

Addiction Research Centres and the Nurturing of Creativity

National Institute on Alcohol and Drugs Policies, Brazil

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ABSTRACT

The National Institute of Public Policy for Alcohol and Other Drugs (INPAD) is based at the Federal University of São Paulo, Brazil, and was created to collect scientific evidence regarding epidemiology, develop new therapeutic approaches, study health economics and provide education to subsidize the proper measures to change the Brazilian scenario of alcohol and drug consumption. Policies directed towards the control of alcohol and drugs in Brazil are fragmented, poorly enforced and therefore ineffective. The unregulated market of alcohol in Brazil has contributed to the worsening health of the Brazilian population. Since 1994, INPAD has participated actively in academic debates and discussions about alcohol and drug policies and their effects on the political welfare of the country. Many scientific papers and books have been published on this subject, and the internet and other media have provided excellent opportunities for the dissemination of specialized information to the general population.

Keywords Alcohol, drugs, epidemiology, medical economics, policy analysis, public health.

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INTRODUCTION

The National Institute of Public Policies for Alcohol and Other Drugs (INPAD) is based at the Federal University of São Paulo, Brazil. This research centre has been created to collect scientific evidence regarding epidemiology, new therapeutic approaches, health economics and education to subsidize the proper measures to change the Brazilian scenario of alcohol and drug consumption. To achieve this purpose, INPAD has participated actively in academic debates and discussions about alcohol and drug policies and their effects on the political welfare of the country since 1994. Many scientific papers and books have been published on this subject, and the internet and other media have provided excellent opportunities for the dissemination of specialized information to stimulate debate within the general public.

Brazil has one of the least regulated alcohol markets [1,2], and the acquisition of alcohol is facilitated by the high concentration of alcohol outlets. Alcohol policies in

Brazil are fragmented. Specifically, alcohol advertising is restricted; the purchase of the product by minors (under 18 years of age) is prohibited; and a law enacted on 19 June 2008 established 'the alcohol 0 (zero)' policy, which imposed more severe penalties for driving under the influence of alcohol.

As a consequence of this unregulated market, the prevalence of alcohol-related problems is disconcerting. The social costs involved in the abuse of alcohol include hospitalizations, absenteeism at work, unemployment, financial difficulties, antisocial behaviour, homicides, violence, accidents, family destruction and low academic performance [3–6]. These costs are extremely high, and reinforce the position of alcohol abuse as one of the major public health problems in Brazil.

Alcohol abuse has reached epidemic proportions and requires proper planning and integrated policies for prevention and treatment. Brazil needs more global interventions to change the settings of alcohol promotion, selling and consumption. Our institute hopes to play an important role in this process.

FOCUS OF ACTIVITY

Our activities focus on the following: (i) representative epidemiological surveys to determine the magnitude of alcohol- and drug-related problems; (ii) health economics; (iii) community interventions; (iv) political engagement; and (v) education and professional development activities.

Epidemiological research

The 'I National Survey of Alcohol Consumption in the Brazilian Population' was the first Brazilian study in the mental health field to use probability sampling, the gold standard in epidemiological scientific methodology. Laranjeira *et al.* [7] demonstrated that 25% of the Brazilian population drinks enough alcohol to endanger their health (binge drinking). According to Zaleski *et al.*, alcohol also plays an important role in violence between intimate partners and couples in Brazil: 38.1% of the cases of violence perpetrated by men and 9.2% of the cases perpetrated by women [8].

A study published in the *Journal of Public Health* by our group revealed that, in one district of São Paulo City, there is one bar for every 10 houses, demonstrating clearly the lack of regulation of the alcohol market [9]. Data from the alcohol industry itself shows that there are 1 million alcohol-selling locations in the country. Astoundingly, this means there is one selling location per 180 citizens in Brazil. The widespread availability of alcohol from many distribution locations, affordable prices (even for the very poor) and lack of regulatory mechanisms and/or the enforcement of existing legislation create universal access to the substance, particularly for those individuals at social risk.

