthermore, the offense against any male victim was more reliably related to pedophiles.
Discussion: Differences between pedophilic and nonpedophilic children molesters do not consist of anecdotal evidence, but imply the dire necessity of individualized medical and legal approaches. When an individual meets diagnostic criteria for pedophilia, he must be treated accordingly. This paper discusses the issues related to the adequate treatment of pedophiles in Brazil.

Introduction

Child sexual abuse is a serious public health problem in many different countries and cultures. Globally, the prevalence of child sexual abuse has been found to be from 12% to 33% for girls and from 8% to 10% for boys (1-3). In the United States, it has been estimated that between 100,000 and 200,000 children are sexually molested each year (4). In a study aimed at estimating lifetime prevalence of child sexual abuse in a representative sample of the population aged 14 and over in a city of southern Brazil, almost 4% of the interviewees revealed to have been sexually molested. It is important to note that this Brazilian research used a short questionnaire that defined sexual abuse, asked about the occurrence of such event and the age when it first happened, but it did not include questions about exposure to pornography, forced view of sexual anatomy or sexual intercourse (5).
Part of the rationale for conceptualizing sexual violence as a public health problem also stems from its association with negative effects on the health of its victims. Victimization through sexual violence has been related to a variety of mental disorders and physical problems.
Unfortunately the existent data on sexual violence or abuse prevalence are not completely reliable. The shame cast on the victims, the lack of knowledge about the laws, and an inadequate system of police report are probably some factors responsible for the questionable prevalence data. Other reasons are: (a) many reports do not include participants with known rates of being sexually abused, such as institutionalized people; (b) the reports are predicated on conscious recall; (c) those participants who refused to take part in the research are more likely the ones who have a history of sexual abuse; (d) some participants probably suppress the fact and therefore fail to report conscious memories of abuse (6, 7).
Despite these difficulties, the high prevalence rates in different studies point out the necessity of a continuous development of strategies to identify victims and aggressors in order to establish adequate therapeutic proposals

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for both. Most research on child molesters has neglected to differentiate this group based on the presence or absence of a diagnosis of pedophilia (8).

In general terms, among children molesters there are those who show a normal pattern of sexuality and others who suffer from paraphilic disorders, such as pedophilia. The former group usually performs isolated deviant sexual acts impulsively and / or opportunistically, whereas the latter has consistent deviant sexual interests known as paraphilia. Data on the incidence or prevalence of paraphilias in general are virtually nonexistent, due to the fact that these disorders are still considered taboo subjects in different societies (9).

Sexual offending against children is not synonymous with pedophilia, although these constructs are commonly used interchangeably in political and media accounts (9). Pedophilia is a medical construct while the term 'children molesters' is a socio-juridical one. At least this distinction should be clear in well-organized societies.

People convicted or accused of sexual molestation against children are not categorically considered pedophiles, although nonscientific journals have attributed this term to all people accused of this type of aggression. Many acts of children molestation are single acts and are not repeated. The prevalence of someone participating in some form of paraphilic behavior at some time in life is something between 5 and 30% of the general population (10). On the contrary, pedophilia tends to be a chronic disorder, and the sexual urges and fantasies involving children must continue for more than 6 months. Therefore not all of those who sexually abuse minors are pedophilic. It is unfortunate that published statistics on the prevalence and incidence of paraphilias in general are virtually nonexistent, because many individuals suffering from paraphilias do not search for treatment in specialized clinics.

According to Murray (2000) (11), men with Pedophilia may wish to touch or undress children; others expose themselves to children; some of these men want to fondle them, and when sexual activities happen, they often involve oral sex or touching the genitals of the child or of the perpetrator. People suffering from Pedophilia manifest predominant or almost exclusive sexual arousal related to children (12). Therefore, based on scientific evidence, experienced psychiatrists must diagnose and treat these patients who present activities or fantasies involving children, even before any illegal sexual activity takes place.

Although the etiology and pathophysiology of the paraphilias are still under investigation, many studies have shown abnormalities on a biological level. Also, identifiable biological deviations, such as inherited genetic disorders, hormonal abnormalities, and neuropsychiatric disorders have been associated with paraphilic or non-paraphilic behavior. Maes et al. (2001) (13) described high plasma epinephrine and norepinephrine levels in a sample of men with Pedophilia. They also observed increased cortisol reponses to the administration of meta-chlorophenylpiperazine in this sample when it was compared to normal men. Gaffney and Berlin (1984) (14) observed a significant increase in the secretion of luteinizing hormone after an intravenous administration of luteinizing hormone-releasing hormone in a group of patients with pedophilia when compared to patients suffering from other types of paraphilias and to a control group. There are some case reports that correlate pedophilic symptoms with brain damage. Burns and Swerdlow (2003) (15) registered a case of a 40-year-old man who manifested pedophilic symptoms due to a frontal orbitofrontal tumor, and Mendez, Chow, Ringman, Twitchell and Hinkin (2000) (16) described two sexagenarian patients, one with frontotemporal dementia and another with bilateral hippocampal sclerosis, who manifested symptoms of Pedophilia. According to Cantor et al. (2004) (17), pedophilic men show lower IQs, poorer verbal memory and visuospacial scores when compared to normal men. These neuropsychological findings seem to be related to some specific brain abnormalities (18). Few imaging studies have also been carried out among pedophiles to verify presumptive alterations in the brain functioning. Schiltz et al. (2007) (19) have noted that men with Pedophilia have less grey matter volume in frontostriatal circuits than noncriminal men and Cantor et al. (2008) (20) have registered lower white matter volumes in the temporal and parietal lobes among men with Pedophilia when compared to nonsexual offenders. Sartorius et al. (2008) (21) verified significant amygdala activation in pedophiles while viewing pictures of boys in swimming trunks when this group was compared to a control group. In a recent research on neuroimage among people with pedophilia, an important total amygdala volume reduction and a gray matter deficit were found, specially on the right side of the brain (19). In fact, this lateralisation is expected because the emotional memory of men seems to be more right sided. On the other hand, amygdala is a brain region of serotoninergic modulation; this could partially explain why some pedophiles have demonstrated a reasonable therapeutic response to serotoninergic drugs. The more scientific evidence demonstrates organic disturbances among men with pedophilia, the better our society will accept the therapeutic methods for this condition.

In addition, many different comorbid psychiatric disorders have been found among men with paraphilias. Raymond, Coleman, Ohlerking, Christenson and Miner (1999) (22) and Kafka and Hennen (2002) (23) registered high prevalence rates of mood disorders, anxiety disorders and substance abuse among men with paraphilia; Allnutt, Bradford, Greenberg & Curry (1996) (24) found high rates of alcoholism among paraphilics, and Baltieri and Andrade (2008) (25) have reported high rates of alcoholism among children molesters in general. Alcohol misuse constitutes an important risk factor for sexual offense (26-28). Furthermore, pedophilic children molesters usually show a higher number of previous victims and commit offences against extra-familial boys more frequently than nonpedophilic children molesters (29, 30).

Surprisingly, studies on alcohol and drug problems among pedophiles have been seriously neglected, and this can harm the adequate development of treatment, prevention and risk evaluation strategies (25).
With respect to the history of being sexually abused in childhood, there is scientific evidence that suggests a connection between precocious sexual experiences and pedophilia. Adult sexual offenders who report having been sexually abused in childhood are more likely to admit being sexually aroused by children. In fact, sexual abuse history has been associated with having multiple child victims, younger victims, and an earlier onset of sexual offending (9, 31). The "cycle of sexual violence" has been discussed at length in the scientific literature, but there has been limited empirical support for this popular notion. Despite this, being a victim of child sexual abuse poses a strong risk factor of his becoming a future perpetrator (32).
Consistent with the recent literature, some researchers have begun to advocate for setting apart pedophilic from nonpedophilic children molesters in order to create a more adequate management for sexual offenders against children. Our study aimed at distinguishing these two groups of sexual aggressors in terms of alcohol and drug consumption, impulsiveness and history of being sexually abused in a sample of incarcerated children molesters. Due to the characteristics of pedophilia, such as uncontrollable sexual urges directed to children, and the frequent co-existence of other psychiatric disorders, i.e. alcoholism, we have hypothesized that pedophilic children aggressors present higher impulsiveness levels and more problems with alcohol and drug consumption than nonpedophilic offenders. Also, we have conjectured that the experience of being sexually abused in childhood can be more likely related to pedophilic children molesters.

Methods

Sample

This study was part of a wider research carried out inside a specific penitentiary for sexual crimes in the State of São Paulo, Brazil (7, 25, 31, 33). For this reason, the present study was an empirical investigation of methods commonly used in our service to evaluate alcohol and drug problems among sexual offenders.
The total sample in this current study was comprised of 143 offenders, over 18 years old, who had been convicted of an index offense of sexually offending against children aged 14 years or younger. All selected subjects were condemned only for sexual crimes to avoid the influence of other motivations for crimes on the results. This study was approved by the Ethical Department of the Medical School of the University of São Paulo and all participants provided an informed consent.
We have singled out only sexual offenders against people under fourteen because this present paper aimed to investigate the differences between those who meet pedophilia criteria and those who do not. From September 2004 to August 2005, 234 sexual offenders (including children molesters, sexual offenders against adults and sexual aggressors against adolescents) serving a sentence only for serious sexual crimes in the Penitentiary of Sorocaba – São Paulo – Brazil were selected. Of these 234 convicts, 10 refused to take part in this study, 10 were released on parole before our evaluation and 2 were excluded for being unable to sign a consent report. For the proposals of this current research, only sexual offenders against children and teenagers under fourteen were investigated. It is important to note that this research was part of a wider study in which we had interviewed incarcerated sexual offenders to investigate alcohol and drug problems, impulsiveness, and criminological characteristics.
Sexual crimes were defined as Statutory Rape (the crime of having sexual intercourse with a girl under 14 years old) or Aggravated Indecent Assault (libidinous acts committed against boys and / or girls under 14 years old). According to article 224*a* of the Brazilian Criminal Code, the presumption of violence is established when the victim is under fourteen.
No selected subject was mentally retarded or severely mentally disordered (e.g. psychotic or mood disorders). All information about the number of victims involved was obtained from the official registers, which were available for the researchers. The access to the penitentiary was given by the Penitentiary Counseling of São Paulo State and the Penitentiary Administration Secretariat of São Paulo State. In fact, sexual offenders must be confined in special correctional facilities because they can be at risk in common prisons.

Measures

It was a retrospective and sectional research, where participants provided information in a face-to-face interview. Convicts sentenced for sexual crimes were evaluated with the CAGE Questionnaire (34), the Drug Abuse Screening Test (DAST) (35), the Short Alcohol Dependence Data (SADD) (36), the Sexual Addiction Screening Test (SAST) (37), the Barratt Impulsiveness Scale – version 11 (BIS-11) (38), and the Static-99 (39).
The CAGE Questionnaire was originally developed to briefly screen for clinically significant alcohol problems in many different settings. The CAGE contains four yes-no items that can be administered in a self-report or clinical-interview format. A score of 2 or higher is considered clinically reliable and should raise the clinician's index of suspicion that the individual has an alcohol-related problem (34). The DAST was delineated to provide a quantifiable self-report instrument for use in clinical and nonclinical settings to detect drug abuse or dependence pertaining to a range of psychoactive drugs. The original version of the DAST contains 28 yes-no

questions that can also be administered in a self-report or clinician-interview format. The overall score can range from 0 to 29 based upon the sum of individual items. A cutoff score of 6 or more indicates a probable drug use problem (35). The SADD was designed to be sensitive across the full range of alcohol dependence and to be relatively free of sociocultural influences. The SADD contains 15 items, each one with four possible answers: never, a few times, many times, always. A cutoff score of 20 or more suggests severe alcohol dependence (36). The SAST was developed to assist in the assessment of sexually compulsive or "addictive" behaviors. Designed in cooperation with hospitals, treatment programs, private therapists, and community groups, the SAST provides a profile of responses which help to discriminate between addictive and non-addictive behavior. The SAST contains 25 yes-no questions that can also be provided in a self-report or clinician-interview format (37). A cutoff score of 6 or more can indicate a problem of addiction to sex. The current version of Barratt Impulsiveness Scale, version 11, was developed to assess impulsivity. This scale looks at impulsivity in terms of three domains: motor, nonplanning and attentional impulsiveness. This instrument was designed to aid in the description of impulsiveness in psychiatrically healthy individuals and to explore the role of impulsivity in psychopathology. This questionnaire can be self-administered and it has 30 items scored on a 4-point scale. There are no standardized norms for the BIS-11 (38). The Static-99 is a brief actuarial instrument created to estimate the probability of sexual and violent recidivism among adult males who have already been convicted of at least one sexual offense against a child or non-consenting adult. This scale contains 10 items, and the minimum information required for scoring Static-99 is the pre-existing relationship between the victim and the offender. Although potentially useful, an interview with the offender is not required to score this scale (39). Even though the Static-99 has not been validated in Brazil, we decided to use it because its items are directly associated with factors implicated in the recidivism risk, according to some previous studies. Reliability and validity studies on all these questionnaires have already been done.

A questionnaire on sociodemographic characteristics and alcohol and drug consumption history was used. This questionnaire is commonly applied in outpatients who seek treatment for alcohol and drug dependence in the Interdisciplinary Group of Studies on Alcohol and Drugs of the Psychiatric Institute of the Clinical Hospital – Universidade de São Paulo – Brazil. The juridical reports were also reviewed to investigate the criminal histories.

We also used the criteria for pedophilia diagnosis, according to the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text revision; DSM-IV-TR; American Psychiatric Association, 2000). According to the DSM-IV-TR, three criteria must be met to diagnose pedophilia. Criterion A requires that the individual has experienced recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child or children (generally aged 13 years or younger) over a period of at least 6 months. Criterion B states that the person must have acted on these sexual urges, or the sexual urges or fantasies cause marked distress or interpersonal difficulty. Criterion C requires that the person being assessed is at least 16 years old and at least 5 years older than the child or children. We have not applied any specific instruments to suggest a diagnosis of pedophilia because there is no validated instrument on this theme in Brazil. Basically, we asked our respondents the following questions, with reference to their sexual preference:

1) Have you thought about children or under age adolescents in terms of sex ?
2) Have you felt that your life would be better if you were not sexually attracted to children or under age adolescents ?
3) Have you ever wanted to stop fantasizing about or touching children or under age adolescents in a sexual way, or looking at child pornography, but did it again?

If a participant answered "yes" to two or more of these three questions, we considered him as a pedophile. If the subject answered "no" to two or more of these questions, the Screening Scale for Pedophilic Interests (SSPI) (40-42) was completed. Those scoring 3 to 5 on this five-point scale were considered to be pedophiles. The SSPI is a brief screening instrument based on static offence variables. This scale includes four items: (a) presence of a male victim; (b) more than one victim; (c) the victim is 11 years old or younger; (d) unrelated victim. The SSPI items are scored as present or absent on the basis of information about child victims. For each item, except "presence of a male victim", an affirmative answer receives a score of 1. For the item "presence of a male victim", an affirmative answer receives a score of 2.

Unfortunately penile plethysmography (PPG) is not available in Brazil. Therefore, this procedure was not administered to our sample.

Data Analysis

First the participants were divided into two groups: children molesters with pedophilia criteria and children molesters without pedophilia criteria. We compared these two groups with respect to psychometric variables, sociodemographic data and crime-related factors. All statistical analyses were performed with the SPSS version 17.0 for the personal computer. For all statistical tests done, differences between the two groups were accepted as significant if they achieved the 0.05 level with 2-tailed tests.

Differences between these two groups were determined using the parametric *t* test for continuous variables, except when the variances between two variables were unequal, according to the Levene's criteria. In these situations, we used the non-parametric Mann-Whitney-U-test. Categorical variables were compared by using the χ^2 test or the Fisher's exact test.

A Multiple Variance Analysis (MANOVA) was also used because this study evaluated many dependent variables and only a univariate analysis could increase the probability of missing data. To test the assumption that variance-covariance matrices within each cell of the design are sampled from the same population variance-covariance matrix, we used Box's *M* test, a notoriously sensitive test of homogeneity of variance-covariance matrices. Also, logistic regression analysis was constructed to investigate the associations between the types of children molesters, according to the pedophilia criteria, and the variables related to the victims' characteristics and impulsiveness levels.

Next, given the complex patterns of sexual offending, previous studies of sex aggressors have grouped them in several ways (33, 43, 44). Our research staff have already clustered them according to the alcohol and drug problems (33). Here, some data from the 143 molesters were analyzed using the agglomerative method of cluster analysis in SPSS (version 17). The Hierarchical Cluster Analysis was applied to see whether meaningful clusters of children molesters could be identified. Ward's method was used to generate hierarchical groups of mutually exclusive subsets using more than one variable. This method was used because it maximizes the differences among groups, and it has been reported as being the most effective clustering methodology (43). The number of clusters created was based on the heuristic procedure described by Mojena(45). This procedure states that a group level or optimal partition of a hierarchical clustering solution must satisfy the inequality:

$$z_{j+1} > z + ks_z$$

In this formula, z is the value of the fusion coefficient, z_{j+1} is the value of coefficient at stage $j + 1$ of the clustering process, k is the standard deviate, and z and s_z are the mean and standard deviation of all fusion coefficients, respectively.

To calculate the standard deviate for each stage in the clustering process, we use this formula:

$$k_j = \{z_{j+1} - z\} / s_z$$

Results

Descriptive Statistics

Of the 143 selected children molesters, 23 (16.08%) answered positively to two or more of the three questions about pedophilic interests, and 120 (83.92%) denied any sexual arousal involving children or adolescents.

At the moment of the interviews, the mean age of the pedophilic children molesters was 45.61 years (SD = 9.71) and the mean age of nonpedophilic children molesters was 40.19 (SD = 11.69), and this difference was statistically significant (t = 2.09, 141 df, p = 0.04). There were no significant differences between both groups with reference to race, educational level, monthly income before penalty, victim's age and number of familial or non-familial victims.

Twelve (52.17%) pedophilic children molesters and 33 (27.50%) nonpedophilic molesters were single, while 5 (21.74%) pedophiles and 59 (49.17%) nonpedophiles were married, and this difference was reliable ($\chi^2 = 7.04$, 2 df, $p = 0.03$).

Five (21.74%) pedophiles and 7 (5.83%) nonpedophiles reported history of being sexually abused during childhood ($\chi^2 = 6.35$, 1 df, $p = 0.01$).

Pedophilic children molesters offended more frequently male victims and victims of both genders than nonpedophilic children molesters ($\chi^2 = 13.91$, 2 df, $p < 0.01$) (Table 1).

Psychometric Measures

A 2 X 5 Multivariate Analysis of Variance (MANOVA) was conducted with the children molesters groups (with or without pedophilia criteria) as the independent variable and DAST, SADD, BIS-11, SAST and Static-99 total scores entered as the independent variables. The overall MANOVA was significant (Pillai's F (5, 137) = 8.36, $p < 0.01$, $\partial n^2 = 0.23$). An analysis of univariate effects revealed significant effects for the SAST total score, F (1, 141) = 40.49, $p < 0.01$, and the BIS-11 total score, F (1, 141) = 4.93, p = 0.03). None of the other dependent variables proved to be statistically significant during the analysis. This MANOVA model has demonstrated homogeneity of variance for the individual dependent variables, as it has been verified by Box's M *test* (M = 18.58, F = 1.13, p = 0.32). Means and standard deviation for all measures are listed in Table 2.

