

A TRIAL OF A NEW METHOD FOR STUDYING DRINKING AND DRINKING PROBLEMS IN THREE COUNTRIES OF THE AMERICAS

Reginald G. Smart,¹ Guillermina de Natera,² and Juan Almdares Bonilla³

Many difficulties face those seeking to gather data on drinking patterns and other personally sensitive matters, especially in rural areas. This article describes a method for surveying drinking patterns that has proved applicable to rural areas in several parts of the Americas, that has yielded relatively good data at reasonable cost, and that has involved community members in the work—thereby paving the way for future community participation in other projects.

Introduction

Although detailed evidence is lacking for many countries, there are clear indications of substantial alcohol problems in Latin America and the Caribbean. A review by Negrete (1976) of alcoholism in Latin America examined surveys of problem drinking in Argentina, Brazil, Chile, Mexico, and Peru. These surveys showed rates of problem drinking close to those prevailing in the United States (Cahalan, 1970). However, some rates of liver cirrhosis (for example, among males surveyed in Santiago) appeared higher than anywhere in the world during the period 1962-1964 (Puffer et al., 1965). Studies made in Chile (Medina 1970) showed that among males alcohol was a factor in 62 per cent of the homicides, 36 per cent of the suicides, 44 per cent of the traffic accidents, and 39 per cent of the home accidents.

This article describes a new and effective

approach for investigating drinking customs and problems using an "informant" method, and explains how that method has been used in Mexico, Honduras, and Canada.

Determining the extent of drinking and drinking problems within most Latin American countries is not easily done, particularly in rural areas. Various anthropological studies have been made (see Heath, 1975, for a review), but most of these have been concerned with small, pre-literate tribes rather than large populations. Per capita consumption statistics are often difficult to obtain because of extensive unregistered production of *pluque*, *chicha*, and other beverages and a paucity of data in national and international reports. For example, the World Alcohol Project (Sulkunen, 1977), which developed data on alcohol consumption over 20 years in 33 countries, contained data on only two Latin American countries (Cuba and Peru) and no Caribbean countries.

A method commonly used for developing information on drinking problems in developed countries is the household survey. Recent surveys have been performed in most industrialized Western nations—such as Canada (Smart et al., 1978), the United States (Cahalan, 1970), and England (Edwards et al., 1972) to name only a few.

¹Director, Program Development Research, Addiction Research Foundation, Toronto, Ontario, Canada.

²Mexican Institute of Psychiatry, Assistant to the Head of the Social and Epidemiological Sciences Department, Tlalpan, Mexico City, Mexico.

³Rector, National University of Honduras, and Ministry of Public Health and Social Welfare, Tegucigalpa, Honduras.

Such surveys are expensive and time-consuming. Costs in North America for household surveys range from US\$80 to US\$100 per interview, and a national survey could easily cost US\$150,000 to US\$200,000 and take as long as two years to complete (from planning to final report). Furthermore, as has been pointed out by González and Katatsky (1977), in many Latin American countries (1) the census cannot take account of the large population movements occurring, and lists enumerating houses are often not available for marginal areas; (2) trained interviewers for household surveys are often not available; and (3) data processing facilities and staffs are often not able to handle large amounts of survey data. An additional problem with household surveys is that estimates of per capita alcohol consumption obtained by this method approach only 40 or 50 per cent of estimates based on sales figures (Pernanen, 1974); underreporting seems to be the main reason accounting for this difference. All of these problems reduce the attractiveness of household surveys as a method for investigating drinking in the Americas.

This article describes an "informant" method that avoids many of these problems. It also describes the application of this method to three countries with rural and semi-rural populations. The advantages and disadvantages of the method for developing countries have become clearer as a result of these studies.

This "informant" method was developed by E. M. Jellinek during the time he was a consultant on alcoholism for the World Health Organization. The method was apparently used in a variety of countries in the 1950s, but data have been reported only for Finland and Belgium (Popham, 1976). Briefly, the method involves gathering data from groups of informants who meet for an hour or two to discuss answers to questions about drinking within their occupational groups. They do not report on their own drinking habits, nor do they discuss "drinking in general" or drinking among groups other than their own.

Each discussion is led by a principal informant who acts both as an informant and as chairman. The principal informant leads the group while using a questionnaire schedule and records the answers for the group. (In the Finnish study, informants were chosen from all occupational categories and from each region of the country.) The method combines aspects of both anthropological and survey approaches; its aim is to provide a picture of drinking and drinking problems unfettered by the personal biases of individuals asked to report on their own behavior.