Research in health economics

Health economics is an important area of research. This area of study is essential to determine the most efficient use of available resources in terms of costs and outcomes. A FAPESP (São Paulo Research Support Foundation) doctorate grant supported a randomized clinical trial (CT) assessing the impact of home visits (HV) on the treatment of alcoholism. The treatment method implemented by the HV group, in which the family was encouraged to participate more intensively in the therapeutic process, was compared with traditional treatments (TT). This simple HV intervention had a significant impact on treatment in terms of abstinence rates, information from family members and adherence to treatment. Edilaine Moraes carried out a cost-effectiveness analysis of these HVs as part of her master's degree in economics under the supervision of Professor Marcos Ferraz Bosi. Sensitivity analysis showed an incremental cost-effectiveness ratio (ICER)

of US\$689 (scenario favouring HV) and US\$2334 (scenario favouring CT). Therefore, HV treatment was found to be cost-effective according to the World Health Organization (WHO) Commission on Macroeconomics and Health [10,11].

In addition, the Unidade de Pesquisa em Álcool e Outras Drogas (UNIAD, Alcohol and Drugs Research Unit) performed research in collaboration with the WHO in a global study on the impact of alcohol in emergency rooms. This study demonstrated the high economic and social costs of alcohol in such situations: blood alcohol concentrations reached the level of positivity in 11% of the patients [12].

Community interventions

The Treatment Center in Jardim Ângela, a very poor district in São Paulo, is an example of a successful collaboration between the university, government and community. This project included training volunteers from the community to provide advice on alcohol and drug prevention, training of a mental health team and the community agents responsible for home visits, outpatient attendances and a low-cost dry house for alcoholic patient detoxification. More recently, this Center evolved into a place of psychosocial care for people who are alcohol- or drug-dependent, with a team of 15 professionals trained through INPAD specialization courses that treats 20 000 patients a year.

Another important project being conducted in this community is CUIDA (support centre for the children of addicted parents), which is coordinated by Dr Neliana Figlie and conducted by the Society of the Holy Martyrs, with technical support from UNIAD. This programme is directed towards children with chemical dependency combined with learning disabilities, depression, use of psychoactive substances and a history of physical and sexual abuse. Psychological, medical and social assistance, combined with home visits, orientation groups and educational work-shops, are provided to that high-risk population. This project received an international award by the Queen of Sweden for its excellence.

The project Educação Independência (awarded by the Mentor Foundation, in competition with 146 other projects from more than 40 countries) provided assistance to 52 schools. This programme provided training to professionals (mainly teachers) at the schools on prevention of alcohol and drug use by students. This methodology was implemented in Joinville, State of Santa Catarina, Brazil, in September 2006 and was supported by the Carlos Roberto Hansen Institute.

A partnership with the Pacific Institute for Research and Evaluation (PIRE) in the United States (2001) allowed us to assess alcohol issues in two cities of São Paulo, Brazil: Paulínia and Diadema. Dr Denise Vieira

performed a comprehensive assessment of teenage alcohol consumption in the city of Paulínia. The consequences of early alcohol experimentation by adolescents [mean age of first use of alcohol was 12.35; standard deviation (SD) = 2.72] were documented thoroughly. These young people have a tendency to binge drink, smoke tobacco and use other drugs [13]. Moreover, these adolescents were found to have easy access to alcohol despite the prohibition for minors: adolescents under the minimum legal age were successful in purchasing alcoholic beverages at the first attempt in 85.2% of the surveyed outlets in Paulínia and 82.4% in Diadema [14,15].

Single focused policies can have an enormous positive impact on society. A study in Diadema, a city in São Paulo's metropolitan area, proved this point by demonstrating a decrease in homicide rates after the 2001 Municipal Act ordered the closure of bars from 10 p.m. to 6 a.m. The statistical analysis was conducted in partnership with the University of California, Berkeley, USA. This study showed that the main factor associated with that decline was the restriction on operating hours. This study, published recently in the *American Journal of Public Health* [16], contributed significantly to the discussion of public policies in Brazil, and demonstrated that an academic study can have significant potential to prevent unnecessary deaths. The experience in Diadema became a model for other cities in São Paulo and other states of Brazil, such as Pernambuco and Rio Grande do Sul, that are trying to reduce the social cost of alcohol. Moreover, these data were presented recently at the WHO meeting in Geneva as an example of intervention in countries where the alcohol market is not regulated.