Table 1. Sociodemographic features and crime-related factors among sex offenders against victims under 14 years old who met or not criteria for Pedophilia

Variables		Pedophilic children molesters (n = 23)	Nonpedophilic children molesters (n = 120)	Test	p
Age, mean (SD)		45.61 (9.71)	40.19 (11.69)	t = 2.09, 141 df	0.04*
Marital status, n (%)	Married	5 (21.74)	59 (49.17)		
	Separated	6 (26.09)	28 (23.33)	$\chi^2 = 7.04$, 2 df	0.03*
	Single	12 (52.17)	33 (27.50)		
Race, n (%)	White	17 (73.91)	87 (72.50)		
	Black	6 (26.09)	22 (18.33)	$\chi^2 = 2.71$, 2 df	0.26
	Mixed Races	0	11 (9.17)		
Educational level, n (%)	Fourth grade or less	13 (56.52)	75 (62.50)	$\chi^2 = 0.29$, 1 df	0.59
	More than fourth grade	10 (43.48)	45 (37.50)		
Monthly income before penalty, (in R$, the Brazilian currency) mean (SD)		694.78 (515.19)	670.83 (1631.78)	t = 0.07, 141 df	0.94
History of being sexually abused, n (%)		5 (21.74)	7 (5.83)	$\chi^2 = 6.35$, 1 df	0.02*[b]
Victim's age, mean (SD)[a]		9.39 (2.64)	10.09 (33.06)	t = 1.02, 141 df	0.31
Victim's gender, n (%)	Male	13 (56.52)	50 (41.67)		
	Female	7 (30.44)	69 (57.50)	$\chi^2 = 13.91$, 2 df	< 0.01**
	Both	3 (13.04)	1 (0.83)		
Related victims, n (%)		11 (47.83)	49 (40.83)	$\chi^2 = 0.39$, 1 df	0.53
Number of victims involved, n (%)	1 victim	10 (43.48)	93 (77.50)		
	2 victims	5 (21.74)	17 (14.17)	$\chi^2 = 14.55$, 2 df	< 0.01**
	3 or more victims	8 (34.78)	10 (8.33)		
Previous nonsexual crimes, n (%)		3 (13.04)	15 (12.50)	$\chi^2 < 0.01$, 1 df	> 0.99[b]
Total penalty (in months), mean (SD)		197.67 (214.81)	133.95 (97.96)	U = 1067	0.08

* p < 0.05
** p < 0.01
[a] In case of more than one victim, we considered the mean age of all victims offended by each inmate.
[b] Fisher's Exact Test

Table 2. Means and Standard Deviations of Continuous Variables Among Children Molesters

Variables	Pedophilic children molesters (n = 23)	Nonpedophilic children molesters (n = 120)	test	p
SADD, mean (SD)	18.26 (16.89)	13.64 (14.12)	F (1, 141) = 1.93	0.17
DAST, mean (SD)	1.83 (4.73)	2.62 (6.23)	F (1, 141) = 0.34	0.56
BIS-11, mean (SD)	75.65 (13.06)	69.78 (11.32)	F (1, 141) = 4.93	0.03*
SAST, mean (SD)	10.35 (5.87)	3.90 (4.13)	F (1, 141) = 40.49	< 0.01**
Static-99, mean (SD)	2.26 (1.79)	1.92 (1.62)	F (1, 141) = 0.79	0.37

* p < 0.05
** p < 0.01

As the groups of pedophilic and nonpedophilic child molesters showed significant differences with reference to the victims' gender, number of victims involved and impulsiveness level during the univariate analyses, we performed a stepwise logistic regression to adjust the effects of the victims' characteristics and impulsiveness level. We chose the stepwise method because the predictors 'number of victims involved' and 'gender of the

victims' might be highly correlated with the group membership and one could suppress the effect of the other. In fact, the higher the number of victims offended, the higher the chance of both boys and girls being involved.

In Step 1, where only the predictor "sexual impulsiveness measured by the SAST" was included, the model was statistically reliable (χ^2 = 27.18, 1df, p < 0.01**). The variance in group membership accounted for was marginal, with Nagelkerke R^2 = 0.29. Prediction success was high for the nonpedophilic child molesters, with 95.8% being correctly classified. Prediction was less impressive for the pedophilic children molesters, with 34.8% being adequately classified. The overall success rate for prediction was 86%. According to the Wald criterion, the higher mean sexual impulsiveness level evaluated by the SAST reliably predicted the group of pedophiles (Wald = 22.72, 1 df, p < 0.01, OR = 1.25, 95% CI, 1.14 – 1.36).

In Step 2, where the predictors "SAST" and "victims' gender" entered into the analysis, the model was also statistically reliable (χ^2 = 9.13, 2 df, p = 0.01). The variance in group membership accounted for was better than in step 1, with Nagelkerke R^2 = 0.38. Prediction success was also high for the nonpedophilic child molesters, with 95% being correctly classified. Prediction success was lower for the pedophilic molesters, with 43.5% being correctly classified. The overall success rate for prediction was 86.7%. In this step, the variable "victims of both genders" also predicted the group "pedophilic children molesters", according to the Wald criterion (Wald = 7.79, 1 df, p < 0.01, OR = 41.85, 95% CI: 3.04 – 575.67) (Table 3).

Table 3. Effects of the SAST and of the victim's gender on the pedophilic children molesters (stepwise logistic regression)

		S.E.	Wald	df	p	OR	95% CI
Step 1							
	Constant	0.45	48.61	1	< 0.01**	0.04	--
	SAST	0.05	22.72	1	< 0.01**	1.25	1.14-1.36
Step 2							
	Constant	0.58	39.79	1	< 0.01**	0.03	--
	SAST	0.05	21.29	1	< 0.01**	1.25	1.14 - 1.38
	Victims of both genders	1.34	7.79	1	< 0.01**	41.85	3.04 - 576.67

** p < 0.01

Cluster Analysis

The scores on the SAST and the following variables: number of victims by perpetrator, victim's gender, history of being sexually abused during childhood and victims related to the aggressors were analyzed using the Hierarchical Cluster Analysis. This analysis suggested that the optimal partitioning of these data was a three-factor solution: Cluster A composed of 68 (47.55%) men, Cluster B comprised 40 (27.97%) men, and Cluster C composed of 35 (24.48%) men. Table 3 shows the means and standard deviations of the psychometric assessments and the characteristics of some crime-related factors for each cluster.

The correlation between the variables SAST and BIS-11 was statistically reliable (Pearson = 0.35, p < 0.01). Therefore, we have not included both variables together in the cluster analysis and in the logistic regression to avoid that one variable suppresses the effect of the other.

No significant differences were found among the clusters, in terms of age, race, severity of alcohol dependence and drug problems. Cluster A and Cluster C did not show significant differences with relation to marital status, general impulsiveness, and victim's gender, although only the participants included in Cluster A offended victims of both genders.

Cluster A was reliably different from Clusters B and C in terms of sexual impulsiveness level, history of being sexually abused, and sexual offenses against three or more victims (Table 4).

Discussion

The results of the current study showed that pedophilic children molesters demonstrated higher impulsiveness levels, were more commonly single, revealed more frequent history of sexual abuse in childhood and offended a greater number of victims than nonpedophilic children molesters. Furthermore, the offense against any male victim was more reliably related to pedophiles.

Cluster analysis of the victims' characteristics, impulsiveness measure and history of being sexually abused in childhood clearly identified three clusters. Specifically, Cluster A contained men with higher impulsiveness levels and more frequent history of sexual abuse than Clusters B and C. The majority of pedophilic children molesters fell into Cluster A.

In our sample, pedophiles showed higher impulsiveness levels than nonpedophiles. It is important to note that Cluster A also included 38.33% of nonpedophiles. Although some authors contend that pedophilia is not well characterized as an impulsive disorder and may even involve compulsive features (46), others affirm that people with this disorder demonstrate a failure to inhibit sexual urges, resting primarily on the inherently pleasurable

nature of sexual behavior (47). In fact, impulsivity is marked by the failure to inhibit pleasurable but ultimately destructive behavior (48). On the contrary, some pedophiles demonstrate premeditated acts and this may contradict the idea of pedophilia as an impulsive disorder (49). To date, the degree to which impulsivity is characteristic of pedophilia is unresolved, probably due to the heterogeneity of these people.

Table 4. Characteristics of the Three Clusters of Children Molesters

Variables	Cluster A (n = 68)	Cluster B (n = 40)	Cluster C (n = 35)	test	p	Post-Hoc (Yates' Correction / Bonferroni)
With Pedophilia Criteria, n (%)	22 (32.35)	1 (2.5)	0	χ^2 = 25.51, 2 df	< 0.01**	A > C (p < 0.01**) A > B (p < 0.01**)
History of Sexual Abuse, n (%)	12 (17.65)	0	0	χ^2 = 14.45, 2df	< 0.01**	A > C (p < 0.01**) A > B (p < 0.01**)
Age, mean (SD)	41.44 (11.23)	39.77 (9.73)	41.80 (14.02)	H = 0.39, 2 df	0.82	--
Marital status, n (%)						
Married	24 (35.29)	26 (65)	14 (40)			
Separated	19 (27.94)	8 (20)	7 (20)	χ^2 = 11.01, 4 df	0.03*	A ≠ B (p < 0.01**) B ≠ C (p = 0.03*)
Single	25 (36.77)	6 (15)	14 (40)			
Aknowledged the crime, n (%)	44 (64.70)	17 (42.5)	0	χ^2 = 39.55, 2 df	< 0.01**	A > C (p < 0.01**) A > B (p = 0.04*) B > C (p < 0.01**)
Number of victims, n						
(%)	30 (44.12)	38 (95)	35 (100)			
1 victim	20 (29.41))	2 (5)	0	χ^2 = 50.82, 4 df	< 0.01**	A ≠ C (p < 0.01**) A ≠ B (p < 0.01**)
2 victims	18 (26.47)	0	0			
3 or more victims						
Victim´s gender, n						
(%)	33 (48.53)	8 (20)	22 (62.86)			
Male	31 (45.59)	32 (80)	13 (37.14)	χ^2 = 20.63, 4 df	< 0.01**	A ≠ B (p < 0.01**) B ≠ C (p < 0.01**)
Femlae	4 (5.88)	0	0			
Both						
Related victims, n (%)	20 (29.41)	40 (100)	0	χ^2 = 85.03, 2 df	< 0.01**	A > C (p < 0.01**) B > A (p < 0.01**) B > C (p < 0.01**)
Race, n (%)						
White	54 (79.41)	24 (60)	26 (74.29)			
Black	12 (17.65)	9 (22.50)	7 (20)	χ^2 = 8.80, 4 df	0.07	--
Mixed Races	2 (2.94)	7 (17.50)	2 (5.71)			
SADD, mean (SD)	15.29 (15.50)	12.02 (12.77)	15.31 (15)	F (2, 140) = 0.72	0.49	--
DAST, mean (SD)	2.76 (6.57)	2.37 (5.62)	2.11 (6.01)	F (2, 140) = 0.14	0.86	--
SAST, mean (SD)	7.73 (5.69)	2.85 (2.66)	1.88 (1.86)	H = 42.32, 2 df	< 0.01**	A > C (p < 0.01**) A > B (p < 0.01**)
BIS, mean (SD)	74.29 (12.43)	65.77 (10.15)	69.46 (9.98)	F (2, 140) = 7.49	< 0.01**	A > B (p < 0.01**)
Static, mean (SD)	2.29 (1.71)	0.90 (1.35)	2.60 (1.24)	F (2, 140) = 14.61	< 0.01**	A > B (p < 0.01**) C > B (p < 0.01**)

* p < 0.05
** p < 0.01

It is important to note that the pedophiles identified in our study were serving a sentence inside a penitentiary, which can mean that these individuals show higher impulsiveness levels than those who have not been caught. We believe that in a society where there are defined laws against sexual activities involving minors and special police force to control this type of behavior, those individuals who commit any sexual act against minors taking "less precaution" may be showing higher impulsiveness.

Pedophiles and nonpedophiles were not differentiated with reference to age, education, alcohol and drug misuse. On the contrary, both groups differed in their likelihood of being single. The marital status of pedophiles has varied among different studies, depending on the sample investigated (8).

In general, children molesters are a heterogeneous group. Within this group, there are those who suffer from pedophilia, and pedophiles are also a heterogeneous population, in terms of severity of the disorder, patterns of behaviors, recidivism risk, impulsiveness levels, among others. In addition, there are pedophiles who have committed sexual offenses but have never been denounced or imprisoned. Apart from these "hands-on" pedophiles, some other people present recurrent and intensive fantasies involving children and adolescents, but have never acted out their fantasies or thoughts. Therefore, there seems to be more people with recurrent sexually pedophilic demeanors and fantasies living outside prisons, but the exact percentage of this is unknown.

Given the vast complexity of these subjects, research on children molesters in general should focus on different subgroups in order to improve medical, psychological and political tasks.

The relationship between alcohol and drug consumption and criminal activities is recognized as a serious problem in many different studies. Alcohol and drugs may be one of the direct causes of some crimes, since these substances lead to a loss of control or cognitive impairment. Furthermore, both substances and crime may also be linked through a shared third complicating factor, i.e. personality and social disadvantages. Criminal activities may lead to drinking, though this association may also be due to other factors. With reference to children molesters, there are few researches on the relationship between alcohol and drug consumption and sexual aggression. Baltieri and De Andrade (2008) (25) pointed out that more than 50% of children molesters reported alcohol problems, and the severity of alcohol misuse was higher in the group of offenders against boys, which can be associated with the higher recidivism risk among offenders against boys. Alcohol and drug problems do not seem to distinguish pedophilic from nonpedophilic children molesters. Despite this, substance misuse has been pointed out as a reliable factor that sets apart sexual offenders against adults from those offenders against children (7, 44, 50).

In truth, differences between pedophilic and nonpedophilic children molesters do not consist of anecdotal evidence, but imply the dire necessity of individualized medical and legal approaches. When an individual meets diagnostic criteria for pedophilia, he must be treated accordingly. Given that pedophilia is an illness classified in the two main diagnostic manuals (ICD-10 and DSM-IV-TR), if a pedophile commits a sexual crime against children, he should be punished and treated, or only treated in those cases where the defendant is considered not guilty by reason of insanity. Both procedures – punishment and treatment - are not mutually exclusive, although different members of our society may refuse to accept pedophilia as a mental disorder and, consequently, its medical and psychological treatment.

In fact, virtually all insanity standards require the presence of a mental disorder at the time of the crime. If the defendant's inability to know the wrongfulness of the act or refrain from it is caused by mental illness, he may be considered not guilty by reason of insanity. However, the term "mental disease" used in legal codes may not be exactly the same as the one used by the Diagnostic and Statistical Manual of Mental Disorders. For example, some diagnoses such as personality disorders, pedophilia and other paraphilias do not usually qualify as mental diseases for the purpose of insanity (51).

Implications for treatment

Over the two last decades, there has been increasing interest in the treatment of sexual disorders classified in the DSM-IV-TR as paraphilic disorders, such as pedophilia. Currently used treatment modalities fall into two categories: psychotherapy and pharmacology. In spite of the progress in the cognitive-behavioral treatment of sexual offenders, a number of individuals on parole or in their communities remain dangerous and at large (52). Even if such men are currently undergoing treatment, psychological approaches alone cannot be expected to reduce risk immediately. Due to this, high interest in pharmacological treatment has risen and researchers have developed medical approaches to make such high-risk individuals less dangerous for the community(53-59).

However, the treatment of people with pedophilia, independently of the method used, has been generally undertaken through a minefield of clinical, ethical and political dilemmas. At the core of this issue lies a fragile alliance between a clinical minority with interest in this field of medicine on one side and the criminal justice system and government on the other. As clinicians cannot ignore the suffering manifested by patients with pedophilia and their victims, it is important to invest in the progressive development of scientific methods to prevent sexual aggressive behaviors and to evaluate and treat both patients and victims (60).

With respect to the pharmacological options for the treatment of paraphilic sexual offenders, there are two groups of medications which have shown therapeutic efficacy and safety: a) testosterone-lowering agents, and b) serotoninergic antidepressants. As these psychiatric disorders involve diverse biological and psychological aspects, the cognitive behavioral therapy must be carried out in any phase of the treatment (61-63).

It is true that the place of medications in the control of aberrant sexual behavior has also required higher investigation; despite this, their use during clinical practice may be done whenever necessary. The "magic pill" for paraphilic sexual offenders does not exist, and the scientific literature provides us with little guidance as to the properties of the ideal drug. Glaser (2003) (64) pointed out some properties that need to be more formally defined with reference to the medications used for the treatment of these kinds of sexual aggressors:

a) Side effects should be minimal and / or easily reversible;
b) The medication should suppress "deviant" sexual activity while leaving "normal" sexual functioning unaffected;
c) There should be an adequate way of monitoring the offenders' adherence to the drug therapeutic, such as a device that could match the use of a medication and the decreasing of the aberrant fantasies and activities;
d) The treatment must be effective in terms of decreasing the inadequate behavior and improving the quality of life of these patients;

e) The treatment must be ethically and socially accepted. Sometimes, the use of hormonal medications for sexual offenders is seen as repugnant in many different societies.

To date, none of the available drugs for the treatment of paraphilic sexual aggressors measures up to all these properties mentioned above. Besides, the prejudice and outcry related to some types of medications have influenced the evaluation of treatment effectiveness negatively.

In fact, psychopharmacological treatments have proven to be valuable and sometimes indispensable in the treatment and management of paraphilic patients (65). Although some medications commonly used in paraphilic patients are not approved by the U.S. Food and Drug Administration (FDA), these drugs may not be considered an experimental or investigative medical procedure. Doctors usually prescribe off-label drugs for the treatment of many different disorders, and this procedure may not be considered an experimental therapeutic.

Experimental treatment is hard to define but, broadly speaking, it is considered a kind of care that is new and not widely accepted due to the lack of proven efficacy (66). In reality, the first reported use of hormonal medications to reduce inadequate sexual behavior in men occurred in 1944 with the prescription of diethylstilbestrol to lower male testosterone. In 1966, John Money initiated his research on the use of medroxyprogesterone acetate for the treatment of sexual offenders (67).

Whenever urges for unacceptable and unconventional sexual acts become intense and overwhelming, the people affected by paraphilias may present not only a risk to the targets of their inadequate behavior but also to their own welfare. If these patients are left untreated, they will present considerably higher rates of sexual offenses than those who undergo treatment (68, 69).

In a Task Force Report of the American Psychiatric Association for the treatment of dangerous sex offenders (70), which represents the opinions of some researchers on this subject, the sexual offender should receive cognitive-behavioral therapy in any phase of the treatment. When the urge to offend tends to increase, the mental professionals must consider the use of antidepressants (selective serotonin reuptake inhibiting drug) to reduce the offender's sexual impulse. The professionals must consider the use of hormonal drugs, such as Medroxyprogesterone, administered orally or by injection, if the following situations occur:

a) repetitive sexual urges continue, in spite of previous pharmacological and psychotherapeutic treatments;
b) the potential victim is a child;
c) the sexual behavior includes sadistic fantasies;
d) the sexual inadequate behavior includes physical force against the victim.

In addition, if these medical managements are unsuccessful, the psychiatrist should consider the use of Leuprolide Acetate.

The pharmacological treatments of paraphilic sexual offenders are based upon the premises that the behavior is sexually motivated and that the suppression of sexual drive will decrease sexually inadequate demeanors. Another aim is to preserve normal sexual interests and behavior while deviant sexual fantasies and activities are reduced. In fact, pharmacological treatments have proved to overcome the main pathology in Pedophilia, that is, the deviant erotic preference. Unfortunately the lack of controlled clinical trials for the hormonal treatment of paraphilic sexual offenders can create the false belief that drugs such as Medroxiprogesterone are experimental. It is important to observe that the success of any treatment depends on the offenders' will to alter their sex habits.

Other agents have been adapted for the treatment of paraphilic sexual offenders in an attempt to decrease their sexually inadequate behavior. These medications include the antiandrogens flutamide and nilutamide, the gonadotropin-releasing hormone analogue triptorelin, and the luteinizing hormone-releasing hormone agonist goserelin (71).

From a clinical perspective, it should be easier for a pedophile in treatment to resist satisfying his sexual appetite when the intensity of that appetite has been significantly reduced. By decreasing the sexual urges, sex drive-lowering medications can often increase a pedophile's capacity to choose not to act (72).

The place of treatment in Brazil

In general, society has recoiled from sexual offenders with horror and made no attempt to understand this behavior as a possible disease. The usual reaction of adults to sexual demeanors against children has been disgust, execration, or inaction in the hope that sexual offenders will outgrow their abnormal behavior. Due to the fact that children are the victims, the community demands severe punishment for all sex aggressors against children and does not believe that the aggressors can be suitable for treatment. After a particularly revolting sex crime, the public clamors for harsher penalties. It is unfortunate that actions against sex crimes usually evolve in an atmosphere of hysteria, and such attitudes are often useless and frequently harmful for both society and offenders as a whole.

In Brazil, in 2007, the author of this paper revealed that the use of hormonal medications must be available for the treatment of patients suffering from Pedophilia, when there are correct medical indications for this procedure. He also emphasized that there are some steps in the treatment of sexual offenders with Pedophilia before the use of hormones. This provoked a stirring repercussion in the media and sensational magazines. Both the Regional Medical Association of the State of São Paulo (Conselho Regional de Medicina) and the Brazilian Bar

Association (Ordem dos Advogados do Brasil) manifested issues about this procedure and some people condemned such a medical approach.

