



Published in final edited form as:

*Int J Psychol.* 2018 August ; 53(4): 245–252. doi:10.1002/ijop.12373.

## Epidemiology of Alcohol Consumption and Related Problems In Latin American Countries: contributions of Psychology

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### Abstract

Alcohol consumption is the leading risk factor for morbi-mortality in many Latin American Countries. However, epidemiologic studies are relatively scarce. Among factors such as limited research capacity, disciplinary traditions and an emphasis on psychopathology within the field of psychology, have been postulated to account for this. The aim of this paper is to review epidemiologic research on alcohol in Spanish Speaking Latin American Countries, and to measure the contribution of psychology to the field. A systematic search was performed in English and Spanish using regional and international data bases. We identified 269 articles. Most focused on consumption patterns in youth, with samples from a single school and using a variety of measures. With the exception of multinational efforts like ERCAAP or those supported by WHO/PAHO, studies reviewed reflected little cross country collaboration. Mexico accounted for most of the productivity, while many countries had very few or no articles. Most research was performed by health science researchers with a small contribution from psychology, but which increased significantly over time. The results of this review provide a broad identification of patterns regarding epidemiologic research on alcohol, and demonstrate the need for national scientific policies to promote research on public health topics.

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Authors' contributions:

Mariana Cremonte developed the main idea, the data analysis plan, and was responsible for drafting the manuscript. María Ayelén Biscarra and Karina Conde collected the data, participated in the data analysis, and reviewed the content of the manuscript. Cheryl J. Cherpitel collaborated with the development of the idea and performed a critical review of the manuscript, improving the content quality.

## Keywords

epidemiology; alcohol; Latin America; psychology; review

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Alcohol consumption causes over 30 conditions or diseases listed in the International Classification of Diseases (ICD-10), (WHO, 1992). Those conditions are wholly attributable to alcohol and would not occur were alcohol removed (meaning alcohol is a necessary cause), for example, fetal alcohol syndrome and alcoholic polyneuropathy. Alcohol consumption also contributes to over 200 diseases. Chronic conditions in which alcohol consumption plays a role as a sufficient component cause include depression, several types of cancer (e.g. oral cavity, pharynx, larynx, breast), epilepsy, some forms of cardiovascular disease, and tuberculosis; while the primary acute conditions linked to alcohol are intentional (McDonald et al., 2005) and non-intentional injuries (Rehm et al., 2010). Alcohol's role as a component cause means that its removal may result in disease prevention with a significant impact on public health (Rothman & Greenland, 2005). Furthermore, although alcohol may have beneficial effects, from a public health perspective alcohol drinking has a detrimental effect, causing a considerable part of the global burden of disease (Rehm et al., 2010).

There are two main dimensions of alcohol consumption that have a relevant impact on health (Shield, Parry & Rehm, 2013), volume of drinking (often measured as average quantity per capita during a certain period of time) and pattern of drinking (often measured as some combination of frequency and quantity of drinking). Because both dimensions vary widely across different cultures and contexts, along with other factors that together result in disease outcomes, the role of alcohol in the health status of a population also differs greatly according to the country or region. One way to measure the impact of a risk factor (such as alcohol consumption), in the health status of a region and/or population is by Disability Adjusted Life Years (DALYs), which is an index combining years of healthy life lost to a disease condition or an early death.

Studies comparing the impact of alcohol consumption with other risk factors (such as high blood pressure, or tobacco smoking) in terms of DALYs, have found that in some Latin American countries alcohol consumption is the leading risk factor, causing over 10.0% of the DALYs in the region, surpassing the global rate of 4.4 % (Monteiro, 2007). Alcohol is also the leading cause of death for males aged 15 to 49 (Monteiro, 2007). Moreover, it is increasing for females, going from 5th place in 1990 to 4th in 2010 for the Latin America and Caribbean region, and reaching 3rd place in some parts, like the Andean region (IHME, 2013).