Community interventions discouraging drunk driving also provide the potential for quick benefits. Dr Ilana Pinsky and Dr Sérgio Duailibi have coordinated several studies on this issue [17–22]. The first examined 1000 drivers in the city of Diadema. The same study was then repeated in the city of Belo Horizonte. The largest study on this topic was performed recently in which police in six cities (Sao Paulo, Santos, Diadema, Belo Horizonte, Jundiaí and Victoria) stopped 6400 vehicles randomly and measured the drivers' blood alcohol content (BAC) [23]. Approximately 30% of the drivers were intoxicated, showing one of the highest prevalences of drinking and driving in the world. This research was supported financially by FAPESP and conducted in collaboration with many federal universities and municipalities. Therefore, UNIAD contributed decisively to the public debate and to the discussion of alcohol- and drug-related matters at the political level. This debate resulted in the recent approval of a law regulating this issue. In addition, a positive impact of these measures has been widely shown by the media. The number of traffic accident victims decreased significantly, and the rates of approval by the population

demonstrate the success of this action. Such an effective measure was first conceived within the university, but through effective promotion and policy it was able to affect the whole society.

Political engagement

UNIAD has been very involved in the promotion of legislative changes on alcohol-related issues. The regulation of alcohol advertising is a good example of this action. A research project was first introduced, and a political action plan was then implemented. Professor Ilana Pinsky, with financial support from FAPESP, has been investigating the advertising of alcohol in Brazil, producing surveys [24–27] that allowed us to assess the impact of advertising on the consumption of alcoholic beverages by teenagers and children. The Citizen Alliance for the Control of Alcohol (ACCA) was created in collaboration with several other colleagues from Brazil as a result of this study. ACCA is a consortium of 350 non-governmental organizations (<http://www.propagandasembebida.org.br>; archived by Webcite at <http://www.webcitation.org/5wVyz1k9a>) with the operational support of the Regional Medical Council of São Paulo and the technical assistance of UNIAD. The goal of this alliance is to ban the advertising of alcohol, as was conducted for cigarettes. The ACCA has succeeded in collecting 600 000 signatures asking for the regulation of alcohol advertising. The document was presented to the President of the National Congress, Mr Arlindo Chinaglia, in the presence of many medical, religious and community leaders of the entire country. This action resulted in the government sending a federal law (number 2733/2008) to Congress prohibiting advertisement from 6 a.m. to 9 p.m.

UNIAD has been advising many government departments and scientific organizations: the governments of São Paulo City, Diadema and Paulínia; the government of the State of São Paulo; the government of the State of Minas Gerais; and the federal government (the National Anti-drug Coalition (CONAD). Among supragovernment actions, frequent participation in discussions of the technical aspects of alcohol and drug dependence and the creation of a global policy on alcohol (similar to that for tobacco) at the WHO and the Pan American Health Organization meetings should be highlighted.

In recent years, the search for a more effective public policy on alcohol and other drugs has been the subject of discussion at various levels of government. Part of this debate is due to evidence of the high social cost (i.e. violence, accidents and health problems) imposed by the consumption of alcohol. The community-based and population studies undertaken by UNIAD have established parameters for the basic regulation of the alcohol market and should provide the basis for future implemen-

tation of public policies designed to control the abuse of these substances. These procedures were facilitated by the availability of detailed data about the Brazilian population and by the assessment of the impact of these policies on the patterns of consumption of adults and adolescents from different social groups and different regions of the country. Besides those mentioned above, the UNIAD group has produced several other publications on alcohol-related public policies [28–32].

Involvement of UNIAD in education and professional development activities

The number of professionals trained to treat substance-related disorders in Brazil is insufficient to meet the increasing demand. UNIAD has implemented many actions to reduce this shortfall of professionals. For example, the specialization course on alcohol- and other drug-related disorders has existed since 1998 and has trained students from 11 states of Brazil. It has expanded recently to other parts of the country, such as Rio de Janeiro, Rio Grande do Sul, Brazilia, Paraíba and other cities of Sao Paulo State. Another course was organized on the subject of prevention. This course aimed to train health professionals to make rational choices between different prevention strategies based on scientific evidence.

The Counseling Course, created in 2001, trains many types of professionals assisting patients with alcohol- and drug-related disorders. It aims to improve the quality of services provided by such professionals through technical training. To date, approximately 550 students have been trained throughout seven classes.

In 2001, the experience accumulated in these courses allowed the creation of a specialization course taught through the internet in collaboration with the Department of Health Information Technology (UNIFESP). About 330 students from 22 Brazilian states have been trained. This illustrates the ability of technology to increase accessibility to education and training for people in distant locations all over the country.

In total, 1140 students (psychiatrists, psychologists, nurses and other health professionals) from almost the entire national territory have been trained through these courses. A network of colleagues equipped with the most modern techniques of treatment and prevention was formed. This professional network can improve the quality of assistance of the patients and has the potential to create local and regional leadership.