Unfortunately some lawyers and physicians in Brazil affirm that the use of hormones for the treatment of sexual aggressors can be a cruel and a "nazi" conduct. This type of opinion has been divulged in newspapers and other means of communication in our country, affecting the adequate treatment of paraphilic sexual offenders negatively. People frequently mistake the medical treatment for the badly used term "chemical castration". In fact, this term should be avoided due to the pejorative meaning that it implies. The word "castration" sums up images of pain and suffering and can denote an irreversible method. Therefore the law professionals, the public and the government could be more open to the hormonal treatment for paraphilic sexual offenders if another more appropriate term, i.e. hormonal treatment, were used instead. In reality, the pharmacological treatment of the paraphilias with hormonal drugs has shown to be successful in decreasing recidivism rates through the reduction of sexual fantasies, sexual drive, sexual arousal, and sexual behavior.

Frequently, many different law and health professionals have questioned whether Pedophilia is a disease or a criminal activity. Someone with a sexual fantasy or a pattern of behavior involving children and these sexual arousing fantasies or urges being recurrent and intense, as well as provoking serious distress, will probably be diagnosed as a pedophile. If this person acts out his fantasies with children, he commits a crime, defined by law. Therefore, Pedophilia is a psychiatric disorder worthy of intensive treatment, but it can also be a serious crime that must be combated.

Psychiatrists have recognized Pedophilia as a treatable disorder. However, people with Pedophilia have been labeled and isolated, and sometimes only imprisoned. Pedophilia is a disorder that must be better studied to be understood and is potentially treatable by specialized professionals. Although the causes of Pedophilia are still elusive, the symptoms may be adequately managed.

Rarely has a medical condition been so stigmatized as Pedophilia. The socially sensitive nature of this disorder and the stigma associated with it have harmed the active involvement of mental health professionals in its treatment (53).

Research on pedophilia must be adequately divulged and thus the public opinion will not be based on incorrect or very prejudiced information. For those countries where there is no adequate scientific staff making efforts to study and treat this medical disorder, international guidelines should be more widely available and used. This could be the key to start eradicating the deep-rooted prejudice against pedophiles that runs through our society.

Limitations of this study

There are some weaknesses in this study, such as:

A. Many children molesters are reluctant to admit that they have deviant sexual interests. Furthermore, they usually minimize their deviant sexual arousal. Therefore, some pedophilic children molesters may not have been correctly identified;
B. Many different data from this sample relied on self-reported questionnaires and this is associated with bias;
C. Some individuals included in the nonpedophilic children molesters group may have denied experiences consistent with the DSM-IV-TR criteria;
D. The use of categorical groups, by applying only DSM-IV-TR and SSPI criteria, may have resulted in decreased power and inadequate identification of group membership;
E. This study was not specifically designed to investigate pedophiles in a sample of children molesters serving a sentence in a penitentiary. As the original research aimed to investigate a wider sample of sexual offenders against adults and children, it is possible that a more specific study could provide further reliable information;
F. Although comparisons have been carried out between pedophilic and nonpedophilic children molesters, there was no recruited control group;
G. Comparisons with other offending groups, perhaps other violent criminals, would also be particularly relevant;
H. This study was cross-sectional, which may preclude a causal inference.

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CHAPTER 6

Substance Abuse among Females Convicted of Violent Crimes: A Criminological Perspective

Danilo Antonio Baltieri[1,2,3]

[1] *Department of Psychiatry of the University of São Paulo, Brazil;*
[2] *Department of Psychiatry of ABC Medical School, Santo André, São Paulo, Brazil;*
[3] *Penitentiary Counseling of the State of São Paulo, Brazil*

Address correspondence to: Prof. Dr. Danilo Antonio Baltieri, Ambulatory for the Treatment of Sexual Disorders of ABC Medical School (ABSex), Department of Psychiatry of ABC Medical School. Avenida Lauro Gomes 2000. Vila Sacadura Cabral. Santo André. CEP: 09060-870. São Paulo, Brazil; Te/Faxl: +55 11 4993.729. E-mail: dbaltieri@uol.com.br

Abstract: Introduction: Substance misuse is strongly correlated with criminal offending and several studies have shown that many incarcerated women meet lifetime criteria for alcohol, drug, and other mental health disorders. This study aims to identify distinctive clinical, social and criminological features of female inmates who committed homicide or robbery.
Methods: It was a retrospective and cross-sectional study carried out inside a Feminine Penitentiary in São Paulo, Brazil. From July 2006 to July 2008, 88 inmates convicted of homicide and 94 convicted of robbery were evaluated with reference to alcohol and drug misuse, impulsiveness, depressive symptoms, and their juridical reports were reviewed.
Results: Female inmates convicted only of homicide have shown better pre-morbid adjustment (socioeconomic status, employment), and better behavioral profile (fewer previous criminal records, less substance abuse) than inmates condemned only for robbery. An earlier beginning of criminal activities and higher scores on drug misuse have been verified in female robbers.
Discussion: Substance misuse and the age of the beginning of criminal activities can be factors that set apart female inmates who committed homicide from those who perpetrated robbery. These differences may generate more specific management proposals for each group of female inmates.

Introduction

Throughout history, in many different societies, females have committed fewer crimes than males. Due to the fact that the typical offender is a young male, the majority of studies on factors related to criminality have focused upon this gender. Although many researches on psychological factors involved in the criminogenesis among men have been continuously done, fewer studies have dedicated the same efforts to evaluate these factors among female inmates.

In reality, some noticeable researches are being devoted to investigate gender differences in crime rates (1-5). However, little has been carried out to understand the different problems and necessities of violent female criminals. Further efforts, including interdisciplinary and transcultural ones, could help to create adequate proposals of management and recidivism prevention for this population.

Data from the Penitentiary Administration Secretariat of São Paulo State pointed out that there were a total of 144 penal institutions and 138,306 prisoners in July 2007. Of these prisoners, 6,514 were women allocated in 9 different institutions. Although about 5% of the inmates in the state of São Paulo are women, the facts indicate that the proportion of females incarcerated is growing at a faster pace than that for men. Between July 2006 and July 2007, the female incarceration rate increased by almost 133%, whereas the male incarceration rate added up to almost 21%. This shows that the relative female incarceration rate has outpaced the male rate. Some of the violent and drug-related crimes committed by women have grown in this period, such as homicide (increased by 68%), robbery (increased by 186%), aggravated robbery (increased by 61%), kidnapping (increased by 520%) and drug trafficking (increased by 195%) (6).

Recent estimates show that women comprise approximately 5% of the world's prison population, similarly to the female incarceration rate in the state of São Paulo - Brazil. In different countries, women constitute between 4 and 9% of the incarcerated adult population: Canada (5%), the United States (9.1%), Autralia (7.3%), Austria (4.9%), Argentina (5.5%), Italy (4.4%) and England / Wales (5.4%). Monaco has the highest percentage of

Danilo Antonio Baltieri (Ed)
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female prisoners (29.7%) and Liechtenstein has the lowest (0%) (7). The relative increase of the female incarceration rate also seems to be a trend in many different countries and cultures (8-10).
The reasons for this important increase in the female imprisonment rate have been debated. The high preoccupation of the authorities with the street drugs, and an implementation of harsher penalties for drug-related crimes (drug trafficking) have been pointed out as the main explanations for this growth. However, other factors, such as the boost in the “minority” groups, characterized by poverty, lack of employment and insufficient education, have been observed around the world, and our prisons are jam-packed with these people.
Some researchers have shown high prevalence of different psychopathological problems in male and female inmates (4, 11). Others have contended that violent offenders present more complex psychological problems than nonviolent aggressors (3). Nearly one fifth of the women in prisons have shown severe psychiatric disorders and this seems to be higher than the rate among male inmates (11) and more than half of the female convicts have reported a serious history of drug abuse (12). In fact, substance abuse, mood disorders and personality disorders have been commonly found in this population (13-15). Therefore, the search for medical care inside prisons has been higher among female inmates than their male counterparts.
However, the penitentiary system in Brazil and others around the world present many problems, such as lack of enough space and insufficient medical and psychological assistance for the convicts (1). This has harmed the adequate management of diverse health problems as well as the satisfactory assessment of the criminogenic needs manifested by inmates.
According to Warren at al. (16), there are notable differences between women who commit homicide and those who commit other non-violent crimes, in terms of personality and recidivism risk. This suggests that female inmates show different needs of assessment and management, which can vary in accordance with different types of crimes perpetrated.
Women who commit homicide have been generally seen as those who kill their intimate partners due to jealousy, revenge or even passion, or as a result of years of domestic violence. However, this group of female inmates has rarely been compared with other women accused of different violent felonies, which can damage the principles of an adequate correctional treatment. These principles are based on the criminogenic needs, responsiveness to different therapeutic modalities, necessity of implementation and continuity of care after offenders are released from prisons, and recidivism risk evaluation among diverse inmates (17). Commonly, offenders convicted of diverse violent crimes have been incarcerated in the same penitentiaries and have received similar criminological and medical attention, when general medical care is available.
Therefore, our research aims to determine specific necessities among different types of inmates condemned to prison for murder or robbery, in terms of alcohol and drug misuse, impulsiveness and depressive symptoms. Given the importance of factors related to cultural variables (values and attitudes), the organization of the judicial system and the organization in charge of mental health care inside penitentiaries, local studies can be useful to shed light on local and universal aspects of the relationship between certain psychiatric problems and different types of violent crimes (18). As women convicted of murder have commonly been reported to commit this crime against their intimate partners and women condemned for robbery are frequently thought to perpetrate this crime due to economic necessities or even as a way to sustain their drug consumption, we hypothesized that female robbers may show more problems with the alcohol and drug usage and higher impulsiveness level than the group of murderesses. On the contrary, depressive symptoms could be expected to be higher in the group of women condemned for homicide, due to the possibility that this type of crime is mainly motivated by years of domestic violence.

Methods

Subjects

Two hundred female inmates convicted of homicide or robbery were recruited and interviewed in the Penitentiary of Sant'Ana – São Paulo, Brazil. They were randomly selected from a total of 2,686 women who were serving a sentence in this penitentiary for different types of crimes.
As one of the aims of this study was to evaluate the prevalence of alcohol and drug problems among violent female offenders, and considering that the prevalence of alcohol-dependent adult women in Brazil is almost 6% (19), we calculated that the group of women who committed homicide and the group who perpetrated robbery should have approximately 86 subjects, with a reliability of 95% and a precision of 5%. As we were not aware of any similar published papers comparing these two groups of female inmates, the sample size could not be calculated by using an effect size of previous researches.
This study was performed inside a penitentiary where the inmates were serving a sentence. The access to the penitentiary was allowed by the Penitentiary Counseling of the State of São Paulo and the Penitentiary Administration Secretariat of the State of São Paulo.
After obtaining a list of eligible inmates, the interviewers spoke to those women individually, and explained the study, the eligibility requirements, and the contents of the consent form. If a convict refused to participate, the

interviewers collected information from the inmate on the date of birth and the reason for refusal. Besides, data from their criminal reports were also reviewed.

From July 2006 to July 2008, 18 eligible women refused to take part in this study. After providing their written informed consent, the remaining 182 female inmates were screened and the scales and inventories were applied.

Interviews were conducted in a private room in the penitentiary and lasted almost 80 minutes. The interviewers offered inmates the possibility of talking about the results of the instruments applied, in case they manifested any interest. All interviews were conducted by a specifically trained and clinically experienced psychological staff and supervision was provided by the first author of the present study.

All information about the crime morphology (weapons used, *modus operandi*, probable offender's motives and crime scene) and the victims involved was obtained from the criminal registers, and the felons themselves were also questioned.

We selected inmates convicted either of homicide or robbery to avoid the influence of other crimes and motivations on the results. No selected woman was mentally retarded or severely mentally disordered (e.g., psychotic or mood disorders), which would deserve treatment in a forensic hospital.

This study was approved by the Ethical Committee of ABC Medical School – São Paulo, Brazil and was supported by The State of São Paulo Research Foundation, Brazil (FAPESP).

Measures

It was an observational, retrospective and cross-sectional study, where the subjects provided information in a face-to-face interview. Prisoners convicted either of murder or robbery were evaluated with the Alcohol Use Identification Test (AUDIT) (20, 21), the Drug Abuse Screening Test (DAST) (22), the Barratt Impulsiveness Scale – version 11 (BIS – 11) (23) and the Beck Depression Inventory (BDI) (24). We have also used a structured questionnaire that has been used in other studies to investigate the penitentiary population (25) and that is focused on the following topics: sociodemographic data, personal history of alcohol and drug usage at the time of the crime, at the time of the imprisonment and in the months prior to arrest, family history of alcohol and drug problems and involvement in criminal offences, personal history of being sexually abused in childhood, person who committed the sexual abuse, employment history, reason for current imprisonment, previous convictions or charges, number of previous arrests, the age in which the criminal activities began, family history of alcohol and drug problems and the age in which alcohol and drugs were initially used.

To evaluate the history of sexual aggression experienced by these inmates, we utilized the modified version of the Sexual Experiences Survey (SES) (26, 27), which contains 11 questions with two possible answers (yes or no). It is scored as follows: a positive response to questions 1, 2 or 3 means "sexual contact", a positive response to questions 4 or 5 means "sexual coercion", a positive response to questions 6 or 7 means "attempted rape", a positive response to questions 8 or 9 means "forcible rape" and a positive response to questions 10 or 11 means "incapacitated rape".

Procedure

Two groups of female convicts were obtained. The first group (n = 88) consisted of women imprisoned for homicide and the second group (n =94) comprised women imprisoned for robbery.

All statistics analyses were performed with SPSS for the personal computer, version 17. Categorical variables were compared by using the χ^2 test or Fisher's exact test, depending on the size of subgroups. The parametric *t* test was used for continuous data, except when the variances between two variables of the samples were unequal, according to the Levene's criteria. In these situations, we used the non-parametric Mann-Whitney-U test. Findings were considered significant if $p < 0.05$.

A multiple variance analysis (MANOVA) was also used because this research evaluated many dependent variables and only a univariate analysis could increase the chance of missing data. Direct logistic regression analysis was also constructed to investigate the associations between drug problems and female offenders, after adjustment for variables which could possibly confound the relation and affect the response rate.

Results

Descriptive statistics

Sociodemographic features

Of the 200 recruited female convicts, 18 (9 %) eligible women refused to take part in this study because they believed that their answers could impair the criminal procedure, in spite of being reassured by the researchers that the information would be kept confidential.

Eighty-eight (48.35%) were convicted of homicide and 94 (51.65%) were serving a sentence for robbery. All information about the *modus operandi*, the means of attack (weapons used), the crime environment and the characteristics of the victims involved was obtained from the official registers, which were made available for the researchers.

Overall, the mean age was 31.58 (SD = 8.79) years, 64.2% were married or common-law wives, 53.6% were white and 71.5% had not completed the 7th grade. The mean time of imprisonment was 51.69 (SD = 44.04) months and the mean time of the penalty was 160.40 (SD = 133.96) months.

At the moment of the interviews, the mean age of the females who perpetrated homicide was 34.16 (SD = 9.38) and the mean age of the female robbers was 29.17 (SD = 7.47); this difference was statistically significant (U Mann Whitney = 2776.5, $p < 0.01$). We verified the inmates' age at the moment of the interviews inside the penitentiary. Naturally, this can generate issues about the real age differences between the groups at the moment of the crime. To minimize this problem, we compared the mean time of the penalty already served by each group of female felons at the moment of the interviews. The mean time of imprisonment of the murderesses was 50.19 (SD = 35.11) months and the mean time of imprisonment of the female robbers was 53.33 (SD = 51.13) months, and this difference was not significant (U Mann-Whitney = 3710.5, $p = 0.42$). Supposing that the time between the criminal acts and the imprisonment has not been significantly different between the groups, the hypothesis of the difference of ages could be accepted in this sample.

Also, the number of married women or common-law wives was higher in the group convicted of robbery than in the group of murderesses; on the other hand, the number of widows was higher in the group who perpetrated homicide than in the group of female robbers ($\chi^2 = 14.55$, 2df, $p < 0.01$). Besides, the monthly income before penalty was higher in the group of homicides than in the group of robbers (U Mann-Whitney = 3404, $p = 0.04$). There were no statistically significant differences between both groups in terms of race, educational level, religion and family history of criminal problems (Table 01)

Table 1. Sociodemographic features between women imprisoned for homicide and women imprisoned for robbery

Variables	Homicide Perpetrators (n = 88)	Robbery Perpetrators (n = 94)	P
Age, mean (SD)	34.16 (9.38)	29.17 (7.48)	U = 2776.5, $p < 0.01$**
Marital status, n (%)			
Single / Divorced	26 (29.55)	25 (26.60)	
Married / Common-law	48 (54.54)	68 (72.34)	$\chi^2 = 14.55$, 2df, $p < 0.01$**
Widowed	14 (15.91)	1 (1.06)	
Race, n (%)			
White	51 (57.95)	46 (48.94)	
Black	13 (14.78)	24 (25.53)	$\chi^2 = 3.33$, 2df, $p = 0.19$
Mixed Races	24 (27.27)	24 (25.53)	
Educational level, n (%)			
6th grade or less	65 (73.86)	66 (70.21)	
7th to 12th grade	15 (17.04)	21 (22.34)	$\chi^2 = 0.88$, 2df, $p = 0.65$
High School or more	8 (9.10)	7 (7.45)	
Religion, n (%)			
Catholic	33 (37.50)	38 (40.43)	
Protestant	34 (38.64)	27 (28.72)	$\chi^2 = 4.76$, 3df, $p = 0.19$
Spiritualist	18 (20.45)	19 (20.21)	
Others / none	3 (3.41)	10 (10.64)	
Family history of criminal problems, n (%)	26 (29.54)	32 (34.04)	$\chi^2 = 0.36$, 1df, $p = 0.55$
Monthly income before penalty (in "reais", the Brazilian currency), mean (SD)	801.33 (1172.52)	449.59 (360.29)	U = 3404, $p = 0.04$*
Employed before imprisonment, n (%)	56 (63.64)	38 (40.42)	$\chi^2 = 9.81$, 1 df, $p < 0.01$**

* $p < 0.05$
** $p < 0.01$

Crime related factors

With reference to the criminological aspects, the group of murderesses was given a longer penalty in months (200.93, SD = 141.58) than the group of female robbers (132.12, SD = 119.55), and this difference was statistically significant ($t = 3.22$, 149df, $p < 0.01$). In fact, according to the Brazilian Penal Code, the penalty applied for homicide is higher than that for robbery, when the degree of the crimes is not considered.

Twenty-seven (30.68%) inmates convicted of homicide and 4 (4.25%) convicted of robbery were waiting for trial in prison, and this difference was statistically significant ($\chi^2 = 22.46$, 1 df, $p < 0.01$). Among the female

robbers, 32 (34.04%) had history of criminal recidivism, while 18 (20.45%) of the murderesses had this history, which was significantly different (χ^2 = 4.21, 1 df, p = 0.04). With respect to the previously committed crimes, there were significant differences between both groups of women inmates (χ^2= 27.59, 3 df, p < 0.01). The majority of the women who were serving a sentence for robbery during this study had previously committed the same type of crime and none of the murderesses had previously perpetrated robberies, but this latter group had committed other homicides before. Considering the diverse alleged motives for the crimes between both groups, there were significant differences (χ^2 = 129.64, 4 df, p < 0.01). Seventy-two (76.6%) women convicted of robbery have alleged the necessity of money as the main motive for this crime and 22 (25%), 27 (30.68%) and 25 (28.41%) murderesses have contended that the main reasons for this crime were passion, interpersonal conflicts and revenge, respectively (Table 02).
With respect to the means of attack, we have also observed significant differences between the two groups (χ^2 = 21.41, 5 df, p < 0.01). Although knives and handguns were the main weapons used during both crimes, the murderesses used knives more frequently than those convicted only of robbery. Verbal threats were employed by 14 (14.89%) female robbers as the main mean of attack against their victims (Table 02).