Given the significant impact of alcohol consumption on public health, the study of alcohol-related behaviors is a relevant part of epidemiological research globally. However, despite alcohol consumption constituting the leading risk factor for morbidity and mortality in Latin American countries, epidemiological studies on alcohol appear to be relatively scarce in many of these countries. Some authors have suggested that besides structural factors such as reduced research capacity in low and middle income countries, other factors, not necessarily exclusive to Latin American countries, might also come into play. Among these is

competition for national and international resources and funding with neurobiology research, in what has been called the biomedicalization of the field (Midanik & Room 2005), as well as disciplinary traditions (Borges, Medina Mora, López-Moreno, 2004), such as placing a strong emphasis on psychopathology within the field of psychology, in lieu of a broader socio-epidemiologic public health or community perspective. Some authors (Dohrenwend, 1994; Saforcada, de Lellis, & Mozobancyk, 2010) have called attention to the fact that despite the prominence of quantifiable indicators in psychopathology (and mental health in general) in the field of psychology, the interest of psychologists in epidemiological and public health approaches is not nearly as developed. Public health research based on epidemiological techniques and analytical methods is essential to inform public policy makers, allowing them to prioritize needs, guide allocation of resources, and measure the impact of policies and other community-level interventions.

Despite the need of epidemiological studies to inform policy makers, and the potential contribution psychologists can make to informing public policies, it is not clear if the situation enunciated by Dohrenwend twenty years ago has reverted, and if so, to what extent. Thus, the aim of this paper is twofold, first, to characterize published epidemiological research on alcohol consumption in Spanish speaking Latin American countries; and, second, to measure the relative contribution of psychology researchers to the field, comparing their contributions to those from other disciplinary fields. The specific objectives are:

To characterize epidemiological research on alcohol in Spanish speaking Latin American countries providing an overview of methods, dimensions of alcohol consumption studied, and main research topics.

To determine in which Spanish speaking Latin American countries epidemiological research on alcohol is conducted, and the most productive countries.

To identify in which journals epidemiological studies on alcohol from Spanish speaking Latin America are being published, those journals publishing the majority of this research, and whether they are specialty journals or broader disciplinary journals.

To determine which disciplines contributed the most to epidemiological research on alcohol in Spanish speaking Latin America; the relative contributions from psychology, and if this has changed over time.

## Method

### Search Strategy

Systematic search techniques were used. A search for empirical articles published between January 2004 and January 2014 was performed in the international data bases Scopus, Psycinfo, Pubmed, and in the regional Dialnet, Lilacs y Scielo. The following descriptors and operators and their translation into Spanish were used: (alcohol[Title]) AND (consumption OR disorders OR use OR intake[Title/Abstract]) AND (Argentina OR Bolivia OR Chile OR Colombia OR Costa Rica OR Cuba OR Ecuador OR El Salvador OR

Guatemala OR Honduras OR México OR Nicaragua OR Panama OR Paraguay OR Peru OR Dominican Republic OR Uruguay OR Venezuela[Title/Abstract]). Spanish speaking Latin America was considered as comprising all the countries in the Americas where the Spanish language is spoken (and includes three Caribbean countries). The search and content analysis were conducted in Spanish and English.

### Selection criteria

An article was included if it met the following criteria: it was an empirical study, focused on alcohol, and could be regarded as epidemiological. An article was considered epidemiological if it included any of the following: a. prevalence or incidence of an alcohol-related behavior (use, intake, consumption, related problems, use disorders); b. association or effect measures of any alcohol-related behaviors with any other characteristic or variable (e.g. relative risk of a sexually transmitted disease if having an alcohol use disorder); c. relative impact measures regarding any alcohol-related behavior; d. population trends of any alcohol-related behavior; or e. public impact of prevention measures, such as policies or an intervention designed to target an alcohol-related behavior. If in doubt regarding the criteria, the article was included to achieve comprehensive coverage of all relevant articles.

Once the articles or their abstracts were retrieved, duplications were identified and eliminated, along with those papers that did not represent an epidemiological perspective on the topic, or that otherwise did not meet inclusion criteria. Each selected paper was reviewed and through document analysis the major themes/focus of research were identified. Additionally, the following information was extracted in order to perform bibliometric analyses: study design, type of sample, dimension of alcohol consumption included; year of publication; journal name and type (disciplinary field, and whether it was a specialty journal or a more broad disciplinary journal); authors affiliation and disciplinary field (academic degree and/or institutional affiliation); geographical affiliation; language of publication; and number of times the article had been cited.

