

# Obtaining Epidemiologic Information on the Improper Use of Psychoactive Substances: Strategies Applied in Argentina

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*In seeking epidemiologic information on the improper use of psychoactive substances it makes good sense to take advantage of available institutional resources, especially in situations where more usual research resources are in short supply or altogether lacking. This article describes several studies that availed themselves of institutional resources in Argentina for the purpose of obtaining this type of information. One of these was carried out by personnel at several rehabilitation centers dealing with problems related to improper use of psychoactive substances; another obtained information from physicians and auxiliary personnel providing emergency treatment at three general hospitals; and another used the facilities of labor organizations to investigate workers' problems. All in all, these projects show how innovative approaches can help to obtain key substance abuse information; they could also serve as worthwhile models for those interested in carrying out similar work with limited resources.*

The expression "improper use of psychoactive substances" covers both the condition of dependence and the problem of abuse. It also suggests preventive action during the stages prior to dependence, before chronic disorders appear but when various social and personal costs are involved. Therefore, in this report we have preferred using this term rather than "drug addiction" or "drug abuse."

The information needed to support program actions in this area should include data relating not only to addicts' intensive or compulsive use of such substances but also to the impairment of their health or social functioning (1). Therefore, while information derived from tertiary prevention work is neces-

sary, by itself it cannot provide effective support to programs being conducted at the primary and secondary levels of the classical model of preventive psychiatry (2).

We speak of *psychoactive substances* because our definition needs to include both legal and illegal substances—the aim being to deal more with the drug consumer's intent than with legal issues (3). Thus, the pharmacologic use of alcohol for the deliberate purpose of avoiding fear or anxiety does not differ in essence from consuming an illegal substance for the stimulation it produces, so as to neutralize one set of circumstances through the exaltation of another.

The common aim of those improperly using psychoactive substances is to seek relief from distressing emotional states by chemical means without dealing with the underlying causes. Many practices are involved—among them alcohol abuse, self-prescription and improper

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use of tranquilizers and stimulants, inhalation of glue, and consumption of marijuana, cocaine, and other illegal drugs. The high social and personal toll of all this shows up in family violence, accidents, time lost from work, declining health, and emotional disability leading to resignation and fatalism.

This situation demands comprehensive action in many fields. One part of this action is production of reliable and timely information—the subject of this article, which is based on a number of diverse studies carried out in Argentina in 1988.

## **STRATEGIES FOR THE PRODUCTION OF INFORMATION**

Pertinent information can be generated in two ways. One of these is to carry out studies specifically designed to assess the improper use of psychoactive substances—the incidence and prevalence of their use and of dependence upon them. If they are to provide significant generalized knowledge, such studies require considerable economic investment. They also require experienced survey personnel, application of rigorous and complex supervision and control systems tailored to the project, and the participation of expert managers capable of coordinating the project from its design all the way up to the processing and dissemination of its data.

Studies of this kind can also have limitations—such as their frequent lack of timeliness and inappropriate degree of generality—arising from the difficulties inherent in examining topics subject to strong social opprobrium. The greatest problem, however, lies in the need to build an expensive research system that will be disbanded as soon as the research ends. That is, once the study is completed, the interviewers typically disperse and go into possibly unrelated

fields; the experts return to their places of origin; and the experience gained by the team, while it remains recorded in the final document, is lost in actual practice.

In Latin America, where the resources allocated to research (4) are very limited, projects of this nature are carried out only with difficulty. The alternative approach is to use existing institutional resources to produce reliable and timely information—in other words, to make the users of this information into the producers (5). This method involves training key personnel associated with the problem of improper use of psychoactive substances so that they can research their own experiences and practices (6). Using this approach, any of several strategies may be employed—including promotion of research by technicians and professionals on institutional practices, application of the survey method to institutions or services in key areas, and provision of research training within the framework of primary health care (7).

Each of these three strategies has been or is being partially applied in Argentina. It is hoped that their development will serve to engender an epidemiologic information system (8) providing knowledge of the problem of improper use of psychoactive substances and, consequently, providing support for the various prevention and care programs in this field.

## **RESEARCH BY PROFESSIONALS AND TECHNICIANS**

There is a good supply of human resources for providing mental health care in Argentina, but very little information is available about the consultations provided (9). Lack of interest in research does not fully account for this situation, which should be examined from the standpoint of the research instruments employed. Specifically, review of the cur-

rently used forms and questionnaires has shown that they tend to be incorrectly used—as a result of ignorance, inadequate responses to some queries, and the poor quality of the information collected in some cases, for example in the course of professional certification (10). These problems are not limited to data on the improper use of psychoactive substances—in which case they might be ascribed to the social stigma associated with this activity. Rather, they involve difficulties of another nature. That is, review of the matter reveals that one of the determining factors in such problems is inadequate training of the human teams that generate and collect the information (11). Furthermore, the training required is not limited to providing a knowledge of standards and instructions for their application; rather, it also involves providing the teams that collect the information with a knowledge of data analysis.