The Informant Method in Mexico

The informant study in Mexico was done in a small, semi-rural community named Topilejo that contained 5,198 inhabitants. It is located 29 kilometers southwest of Mexico City on the road to Cuernavaca. Topilejo was chosen because it was felt the survey should be attempted in a rural area where alcohol problems were thought to be substantial. Drinking in Topilejo was known to cause occupational problems, traffic accidents, other social problems, cirrhosis of the liver, and death from alcoholism. Discussions with priests and other community leaders indicated that alcohol-related family problems were common and that many vows not to drink were made before the Virgin. Drunken people were frequently encountered in the streets of Topilejo, and there was general tolerance of heavy drinking.

In many ways Topilejo is typical of many small towns in Mexico. Water is not available in most houses, but there are a limited number of public taps providing somewhat contaminated water. Sanitary facilities and public drains are also inadequate or nonexistent in most parts of town. Only the principal roads are paved. There is no regular garbage collection. However, there is a hospital nearby, and this—together with physicians in general practice, *curanderos*, and midwives—provides health services.

At the time of the survey, most of the people living in Topilejo were farm workers or farm

owners (37 per cent), service employees (27 per cent), housewives (20 per cent), professional and technical people (10 per cent), or students (6 per cent). Important aspects of cultural life included the several festivals for local saints as well as national festivals. More common activities included listening to the radio, watching television, and going to church. Sports were rarely played in Topilejo for lack of facilities.

The Questionnaire

The questions asked were similar to the 66 items included in Jellinek's survey. They included queries about the following:

- the quantity and frequency of alcohol consumption in the community;
- the age at onset of alcohol use;
- the practice of drinking with meals and between meals by both men and women;
- customs concerning drinking—e.g., at festivals, with visitors, at work, and at sporting events;
- attitudes toward drunkenness among men and women (e.g., avoidance of drunken people's company, reluctance to marry alcohol abusers, etc.);
- characteristics seen by the informant as defining drunkenness;
- customs about drinking at work;
- attitudes toward nondrinkers.

In addition to sections devoted to these matters, the Topilejo questionnaire queried the need for facilities to treat alcohol problems. It also included questions designed to make the data obtained comparable to data from previous surveys. In addition, it should be noted that many questions were modified so as to relate to specifically Mexican drinking customs. For example, references to *pulque*, the most popular beverage, were substituted for references to wine, a beverage more appropriate for the European population originally studied by Jellinek.

Group Formation and Leader Training

The first contacts with the community were made through the hospital and informants

who worked in Topilejo—such as teachers, *curanderos*, and workers in the mayor's office. Later, participant observations were made almost daily in Topilejo so that the investigators became known to the inhabitants. From various types of information available (census and special reports) a rough distribution of the population by occupation was obtained. In all, some 30 groups of five people each were formed, with the number of groups in each general occupational category corresponding to the proportion of Topilejo people engaged in that occupation.

Both group leaders and members were selected with the help of hospital personnel, local political leaders, teachers from the secondary school, and the local priest. These people also provided official local support, which played an important role in forming the groups and getting residents to accept the study. These purposes were also served by an official letter from the Mexican Institute of Psychiatry to the investigators and group leaders explaining the reason for the study and asking the people for their support.

Leaders received prior training which involved explaining the study's objectives and providing a question-by-question analysis of the questionnaire. Group leaders were encouraged to record the consensus of the group, not their own responses.

Some people refused to participate in the group for lack of time, timidity, or distrust; but by and large there were very few refusals. The greatest problem was arranging groups for *campesinos* (farm workers) who left for the fields early in the morning and returned late at night.

Group sessions were usually held in the houses of the group leaders—except for the *campesino* group sessions, which were held in the fields. Group participants were offered cookies, coffee, soft drinks, and a small gift (such as a glass) before the meeting. The meetings lasted an average of two-and-a-half hours and were marked by enthusiastic participation. Investigators were not present during the group discussions.

Most group meetings were held on weekends or in the evening—except for the *campesino* meetings, which were held very early in the morning, and the meetings of some housewife groups, which were held during the day. Group leaders were paid about US\$20 for their participation. Group members were not paid—except for some of the farm workers who lost a day's work by participating; the latter were paid US\$10.

The total cost of the project was about US\$600 when the time of the five investigators was excluded, and about US\$8,500 when their time was included.