### Coding and inter-rater reliability

Two researchers (MAB and KC) coded the data. Initially, the first (by alphabetical order) twenty five articles were independently coded by each coder and used to estimate the degree of inter-rater agreement. Cohen's Kappa coefficients (K), Kappa Maximum (KM) and Proportion of Kappa Maximum (PKM) were calculated on four variables. Coefficients were as follows: for disciplinary field K .71, KM .86, PKM .83; for geographic location: K 1; for study design K .71, KM .90, PKM .79; for sample type K.86, KM 1, PKM .86. The remainder of the articles was divided among the coders and coded independently. Non-concordance of coding decisions was resolved through discussion.

The main focus of research was in all cases decided through content review and discussion among three researches (MAB, KC, MC).

### Data analysis

To analyze the number of citations for each document Google Scholar was used (Harzing, & van der Wal, 2008). Bibliometric analyses were performed through descriptive statistics.

Main research topics (focus of research) were identified inductively through document analysis, with special attention to what was stated as the article's main objective. The primary disciplinary field of first authors was determined through academic degrees; in the few cases where the disciplinary field of first authors could not be determined, the disciplinary field of the first author's institution was used. The productivity of each country was determined by the geographical affiliation of the first author. The country in which the epidemiological research on alcohol was conducted was determined by the country in which the sample was drawn.

## Results

The initial search resulted in 857 articles. After eliminating duplicates and those not meeting inclusion criteria, 269 articles remained and are the articles analyzed here. Figure 1 summarizes the literature search.

### Research methods

The vast majority (94%) of articles reported a cross-sectional study design; only a very small fraction (3%) were longitudinal, and one study (the term study used in this paper refers to an article, even though some studies may be reported in more than one article) employed qualitative methodology.

Slightly over half of the studies (57%) used a probability sample; the remainder used either non-probability samples (15%), or did not provide sufficient information to make this determination (27%).

The large majority of articles (over 80%) reported some form of drinking pattern, either drinking vs abstaining, quantity, frequency, or a combination of both (i.e. frequent risky drinking). A small fraction of articles focused on drinking problems, alcohol use disorder (AUD), or age of drinking onset. Most of the articles measuring AUD did so using the Alcohol Use Disorders Identification Test (AUDIT) (Saunders, Aasland, Babor, de la Fuente, & Grant, 1993).

### Focus of research

The major themes or focus of research are listed and described in Table 1. The articles were grouped into the following categories: 1) Articles presenting population level data (at least at the city level). These totaled 18% and almost half focused on youth. 2) Articles focusing on youth. This category comprised articles that evaluated consumption, most often in relation to some other variable, in a single school or university, and presented prevalence or association measures. This category was the most numerous, comprising 33% of the total. 3) Articles focusing on special populations (19%). These included a wide variety of sub-populations, most often presenting prevalence estimates, or association with some other variable. 4) Articles focusing on violence (7%). Most of these addressed domestic violence, followed by gender violence, and presented associations between some consumption measure and self-reported violence. 5) Articles on injuries (8%). Most of these reported association measures and were based on three international collaborative projects<sup>1</sup> 6) Articles focusing on the association between consumption and a specific disease, or risk of mortality given

consumption and a disease or condition (8%). Most frequent of these was liver disease (3 articles). 7) Articles linking genetics to a consumption variable or AUD (2%). 8) Articles examining the performance or prevalence of AUD diagnostic criteria (2%). 9) Articles describing characteristics of persons in treatment for AUD (2%).

### Geographical distribution

Based on the location of the first author, five countries comprised most of the productivity on the topic, with Mexico producing almost half (43%) of that published for the period, followed by Colombia (20%), Argentina (11%), Chile (7%) and Peru (7%), with the remainder of the countries accounting for very small fractions, or none of the productivity.