Table 2. Criminological aspects between women imprisoned for homicide and women imprisoned for robbery

Variables	**Homicide Perpetrators (n = 88)**	**Robbery Perpetrators (n = 94)**	**p**
Age of the beginning of the criminal activities , mean (SD)	27.56 (10.09)	21.64 (6.25)	U = 2648, p < 0.01**
Total time (in months) of penalty, mean (SD)	200.93 (141.58)	132.12 (119.55)	t = 3.22, 149df, p < 0.01**
Time (in months) of imprisonment, mean (SD)	50.19 (35.11)	53.33 (51.13)	U = 3710.5, p = 0.40
Waiting for trial, n (%)	27 (30.68)	4 (4.25)	χ^2 = 22.46, 1df, p < 0.01**
Criminal recidivism history, n (%)	18 (20.45)	32 (34.04)	χ^2 = 4.21, 1df, p = 0.04*
Previously committed crimes, n (%)			
Homicide			
Robbery	5 (5.68)	0	
Drug Trafficking	0	23 (24.47)	χ^2 = 27.59, 3df, p < 0.01**
Others	5 (5.68)	2 (2.13)	
	8 (9.09)	7 (7.44)	
Alleged motive for the crime, n (%)			
Passion			
Interpersonal conflicts	22 (25)	1 (1.06)	
Necessity of money	27 (30.68)	1 (1.06)	
Revenge	6 (6.82)	72 (76.60)	
Others	25 (28.41)	0	χ^2 = 129.25, 4df, p < 0.01**
	8 (9.09)	20 (21.28)	
Means of attack, n (%)			
Knife	21 (23.86)	12 (12.77)	
Handgun	43 (48.86)	54 (57.45)	
Physical force	6 (6.82)	6 (6.38)	χ^2 = 21.41, 5df, p < 0.01**
Hammer	6 (6.82)	3 (3.19)	
Verbal threats	0	14 (14.89)	
Others	12 (13.64)	5 (5.32)	
Crime environment, n (%)			
Offender´s house	23 (26.14)	2 (2.13)	
Victim's house	17 (19.32)	22 (23.40)	χ^2 = 30.71, 3df, p < 0.01**
Streets	27 (30.68)	57 (60.64)	
Others	21 (23.86)	13 (13.83)	
Victims, n (%)			
Unknown	5 (5.68)	83 (88.30)	
Known and Related	29 (32.96)	1 (1.06)	χ^2 = 125.46, 2df, p < 0.01**
Known and Nonrelated	54 (61.36)	10 (10.64)	

* p < 0.05
** p < 0.01

Considering the crime environment, significant differences between both groups of offenders were also found (χ^2= 30.71, 3 df, p < 0.01). Whereas 40 (45.46%) inmates convicted of homicide have committed this crime inside their own home or in the victims' house, 57 (60.64%) female robbers have committed this crime in the streets. Significant differences were also found with relation to the victims involved (χ^2= 125.46, 2 df, p < 0.01). Eighty-three (94.32%) murderesses have victimized known victims and 83 (88.30%) female robbers have offended against unknown victims (Table 02).

With reference to the street drug consumption at the moment of the crime, there were also significant differences between both groups (χ^2= 5.16, 1df, p = 0.02). Twenty-seven (28.7%) inmates convicted of robbery confirmed the use of drugs, whereas 13 (14.77%) murderesses reported the use of street drugs at the moment of the crime. Among female inmates who revealed to have already used street drugs, the mean age of the beginning of this consumption was significantly different between both groups of felons (t = 2.03, 91df, p = 0.04). For the group of women who committed homicide, the mean age of the beginning of the drug consumption was 18.42 (SD = 6.38) years, whereas for the group of robbers the mean age of the beginning of the drug usage was 16.18 (SD = 4.23) years.

Considering the history of sexual abuse in childhood, there was no significant difference between both groups (χ^2= 0.88, 1df, p = 0.35). Twenty-six (29.54%) women convicted of homicide and 22 (23.40%) convicted of robbery have revealed history of being sexually abused during childhood. There was no significant difference with respect to the mean age of the first episode of sexual abuse between both groups (t = 0.44, 46df, p = 0.66). The mean age in which the sexual abuse happened was 11.42 (5.13) years for the women of the homicide group and 12.04 (4.49) years for the robbery group. With respect to the Sexual Experience Survey items, only the scores on "sexual coercion" were reliably higher among inmates condemned for homicide (χ^2 = 8.68, 1 df, p < 0.01) (Table 3).

Table 3. Items of the SES (Sexual Experiences Survey) between women imprisoned for homicide and women imprisoned for robbery

SES items	Homicide Perpetrators (n = 88)	Robbery Perpetrators (n = 94)	p
Sexual Contact, n (%)	14 (15.91)	15 (15.96)	χ^2 < 0.01, 1df, p = 0.99
Sexual Coercion, n (%)	14 (15.91)	3 (3.19)	χ^2 = 8.68, 1 df, p < 0.01**
Attempted Rape, n (%)	4 (4.54)	4 (4.25)	χ^2 < 0.01, 1df, p = 0.92
Forcible Rape, n (%)	8 (9.09)	10 (10.64)	χ^2 = 0.12, 1df, p = 0.73
Incapacitated Rape, n (%)	10 (11.36)	7 (7.45)	χ^2 = 0.82, 1df, p = 0.36

** p < 0.01

Psychometric Measures

As we used many continuous variables, the MANOVA was chosen to verify if the combination of these dependent variables changes as a function of the groups of female inmates. A 2 X 4 MANOVA was conducted, with inmate groups (homicide and robbery) as the independent variable and AUDIT, DAST, BIS-11, and BDI total scores entered as the dependent variables. The overall MANOVA was significant, Pillai's F(4, 177) = 3.64, p < 0.01, ∂n^2 = 0.08. An analysis of univariate effects revealed significant effects for the DAST total score, F (1, 177) = 7.32, p = 0.01, but did not reveal significant effects for the BIS-11 total score, F (1, 177) = 1.52, p = 0.22, nor for the BDI total score, F (1, 177) = 0.03, p = 0.86, nor for the AUDIT total score, F (1, 177) =0.19, p = 0.66. Means and standard deviations for all measures are listed in Table 04.

Drug Problems after Adjustment for Confounders

As the group of female robbers showed higher mean score in the DAST inventory, lower monthly income before the penalty, more precocious beginning of criminal activities in general and revealed to be younger than the group of murderesses during the interviews, we decided to verify the association of the severity of drug misuse with the types of violent criminals, after adjustment for the other variables. Also, as the correlation between 'age of the inmates at the moment of the interviews' and 'age of the beginning of criminal activities' was significantly positive (Pearson = 0.64, p < 0.01), only the variable 'age at the moment of the interviews' was entered into the analysis to avoid that one of these variables suppressed the effect of the other. In fact, as we chose to apply the model of direct logistic regression, where all predictors enter the equation simultaneously (as long as tolerance is not violated), a predictor that is highly correlated with the outcome by itself may show little predictive capability

in the presence of other highly correlated predictors. Also, the correlation between 'age of beginning of criminal activities' and 'DAST' was higher than the correlation between 'age at the moment of the interviews' and 'DAST' (Pearson = - 0.29, p < 0.01; Pearson = - 0.17, p = 0.02, respectively).

Table 4. Psychometric tests – means and SDs

Variables		Mean (SD)	p
DAST			
	Murderesses (n = 85)	4.65 (5.54)	F(1, 177) = 7.32, p = 0.01*
	Robbers (n = 94)	6.97 (5.99)	
AUDIT			
	Murderesses (n = 85)	7.62 (11.94)	F(1, 177) = 0.19, p = 0.66
	Robbers (n = 94)	6.91 (9.91)	
BIS-11			
	Murderesses (n = 85)	69.41 (9.94)	F(1, 177) = 1.52, p = 0.22
	Robbers (n = 94)	67.33 (12.57)	
BDI			
	Murderesses (n = 85)	15.65 (10.76)	F(1, 177) = 0.03, p = 0.86
	Robbers (n = 94)	15.89 (8.16)	

* p < 0.05

We have chosen the variables "age" and "monthly income before the penalty" because they could confound the role of drug consumption on the group of female robbers.

A test of full model with all predictors against a constant-only model was statistically reliable, $\chi^2(3) = 31.18$, p < 0.01. The variance in group membership accounted for was marginal, with Nagelkerke $R^2 = 0.21$. Prediction success was regular for the group of women convicted of homicide, with 55.7% of these inmates being correctly classified. Prediction was better for the female robbers, with 72.3% being correctly classified. The overall success rate for prediction was 64.3%. According to the Wald criterion, the three variable reliably predicted the group membership (Table 05).

Table 5. Effects of street drug-related problems on female robbers (direct logistic regression)

	S.E.	Wald	df	p	OR	CI (95%)
Constant	0.69	11.84	1	< 0.01	11.01	-
DAST mean scores	0.03	4.87	1	0.03*	1.06	1.01-1.12
Income	< 0.01	6.19	1	0.01*	0.99	0.99-1.00
Age	0.02	12.01	1	< 0.01**	0.93	0.89-0.97

* p < 0.05
** p < 0.01

Correlation between Drug Problems and Age of the Beginning of Criminal Activities (Criminal Career)

The association between the variables 'scores on DAST' and 'age of the beginning of criminal activities' was negative and statistically significant for the overall sample (r = - 0.29, p < 0.01). Considering each group of female inmates, the correlation between both variables was negative, but only reliable in the group of female robbers (r = - 0.21, p = 0.04, female robbers; r = - 0.19, p = 0.07, murderesses). The inverse correlation between these variables is depicted in Figure 1.

Due to this strong correlation between both variables in the group of female robbers, it was possible to develop a *discrimination index* to evaluate the extent to which the variables 'DAST' and 'age of the beginning of criminal activities' can set apart female robbers from those convicted of homicide in our sample. To construct this index, we have used the following equation, based on the principles of logistic regression:

Index = 1/Exp (- 1.815 - 0.046 x 'DAST' + 0.083 x 'Age of the beginning of criminal activities')

The higher this index, the higher the chance of a female robber being identified in this sample.

Power Analysis

The PASS statistical program was used in a t-test for two independent samples with common variance to calculate the power of the present sample size to detect distinctions between the groups of female robbers and murderesses with reference to mean scores on the DAST. The total sample comprised by 88 murderesses and 94 female robbers achieved a power of 80% to detect differences among the means of the two groups versus the hypothesis of equality between the means, considering that the mean difference is 2.3 and the common within-group standard deviation is 5.8. This study has enabled us to report the mean difference with a precision (95% confidence level) of plus/minus 1.68 points.

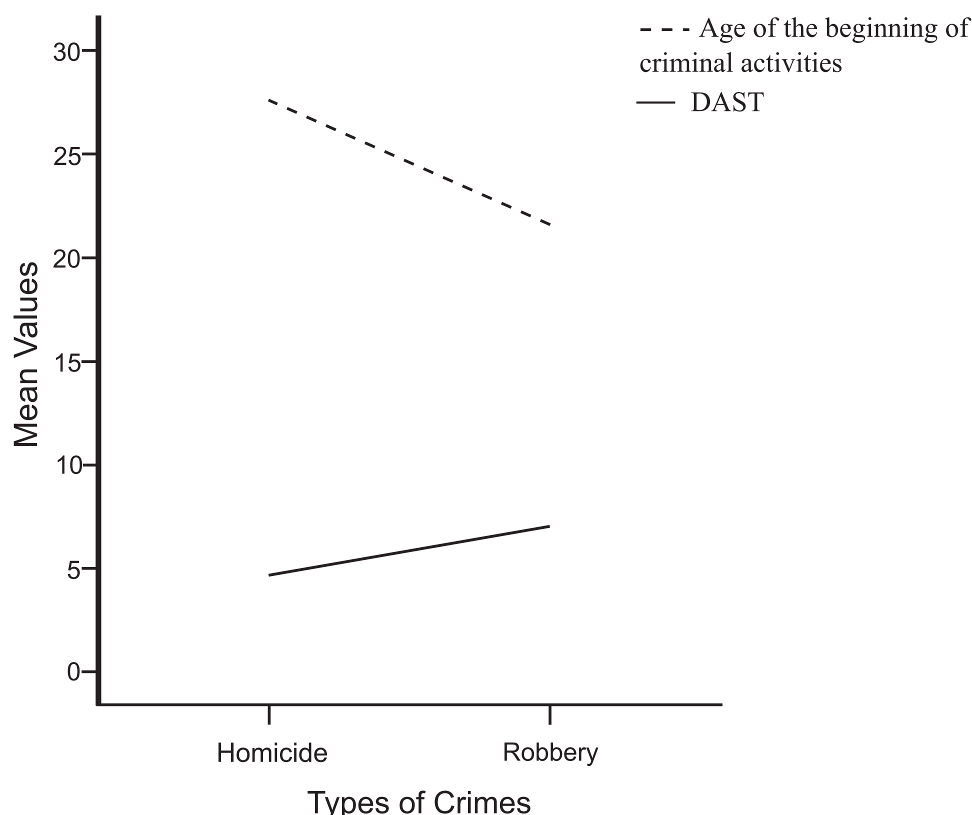

Figure 1. Correlation between Drug Problems and Age of the Beginning of Criminal Activities between female robbers and murderesses

Discussion

This study has demonstrated that there are some criminological and clinical differences between female inmates who committed homicide and those who perpetrated robbery. Despite the heterogeneity of both groups of women, it was possible to verify that the women convicted of robbery showed a longer criminal career, despite being younger than the other group at the moment of the interview; they had less personal income before the penalty, pointed out the necessity of money as the main motivation for their criminal behavior and presented more problems with drug consumption.

Among women condemned to prison for violent crimes, a longer criminal career has been observed in those that initiated the street drug consumption more precociously. In fact, almost 90% of robberies committed by women have been economically driven and the vast majority of them have revealed that the money would support their drug usage. Besides, the women with early-onset drug usage have most likely resided in areas with high concentration of poverty and frequently have family histories of psychiatric problems (28). Our study has also shown that the group of women who perpetrated robbery revealed more family psychiatric problems than the group of women who committed homicide. Furthermore, female robbers have pointed out financial necessities as the main motivation for their crimes.

The connection between substance abuse and criminal activities, mainly among men, is well documented in the medical literature. Drug misuse is considered an important factor related to criminal recidivism, that is, a criminogenic need. According to McClellan et al. (29) the higher severity of substance abuse is associated with self-reported property crime among women. Another study has revealed that female parolees with a history of drug misuse are at greater risk of returning to criminal activities (30). Therefore, the maintenance of drug consumption by these inmates must be considered an important risk factor to criminal recidivism.

With reference to the murderesses, Brownstein et al. (31) analyzed data on a sample of females convicted of homicide and verified that besides those who kill men who have caused them injuries or kill other people on behalf of a man who has controlled them, there is another group of women who commit homicides motivated by economic interests, commonly in the context of drug dealing. In truth, more than for men, the law violations by women are often associated with an emotional relationship with others and the fulfillment of role expectations within that connection. Women may use the money that was stolen for personal excesses, but more often the money is used to fulfill a caretaking role or to maintain a love relationship (32).

According to Campbell et al. (33), female offenders of intimate partners present fewer problems with drug abuse than their male counterparts. Also, these women have rarely shown previous history of criminal demeanors, contrary to the females convicted of robbery.

A considerable amount of research has associated criminal activities among women with the history of being sexually victimized (34-36). Sometimes female inmates have partially blamed this kind of victimization for their criminal behaviors. Although our study has not demonstrated differences between both groups with respect to the history of childhood sexual abuse, the group of murderesses has reported higher sexual coercion rates than that of female robbers. Many of these women condemned for homicide have lived with abusive partners who frequently force them into sexual acts by threats, coercion or even physical violence.

Commonly, studies have demonstrated that women's imprisonment in general is largely associated with social and psychological problems, such as poverty, drug abuse and conflicts with abusive partners (37). In fact, for many women, the own victimization is related directly to the involvement in delinquent or criminal demeanors. Pressure to commit a crime, lack of social opportunities and necessity of retaliation against an abusive partner have been seen as common denominators among female inmates in general. Despite this, women inmates consist of a heterogeneous population and an adequate evaluation of the specific characteristics and necessities of each type of felon ought to contribute to improve the assistance inside prisons, instead of only generalizing a theory for all of them.

The type of victim frequently predicts each one of these two violent crimes. For example, when women commit crimes against known victims, passion and revenge seem to be the main motivations. However, when their crimes are perpetrated against unknown victims, the economical interests prevail as the main reason for the criminal demeanor. According to Blanchette and Brown (10), the motivations for violent felonies against unknown victims, which generally include crimes against property, are very similar between men and women, whereas the motivations seem to be different between both genders, with reference to the crimes against known victims. Weizmann-Henelius et al. (38) also affirm that women who commit crimes against strangers commonly show high frequency of difficulties in their families of origin and usually have psychiatric problems.

Differences in motivation for the same type of crime could be related to diverse psychological aspects of each kind of convict. In our sample, the majority of women who committed homicide involved related victims, such as husbands, boyfriends and husbands' / boyfriends' lovers. Kruttschnitt (39) has contended that women who kill known and nonrelated people appear to be doing this for the same reasons as males do, such as vindication and an attempt to recover their personal honor. However, among those women who murder known and related people, such as husbands and lovers, the main reason lies in years of domestic violence. Besides, jealousy, infidelity, and abandonment of home can be powerful catalysts for this crime among women and men.

In general, every profile analysis has revealed one consistent finding among female inmates: they are poor, young, uneducated and devoid of ability to perform skilled work (10, 40). Other studies have revealed that female inmates are more likely to demonstrate certain mental health problems such as depression, anxiety or phobia and to require more medical attention than their male counterparts (41).

With reference to the weapons used during the criminal activities, Block and Christakos (42) registered that knives are more commonly used by women than firearms during intimate partner homicide. Contrary to this, reports have suggested that the most common method of killing by women in intimate partner homicide is by firearm (43). However, during robberies, women have behaved similarly to men and have more frequently used firearms. Besides, when robbery is committed by women, men are also commonly involved in the crime. In our study, there were significant differences between women convicted of homicide or robbery with reference to the weapon used during the criminal activity. Although firearms have been more frequently used than knives in both groups, women convicted of homicide have more commonly used knives than those who have perpetrated robbery.

From our initial hypotheses, only the higher depression mean score in the group of murderesses could not be demonstrated. It is possible to conjecture that the effects of imprisonment, such as the deprivation of relationships, autonomy, liberty, goods and services, may constitute a serious attack on the personality and self-esteem of inmates in general, independently of the types of crimes committed (5, 9, 44). Thus, depressive symptoms would be expected to be highly prevalent in both groups of prisoners.

Although jails were never intended to be mental hospitals, they must systematically screen and provide treatments for women with health problems in general. Therefore, to recognize the necessities of specific groups of female offenders is crucial for the development of an adequate system of health politics, as well as for the decrease of criminal recidivism among those offenders who have shown higher risk (45). Besides, some types of crimes can be associated with different psychiatric problems, which may mean that the therapeutic management has to be personalized. Prisons are primarily custodial institutions responsible for the confinement of sentenced individuals and their mission to take care of prisoners must be continuously improved (46).

Our study has demonstrated important differences between women who commit homicide and those who perpetrate robbery. The current correctional practice must decidedly be evidence-based and public resources should be provided to those assessed as higher risk inmates. We are not suggesting that women who have committed homicide must receive fewer interventions than those who have perpetrated robbery. On the contrary, we are suggesting that the different criminal behaviors can be related to different psychological, familial and social needs.

Assessment of criminogenic needs is essential for the provision of appropriate case-based correctional intervention. Although poverty, social victimization and lack of job opportunities or skills are associated with crimes in general, frequently they are not treatable medical and psychological factors. With respect to these relevant social needs, intensive efforts of the governments will be necessary as soon as possible (47).

In fact, some studies have pointed out that intensive drug treatment in prisons may reduce criminal recidivism, specially if there is continued care in the community during postrelease. In fact, intervention efforts must be linked to criminogenic characteristics (5, 48, 49).

Some limitations are observed in this study, such as: (1) the use of self-report to measure outcomes, (2) the cross-sectional design, which can preclude a causal inference, and (3) although comparisons between these two groups of inmates who committed violent crimes were carried out, there was no recruited control group. Comparisons with other offending groups, perhaps nonviolent female convicts, would be particularly relevant.

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CHAPTER 7

Male Prostitution - Drug Problems and Criminological Aspects among Hustlers

Fernanda Cestaro Prado Cortez[1, 2]

[1] *Ambulatory for the Treatment of Sexual Disorders, ABC Medical School, São Paulo, Brazil.*

[2] *Department of Psychiatry of the University of São Paulo, Brazil*

Address correspondence to: Dra. Fernanda Cestaro Prado Cortez, *Ambulatory for the Treatment of Sexual Disorders of ABC Medical School (ABSex), Department of Psychiatry of ABC Medical School. Avenida Lauro Gomes 2000. Vila Sacadura Cabral. Santo André. CEP: 09060-870. São Paulo, Brazil; Te/Faxl: +55 11 4993.729. E-mail: cestaro@gmail.com*

Abstract: Prostitution is an exchange of sex for money or other favors and the male prostitute is a biological man who practices prostitution. Researchers have been dividing them into Male Sex Workers (MSWs) with or without Gender Identity Disorders (GID). Typological studies that evaluate the differences between both groups can help researchers develop effective management proposals for this complex population, but this type of study is very scarce. MSWs represent a high risk population for sexually transmitted diseases (STD), showing a high prevalence of alcohol and drug use and unsafe sexual practices. Furthermore, they show some specific characteristics, such as low educational level, history of leaving home and dropping out of school, poor life support and history of violence. Illegal activities are common, even before prostitution begins and many MSWs have been arrested, mainly the street workers. There are few studies about MSWs and a structural understanding of them is required. In this text, we present a literature revision and the initial data of our study that has evaluated the use of licit and illicit drugs, depression symptoms, impulsiveness, dimensional personality aspects and criminal history among male prostitutes.