Professor Ronaldo Laranjeira has been participating actively in the post-graduation programme (and the doctorate degree programme) of the Department of Psychiatry since his arrival in Brazil after the completion of his doctorate degree in London (1994). He has advised 12

master's degree students and 18 doctoral students during this period. Six former doctoral students of Professor Ronaldo became professors in the post-graduation programme of the Department of Psychiatry. In recent years, Dr Ilana Pinsky, Dr Neliana Figlie, Dr Marcelo Ribeiro, Dr Claudio Jeronimo da Silva, Dr Sergio Duailibi and Dr Sandro S. Mitsuhiro have advised and co-advised many students. These new professors have definitely expanded the training capacity of INPAD. We aim to transform INPAD into a centre involving several areas of research conducted by professionals working independently with their own research groups and projects.

WORK PLAN

During the next 3 years, this Institute will develop six research projects.

II National survey of alcohol consumption in the Brazilian population

The repetition of this study 5 years after the first edition will be very important for assessing the effectiveness of the interventions in alcohol consumption and will also help in planning future policies by suggesting integrated actions based on scientific evidence.

Public policies on alcohol

In collaboration with PIRE this project will assess, from a local perspective, several specific aspects of the impact of public policies on problems related to the consumption of alcoholic beverages: the impact of the Brazilian Code of Transit and Law 11705 of 19 June 2008, on drunk driving behaviour; the impact of local measures on the regulation of the market and consumption of alcohol by minors [regulated by Article 243 of the Child and Adolescent Statute (Law 8.069/90) and the Law of Criminal Contraventions, Article 63]; and the impact of laws that regulate the opening hours of alcohol outlets on situations of violence (homicides and violence against women).

Health economics: the economic impact of alcoholism

The economic cost of substance abuse is probably the issue most responsible for its priority on the political agenda, and the estimation of that cost is an important tool for better allocation of scarce resources.

To assess the profile of those dependent on alcohol and other drugs from the perspective of the family member

Through this study, it will be possible to trace the profile of drug addicts from the perspective of their respective fami-

lies. This will be particularly important in determining the major impact that drugs have on the family unit.

Technology transfer—using telemedicine to treat alcohol and other drug dependencies

The aims of this project are as follows: (i) to promote the education and training of professionals in current state-of-the-art techniques for the treatment of dependence on alcohol and other drugs, utilizing the internet to greatly expand coverage of the national territory; (ii) to disseminate scientific information to patients and families (general population) in properly adapted language; and (iii) to influence prevention and public health policies.

Biological aspects of alcohol- and drug-related disorders

Our research group has conducted several major studies examining the genetic aspects of alcohol- and drug-related disorders over the last few years [33–39]. This is an important area of research at our institute, and a project evaluating genetic vulnerabilities to cocaine addiction will be performed.

ORIGINS AND ADMINISTRATIVE STRUCTURE OF INPAD

In February 2009, the foundation of the National Institute on Alcohol and Drug Related Public Policies was formed with the goal of concentrating the available cumulative experience in scientific research, clinical assistance, community interventions and promotion of public debate to enhance the formulation of public policies. The National Council of Technological and Scientific Development (CNPq), through the programme of the National Institutes of Science and Technology in association with FAPESP, has approved our proposal as part of a national plan for the development of science and technology to mobilize and aggregate the best research groups in strategic areas. Approximately US\$2 200 000 is available to this Institute to accomplish the research projects with complete ideological independence, free from any political influence.

The management team of the institute is comprised of the Scientific Director (Professor Ronaldo Laranjeira), who performs all the actions of executive leadership and scientific activities of the centre; the Executive Director (Dr Sandro Sendin Mitsuhiro), who oversees the administration of the scientific projects; the coordinators of the five current projects; and the Management Committee (Dr Ilana Pinsky, Dr Sérgio Duailibi, Dr Cláudio Jerônimo da Silva, Dr Neliana Buzi Figlie, Dr Hamer Nastasy Palhares Alves, Dr Marcelo Ribeiro de Araújo and Dr Ana Cecilia Petta Roselli Marques), which ensures that the

resources are used properly. All the members are part-time collaborators and they do not receive salaries.

CONCLUSION

The unregulated alcohol market in Brazil has contributed to the worsening health of its population. The role of the National Institute of Public Policy for Alcohol and Other Drugs is to collect scientific evidence to develop the proper measures to change this scenario.

Declaration of interest

None.

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