Results

The results of the study have been reported at length elsewhere (de Natera et al., 1979), and only a few need to be indicated here. Men's average daily consumption of alcoholic beverages was found to be 1.5 liters of *pluque*, 2 bottles of beer, and half a glass of distilled spirits. Drinking was most frequently done with breakfast and dinner. Men almost never drank in the company of women, but there was a great deal of tolerance of heavy drinking among men at sporting events, festivals, and other social occasions. In general, there was far less drinking by women; but women showed a great tolerance for heavy male drinking.

The Informant Method in Honduras

Before the informant method was employed, there had been virtually no studies of alcohol use in Honduras. A few previous studies (e.g., Hudgens et al., 1970) had used hospital records on alcoholism, but nothing systematic was known about drinking customs.

It was planned that the investigation should cover all three regions of the country—known as the southern, central, and northern regions. But the first step taken was to do a study of the central and most heavily populated region. Group meetings were

therefore held in the districts of Francisco Morazán and Comayagua. Francisco Morazán is an area with a population of about 306,000 persons. It contains the capital city of Tegucigalpa (population 273,894) and some suburban, rural, and semi-rural areas. The district of Comayagua (population 49,600) is mainly a rural area of farms, forests, and hills. It contains the ancient capital of Comayagua (population 15,941) and the small city of Siguatepeque (population 12,456). However, many of the people live in rural areas.

The kinds of areas covered by the survey ranged from the relatively modern city of Tegucigalpa to small and poor cities such as Comayagua and Siguatepeque, small villages and towns much like those studied in Mexico, and entirely rural areas. The living conditions of the people studied, which defy summarization, can be taken as reasonably representative of conditions in nearly all parts of the country except the coastal areas.

The Questionnaire

The questionnaire of 61 items was similar to the one used by Jellinek, though a few changes were introduced to make it more appropriate for the sociocultural realities of Honduras. A few questions were omitted because they would not have been understood by the respondents. Questions regarding wine-drinking were left out, and some questions about *aguardiente* (a sugar cane-based distilled spirit) were added. Wine is rarely consumed, but *aguardiente* is very popular in Honduras.

Group Formation and Leader Training

The investigators began the study by visiting the study communities and seeking the help of health workers, mayors, and local leaders. They explained the objectives of their study, its structure, and the importance of having some studies of alcohol problems in Honduras. In general, the study received enthusiastic support from all the mayors but

one. However, there was some suspicion among farmers that the investigators were from the tax department.

Census and other information was used to determine the occupational distribution in each district. Groups were composed of farm owners, farm workers, professionals and public employees, and merchants. The number of groups formed in each of these four occupational categories was made proportional to the number of people in each occupational category within the general population. Group meetings were held in both rural and urban areas in both districts. In all, 55 groups were formed. There were six people in each group, one of whom was the leader. The groups were always comprised of people with the same sex and occupational classification.

Mayors were often asked to help with the selection of group leaders from their communities. Because the leaders had to be able to read and write, some of those recommended were dropped because of illiteracy. Each leader received about 10 hours of training before the group met. This training included an explanation of the study, information about how to form the group and conduct the session, and familiarization with the questionnaire. The leaders were responsible for forming the groups, and some had difficulty doing so. They were paid about US\$25 for their participation in the study. Group members were not paid.

Group meetings were usually held outside of working hours—in the evenings or on weekends. Most groups met in the homes of leaders, but some met in public places. Most group members were able to understand the questions; however, some farm workers had difficulty with them because of their unfamiliarity with surveys. It was not possible for most groups to finish in the two hours planned for each meeting; instead the average session ran three hours.

The total cost of the project was about US\$23,000—including all office costs, travel, payment for leaders, and staff investigators' time. The costs were high in large measure

because of the relatively long distances that had to be travelled in order to arrange group meetings in so many districts.

Results

The results have been described in a longer report (Almendares et al., 1979), but a few can be stated here. The study showed that *aguardiente* was the most popular drink. Daily drinking seemed uncommon among both rural and urban groups. Drinking with meals was not common, but many farm workers drank regularly before breakfast. Most drinking by men was done in public places, but women drank at home. Drinking was often done during fiestas, national holidays, and special events. Heavy drinking was tolerated more by men than by women. Drunken behavior was tolerated by a large minority of the population. It was generally felt that drinking was increasing. Farm workers were sometimes given alcohol as part of their wages, but workers in the cities were not. Drinking on the job was not seen as a reason for losing one's job.