Introduction

Prostitution is defined as the exchange of sexual services for money, without any emotional involvement. It has existed since ancient times, and for Caukins and Coombs (1), male prostitution occurs quite indiscriminately in all society bases.

Sex workers are a very heterogeneous population. Among biologically male sex workers, we can distinguish individuals with male gender identity and men with gender identity disorders (GID), also known as transvestites and transsexuals. Unfortunately, studies that differentiate these two groups of sex workers are scarce. The importance of typological studies is to generate groups of individuals within a given population, aiming to devise proposals for action in social and health areas, ranging from disease or vulnerability indicators in separate groups.

Certainly, sex workers represent a population with high risk for sexually transmitted diseases (STD) due to factors intrinsic to prostitution, such as the high number of sexual partners and unsafe sexual practices. According to Rietmeijer et al. (2), the incidence of AIDS increased from 0.7% to 2.4% per year in the general population, increasing 50% among men who have sex with other men (MSM). Specific characteristics of these professionals must be considered, such as low educational level, social marginalization, high consumption of licit and illicit drugs and the practice of having sex with users of psychoactive substances (3). In general, there are many doubts on the psychosocial function of male sex workers. Knowing that they are vulnerable to STDs, it is necessary to determine the specific characteristics and the needs of this population, aiming at developing prevention programs and effective public policies.

Definition

The exchange of sexual services for money, drugs, shelter or food, in an indiscriminate form and without attachment is defined as prostitution (1, 4). Prostitution is commonly thought of as a woman's occupation, but this "profession" caters to all sexual demands of some men for sexual contact with their own kind.

Allen (5) called Male Sex Workers (MSWs) men who exchange sex for money and Female Sex Workers (FSWs) women who exchange sex for money. Caukins and Coombs (1) reported that if a MSW want to reach success in

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prostitution, they will need to be young (but older than FSWs), have good looks and be disposed to doing any sexual act that the client proposes. Both MSWs and FSWs present low education level, history of crack, intravenous and polysubstance drug use and history of being sexually abused. In addition, many of them declare to be homeless (6).

Russel (APUT Allen) (5) defined the MSWs as adolescents with high sex interest, low interest in women, weak identification with a masculine figure; besides, these types of MSWs frequently establish competitive relationships with their peers. They usually have sexual experiences at a young age, use more drugs and have more depressive symptoms than other adolescents and are more vulnerable to getting STD (7). He and other authors have described some common denominators among MSWs, such as:

a) young adults;
b) homosexual or bisexual orientation;
c) poor socio-economic status;
d) family history of substance abuse;
e) personal history of alcohol and drug use;
f) hostility and aggressiveness towards family and society;
g) poor vocational aspirations;
h) poor educational level;
i) notable difficulties to maintain stable relations with others.

In addition to these aspects, it is probable that the majority of MSWs know how HIV is transmitted and consequently that they use preventive methods against this disease (8).

Generally, MSWs are clustered as hustlers or transvestites and transsexuals. Hustlers are defined as any man that exchange sex for money (9). They are seen as virile prostitutes. They are masculine and usually make sex with both men and women (10). Transvestites and transsexuals attract their clients by wearing feminine clothes and accessories, submit themselves to surgeries that will bring feminine sexual characteristics (even sex reassignment surgery) and, in general, see themselves as homosexuals.

Because prostitutes get involved in activities that society usually sees as evil, people assume that they have anti-social personality traits, but there is not any evidence for this. Cates e Markley (7) applied a personality inventory (The Jeness Inventory) to 15 MSWs and 15 controls, but they did not find any significant differences between the groups. The authors highlighted the necessity of further studies with bigger samples, so the results could be expanded in the community. At ABSex (Ambulatory for the Treatment of Sexual Disorders of ABC Medical School – Santo André, Brazil), we are developing a study involving 80 MSWs, with and without GID. These prostitutes have been evaluated in face-to-face interviews and different instruments and inventories, such as the Temperament and Character Inventory (TCI), are being used. So far, MSWs with GID have shown higher scores on harm avoidance, self-directedness, cooperactivity and self-transcendence, but lower scores on persistence, than MSWs without GID (table 1). These numbers are not significant yet, but just half of the sample has been interviewed so far.

Table 1. Psychometrics Variables among Male Prostitutes with and without Gender Identity Disorders (GID)

Variables	With GID (n = 39)	Without GID (n = 15)	Test	p
DAST, mean (DP)	7.61 (6.59)	8 (6.49)	t = 0.19, 52 df	0.85
AUDIT, mean (SD)	7.46 (8.86)	8.47 (8.60)	t = 0.37, 52 df	0.71
Beck, mean (SD)	14.41 (10.72)	12.13 (10.49)	t = 0.70, 52 df	0.48
Barratt, mean (SD)	69.85 (10.37)	73.93 (11.68)	t = 1.25, 52 df	0.22
Novelty Seeking Total Score, mean (SD)	20.26 (3.27)	20.40 (2.35)	t = 0.15, 52 df	0.88
Harm Avoidance Total Score, mean (SD)	18.72 (3.62)	17.33 (4.09)	t = 1.21, 52 df	0.23
Reward Dependence Total Score, mean (SD)	12.10 (2.61)	11.13 (3.41)	t = 1.12, 52 df	0.27
Persistence, mean (SD)	3.51 (1.39)	3.93 (1.71)	t = 0.93, 52 df	0.36
Self-Directedness Total Score, mean (SD)	20.03 (5.19)	18.93 (3.97)	t = 0.73, 52 df	0.47
Cooperactivity Total Scores, mean (SD)	24.10 (4.87)	22.20 (3.29)	t = 1.39, 52 df	0.17
Self-Transcendence Total Scores, mean (SD)	21.56 (3.64)	20.80 (5.24)	t = 0.61, 52 df	0.54

Typologies

Many scientists have carried out classifications for MSWs. That is because this population is a very heterogeneous group, with different characteristics and needs. Coombs (11) characterized them in a general form: men with ages between 15 and 23; unemployed; with clothes, manners and behavior excessively masculine; low level of intelligence and low socio-economic levels; poor education and history of leaving home and dropping out of school; poor support and history of family violence and rejection.

Raven (APUT Allen) (5) classified MSWs as individuals that practice full-time prostitution and those who have another job in addition to prostitution. Gandy (APUT Allen) (5) classified MSWs as:

1. Hoodlum hustlers or delinquent heterosexuals;
2. Professional hustlers or full-time street prostitutes;
3. Cross-dressing hustlers or drag-queens;
4. Students and individuals with another occupation;
5. Individuals recently unemployed;
6. Rural hustlers: people with serious emotional problems or with mental disorders.

Allen, based on his antecessors, organized the follow typology:

1. Full-time MSWs:

   Street Walkers and Bar Hustlers. These MSWs spend little time in the same place; do not save money; have masculine appearances and are used to having sexual relationships outside of prostitution. Many of them support financially their family, but the majority cannot maintain relationships with family and friends. They see themselves as being in the lower level of the MSWs social hierarchy. They attract their clients on the streets and in bars. There is a high incidence of violence towards Street Workers, and this has been explained by their chaotic and disorganized lifestyles, their tendency to work and live in areas that have high crime rates, their work hours (many work late into the night) and isolated work setting.

Call-boys: they find their clients through newspaper advertisements and phone contact, many times masqueraded as massage services or model agencies. They are physically attractive and sexuality versatile. The majority is heterosexual, but practice homosexual acts for money. They use to be the most successful type of prostitute (1).

Kept-boys: they are supported by their clients, who are usually an older man. They have their own apartment and live a luxurious life. The client pays for their studies and expenses. They need to be flexible and adapt easily to any situation, because they live “the client's life”.

2. Part-Time MSWs:

Prostitution as an alternative source of income: individuals who are involved in other activities, such as school and conventional work, but practice prostitution in their spare time. They work when they need more money, usually on weekends and holidays.

Delinquents: they use prostitution as a way to commit crimes, and, frequently, they are gang members. Prostitution is an extension of their anti-social personality traits. This group has the smallest number of homosexual members.

3. Transvestites and Drag queens: a group composed of transvestites and transsexuals that is highly heterogeneous in relation to the sexual identity and sexual preferences. Some similarities in this group can be identified, such as: they have a masculine biological gender, they practice prostitution with a feminine appearance (partially or totally); their clients are men of any sexual orientation; they practice anal, oral and vaginal sex (in the cases of those who have submitted themselves to sex reassignment surgery); they practice prostitution, in general, on the streets, under difficult conditions and with a high risk of aggression; they have more financial needs, because of the care taken with their feminine appearance; they have difficulty getting another job because of their appearance and their poor education (12).

Socio-demographic Data

According to Caukins and Coombs (1), in 1976, male prostitution had risen progressively and almost reached epidemic proportions.

MSWs are seen as people with poor education, unstable home life, high prevalence of unsafe sex practices, drug use and HIV infection, poor attachment, indifferent parents and limited social opportunities (5, 13).

The majority of studies have found an average age of 25 years old among MSWs, with ages ranging between 12 and 58 years old (14-16). According to Marino et al.(17), street sex workers are significantly younger (average age of 21.7 years old) than other MSWs (average age of 29.3 years old).

An Australian study of 186 MSWs showed that 69% had completed high school and 39% started, but did not finish, college (15), which was lower in the street workers category. In a Brazilian study, 82% of the sample of male sex workers had studied for four years or less (18).

In many studies, poor education was seen as a consequence of the low age of the interviewed group as well as a result of the limited access to schools and low socio-economic level (16). Boys with sex selling experiences reported a lower knowledge level of social issues than it was reported by other boys (19).

Allen (5) interviewed 98 MSWs. They had ages ranging between 14 and 24 years old and started prostitution very early (14.2 years old on average). In 2000, Belza and colleagues (12) interviewed 132 MSWs with GID, such as transvestites and transsexuals. It was found that 41% had been working in prostitution for 10 years or more, 52% had started before their twenties and 69% had been working only on the streets. Williams et al. (20) found that 65% of the MSWs in their research considered prostitution as their only way to survive, although 12% had their own houses, 34% lived with friends, 14% lived in hotels or hostels and 38% were homeless. The majority came from urban areas and 1/20 came from rural areas. About 19% had structured families, with present and affective parents and 50% came from unstable homes. The majority of them were street walkers and bar hustlers. Almost 70% had left home and said that they found affection and acceptance among their peers. Pedersen et al. (19) found, in their study with adolescents, an association between selling sex and parental break-up. They also found that scores on the alcohol exposure index in home were approximately twice as high as in those with sex selling experience.

In Allen's research (5), 2/3 of the subjects had their first sexual experience with a man and 1/3 with a woman, with average ages of 13.5 and 12 years old, respectively. In total, 64% agreed to these sexual acts and 60% received money or favors for them (5, 21).

So far, in our study, the mean age of MSWs with GID is 24.69 years old and of the MSWs without GID is 23.27 years old. The most prevalent ethnicity in both groups is mixed race and the most prevalent marital status in both groups is single. MSWs with GID declared monthly income of R$1882.05 per month (Real, currency in Brazil). No one had another job besides prostitution. About 51% had studied for 8 years or less and 48.72% had studied for 11 years or less. MSWs without GID revealed monthly income of R$773.33 per month. Almost 14% had another job outside of prostitution, 33.3% studied for 8 years or less, 40% had studied for 11 years or less and 26.67% had studied for more than 11 years (table 2).

Table 2. Socio-demographic Data and Sexual/Physical Abuse History among Male Prostitutes with and without Gender Identity Disorders (GID)

Variables		With GID (n = 39)	Without GID (n = 15)	Test	p
Age, mean (SD)		24.69 (7.19)	23.27 (4.74)	t = 0.71, 52 df	0.48
Race, n (%)	White	12 (30.77)	6 (40)		
	Niger	3 (7.69)	1 (6.67)	$\chi2$ = 0.41, 2 df	0.81
	Mixed race	24 (61.54)	8 (53.33)		
Marital Status, n (%)	Married	2 (5.13)	1 (6.67)		
	Single	35 (89.74)	14 (93.33)	$\chi2$ = 0.83, 2 df	0.66
	Separated	2 (5.13)	0		
Monthly Income, mean (SD) (in "Real", the currency in Brazil)		1882.05 (1648.58)	773.33 (771.11)	t = 2.49, 52 df	0.02*
Professional Circumstance, n (%)	Formal Job	0	2 (13.33)		
	Informal Job	33 (84.62)	12 (80)	$\chi2$ = 5.86, 2 df	0.05
	Gigs	6 (15.38)	1 (6.67)		
Education, n (%)	Four years or less	20 (51.28)	5 (33.33)		
	Eight Years or less	19 (48.72)	6 (40)	$\chi2$ = 11.33, 2 df	< 0.01**
	More than eight years	0	4 (26.67)		
Childhood Sexual Abuse History, n (%)		9 (23.07)	2 (13.33)	$\chi2$ = 0.63, 1 df	0.43
Childhood Physical Abuse History, n (%)		6 (15.38)	3 (20)	$\chi2$ = 0.17, 1 df	0.68
Home-leaving Childhood History, n (%)		15 (38.46)	6 (40)	$\chi2$ = 0.11, 1 df	0.92
HIV Serology, n (%)	Unknown	9 (23.08)	5 (33.33)		
	Positive	5 (12.82)	1 (6.67)	$\chi2$ = 0.84, 2 df	0.66
	Negative	25 (64.10)	9 (60)		
Use of Condoms With Clients, n (%)		25 (64.10)	10 (66.67)	$\chi2$ = 0.03, 1 df	0.86

Triggering Factors

There are different circumstances that create a sexual market and predispose youth to prostitution, such as: promise of easy and fast money, loneliness, acceptance need, lack of vocational capacity, unstable home life, few job opportunities, rejection by parents and psychological support needs (1).

The entrance into prostitution can be abrupt or progressive. When they run away from home, it is usually abrupt. A progressive entrance can occur by an invitation of an older prostitute (5).

Machado and Silva (10) highlighted economic motivation as the main factor for the entrance into prostitution, with the exception of kept-boys, who are motivated by the job, chance to study and travel opportunities. De Graaf et al. (22) remind us that addiction support is a strong determinant for entrance into prostitution, for both men and women. Coombs (11) said that the seduction of easy and fast money not only precipitates prostitution, but also reinforces its continuity.

Gandy (APUT Allen5) pointed out the high incidence of early sexual activity among sexual professionals. As we have pointed out, many MSWs had their first sexual experience at around 13 years old and with men (5). Early sexual experiences seem to be a crucial factor in the etiology of adolescent prostitution (19).

Personal history of being sexually abused in childhood, for many researchers, is a triggering factor for prostitution. There is a high prevalence of personal sexual abuse history among female prostitutes. In our study, we found that 23.07% of MSWs with GID had a sexual abuse history as compared to 13.33% among MSWs without GID (table 2). West (21) described a high incidence of sexual abuse history in childhood among street homosexual workers. In spite of this, none of the MSWs interviewed by him considered their personal sexual abuse history as a determinant of entering into prostitution. Nadon et al. (23) interviewed 45 adolescent prostitutes and 37 non-prostitute adolescents of similar age, from similar socio-economic backgrounds and neighborhoods, and found that the two groups did not differ significantly in the incidence of childhood sexual abuse. Widom and Kuhns (24) studied abused and neglected children on a prospective cohort design and their findings indicated that childhood victimization is not a significant risk factor for promiscuity, prostitution or teenage pregnancy.

Allen (5) cited factors related to the entrance into and the permanence of prostitution: early sexual activity, perception of prostitution as a social phenomenon, a subculture that accepts and encourages prostitution and money.

Sexual Orientation

Many studies highlight prostitutes as individuals with masculine appearance and with homosexual orientation (5). In a Brazilian study, less than half of the MSWs reported sexual activity with women (18), although West (21) reported that the fear of being regarded as homosexual is one of the factors that incite the omission of their “profession” and, in most cases, a homophobic position.

According to Newman et al. (4), men who have sex with men (MHM) and who do not identify themselves as homosexuals engage in prostitution two times more than those who identify themselves as homosexuals.

Of the subjects interviewed by Miller et al. (25), 27% considered themselves as homosexuals, 20.6% as heterosexuals and 51.8% as bisexuals. Among the subjects that practiced homosexual relations, 84% saw themselves as homosexuals, 0.3% as heterosexuals and 15.7% as bisexuals. Among those who did not practice homosexual relations, 48.2% considered themselves as homosexuals, 25.1% as heterosexuals and 26.7% as bisexuals. These findings are in accordance with the results of other researchers, such as Williams et al. (20), Sethi et al. (26) and Gandy and Deisher (APUT Allen) (5). In our research, all the MSWs interviewed so far see themselves as homosexuals.

MSWs are not a homogeneous group. The majority offers sexual services only to men, others to both men and women and the minority has only female clients. The majority considers themselves as homosexual or bisexual; however, many of them have stable relationships with women (27).

Clients

There are few studies about the prostitute's clients; mainly about the MSW's clients.

Caukins and Coombs (1) described these clients as homosexuals frequently comprised of middle-aged men, who prefer to pay for sexual relations with a stranger. Also, the clients are looking for unusual sexual practices, which would not be accepted by a stable partner.

In 1995, De Graaf (22) verified that 29% of the heterosexual clients and 40% of the homosexual clients (mainly occasional clients) consumed alcohol immediately before or during the commercial sex relation.

In our research, MSWs described their clients as exclusively men. The majority is described to be bisexual and married. They seem to prefer to not use condoms and pay for the MSWs to use psychoactive substances with them during the sexual relations.

Clients come from a diverse background in terms of age, social class, ethnicity and sexual identification (28). Probably, prostitution clients also represent a high heterogeneous population that needs to be further studied for a specific approach.

Alcohol and Drugs

Alcohol and drug use is very common among sex workers. According to Timpson et al. (13), prostitutes report use of drugs in 60% of their commercial sexual relations and this is higher among MSWs. Low self esteem, high anxiety level during the work and poor social abilities have been pointed out as important factors related to the psychoactive substance misuse (22).

Unsafe sexual behavior is frequently reported when the individual is under the influence of psychoactive substances and it probably occurs due to the influence that drugs have on decision making and judgment (15, 22). Some MSWs report unsafe sex behavior when they use alcohol or drugs, but mainly when they are having withdrawal symptoms (15).

De Graaf (22) has referred that prostitutes use drugs in large scale because of diverse negative environmental factors linked to prostitution; sometimes, the drugs could make prostitution more tolerable. Sex workers have revealed that alcohol facilitates approaching clients, reduces negative feelings associated with the “profession” and facilitates erection. Cocaine and crack reduce their conscious behavior and increase their sex arousal (29). Marijuana promotes relaxation. On the other side, crack use may increase the sex worker's vulnerability to violence (*e.g.* during withdraw symptoms) and propensity for violence. Cocaine increases aggressive demeanors. Indeed, most victims and perpetrators of prostitute homicides were under the influence of drugs at the time of the offense (30).

According to Leuridan et al. (14), 50% of MSWs smoke cigarettes and drink alcohol and 7.7% use intravenous drugs. In the sample studied by Timpson et al. (13), 96% have used cocaine and crack, 31.2% methamphetamine, 71.5% marijuana, 30.7% intravenous drugs and 6.7% heroine. More than half of their sample has stated more intense drug consumption when the client asked for it. In our study, MSWs with GID showed average scores of 7.61 and 7.46 on the Drug Abuse Screening Test (DAST) and the Alcohol Use Disorders Identification Test (AUDIT), respectively. MSWs without GID showed average scores of 8 and 8.17 on these inventories, respectively (table 1). We also found that MSWs without GID started to drink later than the other group. Also, This group of MSWs without GID has shown a prevalence of suicide attempt eight times higher than MSWs with GID (table 3). Through the Phi Statistical Model, we have found that suicide attempt is positively correlated with physical abuse history (phi: 0.36; p<0.001) and negatively correlated with the regular use of condoms during the sexual work (phi: -0.35; p=0.01). Using the t Test Statistical Model, we found a positive correlation between physical abuse history and DAST scores.