However, there were 53 articles (20%) with samples from one of the Spanish speaking Latin American (SsLA) countries reviewed whose first author was from a non-LA country, most often the USA. The geographical distribution of the studies reviewed in terms of the geographical location of the samples is shown in Figure 2. The countries with less than five epidemiologic articles on alcohol consumption were Bolivia, Ecuador, El Salvador, Guatemala,, Honduras, Panama, Paraguay, and Venezuela.

Only a small minority of articles (12%) involved a sample from more than one country, reflecting a collaborative endeavor. Of those, 49% were based on either the ERCAAP, WHO or PAHO project on alcohol and injuries (for information about the ERCAAP see: Cherpitel et al., 2003; and for ERCAAP and WHO/PAHO see: Cherpitel et al., 2013), 22% on collaboration between Mexico and the USA, 18% on the GENACIS<sup>2</sup> project (for information about GENASIS see: [www.genacis.org](http://www.genacis.org); Obot, Room, GENACIS & WHO, 2005); and the remaining few on collaborative efforts other than those from the large multinational studies.

### Venues of publication

The 269 articles were published in 140 journals. The ones with the largest number of articles were Salud Pública de México (Public Health of Mexico) (8%), Revista Latino Americana de Enfermagem (Latin American Journal of Nursing, from Brazil) (6%) and Salud Mental (Mental Health, from Mexico) (6%). We found an equal distribution of publications in specialty journals and in disciplinary journals, with 48% of the articles published in disciplinary journals (11% corresponding to psychology journals), and the remainder in specialty journals as follows: 21% in alcohol/drugs journals, 15% in public health/epidemiology journals, and 14% in other specialty journals. Psychology researchers were equally likely to publish in psychology journals (38%) or in alcohol/drug journals (40%), and less likely to publish in other disciplinary journals (16%) or in public health/epidemiology journals (8%).

The most frequent language of publication was Spanish (64%) relative to English (36%). However, when the impact of the studies was considered, articles in English tended to

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<sup>1</sup>ERCAAP: Emergency Room Collaborative Alcohol Analysis Project; WHO: the World Health Organization (WHO) Collaborative Study on Alcohol and Injury; and PAHO: the Pan American Health Organization (PAHO) Study on Alcohol and Injury.

<sup>2</sup>GENACIS: Gender, Alcohol and Culture: An International Study.

receive more citations than those in Spanish (English:  $M=17.20$ ,  $SD=41.15$  CI 95% 8.86–25.53; Spanish:  $M=10.39$ ,  $SD=16.15$  CI 95% 7.96–12.81).

### Contribution by disciplines

The vast majority (74%) of articles was produced by health science (mostly medicine) researchers, followed by psychologists (18%), social scientists (6%), and other disciplines (2%). While psychologists' relative contribution to productivity was small, it has been increasing over time (Figure 3). Results from a logistic regression show that the probability that an article was produced by a psychology researcher compared to a health science researcher in the SsLA countries reviewed here has increased by 20% per year since 2004 (OR 1.20 (1.06–1.36)  $p=.004$ ).

### Discussion

Our results confirm that epidemiological studies on alcohol are still scarce in Latin American countries, with the exception of Brazil (which had a large number of articles, excluded from this review) and Mexico. Not only were these two countries the most productive in the region, by far, but the three journals publishing the largest number of articles on the topic were from the same two countries. This finding is not surprising, as Brazil accounts for over half the investment in research and development in the Latin American region, followed by Mexico and Argentina (Becerra-Posada, Menayo, Guantal, & de Haan, 2014; RICYT, 2013). These three countries represent 90% of the investment in the entire region, and our findings of uneven productivity of articles on this topic among SsLA countries seem to be in direct relation to their investment in research and development. Nevertheless, our results may also point to some differences among countries related to factors other than their research developmental level. Specifically, we found Mexico to have a much larger productivity in alcohol epidemiology than Argentina, despite both countries having an overall similar number of publications indexed in Medline in the last years (RICYT, 2013), and may indicate differences in research traditions and/or national research priorities. A study exploring public funding for health research in five Latin American countries found that topics prioritized by public funding do not necessarily correlate with the countries' public health priorities. For instance, in Argentina over 80% of public funding for health research was allocated to the biomedical field, while the other areas, including public health, receiving altogether less than 20% (Maceira, Paraje, Aramayo, Masi, & Sánchez, 2010). Thus, differences in epidemiological research productivity on alcohol among countries may not only be attributed to a country's investment in research and research capacity, but also to national research priorities (whether explicit or not), and research traditions within disciplinary fields.

