

INTRODUCTION TO SPECIAL ISSUE ‘GENDER, CULTURE AND ALCOHOL PROBLEMS: A MULTI-NATIONAL STUDY’

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Abstract: This paper provides an introduction to a series of articles reporting results from the EU concerted action “Gender, Culture and Alcohol Problems: A Multi-national Study” which examined differences in drinking among women and men in 13 European and two non-European countries. The gender gap in alcohol drinking is one of the few universal gender differences in human social behavior. However, the size of these differences varies greatly from one society to another. The papers in this issue examine, across countries, (1) men’s and women’s drinking patterns, (2) the prevalence of men’s and women’s experience of alcohol-related problems, (3) gender differences in social inequalities in alcohol use and abuse, (4) gender differences in the influence of combinations of social roles on heavy alcohol use, and (5) how societal-level factors predict women’s and men’s alcohol use and problems on a regional and global level. Country surveys were independently conducted and then centralized at one institution for further data standardization and processing. Several results indicated that the greater the societal gender equality in a country, the smaller the gender differences in drinking behavior. In most analyses the smallest gender differences in drinking behaviour were found in Nordic countries, followed by western and central European countries, with the largest gender differences in countries with developing economies.

BACKGROUND

The gender gap in alcohol drinking is one of the few universal gender differences in human social behaviour. In general population studies throughout the world, as compared with women, men are more often drinkers, consume more alcohol, and cause more problems by doing so (e.g. Fillmore *et al.*, 1991; Kebede and Alem, 1999; McKee *et al.*, 2000; Sieri *et al.*, 2002; Jhingan *et al.*, 2003; Hao *et al.*, 2004; Almeida-Filho *et al.*, 2005). However, the size of these gender differences varies greatly from one society to the other. Neither the universality nor the variability of these gender differences has been adequately explained (Wilsnack *et al.*, 2000, 2005).

Perceptions of and responses to gender-specific drinking can reveal how societies have differentiated gender roles, for example, by making drinking behaviour a demonstration of masculinity (Driessen, 1992; MacDonald, 1994; Campbell, 2000; Roberts, 2004) or by the expectation that women abstain from alcohol or limit their consumption as a symbol of subservience (Nicolaidis, 1996; Willis, 1999; Martin, 2001). Further, gender differences in alcohol use have influenced how societies identify and attempt to control alcohol-related problems. For example, the association of heavy drinking with masculinity or male camaraderie may encourage male drinkers to deny or minimize drinking problems and to regard drunken behaviour as normal or permissible (Greenfield and Rogers, 1999; Tomsen, 1997; Graham and Wells, 2003). Likewise, assumptions that women do not drink heavily may initially lead to women’s drinking problems being minimized or ignored (Brienza and Stein, 2002; Svikis and Reid-Quinones, 2003; Weisner and Matzger, 2003).

These differences in and responses to gender-specific drinking can differ substantially across countries and cultures. For example, previous research has observed that the degree of gender equality within a particular society is associated with the way that social demographic characteristics are correlated with heavy drinking among women, for example, whether formal education or having children have beneficial or detrimental effects on women’s alcohol use (Gmel *et al.*, 2000). But this line of international comparative research has remained quite sparse (e.g. Wilsnack *et al.*, 2000).

A step in improving the understanding of how gender and culture combine to affect alcohol use and abuse has been undertaken by the concerted action ‘Gender, Culture and Alcohol Problems’ funded by the European Commission (contract QLG4-CT-2001-01496) which has examined differences in drinking behaviour amongst men and women in 13 European and two non-European countries. By examining gender differences in alcohol use amongst several European countries, this project provided a unique opportunity to focus on a part of the world which contains an interesting spectrum of countries with regard to gender equality. Several Nordic countries, which are among those with a very high degree of gender equality, were included in the study. The project attempted to represent most regions of the European Union, and in addition, included two non-European countries. This diversity provided additional country-level variation with respect to the type of drinking culture and levels of national economic development. Thus, with variations in gender equality, drinking culture and economic development across countries, the study had the potential to reveal how gender differences in drinking behaviour may be linked to these societal-level factors cross-nationally.

Study countries in the current project include Austria, the Czech Republic, Finland, France, Germany, Hungary, Israel, Italy, The Netherlands, Norway, Sweden, Switzerland, and the United Kingdom. In addition, two countries outside of Europe, Brazil, and Mexico, participated (It was originally

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planned that Canada, the United States, and Russia would also participate. However, due to international juridical and contractual hurdles, these countries had to withdraw.), in the project, as did the World Health Organization (WHO) in an advisory capacity. Further, the current project is affiliated with a larger international research endeavour, entitled 'GENACIS' (Gender, Alcohol, and Culture: An International Study). This larger, ongoing project, led by Sharon Wilsnack, is also investigating gender differences in alcohol use and misuse across a larger range of countries much beyond those in Europe. Aside from the countries involved in the current EU concerted action, the GENACIS study countries include Argentina, Australia, Belize, Canada, Costa Rica, Denmark, Iceland, India, Ireland, Isle of Man, Japan, Kazakhstan, Nicaragua, Nigeria, Peru, Russia, Spain, Sri Lanka, Switzerland, Uganda, Uruguay, and the United States. Participation of these countries has been funded through the US National Institute on Alcohol Abuse and Alcoholism (Research Grant No. R21 AA012941) and the World Health Organization with funding earmarked for developing countries. Where appropriate and if available at the time of analysis, it was possible in three of the five papers presented in this special issue to add some of these non-EU GENACIS countries to the analyses.