The Informant Method in Canada

The informant method was used in the Durham region of Ontario, which lies just east of the city of Toronto. This region, which covers some 954 square miles, includes rural areas, small towns and villages, and a small city (Oshawa). About 250,000 people live in the region, which is expanding rapidly as a result of urban overspill from Toronto. Most people work in manufacturing and construction (28 per cent), business and personal services (32 per cent), or farming (3 per cent); 26 per cent are housewives, and 11 per cent are not in the labor force. In general, it is a region where middle-class and upper-middle-class urban dwellers and farmers live in relative affluence compared to the situation faced by residents of Topilejo and Tegucigalpa.

The Durham region was chosen essentially

for two reasons. First, it was similar to the whole province of Ontario with respect to many demographic features; that is, the age, sex, marital status, and occupational distributions were essentially the same, while per capita income was only slightly higher in Durham (US\$5,000 per year) than in the rest of the province. Second, a standard household survey of drinking was done in 1977, thus enabling comparisons to be made between informant and household survey methods.

The Questionnaire

The questionnaire included 56 items and was similar to the one used by Jellinek, though a few changes were made so that the results would be comparable with those of the fore-mentioned household survey of Durham drinking patterns. Additional items were included concerning the frequency of alcohol use and average consumption; the incidence of selected dependency and symptoms of problem drinking; drinking-related difficulties (e.g., at work, with the police, and so forth); attitudes toward alcohol problems within the community; and the use of certain illicit drugs.

Group Formation and Leader Training

A total of 30 groups, made up of 187 people, were formed. Each group had between five and seven members, including the leader. Many of the leaders recruited the members for their own groups, and in several cases a leader conducted more than one group. The groups were formed so as to have the same occupational and sex distribution as the population covered by the earlier household survey, which in turn reflected the distribution of the general population. For example, since approximately 20 per cent of the population was in the "secretarial, sales, and service" occupational category, and since two-thirds of those in that category were women, six of the 30 groups were composed of people in this occupational category, two being composed of

men and four of women. As in Honduras and Mexico, none of the groups included both men and women, and the leaders were of the same sex as the group members. The leaders participated in a two-hour training session before the group discussion.

The groups usually met on weekday mornings or evenings; the average length of the discussion was two-and-a-half hours. Approximately 40 per cent of the groups met in private homes; 30 per cent met in hotel conference rooms. The remaining groups met in either a nursing home, a Y.W.C.A., an employee lounge, or a church.

The task of the leader was to elicit the group's opinion, but not to give his or her own. Leaders had a copy of the questionnaire in front of them during the group discussion and marked down the answers given. Both leaders and participants were paid for attending the groups (about US\$15 for the participants and US\$25 for the leaders), but it is interesting to note that many of the participants indicated they would have participated without monetary inducement because they found it a valuable experience.

The groups generally worked well, and only a few had trouble with the questions. A few groups had difficulty achieving a consensus on questions involving estimates of the number of drinkers of different types, but most did not. All participants expressed interest in the novelty of the method and appreciated the opportunity to meet new people.

Results

One-third of the people covered were reported to drink three or more times a week; approximately 43 per cent were said to drink between once a month and twice a week; 16 per cent reportedly drank less than once a month but at least once a year; and 8 per cent were said not to drink at all. Men were more frequent drinkers than women. The average consumption on a typical drinking day was 85.1 cc of *absolute* alcohol for men and 49.6 cc of *absolute* alcohol for women.

Alcoholic beverages consumed with meals

were most commonly drunk with the evening meal and were almost never drunk at breakfast except under special circumstances. Overall, men consumed alcohol with their meals more often than women did. Men most commonly drank beer during dinner and lunch, while women preferred wine with dinner and hard liquor with lunch. Most men and women did not typically consume distilled spirits immediately before meals.

Most people kept a supply of alcoholic beverages in their homes and offered drinks to visitors. Most men considered a party without alcoholic beverages a failure, but this was not the case among women. Men did not typically segregate themselves from women when drinking. Public drinking-places were not used extensively by most people, and most drinking was done in the home. It was not customary to drink to someone's health or to buy rounds. During sporting events a large proportion of the spectators were said to consume alcohol (but the participants rarely imbibed). Drinking after sporting events to celebrate victory or forget defeat was typical among both spectators and participants.

The cost of the study was approximately US\$27,500. This included the sampling activities, arranging and holding the group meetings, and staff time. A standard household survey of the same area that used a sample of about 1,000 people cost approximately US\$110,000. Comparisons made between the results of the two studies showed that the informant method accounted for more people drinking and a higher volume of consumption, thereby approaching more closely to the alcohol sales figure for the same time period. The informant method also provided higher estimates of people having problems and dependency symptoms related to their drinking.