With the exception of some large multinational collaborative efforts, specifically the ERCAAP, the WHO and PAHO Studies on Alcohol and Injury, and the GENACIS, all carried out through international endeavors, multinational collaboration was almost absent. Large scale (national or even city level) studies were also scarce, with the majority of articles describing small scope studies. This finding highlights the importance of the above mentioned institutions (WHO, and in particular PAHO) in generating collaborative networks

and opportunities that include a more diverse range of countries (countries that otherwise would have little or no data on alcohol), and calling to the attention of researchers and policy makers the important topic of alcohol consumption and the need to publish in indexed journals. However, the large number of articles with SsLA country samples but a nonLatin American country first author, may signal a gap between leadership in publication and research focused on countries with a low level of research development.

The vast majority of articles focused on alcohol consumption patterns in youth, with samples drawn from a single school or university. Very few studies addressed other alcohol-related variables, such as age of drinking onset or AUD. There was a variety of measures used to evaluate consumption and to classify drinking patterns, making comparisons among studies, regions and countries difficult. While alcohol consumption is a complex, multidimensional behavior, the need to develop and utilize standardized measures to assess drinking and related problems cannot be overemphasized. Reaching a consensus among researchers for a minimum set of culturally and psychometrically sound criteria would allow for comparability of results and surveillance, and eventually for clinical practice. The level of networking and communication among researchers is also related to the research capacity of a given discipline and/or country, underscoring the need to foster epidemiological alcohol research through policies that prioritize investigation on this topic, as well as other topics of relevance to public health.

Findings here demonstrated that the largest contribution in this field was from medical sciences researchers. The relative contribution of psychology researchers (and researchers from other disciplines) to alcohol epidemiological research was limited, although increased over time. However, it could not be determined whether this increase reflects an increase in contribution to the alcohol epidemiology field or is associated with the increase in the numbers of SsLA psychologists publishing in indexed journals. Nevertheless, this finding indicates an increase in visibility of SsLA psychologists' contributions to the field. If we understand health as a result of genetic, biologic, psychic, socio-cultural and other environmental processes, it is clear contributions from all the disciplines dealing with those aspects are required to truly advance epidemiology (understood as a converging interdisciplinary field dealing with the causes and distribution of health processes and related outcomes, such as alcohol consumption and related harms) and its applied associated field, public health. Specifically, contributions between psychology and epidemiology could be understood as a twofold dynamic. For one side psychology has contributed to the epidemiology of alcohol consumption and related problems in numerous ways. Among them and importantly, providing analytic techniques and methods to improve measurements. For instance within medical traditions sensitivity and specificity (both specific measures of validity) tend to be widely employed, however, psychology's well developed psychometry traditions have contributed by providing ways to assess other aspects of the used measures, such as their dimensionality, internal consistency, temporal stability and item discrimination. On the theoretical sphere, psychology has made significant contributions to epidemiology, many of them to the etiology of alcohol consumption related behaviors and disorders. Several models of maintenance and change of health behavior have been proposed, and some successfully applied to alcohol related behaviors. Similarly, psychology has fruitfully provided to the area of individual and community level intervention. For instance brief



interventions for alcohol problems (a procedure consisting on a very short session with a trained interventionist proved effective in reducing alcohol problems) typically draw from motivational interview techniques and motivational theories. Despite these contributions, as our results point out (i.e. disciplinary fields and focus of research), psychology involvement is still scarce, with a potential of contribution which is not being fulfilled. For example, in the methodologic dimension much could be gained with the use of the relatively new implicit measures, which in many aspects could overcome some limitations of self-report measures, especially on sensitive topics (such as drink and driving). On the substantive side, studies on alcohol brief intervention could be advanced by drawing on the developments within psychotherapeutic research on what constitute effective components, such as therapeutic alliance, therapeutic style, cognitive dissonance, change talk, etc. On the other side, and as stated earlier, epidemiological techniques and analytical methods are essential to inform public policy. Psychology scientific developments could more easily be translated and disseminated to the general public and policy makers and thus have a social impact, if psychologists were to use and demonstrate the public health weight of its discoveries. We believe the potential contribution of psychology to the public sphere will be undermined unless within this disciplinary framework, attention is given to measures that could strengthen psychologists' knowledge and research capacity in epidemiology and public health.