As showed by Minichiello et al. (15), psychoactive substance use interferes with the commercial sex encounter, in terms of the time spent and safety during the erotic meeting.

Bar Hustlers and Street Workers are the highest consumers of alcohol and drugs among MSWs, being the group that is composed of the largest number of members that practice prostitution to support their drug misuse.

In spite of this, in a Brazilian study, the greatest frequency of intravenous drug use was found among transvestites (16).

Newman et al.(4) observed huge alcohol binge drinking among sex workers who consume crack. Also, it has been registered that men with GID report more frequently history of intravenous drug consumption than other types of prostitutes, both men and women.

Table 3. Effects of Novelty Seeking, Harm Avoidance, Beginning of Alcohol Consumption and Suicide Attempt on Hustlers

Variables	S.E	Wald	df	p	OR	IC
Constant	2.66	2.60	1	0.11	73.14	-
NS4	0.40	7.78	1	<0.001*	0.32	(0.15-0.71)
HA2	0.44	8.43	1	<0.001*	0.28	(0.12-0.66)
Beginning of Alcohol Consumption	0.13	4.10	1	0.04*	1.31	(1.01-1.70)
Suicide Attempt	0.15	4.34	1	0.04*	8.88	(1.14-69.28)

94.9% of Transvestites were correctly classified.
66.74% of Hustlers were correctly classified.

Sexually Transmitted Diseases (STD)

Sex professionals are seen as a risk group for STD and as an important transmission focus (14). This is because of their large number of sexual partners, unsafe sexual relations, alcohol and drugs abuse, prison history, poor education and insufficient social abilities (16).

Many studies have highlighted that the prevalence of STDs and unsafe sexual practices are higher among MSWs than FSWs (14). Belza (31) found an HIV prevalence of 12.2% among MSWs and 0.8% among FSWs, whereas 1/3 of the sexual workers in Spain that had a positive result indicating HIV infection during the time of his study were men.

HIV prevalence among MSWs seems to increase more than in the general population (32). According to Rietmeijer et al. (2), in 1998, MSWs represented 50% of the AIDS cases and 43% of the positive HIV cases in Thailand. In Brazil, the HIV infection levels have ranged from 31 to 62% among MSWs and have been higher among transvestites (18). The preliminary results of our study are in accordance with this (table 2). Actually, risk behaviors for HIV infection appear common among men and women engaged in prostitution and some studies suggest that the transmission of HIV and blood borne pathogens may best be explained by the high rates of intravenous drug use rather than just exposure to high-risk sexual activity (6). According to Elifson et al. (33), MSWs with history of more than 10 years of prostitution practice have showed rates of almost 45% for HIV infection, while those who have between five and nine years of prostitution practice have showed rates of about 20%, compared to 13.6% for those who have practiced prostitution for less than five years.

Leuridan et al. (14) found, in a sample of 129 MSWs, a prevalence of 10.8% positive for HIV, 28.9% had hepatitis B, 11.6% tested positive for VDRL, 6.9% had syphilis, 1.5% had gonorrhea and 5.4% had Chlamydia.

The use of safe sex techniques among MSWs is irregular. Leuridan et al. (14) showed that 67% of the MSWs use condoms during oral sex and 79% during anal sex. In our research, only 64.1% of the MSWs with GID and 66.67% of the MSWs without GID use condoms during all of their commercial sex encounters (table 2). Literature shows that the type of sexual relation and its context can change the use or not of condoms during commercial sexual relation. According to Williams et al. (20), the use of condoms among prostitutes is irregular with all their partners, showing variances according to the sexual orientation of the sex worker. Heterosexual MSWs use condoms during anal sex with casual male partners more frequently than with their regular clients. Positive HIV men use condoms during anal and vaginal sex with casual partners less commonly than with their clients. In the Grandi et al. Research (18), 20% of the subjects did not use condoms during anal sex and 70% did not use condoms with their stable partners.

Studies have found higher levels of positive HIV and syphilis among transvestite than non-transvestite MSWs. The higher prevalence of HIV among transvestite MSWs is a consequence of the higher prevalence of unsafe anal sex and higher consume of intravenous drugs that were found in this group. Among transvestite MSWs, some studies have found a rate of 70% for HIV infection in the group that practice anal sex and a rate of about 57% in the group that does not practice anal sex (33). In a Brazilian study of 515 sexual workers, transvestites showed more commonly unsafe sexual relations and history of ulcerative STI, and these data are in accordance with the international literature (16, 34).

West (21) have pointed out to the fact that young prostitutes show higher risk for STD infections during sexual relations with their stable partners than with their casual clients. In spite of this, it is common that clients offer more money for the prostitute not to use condom, mainly during anal sex. Research has reported that there is a higher risk for HIV infection during anal sex than during vaginal intercourse (12). According to literature, the biggest predictor of HIV infection is the practice of anal sex with casual partners.

Another concern is the association between substance misuse and sexual relation, due to the fact that this co-occurrence is related to unsafe sex relations and consequently STD infection (15, 22).

Prostitutes and their clients are a risk group for STD and epidemiological vigilance centers need to pay special attention to these groups (12).

Criminality

According to Allen (5), 2/3 of the MSWs did not show any criminal history. This group was formed mainly of call-boys and kept-boys. On the other hand, all the participants of the delinquents group showed important criminal history and many of them were gang members.

Many prostitutes indicated that their illegal activities had started before the prostitution began. The majority uses the money that they get with the illegal acts to support their alcohol and drug use. They support their addiction with the money provenient from commercial sexual practices, when they can eventually commit any crime (22). Anyway, when the money becomes insufficient, they start selling drugs (21).

In the Cohan research about sex work in San Francisco / USA (35), almost half of the 783 participants of the study had been arrested in the past, mainly Street Workers. About 53% of the sample reported a family and partner history of violence. In our study, 29.62% of the subjects reported a history of illegal activities, mainly transvestites, and 3.7% of all sample reported a prison or justice problems history.

The few studies that investigate criminality among sexual workers are biased, because the prostitutes, during the interviews, can lie or leave out important data, disturbing the facts and results (5, 21, 22). Researchers deal with some difficulties studying the sexual service industry. First, the size and boundaries of the population are unknown. So, it is very difficult to obtain a representative sample. Second, being part of hidden populations often involves stigmatized or illegal behaviors; therefore, concerns regarding privacy and confidentiality are of

paramount importance. As a consequence, many individuals refuse to cooperate and frequently they provide unreliable answers to interviewers aiming at protecting themselves. Other problems are the enduring association between prostitution and victimization, the notion that sex workers are a homogeneous group and the prevalence of dichotomies (36).
Currently, different research techniques have been and need to be structured to decrease these biases.

Public Health

According to the literature data, sex workers need wide access to health and specific programs that support their demands (14). However, because prostitution is illegal in some countries, it remains out of social protection related to occupational health, with difficulties to access health services (37). Public actions for these workers use to be restricted to HIV prevention, ignoring others health needs.
Mindel and Estcourt (27) highlight the necessity of legalizing prostitution in consideration of the health education of MSWs. For these authors, it would help in the acceptance of the sex workers, facilitating health access.
Many authors reinforce the fact that public health programs need to pay attention to the high levels of violence against prostitutes. Violence is often linked to other criminal behavior, illicit drug use and illicit drug markets (19). According to Cohan (35), MSWs present higher risk of work violence, customer violence and police violence than FSWs, just as street workers had the highest risk of sex work violence.
Another point for public health is that education for sex workers can improve healthy behavior by delivering the basic facts about disease, dispelling myths and offering healthy lifestyle and work options. Education can reduce drug use, diseases, violence and exploitation (38). So, it is quite clear that education is a fundamental element in public health programs.
The harm reduction programs need to have trained people on MSWs and FSWs needs. Sethi et al. (26) showed a good example of this in their study. Their harm reduction service reached hepatitis B vaccination rates among MSWs higher than their national rates. This was probably obtained by the confidence between the service workers and the sex workers, which was a consequence of the focus on the specific needs of that population.

Conclusion

There is not one type of MSWs only. They can be delinquents or not, offenders or not, alcohol and drug users or not, have a drop out history from the family or not. They come from the country or urban areas, from structured homes or not. They can show homosexual, heterosexual or bisexual orientation, showing a male or female gender role. They work full-time or part-time, on the street, in bars, in agencies, by telephone or as a kept-boy. Some of them like sex, others do not.
No psychodynamic or social theory can explain, loneliness, the trigger factors responsible for prostitution. In addition, some sex worker groups (mainly those with a history of leaving home) could benefit from preventive programs, such as shelters, half way houses, education and vocational training (5).
In our study with MSWs with and without GID, the physical abuse history, as a factor, was reliable to differentiate those with from those without drug problems, and physical abuse can be an useful aspect to divide MSWs into clusters. MSWs that show a higher prevalence of suicide attempt do not have the habit of using condoms in their commercial sex relations. The same population shows a strong association between suicide attempt and physical abuse history. So, the programs for prevention of sexually transmitted diseases must address specific strategies for this group, including a family and personal history approach.
Male prostitution is not a unitary phenomenon. A structural understanding of MSWs is required in order to highlight the ways in which shifting social, political and economic factors influence the organization and social control of sex work8. More studies about this diverse and specific population are necessary. We need to know more about their personality, co-morbidities and criminal history, among others, to organize effective acts for health prevention and promotion, on an individual and collective basis.

List of Abbreviations

AUDIT Alcohol Use Disorders Identification Test
DAST Drug Abuse Screening Test
FSWs Female Sex Workers
GID Gender Identity Disorders
MSM Men Who Have Sex With Other Men
MSWs Male Sex Workers
STD Sexually Transmitted Diseases

Conflicts of Interest Declaration

The Author declares that there are no conflicts of interest in this chapter

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CHAPTER 8

The Role of Drug Misuse in Family Crimes – Parricide *versus* Filicide

Danilo Antonio Baltieri[1,2,3], **Flávia Ismael** [4]

[1] *Department of Psychiatry of the University of São Paulo, Brazil;*
[2] *Department of Psychiatry of ABC Medical School, Santo André, São Paulo, Brazil;*
[3] *Penitentiary Counseling of the State of São Paulo, Brazil*

[4]*Interdisciplinary Group of Studies on Alcohol and Drugs (PROGREA). Psychiatric Institute, Department of Psychiatry, University of São Paulo, Brazil.*

Address correspondence to: Prof. Dr. Danilo Antonio Baltieri, Department of Psychiatry of ABC Medical School. Avenida Lauro Gomes 2000. Vila Sacadura Cabral. Santo André. CEP: 09060-870. São Paulo, Brazil; Te/Faxl: +55 11 4993.729. Email:dbaltieri@uol.com.br

Abstract: The killing of fathers and mothers, particularly by juveniles, always generates national concern. In the same way, filicide is a tragic form of violence with a shocking frequency in different cultures worldwide. Brazilian studies on these subjects are very scarce, although several cases of family violence have been reported by the communication means.
Also, despite the interest in these topics, most of the scholarly works have been limited to analyses involving clinical samples with a few participants. Certainly, this harms an adequate development of proposals for prevention and management of family crimes. In addition, the recording of official statistics tends to be unreliable and the range of data recorded limited.
The aim of this chapter is to review some aspects of parricides and filicides, including the role of alcohol and drug misuse among perpetrators.

Introduction

The empirical study of family violence, although certainly not a new pursuit, has been dramatically transformed over the past 50 years by historically influential social forces, changing social conventions and improved research opportunity and methodologies. Family violence is defined as all types of violent crime committed by an offender who is related to the victim and includes spouse abuse, parental violence against a child, and violence among other family members (1). This chapter aims to explore this fascinating and obscure theme, focusing on parricide and filicide.

Parricide

Parricide technically refers to the killing of a close relative, but has become increasingly identified as the murder of one's mother (matricide), father (patricide) or both parents (2). In this chapter, this term "parricide" will be used to appoint the murder of parents. It is a crime that has fascinated artists and scientists throughout history because entails the violation of two basic rules of morality, namely the prohibition against murder and the prescription about honoring father and mother (3). Despite of the shocking theme and the interest of media to describe cases, the specialized literature of parricide remains sparse. Most of the scholarly work on this topic has been limited to analysis involving clinical samples, typically involving few participants or researches on governmental homicide data. Because of these, many questions still remain unanswered.

Demographics

According to U.S. Department of Justice family violence accounted for 11% of all reported and unreported violence between 1998 and 2002. About 22% of murders in 2002 were family murders. Of the nearly 500,000 men and women in State prisons for a violent crime in 1997, 15% were there for a violent crime against a family member[1].
The true incidence of parricide is unknown, but each year in the United States, more than 300 parents are killed by their children (4). By all calculations, parricide is an infrequent crime of child-initiated murderous family violence (3, 5) and there is evidence that parricide incidence have been decreasing over time (6). The reported prevalence of parricide varies across studies. In 2001, Cooke (7) estimated that parricide committed by individuals under 18 years old ranged from as little as 2% to as much as 15% of homicides. Boots and Heide (8) using 27 years of Supplemental Homicide Report (SHR) data including approximately 350,000 cases of known

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victim-offender relationship found that parents were victims of homicide in less than 2% of cases in which the relationship was known. In United Kingdom, the official crime statistics reveals that between the years of 1968 to 1978, parricides comprised 1 to 2% of all homicides (9). In France, parricide constitutes 2.8% of all homicides (3). In Canada, 22.45% of intrafamily homicides were parricides, which represent 6.3% of all homicides (10). There is no data about parricide in Brazil. World Health Organization estimates that 20,386 homicides were committed by youths aged 10-29 years in 1995, representing 32.5 homicides per 100,000 population aged 10-29 years (11).

Characteristics of Perpetrators

The act of parricide is primarily a male crime (2, 3, 4, 12). Hillbrand et al. (3) combining data from many studies found 15:1 male to female ratio of adult parricidal offenders. Heide and Petee (2), examining SHR data for the 24-year period 1976 to 1999, found that males comprised 87% and 84% of all patricides and matricides respectively. This ratio must be viewed with caution because majority of homicides are committed by males. In the above mentioned study of Heide and Petee, 88% of all homicides were committed by males, this datum showing that parricides as well as murders, in general, are committed by male sex.

The age range of offenders involved in parricide is very extensive. In the Heide and Pettee´ study, the age of patricides ranged from 7 to 72 years (mean and median of 25 and 23 years, respectively). Among murders involved in matricide, the age ranged between 8 and 78 years (mean and median of 30 and 27 years). As observed above, offenders involved in matricide tended to be slightly older (2). The literature suggests that most of parricides are young (13).

The ethnic profile of offenders is much similar to the victims. The parricide is, most of the times, related to Caucasian. In spite of black people being overrepresented in homicides, they are significantly underrepresented in parricides (3). Heide, when analyzing data regarding the 10 years of homicides (1977 to 1986) found that most of the people involved in parricides were Caucasian, non hispanic (14). Walsh et al. (6) were in accordance to Heide´s findings and found that (68%) Caucasian males and (62%) females commit more parricide than any other ethnic group.

Victim's characteristics

The study of the victim's characteristics led to the understanding that the victim plays a fundamental role in the criminal act. It does not mean that the victim is guilty by the act, but suggests that he/she is not almost always randomly chosen. As described by Newhill: "the stereotype of a victim as a helpless, passive individual and the perpetrator as an overly aggressive individual is not always correct; and this is certainly true in many cases of parricide" (15). Thus, it is essential that in these types of crime the victims must be investigated as well.

Studies revealed that total ***number*** of patricides exceeds the ***number*** of ***matricides***. Walsh et al. (6) studying cases of parricide during 27 years, between 1976 and 2003, with murders under the age of 21 years, found that patricides exceeded matricides in a ratio of 4:1. Studies on the relationship between parents and children (whether biological or not) are very contradictory. Ewing (16), in a literature review, estimated that among aggressors under the age of 18 years, the decreasing order of the victims would be: father in law, mother in law, father and mother. By contrast, Heide (17) found that the victims would be first fathers, followed by mothers and next father-in law and at last, mother-in law. Walsh (6) found that biological parents are more likely to be murdered than stepparents in a ratio of 3:1.

Regarding age of the victims, Heide's study showed that the mean age was 54 years for biological parents, 58 years for biological mothers, 46 years for fathers- in law and 50 years for mothers in law (17). Shon and Targonski (18) concluded that parents are most likely to be killed before the age of 40. In this same study, regarding victim's ethnic group, it was found that 70% were Caucasian and 28% African Americans. Walsh et al. (6) demonstrated that African-American victims were more likely to be killed by their daughters than by sons, whereas the opposite occurs with Caucasian victims.

Characteristics of Crime

The type of weapons used in parricide seems to differ between adolescents and adults. Heide referred that young individuals are more likely to use fire arms on their crimes, when compared to adults. In the 340,092 analyzed cases, age of the killer and type of weapon were known, with 69% of youths and 64% of the adults using fire arms to kill their parents. This datum can be explained by the hypothesis of the physical strength. In this specific case, adults are physically stronger and this fact would explain the extensively use of fire arms by younger individuals (19).

Motive for Crime and Associate Factors

The majority of parricides can be divided into two categories. Parricides in adolescents trend to be a response to a continuous and severe abuse suffered by them. Young people without any behavioral or psychotic disorders are

more commonly reported to perpetrate this. Those parricides committed by adult offenders trend to be a tragic conclusion of conflicting relationships between non treated psychotic individuals and their parents (20).

Since 1941, cases have been described in which parricide can be associated with infantile abuse (3). Sadoff (1971) described that: "a bizarre neurotic relationship exists between the victim and his assassin, in whom the parent-victim mistreats the child excessively and pushes him to the point of explosive violence" (apud in 4).

Heide (21) identified some interesting characteristics associated with the adolescents who kill their parents: pattern of family violence, adolescent's unsuccessful efforts in asking for help and to escape from the family situation, ailment and poor social contact, increasing unbearable family situation and feeling of helplessness, inability to deal with stress leading to lose of self-control, little or no previous criminal involvement, easy access to fire arms, alcohol misuse at home, evidence of dissociative state at the moment of crime and evidence that the adolescent and other members at home would feel relieved with the death.

In spite of data consistency regarding the association between parricide and experience of different types of abuse during childhood, young people that perpetrated other crimes have frequently reported abusive experiences as well.

Corder et al. (22) compared a group of parricidal adolescents with a group of homicides and found that both lived in disorganized homes, characterized by marital conflicts, infantile abuse and a few social contacts. In the group of parricides, those adolescents that committed patricide seem to have parents with serious alcohol problems and permissive mothers, while those that perpetrated matricide seem to maintain close seductive relationships with their mothers and a distant connection with their fathers. In contrast, in the group of murders in general, a pervasive anti-social behavior pattern was observed in parents.

Another factor associate with parricide is the mental illness. Twenty to 30% out of the homicides committed by people suffering from psychotic disorders were classified as parricides (5). A few studies approach this issue, but there are some reports and series of cases. Millaud et al. (10) identified some triggering factors in this group of psychotics, such as alcohol and drugs use, discontinuation of psychotropic medication and death of somebody of the patient's social circle. Green (9), in a sample of 58 cases, reported that 47% of parricides were motivated by persecutory delusions, and many of these beliefs involved their parents.

The antisocial tendency is commonly described as a core characteristic among parricides. Children suffering from infantile abuse are likely to develop behavioral and personality disorders. It is known that these children might develop an antisocial and impulsive behavior as a manner to survive, increasing the risk to parricide (4). In this category, there are a few cases reporting that young individuals may kill their parents mainly to obtain financial advantages. In these situations, parents are usually healthy and they may or not have abused their children (4).

There is also parricide descriptions as a family conspiracy. In these cases, the young individual would kill to protect other members of the family, considering it as a solution for the family dynamics marked by abuse and mistreat. The desire of another member of the family to see the victim killed can be implicit or explicit (4).

Regardless the motive for crime, it is evident that infantile abuse is present in most of the cases analyzed.

The drugs role in parricide

The medical literature is scarce regarding association between the drug use with the murdering of parents by their children. But the association between drugs and aggressive acts is very well documented. The relationship between alcohol and crime is already known as well that cocaine and alcohol dependents present deficient social behaviors and greater legal involvement (23). The use of drugs is an activity that usually co-occurs with other unusual situations as psychodynamic difficulties, dysfunctional family relationships and crime (24). Many of these situations are associated with the search for sensations, highly present on these individuals.