Within this context, reaching a decision to give effective direction to the work being done is the first step in the training process, one that provides the basis for ongoing motivation. In general, there has been a tendency to ignore this problem and to trust that computer technology will resolve it. Unfortunately, the only thing achieved by this attitude has been the computerization of errors. In light of this, it has been suggested—as a first step—to promote the development of research capacity among the technicians and professionals engaged in care or preventive work through the encouragement and stimulus provided by scientific recovery of their experiences. This strategy has a twofold purpose: to derive an appropriate methodology for the systematic study of daily practice, and to provide the training needed to apply that methodology.

In this vein, a study was recently carried out among personnel at several public and private treatment centers engaged

in the rehabilitation of patients with problems arising from improper use of psychoactive substances (12). At these centers young former addicts served as volunteers, helping to provide care and assist patients with their social readjustment.

The goal of the study was to design a plan for providing an objective view of the participating institutions' experiences. The first step was to prepare a standardized questionnaire for obtaining basic interview information about the social aspects of the patients' lives, their family members, their drug consumption habits, and the history of their treatment. A survey was made at all the participating institutions to determine the most important points that should be covered by an interview of this kind, and the final questionnaire was the result of an extensive cooperative effort.

The general benefits derived from this study to date have been twofold: Many of the volunteers have discovered that research is a useful and accessible tool, and the participating institutions have committed themselves to an instrument in whose preparation they have participated and whose meaning they understand.

## **SURVEYS APPLIED TO INSTITUTIONS OR SERVICES IN KEY AREAS**

The "key area" concept involves institutions or services whose influence extends well beyond their immediate locales. For example, the emergency room of a general hospital acts as an epidemiologic sentinel capable of accurately reflecting drug problems on the street (13). The information collected at an emergency room also covers a broad spectrum of cases—including cases of drug and alcohol intoxication as well as industrial or traffic accidents related to improper use

of these substances. Furthermore, largely because of the suddenness of these cases, patients who come to the hospital for emergency treatment rarely return for regular consultation.

The information obtained during an emergency consultation in a general hospital can shed light on the magnitude and nature of problems existing in the community and can reassert the need "to develop methods for estimating—at least indirectly—rates of incidence and prevalence" (14) of hospital emergencies deriving from improper use of psychoactive substances.

Not long ago a preliminary study was carried out in Buenos Aires to determine the nature and magnitude of problems associated with psychoactive substance abuse that prompted emergency treatment in general hospitals (15). The method chosen was to survey auxiliary personnel and physicians on duty at the end of each consultation in order to establish the situation involved with respect to improper use of psychoactive substances. This was accomplished through a questionnaire containing 18 queries, 11 addressed to auxiliary personnel and seven to the physician on duty.

This survey, carried out at three hospitals in the Buenos Aires metropolitan area, included the cases seen during all emergency room shifts for a one-week period. In all, 5% of the 1,519 cases covered were found to be associated with abuse of psychoactive substances and were classified into one of three groups, as follows:

1. Disorders relating to alcoholic beverages. These accounted for 65% of the positive cases, generally affected males, and commonly involved unskilled or marginal workers.
2. Abuse of psychoactive drugs. These cases, accounting for 25% of the to-

tal related to improper use of psychoactive substances, involved essentially two subgroups: women, who were generally experiencing depressive crises or emotional problems; and adolescents seeking pleasant sensations or escape whose emergencies were often brought about by the drug of initiation.

3. Consumption of illegal substances, basically cocaine and marijuana. These cases accounted for 10% of the total. In most instances this consumption was associated with concurrent consumption of alcohol or psychoactive drugs.

### **RESEARCH TRAINING, PRIMARY HEALTH CARE, AND WORKER SURVEYS**

Studies on the improper use of psychoactive substances have tended to focus on marginal settlements, especially when the subjects involved are adults. Therefore, in order to gain a more complete overview of the problem it appears useful to study groups other than the residents of specific neighborhoods and communities. One of the groups best suited to such research is the working population, which to date has not been sufficiently examined.