Although much of the literature was published in Spanish, publications in English received a greater number of citations. While this may be due to reaching a larger audience and/or one that tends to publish more, there is also evidence from the addiction field that articles from developing countries tend to have fewer citations than those from more developed countries, regardless of other factors such as methodologic integrity or overall quality, and has been attributed to a possible bias against such research, highlighting hegemony of the United States in the research field (West & McIlwaine, 2002).

Some limitations to this review must be noted. First, given the large number of articles resulting from the search, data were collapsed which resulted in the loss of some information. Additionally, many articles included multiple epidemiological aspects, and/or more than one dimension of alcohol consumption. In those cases only the dimension that appeared most relevant in terms of the paper's objective was included. Although we performed the searches in English and Spanish, and in international as well as regional data bases, only indexed articles were accessed. Many national and other governmental drug agencies may have empirical studies that were not published and thus, not included. Finally, it should be noted that we may have been overly inclusive regarding application of the criteria for considering a study as epidemiological. Our results may thus be biased towards an overestimation of the number of articles on the topic.

Despite these limitations, this review provided a broad identification of patterns regarding epidemiological research on alcohol in Spanish speaking Latin American countries. Specifically, it provided evidence documenting the scarcity (or even absence) of epidemiological studies on alcohol in many Latin American countries, despite its importance as the leading factor for disease and death in these same countries. Our results also identified gaps in the epidemiological research which could be amended with a deeper involvement of

researchers from psychology and other disciplines into the topic, such as including other areas of interest (e.g. role of the social network in the consumption and related problems) and other methods of evaluation (such as indirect methods). Based on our results the following recommendations can be made: future endeavors should address under explored topics, such as alcohol related problems (e.g. harm to others, use disorders); should be oriented to perhaps fewer, but methodologically sound (i.e. probabilistic samples) and larger scale studies; use psychometric and culturally valid measures, thus allowing for cross country comparisons; should consider a wider scope of approaches (such as multimethod research, the use of both direct and indirect measures, the inclusion of psychological and socio contextual measures). Basically, it highlighted the need of national scientific policies to promote epidemiological research on alcohol, and other topics with a high public health impact. Finally, it demonstrated the importance of multinational agencies such as WHO, PAHO and others in fostering cross-national collaborative research among countries, and building research capacity in one of the areas most relevant and important to public health in the Latin American region.