A Walsh & Krienert (12) study demonstrated that among 79 evaluated parricides, 7.6% revealed alcohol use and 3.8% drug use. However, in the Heide and Peete's analysis (2), 2% of the sample described alcohol consumption as a factor related to criminal act (2). In the Young's analysis (3), unfortunately not published, alcohol or any other drug abuse was identified in 24% of the sample, usually supplemented by other aggravating factors as psychosis, impulsivity or escape from enmeshment. The Millaud, Auclair & Meunier's study (10) found that alcohol and drug abuse was present in 41.7% of the evaluated individuals.

Summarizing, the use of drugs cannot be characterized alone as a triggering factor to commit parricide, but it is certainly an aggravating factor of the criminal act.

Filicide

Filicide is a form of family violence where a child is murdered by one of the parents. It is a tragic form of violence with a shocking frequency in the Unites States (1). The literature sub-categorizes the term filicide into neonaticide and infanticide. Neonaticide is the term relating to a child murdered in the first 24 hours of life. Infanticide is used in legal medicine and concerns to the child murdered in the first year of life, when the mother is suffering from any mental illness associated with puerperium (25).

In spite of the social horror caused by this theme, few data are reliable in this area. This is due to the fact that even with some research in this area, the majority of the studies have not included sufficient number of participants. In truth, published studies have evaluated certain samples of filicides, such as those derived from hospitalized or imprisoned individuals. There are still some studies that analyze governmental data banks. As a result, in spite of the efforts of some professionals in this area, many doubts are still in need to be elucidated.

Demographics

The filicide is a rare event. In the USA, between 1998 and 2000, 3.5 millions of crimes against family members were practiced. Among these crimes, 11% were committed by parents against their children. In 2002, among the fatal crimes, 6% were filicides. The mean age of children was 7 years (1). In Canada, 27 children were murder by their parents in 2004 (26). Mothers and fathers were equally responsible for killing their children. One fifth of parents committed suicide after filicide.

Victims and Murders' Characteristics

The younger the child, the more likely to be killed by their parents (27). Children under the age of one present more risk, that is considered of about 4 times greater than the general population. Among the children under the age of one year, those with six months or less have the greater risk, half of them occurring in the fourth month (28). Previous researches showed that mothers were more represented in the filicides, but this is still a controversial issue (29). Neonaticide is almost exclusively committed by mothers. In children with more than one day of life, a conflicting data were found. Though in some researches there are a higher prevalence of fathers (29, 30), other researches declare higher prevalence of mothers (31, 32), or even equal prevalence (33, 34). Regarding the gender of children, it seems that both genders are equally involved in the cases of neonaticide; on the other hand, male children seem to be more commonly victimized in the cases of older ones (33).

Typologies

Resnik (35) was the first author to propose a classification for the filicides in 1969. He carried out a classification for these kind of criminals, based on the apparent cause of the act. As follows, (A) altruist filicide - the father / mother believes that the act would save the child from a real or imaginary suffering and, many times, it is associated to suicide; (B) psychotic filicide- the father / mother would murder under the influence of delusions or hallucinations; (C) filicide of a non-desired child – parents do not want nor even desire the child; (D) accidental filicide – murder was a consequence of spanking act, and the leading intention was not to kill; (E) revenge- the filicide is committed to retaliate a separation in an attempt to bring back the partner (35). The Scott's classification (36) proposes a typology according to "the source of the impulse to kill" and this "source" can be derived from the parents, the child or the own situation. In another study, this latter author observed that there was usually a stimulus of the child to precipitate the sad event, that is, the child could have refused to eat, laugh, cry or vomit. These stimuli would be misinterpreted by the parents (as if the child was stubborn) who, in turn, would have a great difficulty to understand and read the signs of their children (37). There are many other typologies that could be very useful for us. Despite this, each case must be evaluated alone with its characteristics and differences.

Motive for crime and risk factors

Mothers and fathers present different reasons to kill their children. Mothers who commit filicide are in general married and refer a high level of stress at the moment of the act (29, 35, 38). Some risk factors have been related to the filicide's perpetrators, such as:

a) to be the main caregiver of at least one child;
b) to be unemployed or have financial problems;
c) to have none social support;
d) to be involved in a unstable marital relationship;
e) to live in an abusive home;
f) to be sexually and / or physically abused during childhood (29, 38, 29).

The prevalence of mental illness among mothers who kill their children has been reported to be high. The main disorders described are depression and psychosis. In diverse studies, the rate of mental illness exceeds half of the sample (29, 33, 35, 39). When the mother is mentally ill, the rate of attempt to suicide seems to be higher, the method used by them is usually more violent and there seems to be a trend to kill more than one child (29). In a study with 19 mothers, eight presented some degree of mental illness (40).

However, mothers who kill their children with no intention (battering mothers) usually are neither psychotic nor try the suicide (29, 39). Among these mothers without any evident psychiatric illness, personality disorders and psychosocial stress have been verified. These women frequently report history of parental separation in childhood and continuous marital abuse (40). The murder for revenge is rare among mothers, but when it occurs, the mother typically suffers from a personality disorder and attempts suicide after the crime (36, 38).

Neonaticidal mothers seem to have a slight different profile. Frequently they are single, young and first-time mothers. Commonly, the first pregnancy is not desired and not planned. Many of them are able to completely deny pregnancy and circumvent any body alterations. Thus, born is felt as a stunning event. At this moment, the mother may be in a psychic disorganization state or in a dissociative picture (27). And the most aggravating factor is the difficulty to prevent this mental state because these young women do not look for treatment (35).

Filicidal fathers can demonstrate some different aspects from the mothers. The method employed has been reported to be more violent, by using knife or gun, or even provoking a craniocephalic traumatism (29). With respect to the victims, they seem to be older and more frequently males. In addition, more than one victim is murdered in the same criminal act (29, 30, 41). Regarding the motive to kill, fatal abuse and retaliation are the most common (29).

The role of the use of drugs

The drug use among filicides has been described in the literature (29). A study with 19 filicides found that 53% of the offenders revealed serious drug and alcohol misuse (40). Also, a research comparing 20 filicides with 20 homicides showed that alcohol intoxication at the moment of the crime was slighter among those who murdered their children (42). The use of drugs is a potential influence to infantile abuse and negligence, leading to filicide. Additionally, it is known that many times filicide offenders have difficulty to interpret the signs of their children; this fact has been also observed among drug abusers in general. Since it is known that alcohol abuse and other drugs are risk factors for offending among diverse criminals, further investigations are needed in order to evaluate the relationship between substance misuse and filicide.

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CHAPTER 9

Drugs, AIDS and Sexual Crime

André Malbergier[1] **and Luciana Roberta Donola Cardoso**[1]

[1] *Interdisciplinary Group of Studies on Alcohol and Drugs (PROGREA). Psychiatric Institute, Department of Psychiatry, University of São Paulo, Brazil.*

Address correspondence to: Prof. Dr. André Malbergier. Interdisciplinary Group of Studies on Alcohol and Drugs of the Psychiatric Institute (PROGREA), Clinical Hospital, University of São Paulo, Brazil. Rua Dr. Ovídio Pires de Campos,785, Caixa Postal 3671, CEP: 01060-970, São Paulo, Brazil. Tel: + 55 11 3069.6960. E-mail:amalbergier@uol.com.br

Abstract: The commission of rape by an AIDS sufferer is considered a severe bodily injury. In fact, sexual acts without consent increase the risk of STD/HIV infection and the rates of infection are associated with injuries on sexual organs due to the act and to non-condom use.
Research has shown that the use of alcohol and other drugs before or during sexual act increases the risk of unprotected sex, multiple partners, unwanted sex, group sex practices, anal sex practice, oral and/or vaginal non-protected sex with fixed partners and not allowed sex practice. Therefore, the relationship between sexual offending and alcohol / drug consumption should better be focused upon.
Statistics are not yet available on the rates of HIV transmission during rape and other sexual offences, in part because the prevalence of HIV amongst sexual offenders is unknown. Despite this, given that the prevalence of HIV/AIDS in the prison population is about five times that in the general population, treatment efforts with all prisoners, and perhaps most particularly with sex offenders, needs to ensure that risk reduction to the public includes addressing HIV infection reduction. Also, victims must be promptly evaluated and, in some cases, start chemoprophylaxis treatment.

Introduction

Sexual violence is considered a serious public health problem. In the literature, the expression "sexual abuse" is commonly used to refer to acts that have taken place during infancy and/or adolescence and the expression "sexual violence" to those acts which occurred in adulthood (1-4).
Non-consented sexual contact can include touching, caress, oral sex, intercourse with penetration (objects, fingers or genitals), unwanted sex (anal, oral and/or vaginal) in the marital relationship and, preventing the partner from using contraceptives. Voyeurism and harassment can also be considered sexually abusive behaviors even without physical contact (5-7).
It is estimated that 35% of women worldwide have already suffered some kind of sexual violence at least once in their lives (8-12). In the United States, it is estimated that 12.9% to 28% of women and 2% to 9% of men have already suffered some kind of not allowed sexual contact during infancy or adolescence. More than 600 thousand women and 200 thousand children suffer some kind of sexual violence every year in the country (2, 13, 14).
In Brazil, about 10% of Police Reports are related to sexual crimes (15). It is estimated that about 20% of women and 10% of men have already suffered some kind of sexual violence or abuse (4, 16).
However, these numbers seem to be underestimated because a great amount of sexual crimes committed by husbands, mates, boyfriends, fathers and stepfathers are rarely denounced (16, 17).
Victims of sexual crimes are usually women, ranging from babies to old ladies. However, the most affected are those aged between 10 and 19 years old. Besides, it is known that the risk of suffering sexual attack in adolescence is four times higher than in other periods of life (12, 18-21).
Aggressors are usually men aged 20 to 50 years old. In 70% of the cases, the aggressor is known by or have some relationship with the victim (uncle, father, grandfather, brother, neighbors, teachers, friends or even the sexual partners) (16, 17, 22-26). Studies in Brazil showed that 30% of aggressors against children were the biological father, followed by the stepfather (12%), neighbor (8%), uncle (4%), grandfather (2%) and brother (1%)(27).
Among women, the sexual partner has been pointed as the most frequent aggressor. In Brazil, about 10% of married women report having suffered some kind of sexual aggression (5). In Sahara, 20% of women report having suffered sexual aggression from their partners. In Uganda (Africa), that number goes up to 54% (28-32).
Aspects like poverty, unemployment, stress, living in the countryside, low level of education, being dependent on husband, dissatisfaction with the spouse, authoritativeness, having multiple partners, sex refusal, betrayal,

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separation request, psychological disturb, delinquency, confinement situation, prostitution, trading sex, being in a shelter and drugs and alcohol use/abuse have been associated with sexual violence (24, 30, 32, 33, 34).
This chapter will discuss the use of alcohol and other drugs associated with sexual behavior as risk factors to HIV infection.

Sexual Crimes Under Effect of Alcohol and Other Drugs

Research in many countries shows that the use of alcohol and other drugs before or during sexual act increases the risk of unprotected sex, multiple partners, prostitution, greater number of casual partners, unwanted sex, group sex practices, anal sex practice, oral and/or vaginal non-protected sex with fixed partners and not allowed sex practice (35, 36, 37).
Unwanted sex, humiliation and other sexual violence crimes are more frequently committed under alcohol and other drug effects (38, 39, 40).
According to Knight & Prenty (41), most sexual crimes occur when the individual is under effect of psychoactive substances. Violence is more frequent among those who present a diagnosis of abuse/dependence on any substance. Studies show that one out of seven women who live with alcoholics suffers some kind of sexual violence (42,43).
The use of alcohol and other drugs by the aggressor, by the victim, or both has been observed in 34% to 72% of unwanted sexual practice (rape, abuse or violence at home) (38, 44-49).
In Brazil, according to Baltieri and Andrade (39) a high percentage of men who practiced sexual crimes against boys and a fewer percentage of those who practiced crimes against girls presented heavy use and/or dependence on alcohol. Other studies in the country showed that 53.2% of adult sexual offenders used alcohol and 27.7 % other psychoactive substances during the crime (17, 22).
The use of alcohol and other drugs by the victim also increases the vulnerability to unwanted sex. Exposing to risky situations, reducing of escaping capacity, involvement in risky sexual behavior are factors associated with unwanted sex in victims who use alcohol or drugs.
Alcohol and other drug misuse, risky sexual behavior and unwanted sex have been linked to sexually transmitted diseases (Figure 1)

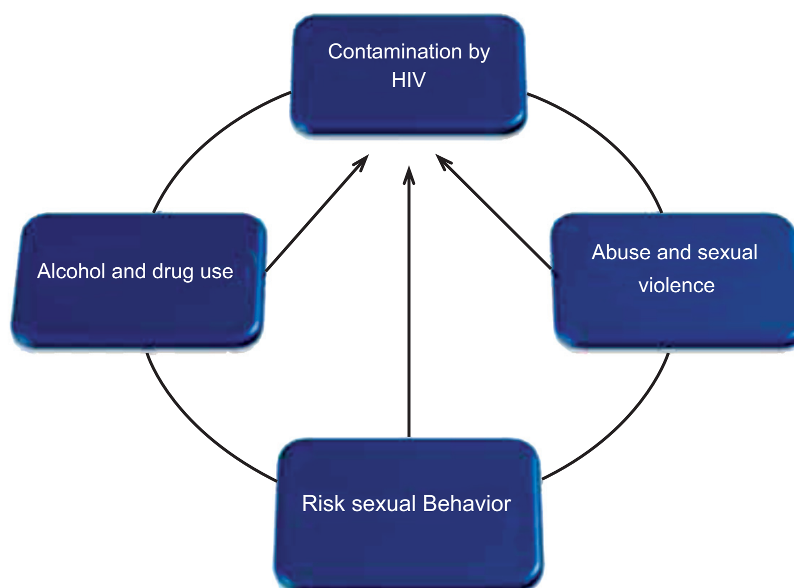

Figure 1: Alcohol/drugs use, risky sexual behavior and sexual abuse/violence as risk factors to HIV contamination.

STD/HIV/AIDS

Acquired Immune Deficiency Syndrome (AIDS) is a serious public health problem in almost every country. In 2008, it was estimated that 33 million people were living with HIV around the world. In 2007, there were 2.7 million of infected people. Africa is still the continent with higher number of infections per year (50).
In Latin America, there are approximately 1.7 million people living with HIV (50). In Brazil, between 1980 and 2008, about 474 thousand cases of AIDS were notified to the Health Department. In the country, the prevalence

of HIV is 0.61% for the population between 15 and 49 years (51)]. The prevalence of HIV in different continents is shown in Figure 2 below.

A global view of HIV infection. Prevalence of people [33 (30-36) million] living with HIV in 2007

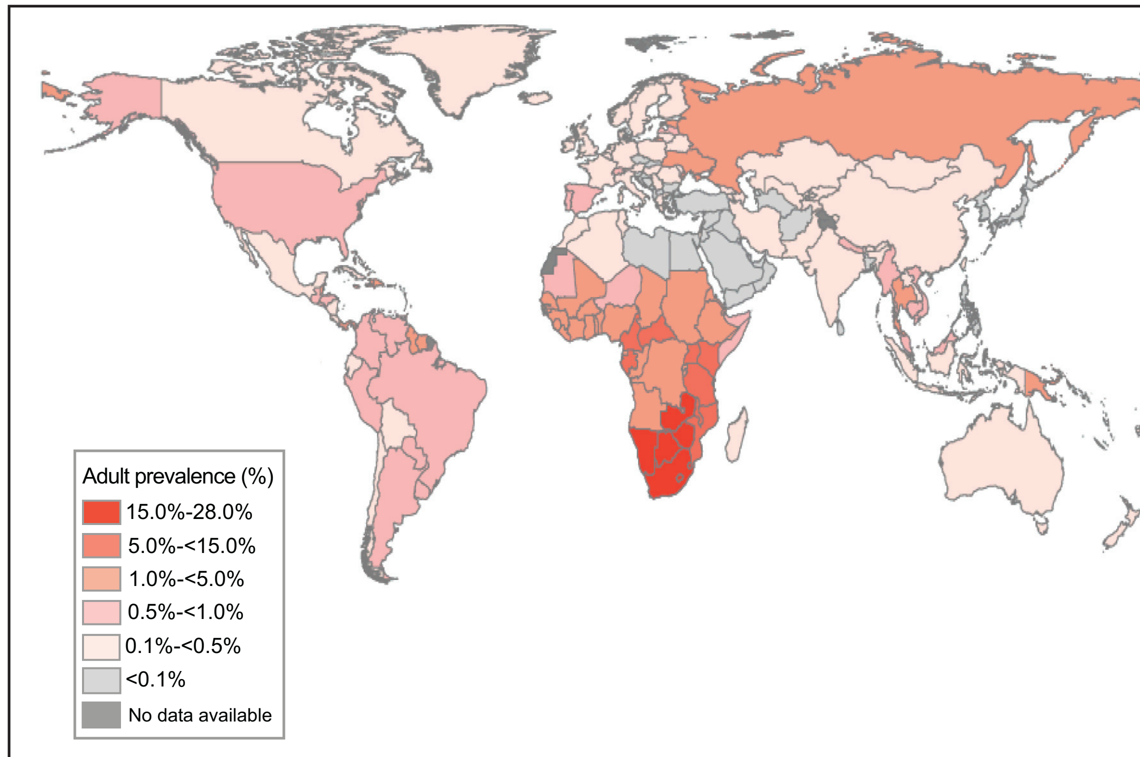

Figure 2: Prevalence of HIV infection by continent ("Report on the global AIDS epidemic, 2008 – UNAIDS"**,** avaliable at: http://data.unaids.org/pub/EPISlides/2007/2007_epiupdate_en.pdf)

STD/HIV infection among people who use alcohol and other drugs is twice as prevalent as in the general population (52). The risk of infection increases even more in cases of sexual aggression (53).

HIV and sexual abuse/violence

It is estimated that up to 60% of victims of sexual aggression can be infected by STD (54). Infection rates vary according to the disease, the victim's age, the type of sexual abuse, STD previous infection, the aggressor's profile and the number of offenders involved in the act (55, 56).

It is estimated that 0,8 to 9.6% of victims are infected with gonorrhea, from 3.1 to 22% by *Trichomonas Vaginalis*; from 1.5 to 26% by *Chlamydia Trachomatis*; from 12 to 50% by bacterian vagine infection; from 2 to 40% by Human Papiloma Virus (HPV); up to 1.6% by *Treponema pallidum* and 3% by Hepatitis B. The contamination by HIV varies from 0.8 to 1.6% (55, 56).

Risk of HIV contamination for individuals submitted to prison/confinement

Individuals involved with crime present high rate of STD/HIV infection. Studies show that people involved in criminal activities have more chance of practicing unprotected sex and using drugs than those who are not involved in such activities. Besides, being in confinement in a prison or other correctional institution increases even more the contamination risk (56-61).

A study in adolescents in correctional systems showed that 4.9% had HIV infection and 7.8% had syphilis (62). In male prisons, 30% of prisoners had past history of STD contamination. Having as STD increases the chance of acquiring HIV. Diseases like syphilis, cancroids (*infection by Haemophilus ducreyi)*, and genital herpes are associated with a chance of HIV transmission twice as high. The non-wounded STDs are associated with an increase from three to five times in the risk of getting HIV (62, 63, 64).

A study carried out by Burattini et al. (65) showed that 34% of prisoners had positive serology for type C hepatitis, 18% for syphilis and 16% for HIV. Another study showed that 17.9% of arrested sexual aggressors were HIV positive (66).

Among women, the infection rate is also high. Studies made in female prisons in Brazil showed that 72.7% of imprisoned women had at least one STD diagnosis. Prevalence of HIV varies from 7 to 25%. Those who had

suffered sexual abuse in infancy or adolescence presented higher rates of HIV infection, as well as heavier use of alcohol and more frequent risky sexual behavior than those who had not suffered sexual abuse (67, 68).
Sexual acts (with or without consent) between prisoners, intimate visitors and prostitution have been considered important factors in HIV transmission inside those correctional institutions. However, the practice of these behaviors inside and outside prisons makes it difficult to identify risk markers among people involved in crime (69). In addition, studies show that the longer the confinement time, the higher the chances of HIV transmission (65).

Risk behavior for HIV infection in sexual abuse victims.