There is good reason to suppose that the working population is involved with psychoactive substances (16). Among other things, unsystematic observations point to consumption of stimulants, especially amphetamines, by long-distance truck drivers, abuse of alcoholic beverages related to activities that require great physical effort (such as loading or construction), and use of tranquilizers in stressful work situations such as those involving high-voltage electric current. Besides contributing to the overall problem, such specific situations can thus create particular high-risk groups and bring

about conditions in which improper use of psychoactive substances becomes an established pattern.

Unlike residents of marginal neighborhoods, workers are necessarily involved with an economic structure—including stable social organizations such as unions and trade associations that express and serve their interests. Within the framework of union politics health is a priority topic, and organizations such as health and security commissions have significant experience in the area of prevention. The topic of health has priority in union policies, and organizations such as health and safety commissions have significant experience with preventive measures. All this makes it possible to integrate research and other activities dealing with the improper use of psychoactive substances into programs with appropriate health resources and experience.

Within this context, the primary health care approach can achieve significant results. Indeed, a multilevel prevention and care network focusing on primary care can be developed that is based on research and the training of people who deal with improper use of psychoactive substances.

One reason for this is that primary health care workers share many things with other workers—including culture, customs, standards, and experiences in the workplace, factory, or armed forces. If such workers are adequately trained, they can detect situations and disorders that are related to the improper use of psychoactive substances, place themselves as close as possible to the area where these problems arise, and in this way become the nontraditional resource that is most indicated for carrying out preventive work.

Along these lines, an interesting experiment is being carried out in Argentina that involves training workers to conduct research on mental health and the im-

proper use of psychoactive substances. Various labor organizations, including those related to railroads, ports, energy, and construction, are doing studies in this area.

The railroad project (17), which also deals with other health issues, is among the most advanced. This project grew out of a meeting brought about by workers wanting to know about various health matters relating to working conditions prevailing in their setting. Initially the training was limited to 10 workers, most of whom held electromechanical jobs and belonged to a railroad union local. The state railroad company gave permission for them to be trained at the workplace and on company time.

Over the course of several working sessions the group dealt with topics related to health in general, the environment and working conditions, stress and mental health, and prevention of the improper use of psychoactive substances in the workplace. On this last point members of the group discussed specific circumstances relating to abuse of these substances, which was quite prevalent in their setting. Special attention was given to alcoholic beverages, tranquilizers, and stimulants.

The group also employed the series of manuals produced by PAHO's textbook program<sup>2</sup> for mid-level technicians and auxiliaries as the basis for a study on mental health and working conditions. One of the most-used texts in the series was the *Manual de psiquiatría para trabajadores de atención primaria (Psychiatry Manual for Primary Care Workers)* (18), to which material on the abuse of psychoactive substances was added (19). In addition, the group consulted PAHO/WHO documents (20, 21) on problems involved in work with mercury and electromagnetic

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<sup>2</sup>Programa Ampliado de Libros de Texto (PALTEX).

fields (matters closely related to conditions encountered by the railroad workers), as well as training texts (22–24) published by the International Labor Organization (ILO).

To gather data, the group used the questionnaire on SRQ symptoms referred to in the aforementioned PAHO manual (18), together with a short list of queries developed for the purpose of estimating tranquilizer and stimulant abuse. The group then assumed the task, on behalf of their coworkers, of applying the questionnaire and seeing that the information collected was processed and reported. During this process, professionals (psychologists and sociologists) provided advisory services and orientation for the group. The questionnaire responses were examined and compared with information from the labor and trade union care service. Overall, the results indicated that 37% of the workers surveyed were at risk of suffering disorders associated with improper use of psychoactive substances, 11% due to abuse of tranquilizers and 26% due to abuse of alcoholic beverages.

For purposes of the project, alcohol abuse was defined as consumption of over one liter of wine a day or its equivalent, or use of alcohol to relieve unpleasant sensations produced by great physical or mental stress at work. Improper use of tranquilizers was defined as any consumption other than consumption covered by medical prescription in which the drug was used as a palliative for adjustment problems brought on by demands of the environment.

In general the findings showed abuse of alcoholic beverages to be associated with great physical effort, such as that exerted by members of work teams repairing railways or by unskilled workers in repair shops. In contrast, abuse of tranquilizers predominated among those performing work involving a great deal

of mental stress—such as handling high-voltage railroad lines or railroad switching systems.

Both types of abuse were analyzed on the basis of corresponding SRQ scores and their distribution according to occupation. The group conducting the survey then reported the data and results of the analysis in a brochure containing a simple text and graphs. This brochure, which was distributed in the same workplaces that had been surveyed, was used as a manual to promote education and preventive action. It also provided a basis for meetings held to discuss the issues involved and to raise levels of consciousness about problems generated by the improper use of psychoactive substances.