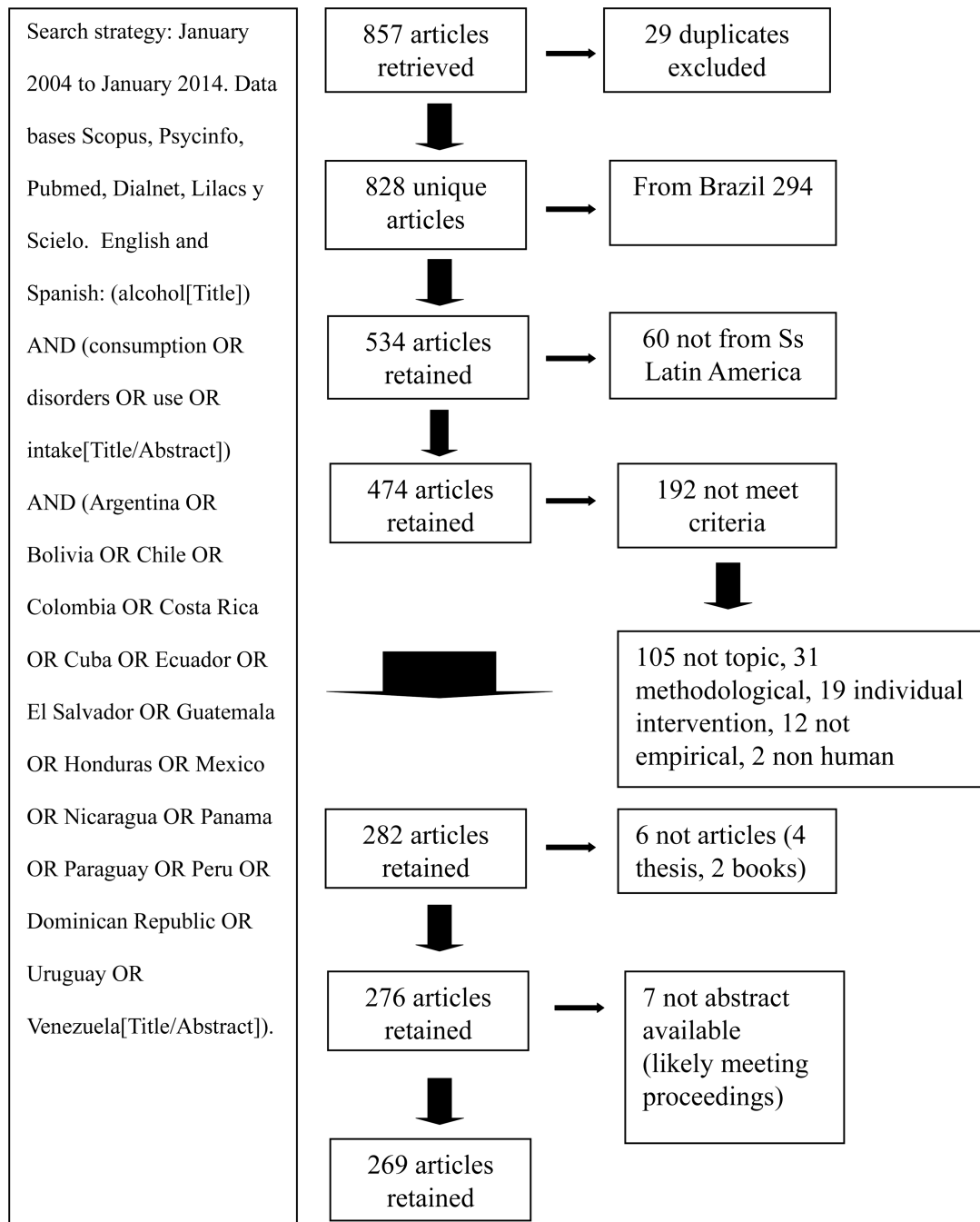
## Acknowledgments

This article was carried out with funding from CONICET, and Universidad Nacional de Mar del Plata, Argentina. The article was also supported, in part, by a grant from the U.S. National Institute on Alcohol Abuse and Alcoholism (NIAAA) (R01 2 AA013750).

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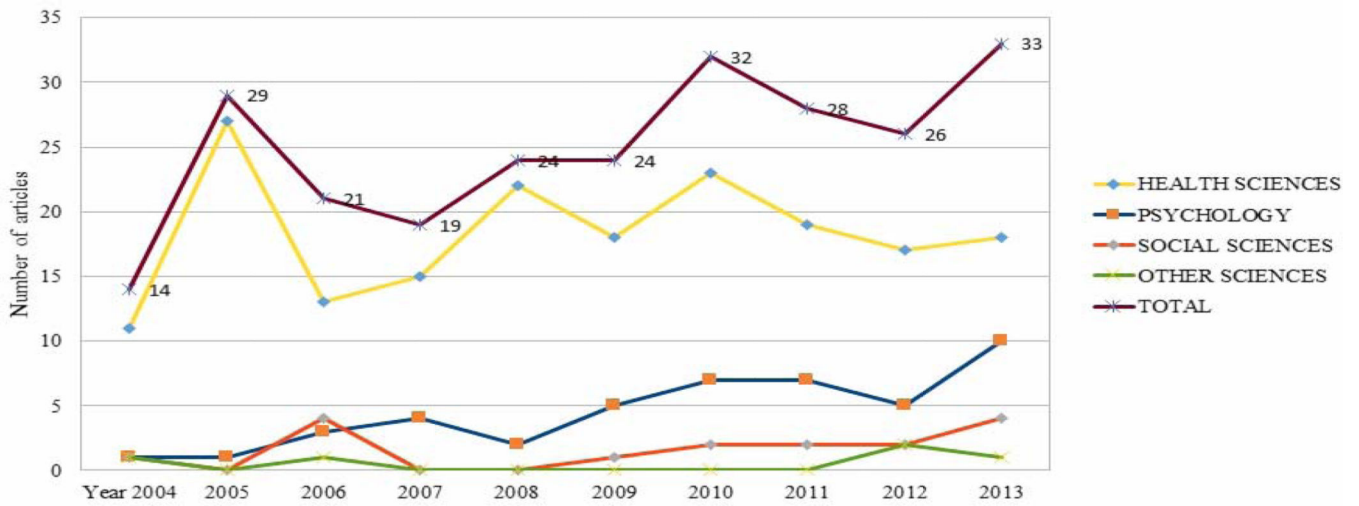
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**Figure 1.** Flowchart of reviewed articles on epidemiology of alcohol consumption in Spanish Speaking Latin America.