Some studies have shown a relationship between sexual abuse in infancy and adolescence and risk behaviors for HIV infection in adulthood. People who suffered sexual abuse in this phase presented more risk of practicing sex without condom, anal sex, prostitution, being in a shelter, misusing alcohol/drugs and having multiple partners than those who have not suffered sexual abuse (70, 71, 72).
A study with prostitutes showed that one out of eight had suffered sexual abuse in infancy or adolescence. Besides, a third of them had already suffered sexual violence during work. Factors like living on the streets, using alcohol and drugs and being positive for HIV were more frequent among those who had suffered sexual abuse (73).
A study in women infected by HIV showed that 40% of them had been abused in infancy or adolescence. The use of alcohol, marijuana, cocaine, crack and heroin was also more frequent among those sexually assaulted than among those who had no history of sexual violence (74).
According to Moncrieff et al. (75), men and women who suffered sexual abuse, started to use alcohol earlier than those who did not suffer sexual aggression.
The chance of heavy drinking in adulthood is six times greater among women and four times greater among men who suffered abuse. The damage from alcohol use and other drugs and a dependence diagnosis are also more frequent among those who suffered abuse (76).
Studies by Bensley et al. (77) in three centers for alcohol dependents in London showed that 24% of men and 54% of women in treatment reported having been abused in infancy or adolescence. Also, the victims were younger than the average of people under treatment and presented more damage due to use of alcohol than those who did not suffer any abuse.
The use of injected drugs was also more frequent among those who suffered abuse than those who did not have an aggression history. According to Cohen et al. (53). sexual abuse in infancy and adolescence increased four times the risk of using non injected drugs, and two times the risk of using injected drugs at adulthood.
A recent study in Canada with injected drugs users and with men who make sex with other men showed that those who had suffered sexual abuse presented more unprotected sex acts and higher rates of HIV contamination than those who had not suffered abuse in infancy or adolescence (78).
He et al. (79) showed that, among crack and drug users, 28% report having suffered abuse in infancy or adolescence, 20% had been raped and 41% had suffered at least one attempt of rape in their lifetime. Besides that, sexual practice without condom and frequent partners change happened more often among those who had suffered sexual abuse/violence than the ones who had not.
The age the abuse starts and the exposition time to aggressor were related to risky behaviors for HIV infection in adulthood. Bensley et al. (77) observed that the younger victims as well as those who suffered abuse for longer time had seven times more chance of HIV infection than those whose abuse did not have this characteristics. Among boys, the contamination risk by HIV in adulthood was eight times greater. Those individuals tended to practice unprotected sex, change sexual partners frequently, have multiple partners and use alcohol and drugs more frequently (up to eight times) than those who did not suffer abuse.
Besides the use of alcohol and other drugs and risky sexual behavior, people who suffered abuse in infancy or adolescence present three times more chance of being violated in adulthood, even by their sexual partners, than those who did not suffer sexual abuse (53).
These studies show the existence of a cyclical relationship among the following three factors: the use of alcohol and other drugs, sexual abuse/violence and risk of HIV infection. Sexual acts without consent are associated with high rates of contamination by STD/HIV. However, people who suffered sexual abuse/violence have more chance of practicing sex without protection and making use of alcohol and other drugs than those who had not this experience. The use of alcohol and other drugs increases the chance of HIV infection, boosting vulnerability to exposure to risky situations, decreases cognizance and renders a difficult escaping response.
This cyclical relationship between sexual abuse or sexual violence and risk factors for HIV infection is shown in Figure 3.

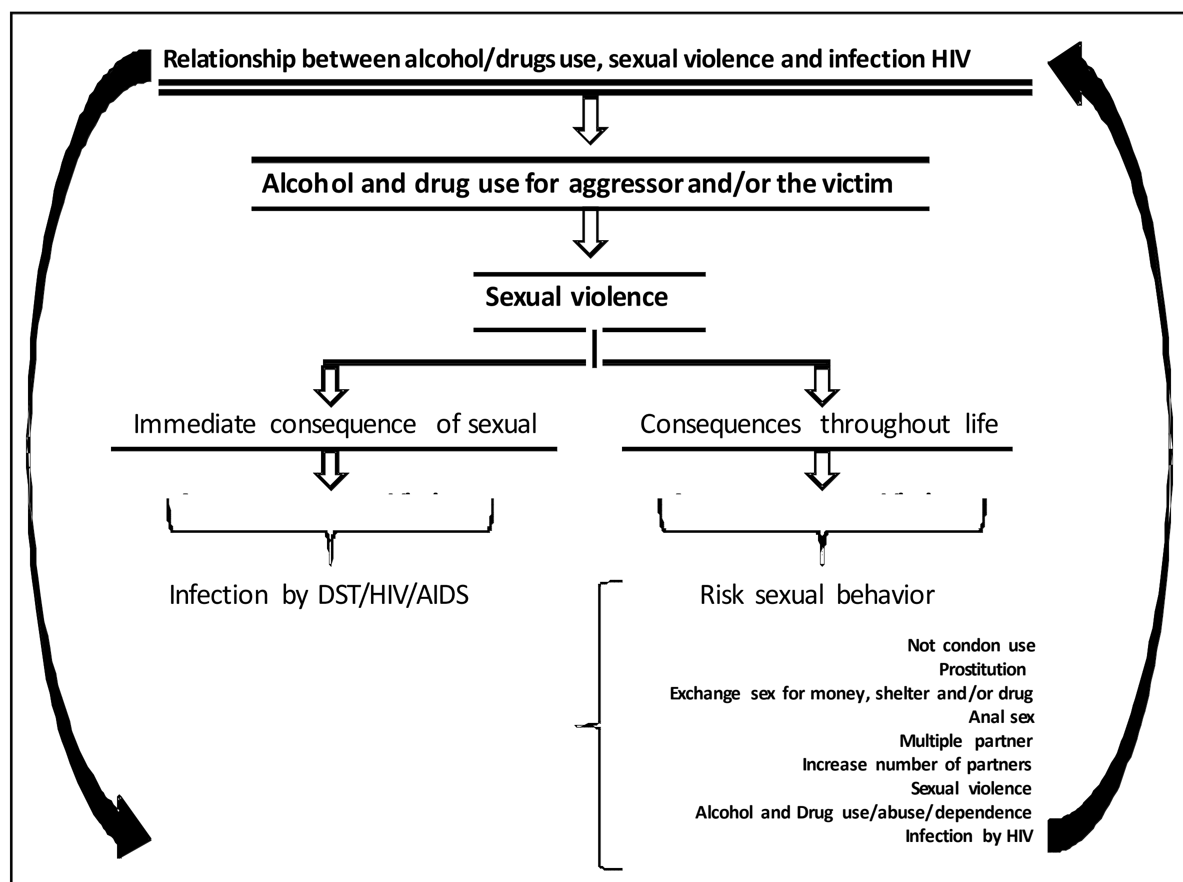

Figure 3: Cyclical relationship between sexual violence or abuse and risk factors for HIV infection

After a sexual crime, health professionals recommend some procediments to prevent HIV infection.

Chemoprophylaxis must be applied after an evaluation of the type of aggression and the time elapsed from the episode and the arrival at a health unit. In case of preservative use, male or female, this type of intervention should not be started (80-85).

The risk of HIV transmission depends on the injury level, the kind of sexual act and the numbers of aggressors involved. In cases where the aggressor is known as HIV positive, the use of chemoprophylaxis is indicated for any sexual act with direct contact of the aggressor with the mucous membrane of the victim (vaginal and/or anal penetration). The use of chemoprophylaxis in cases of oral sex, even with evidence of ejaculation inside the cavity, is not an usual procedure. In situations when the aggressor HIV status is unknown, but when it is possible his evaluation within 72 hours after the sexual act, the beginning of this procedure is indicated. The use of fast tests can help therapy decision making (4, 46, 86-89).

The rate of chemoprophylaxis success in preventing HIV development reaches 81% when given in the first 4 hours after the exposition (90).

In Brazil, 30% of the victims begin antiviral prophylaxis. In São Paulo State, in eight centers for attention to women victims of sexual violence, none of those who took chemoprophylaxis antiretroviral presented serum conversion after six months of follow up (89).

The introduction of the treatment up to 72 hours after sexual act, and its use for 28 consecutive days are the main variables associated with treatment success (4, 91).

According to the literature, more than 90% of sexual violence victims who begun chemical prophylaxis for HIV did it during the first 36 hours. Studies showed that adhesion rate to treatment is up to 80% (91).

It is extremely important to inform the patient about side effects of anti-retrovirus medicines and about the need of completing 28 days of treatment. In addition, the treatment must be initiated after the victims' consent (4, 92-95).

Conclusions

Based on the evidences discussed in this chapter, we can conclude that:

1. Sexual acts without consent increase the risk of STD/HIV infection. High rates of infection are associated with injuries on sexual organs due to the act and to non-condom use.

2. Use of alcohol and other drugs, financial dependence, prostitution, exchanging sex for money, shelter or drugs, confinement situations, and impossibility of escaping are associated with HIV infection.
3. History of abuse/violence can be a predictor of sexual risk behavior considering that individuals who suffered some type of abuse/violence had more chance of practicing unprotected sex, having multiple partners, having casual partners, getting involved with prostitution, exchanging sex for money, shelter or drugs, using alcohol and other drugs, getting involved in delinquency acts and living on the streets.
4. It seems that there is a cyclical relationship between the use of alcohol or other drugs, sex without consent and HIV infection. Increases in one factor lead to increases in other ones.
5. People in confinement situations present high rates of STD/HIV infection. These individuals should be informed about the risks and be tested. Those who are HIV positive should be submitted to STD/HIV/AIDS treatment. Furthermore, intervention focused on harm reduction (distribution of preservatives, syringes) could reduce HIV transmission inside prisons.
6. In cases of sexual violence, the victim must be promptly evaluated and, in some cases, start chemoprophylaxis treatment.

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CHAPTER 10

Psychosocial Treatment for Inmates with Drug Problems in Brazil

Cíntia de Azevedo Marques Périco[1]

[1] *Assistance Branch. Department of Psychiatry of ABC Medical School, Santo André, São Paulo, Brazil.*

Address correspondence to: Profa. Dra. Cíntia de Azevedo Marques Périco. Assistance Branch, Department of Psychiatry of ABC Medical School. Avenida Lauro Gomes 2000. Vila Sacadura Cabral. Santo André. CEP: 09060-870. São Paulo, Brazil; Te/Faxl: +55 11 4993.729. E-mail: cazevedomarques@hotmail.com

Abstract: Substance abuse is a significant problem in over half of jail and prison inmates. Despite this, adequate treatment programmes are not available for them, which represents a serious health public problem in Brazil.

Although incarceration is sometimes seen by many as an important opportunity to capitalize on periods of emotional crisis and to promote major lifetime change, correctional systems have no traditionally provided attention to the substance abuse needs of incarcerated offenders.

Certainly, there are several challenges in developing correctional substance misuse treatment services inside prisons. Some correctional and treatment staff consider that drug abusers present a "moral weakeness" rather than a illness or a biobehavioral disorder. Thus, the treatment can be seen as ineffective or merely delaying inmates' return to drugs and crime.

Anyway, treatment for substance dependence can be effective, and when it is it commonly reduces any offending also. The programmes need to be long-term and require changes in offenders' thinking and lifestyle.

This chapter aims to comment on some aspects associated with the treatment programmes available in our country. It is unfortunate that many people believe that punishment is expected to rehabilitate all types of prisoners. The slogan "the more severe the punishment, the more effective it will be" is frequently mentioned by different professionals and lay people. Despite this, prisons should be used to rehabilitate criminals and set them up for a new life with an improved education, job and social skills and a new outlook, whenever possible.

1. Introduction

The psychosocial approach for the inmates with drug addiction is very difficult in our medical, legal and social rules. The association between crime and drugs is very common, but how to identify and treat these individuals is a real challenge.

Furthermore, the effect of illicit drug use on health care utilization is becoming an especially important issue for the criminal justice system, because an increasing proportion of inmates in correctional institutions has a history of drug use. A longer career of drug use has emerged as a significant predictor of unmet behavioral health care needs, whereas a more frequent drug use in the year before incarceration has predicted unmet physical health care needs (1).

Growing prison populations in the U.S. are largely due to the drug-related crime and drug abuse. Yet, relatively few inmates receive treatment, the existing interventions tend to be short-term or non-clinical, and better methods are needed to match drug-involved inmates to level of care (2).

In Brazil, the percentage of drug-related crimes has risen from 14.9% in 2005 to 16.2% until June 2008. When the statistics was related specifically to São Paulo State, the percentage grew 5.4 in the same period, and this demonstrates a general increase in the drug-related crimes (3).

The psychosocial treatment is also difficult because many inmates usually make their own drugs (in some countries, even inside prisons) and belong to complex criminal activity networks. These factors render any kind of medical management very complicated. Furthermore, a treatment for substance misusers inside prisons is not a simple task because a number of inmates are very well organized to control the production and sale of drugs. Some prison gangs reign power over their members who are in and outside the penitentiary system. Through time, they have engaged in more and more drug trafficking and in centralizing control and power. Due to this awful situation, the State has had serious difficulties in controlling these penal institutions.

Also, little is scientifically known about the efficacy of the treatment for drug dependent inmates. Research has been done with respect to this subject but the answer remains unclear.

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The Legal System understands that the inmates need to receive some medical and psychosocial treatment, but the Mental Healthy Care System is not prepared to do this to date. Besides, the mental health professionals' safety cannot be guaranteed in some situations.

2. Conceptualization of the theory

Prisons usually intensify the antisocial tendency and create in the inmates hostile and aggressive feelings towards the Law and Authority of any kind. The community does not get ethically involved while punishing the criminal both in a social and political basis. There has been no concern about finding effective educational solutions for solving the drug-related crime problem, maybe due to the high prejudice related to drug addiction and outlaw behavior. The proof of this is the increasing number of imprisonment (4).

The drug user is sometimes treated as a patient, sometimes as a criminal and sometimes as a sinner. This stereotype of the user and the obscurity generated by the system limit our comprehension of the phenomena. Olivenstein (1985) (5) defined that the drug use problem is related to three factors: substance abuse, personality and social-cultural environment. In other words, drugs cannot be considered as the sole factor for a person to commit a crime.

Psychosocial rehabilitation allows inmates to participate in a process of restructuring their identity in subjective terms, leading to an increase in its objective possibility of recovery. The mundane aspects of daily life consist of challenges and major difficulties for the population marginalized and socially excluded. Part of the goals of rehabilitation involves, above all, a change of external factors associated with the inmates' motivation. It should be a great opportunity to reflect on the choices of life and the consequences of these actions. Consistent with this proposition, rehabilitation interventions for inmates can lead to learning of skills to improve positive decisions about their lives. The process covers the behavior in the areas of social skills, participation, interest, values, perceptions and benefits of appropriate choices. Inmates must be adequately treated in order to develop abilities to recognize and internalize positive values (6).

In a recent study, Drapalsky et al. (7) reported that although both men and women showed high rates of drug-related problems, alcoholism was twice as prevalent in male inmates as in women. However, evidence suggests that, with the exception of emergency services, drug users generally are medically underserved. Furthermore, the effect of illicit drug use on health care utilization is becoming an especially important issue for the criminal justice system, because an increasing proportion of inmates in correctional institutions has a history of drug misuse (1).

Many inmates have reported heavy use of drugs in the month prior to the last imprisonment. Many drug-dependent inmates have reported a shift over time from intranasal to freebase cocaine use. Half of all referrals indicated a pattern of regular use within a year of involvement with drugs. The need for highly structured and intensive treatment approaches for drug-dependent inmates is empirically based on the frequent histories of chronic cocaine and polydrug abuse, compulsive patterns of drug use, few successful periods of voluntary abstinence, and severe disruption in vocational, social, and psychological functioning. History of infrequent and unsuccessful involvement in rehabilitation programs reflects a significant need for compulsory treatment following release from jail, community supervision to ensure compliance with treatment, and development of linkages between jail drug treatment programs, courts, and community treatment providers (8). In spite this, many law and health professionals believe that coercing people into treatment may be unethical and may lead to insincere engagement, purely to duck more punitive disposals.

In fact, the outcomes of compulsory and voluntary treatment have been pointed out as equivalent in some studies. Also, many addicts who search for treatment on a voluntary basis are under some form of coercion, such as from family or workplace (9).

In a meta-analysis, Mitchel et al. (10) synthesized results from 66 published and unpublished evaluations of incarceration-based drug treatment programmes. Incarceration-based drug treatment programs fell into five types: therapeutic communities (TCs), residential substance abuse treatment (RSAT), group counseling, boot camps specifically for drug offenders, and narcotic maintenance programs. The effectiveness of each of these types of interventions in reducing post-release offending and drug use was examined, and also whether differences in research findings can be explained by variations in methodology, sample, or program features. The results consistently found support for the effectiveness of TC programs on both outcome measures, and this finding was robust to variations in method, sample, and program features. The finding was also supported for the effectiveness of RSAT and group counseling programs in reducing re-offending, but these programs' effects on drug use were ambiguous. A limited number of evaluations assessed narcotic maintenance or boot camp programs; however, the existing evaluations found mixed support for maintenance programs and no support for boot camps.

This panorama has shown that drug-related problems of inmates is not explored, but a Brazilian study (6) proposed some areas to help in the social reinsertion of these inmates: work as the possibility of rehabilitation and social reintegration; the prisoner, society and stigma; the prisoner and the family; and the factors that converge to the institutionalization. These four factors that encourage the reintegration of the convict is based on

data from studies that showed that the use of drugs and their maintenance was worse for those who had no perspective of life and a family support network (11-14).
In the 2002, Huriwai (15) proposed in the New Zealand a program called "The Kowhai Alcohol and Drug Treatment Unit at Rolleston Prison" that offers an innovative treatment approach for inmates. The development of the program has involved local staff from Public Prisons, Psychological Services, and the Community Probation Service (CPS). This presentation outlines the author's impression of this bold innovation. The primary aim of the program is to reduce recidivism. This is achieved by assisting inmates to recognize the thoughts, emotions, and behaviors that are present in the period preceding and/or during the commission of criminal activity - particularly those illicit acts that are precipitated and/or maintained by alcohol and drug use. This insight, coupled with the learning of specific coping skills and intensive lifestyle changing and reintegration planning, are healthy ingredients in a desirable treatment programme. The functional relationship between offending and substance use is much more explicitly addressed in this new program when compared with past programs that focused more on substance use.
In correctional services of England and Wales, reviews of some studies on the effectiveness of therapeutic communities and cognitive-behavioral therapies for inmates have been carried out. As a result, some conclusions can be pointed out:
a) Purely behavioral therapies seems to be ineffective, as are boot camps and group counseling;
b) Maintenance prescription for offenders addicted to heroin, especially if combined with psychological treatment, shows promise;
c) Arrest-referral schemes, court-mandated drug rehabilitation and drug courts can also be effective (16).

3. Final considerations

There is a strong need for treatment of both drug and alcohol inmate misusers. There is evidence that treatment for substance abuse in correctional settings can work to reduce reoffending, and so it is worth focusing on how the effectiveness of these interventions may be improved. Increasing completion rates, developing programmes aimed at specific drug- and alcohol-related offences, introducing stepped care and designing programmes to meet the needs of specific groups of offenders have been considered.
The growth of prison population around the world is largely due to drug-related crime and drug abuse. Yet, relatively few inmates receive treatment and the existing interventions tend to be short-term or non-clinical, and better methods are needed to match drug-involved inmates to level of care. Belenko et al (2) used data from the 1997 Survey of Inmates in State Correctional Facilities, a nationally representative sample of 14,285 inmates from 275 state prisons, and proposed a framework for estimating their levels of treatment need. The framework is drawn partly from the American Society of Addiction Medicine Patient Placement Criteria and other client matching protocols, incorporating drug use severity, drug-related behavioral consequences, and other social and health problems. The results indicate high levels of drug involvement, but considerable variation in severity/recency of use and health and social consequences. These conclusions were that the treatment capacity in state prisons is quite inadequate relative to need, and improvements in assessment, treatment matching, and inmate incentives are needed to conserve scarce treatment resources and facilitate inmate access to different levels of care.
The fact is that so far many studies are revealing the growth of the prison population and the relationship between drugs and crime, but little has been done or proposed to treat these individuals.
Drugs and crime are consistently related to one another in different cultures. It is also clear that crime would exist without drugs because other social conditions stimulate demand for stealing things or killing people. But, the positive correlation between the severity of drug / alcohol misuse and some types of crimes is widely true and may not be discharged.
One of the most important concerns is that coercing people into treatment may be unethical. However, when compulsory and voluntary treatments have been compared, the outcomes of both are often similar. Also, drug courts compelling inmates to obtain treatment as well as (or instead of) punishment appear to work in some cases (9).

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