## CONCLUDING REMARKS

The work described here pointed up the importance of two facts. First, it is important to develop new avenues for nontraditional research in this field, especially in Latin America, so as to effectively increase epidemiologic knowledge through rational use of the inadequate resources dedicated to research. And second, linking research with preventive action by training groups working in the field to study existing circumstances offers the prospect of encouraging preventive plans realistically oriented to the needs of the situation at hand.

## REFERENCES

1. World Health Organization. *International Classification of Diseases*, ninth revision (1975). Vol. 1, categories 303, 304, and 305. Geneva, 1977.
2. Caplan, G. *Principles of Preventive Psychiatry*. Basic Books, New York, 1964.
3. Organización de Estados Americanos, Programa Regional de Desarrollo Edu-

- cativo. *La oportunidad de crecer: la educación frente al abuso de drogas*. PREDE-OEA 12. Washington, D.C., 1987.
4. Alarcón D., R. La salud mental en América Latina, 1970-1985. *Bol Of Sanit Panam* 101(6):567-592, 1986.
  5. Míguez, H. La investigación en el marco de la farmacodependencia. *Rev Neuropsiquiatr* (Lima) 2: 83-93, 1987.
  6. Míguez, H. La investigación en farmacodependencia: Informe de la II Reunión Subregional Andina celebrada en Quito, Ecuador, del 20 al 24 de octubre de 1986.
  7. Míguez, H. Estrategias y prioridades en investigación: Informe del I Reunión del Grupo Asesor de la OPS-OEA celebrada en la Argentina del 24 al 28 de agosto de 1987.
  8. Míguez, H. Bases para un sistema operativo de información epidemiológica. Mimeographed document. Pan American Health Organization, Washington, D.C., 1989.
  9. Galli, V. Salud mental, estrategias generales. Informe del III Seminario Nacional de Salud Mental celebrado en Buenos Aires en septiembre de 1986.
  10. Argentina, Instituto Nacional de Estadística y Censos. Informe del I Taller Regional de Evaluación del Subsistema de Estadísticas Vitales celebrado en Buenos Aires del 5 al 7 de diciembre de 1988. Conclusiones y recomendaciones.
  11. Rodríguez, R. Informe sobre la situación del subsistema de estadísticas vitales. Mimeographed document. Dirección de Estadística de Salud, Buenos Aires, 1988.
  12. Míguez, H., and Fundación CEDRO. Proyecto "Perfiles epidemiológicos de la consulta institucional por abuso de drogas." Buenos Aires, 1988.
  13. Morales, Castro. Personal communication, 1985.
  14. Lima, B. Epidemiología psiquiátrica. *Acta Psiquiatr Psicol Am Lat* 33:43-54, 1987.
  15. Míguez, H. A., and R. W. Grimson. Consultas de urgencia por abuso de sustancias psicoactivas en hospitales de Buenos Aires. *Bol Of Sanit Panam* 107(4):296-306, 1989.
  16. Grimson, W. R., et al. Investigación epidemiológica de entidades psiquiátricas. *Bol Of Sanit Panam* 73(6):572-585, 1972.
  17. Míguez, H. Salud mental y trabajo: informe a la Unión Ferroviaria. *Rev Prev Salud Soc* 2:28-34, 1989.
  18. Climent, C., and V. Arango. *Manual de psiquiatría para trabajadores de atención primaria*. Serie PALTEX para Técnicos Medios y Auxiliares, No. 1. Organización Panamericana de la Salud, Washington, D.C., 1983.
  19. Hospital Universitario San Vicente de Paul, Departamento de Toxicología. *Farmacodependencia*. Bogotá, 1983.
  20. Organización Panamericana de la Salud. *Criterios de salud ambiental 1: mercurio*. PAHO Scientific Publication 362. Washington, D.C., 1978.
  21. Organización Panamericana de la Salud. *Guía para el diseño, utilización, y evaluación de materiales educativo en salud*. Serie PALTEX para Técnicos Medios y Auxiliares, No. 10. Washington, D.C., 1984.
  22. Organización Internacional del Trabajo. *Factores psicosociales en el trabajo: Naturaleza, incidencia y prevención*. Geneva, 1986.
  23. Organización Internacional del Trabajo. *Métodos para la rehabilitación de personas alcohólicas y drogadictas*. Geneva, 1988.
  24. Organización Internacional del Trabajo. *El trabajo nocturno*. Geneva, 1977.