**Figure 2.**  
Geographical distribution of samples of epidemiology studies on alcohol in Spanish speaking Latin America.



**Figure 3.**  
Time progression of number of publications on epidemiology of alcohol in Spanish speaking Latin American countries.

**Table 1**

Description of research focus on epidemiology of alcohol in Spanish Speaking Latin American countries, N=269

Focus of research	(%)	Description
<b>Population level data</b>	19	Many articles from Mexico. Most (n 23) in youth, most of them (n 15) in schools. Several multicentric, some focus also on gender (GENACIS). Three articles presented impact measures (alcohol impact in mortality).
<b>Children, adolescents or young adults</b>	33	Many (n 34) in university or high school students (n 28). Most presented data on prevalence of some alcohol consumption variable other than use disorders, (i.e. volume or frequency, excessive drinking, related problems). Many informed the association with some other variable. A few on children. Only 6 articles included age of drinking onset, these most often presented association measures.
<b>Special populations</b>	19	Most presented drinking prevalence in some sub population. Many in association with other variable/s. Wide variation of sub populations, most frequent were: poor/marginalized groups, pregnant women, workers (airline pilots, drivers, factory workers etc), elder, homosexual and bisexual, immigrants, prisoners, people from an Original Nation, Emergency Department patients, travelers.
<b>Violence</b>	7	Most articles presented prevalence data or association/correlation data. Most frequent topics were domestic violence (one on pregnant women), followed by gender violence, and two on child maltreatment. Few others were on general violence or violence in relation to sexual orientation.
<b>Injuries</b>	8	Most on Emergency Room settings, most presented association measures, many multicentric (ERCAAP or Alcohol Emergency Room Collaborative Projects). Data on non intentional injuries, intentional by violence and self harm (suicide attempts). Three articles were specific on suicidal behavior, two on transit injuries, two on severity of injuries, one on homicides, one on elder.
<b>Disease/other organic conditions</b>	8	Most presented association measures between consumption and an organic outcome, others on mortality. Wide variation of diseases, most frequent were liver disease (n 3), adverse child outcomes given prenatal exposure (n 2), HIV (n 2), oral lesions (n 2) and breast cancer (n 2).
<b>Genetics</b>	2	Three were in relation to drinking outcome (consumption or AUD), the rest in relation to alcohol related disease liver disease, gastric cancer, and bipolar disorder (this also included AUD).
<b>ICD-DSM Diagnostic criteria</b>	2	The topics were: prevalence of AUD according to a diagnostic system, severity of AUD, prevalence or performance of criteria.
<b>Treatment population</b>	2	Most described characteristics (severity of AUD, other psychopathology, sociodemographics, etc.) of persons in alcohol treatment or seeking treatment.

*Note.* GENACIS: Gender, alcohol and culture, an international study. ERCAAP: Emergency Room Collaborative Alcohol Analysis Project. HIV: human immunodeficiency virus. AUD: alcohol use disorder/s