Discussion

This trial of the informant method has shown it to be workable in at least three countries. The method produced interesting infor-

mation about drinking habits at minimum cost and effort. Though it was tried in countries with very different populations and drinking patterns, the method was not hard to use anywhere, nor did it prove demanding for the investigators or participants to apply. In brief, it appears that the advantages and disadvantages of the informant method, as compared to the household survey method, are as follows:

- *Relative ease of sampling.* Detailed, house-by-house census information is not needed to establish the proportions of groups from different social classes. Instead, investigators can use information about the relative proportions of various occupational groups in the population.

- *Ease of data-gathering.* Groups were not difficult to assemble in any of the three countries, and participants generally reported that they enjoyed the experience. In Mexico and Honduras it was found unnecessary to pay group participants, but group leaders were paid. The method does not require experienced interviewers, and group leaders can be trained in a few hours.

- *Low cost.* The trial surveys obtained answers to some 65-70 questions at about a quarter the cost of a household-type survey. Fewer personnel were needed than would have been needed for a household survey, and once a group leader was trained, that leader could lead several groups and recruit group members. Each of the surveys conducted in the three countries was completed in a few months' time.

- *Ease of data-handling.* The informant method obtains data that can be handled easily with simple coding and card-punching procedures, the number of cards being small enough to handle on a hand-sorter or electric IBM sorter. In Mexico and Honduras the data were not punched onto IBM cards but were produced with manual tabulations from the questionnaires.

- *Better information.* The comparisons made in the Canadian study show that the data obtained concerning amounts drunk were closer

to data from sales records than were the household survey data. Much of this apparently greater accuracy probably derives from the fact that the informant survey questions ask people to describe drinking in their occupational group rather than to describe their own drinking.

• *Superior community development potential.* The informant survey requires that investigators make considerable contact with community leaders, group leaders, and group members. It also requires them to explain the aims of their study and to gain community cooperation on a research project in a way that is not normally required in other types of research. This should create opportunities to make the aims of the sponsoring organization better known and to facilitate other types of cooperation.

Despite the clear advantages of the informant method, however, it also has some problems and difficulties. The method requires interested and dedicated investigators who are willing to take time in the evenings and on the weekends to talk to group leaders, as well as

leaders who are willing to conduct the groups at times convenient for the participants. Also, in some rural areas it will be necessary for investigators to become acquainted with the community and to become known and trusted by the residents. In rural areas of developing countries it will be necessary to schedule group meetings for farmers and farm workers early in the morning or out in the fields at lunch-time. In short, even though the method can be adapted to almost any type of urban or rural setting, such adaptation demands a flexible approach. The method also has some drawbacks as a useful tool for case-finding.

Although the informant method has been attempted only for drinking surveys, it should be useful in studying a variety of other social and health problems. For example, habits and customs involved with such usually sensitive topics as child-rearing, sanitation, and hygiene might be investigated through a method similar to the one described here that asks informants to describe activities of their occupational group rather than to describe activities of their own.

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SUMMARY

Attempting to determine the extent of drinking and drinking-related problems in Latin America is not easy. Per capita consumption figures are hard to obtain, especially in rural areas; and even expensive and time-consuming household surveys tend to yield data that do not correspond well with figures obtained in other ways.

This article describes a way of obtaining data about community drinking patterns through group

discussions. A group leader, who may recruit the other group members, is trained to guide the discussion and complete a questionnaire. The leader and group members are all of the same sex, and all work in the same occupational category. Overall, the proportion of groups dealing with a particular occupational category is kept about the same as the proportion of people in that category within the population at large.

One thing that makes this group selection procedure particularly important is that group members are not asked to describe their own drinking habits but rather those of their co-workers. This is done to avoid the potential underreporting that may occur when a drinker describes his or her personal drinking patterns.

Application of this method in rural, semi-rural, and urban areas of Canada, Honduras, and Mexico yielded effective results at a fraction of the cost of household surveys. Where a comparison was possible, in the Canadian case, the data on per

capita alcohol consumption bore a closer relationship to data derived from sales figures than did data obtained from a comparable household survey. None of the three trial surveys encountered any serious problems, even though they were performed in rural and semi-rural settings where data on personally sensitive matters often prove clearly inaccurate or hard to get. The method also involved community members in the work, thereby paving the way for potential community cooperation with other research projects.

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