In this collaboration with a larger, more comprehensive study, a common 'core' questionnaire was developed for implementation in those countries which collected new survey data in or after 2000, when the common questionnaire was drafted. It was encouraged that each survey use as much as possible, if not all, of this new questionnaire. However, if surveys were financed by national governments or health agencies, it was often the case that other priorities existed in what kind of health data would be collected, and in some cases only a selection of items from the project's core questionnaire could be included. Nevertheless the use of a standardized questionnaire represents a significant step forward in unifying alcohol survey data within Europe.

Objectives of the study

The original project pursued a number of research questions. The papers contained in this special issue address a subset of them, namely, the following.

- (i) To compare within and across countries men's and women's drinking patterns.
- (ii) To compare within and across countries the prevalence of men's and women's experience of alcohol-related problems. This is done with special reference to the AUDIT (Alcohol Use Disorders Identification Test) questionnaire which was included in a substantial subset of study countries.
- (iii) To compare, within countries and across countries, gender differences in social inequalities in alcohol use and abuse.
- (iv) To compare gender differences in the influence of combinations of social roles on heavy alcohol use.
- (v) To analyse how societal-level factors predict women's and men's alcohol use and alcohol-related problems on a regional and global level. Factors of interest in the present study are indicators of economic development and modernization, alcohol culture, and gender equality.

METHODS

The country surveys

One of the main strengths of this comparative international study was the centralization of the survey data files at one institution where further data processing took place to recode variables—or to construct new variables—which were as comparable across the countries as possible (see next subsection).

The country surveys were independently conducted in the different countries and then centralized at the Swiss Institute for the Prevention of Alcohol and Drug Problems in Lausanne, Switzerland. The data were collected in all countries in the past few years of the 1990s or early 2000s, with the exception of Austria, where the data were collected in 1993. Most samples were national, with the exceptions of Brazil (Botucatu), The Netherlands (Limburg), and Italy (Tuscany). Survey modes and sample sizes varied across countries. Response rates in those countries for which the data exist (some surveys employed quota sampling) suggest relatively high response rates in general (~70%, with exceptions). The main characteristics of the surveys of the EU project countries, as well as the two additional GENACIS countries (Iceland and Spain), are displayed in Table 1. The paper by Rahav *et al.* includes data from many other countries from the broader GENACIS project. Due to space limitations, the reader is asked to refer to the GENACIS project website (www.genacis.org) for characteristics of surveys in these additional countries.

Data centralization

The data centralization and data management in the present project come close to fulfilling the criteria of Bethlehem (1997) with regard to the Data Editing Research Project. She proposed the following principles: (i) *Concentration*: All data processing activities with respect to a survey should be concentrated as much as possible in one department; (ii) *Standardization of hardware*: All data processing activities should be carried out as much as possible on the same type of computer platform; (iii) *Standardization of software*: All data processing activities should be carried out with standard software instead of tailor-made software; and (iv) *Integration*: All software required for data processing must be part of an integrated system using machine readable metadata information containing all required information about the survey. This metadata definition must be used by all systems and departments as the main source of information about the survey.

Bethlehem's criteria were largely applied in the present project. Data were processed in one department, using the same computer platform and standard software for processing the data, and a common set of metadata definitions was developed. Metadata are 'data about data' (van der Berg *et al.*, 1992) and contain information required for collecting, processing and publishing survey data.

The data centralization was conducted in four major steps. The first consisted of identifying variables that were comparable across datasets. This phase consisted of assigning unique variable names to the survey variables used in the study, names that reflected the location of individual questions within topic domains of the questionnaire, scales to measure

Table 1. Overview of survey characteristics of the EU project countries plus Iceland and Spain

	Sampling frame	If regional, where?	Survey mode	survey year	response rate (%)	age range	<i>n</i>	<i>n</i> men	<i>n</i> women
Austria	National		Face-to-face	1993	quota	15+	7.483	3.529	3.954
Brazil	Regional	Botucatu, all urban area residents	Face-to-face	2001/2002	quota	18+/17+	525/733	194/368	331/365
Czech Republic	National		Face-to-face	2002	72.6	18–64	2.526	1.244	1.282
Finland	National		Face-to-face (AUDIT + drugs: self-administration)	2000	79.4	16–70	1.932	945	987
France	National		Telephone	1999	71.3	12–75	13.685	6.027	7.658
Germany	National		Postal	2000	51.4	18–59	8.147	3.688	4.459
Hungary	National		Face-to-face (with self-administered paper pencil for alcohol questions)	2001	quota	19–65	2.292	1.094	1.198
Iceland	National		Mixed (half/half postal and telephone survey)	2001	70.1/56.6	18–75	2.439	1.168	1.271
Israel	National		Face-to-face	2001	<60	18–40	6.004	2.611	3.393
Italy	Regional	Tuscany	Mixed (postal + telephone)	2001/2002	61.0	18+	3.275	1.612	1.663
Mexico	National		Face-to-face	1998	87.5	18–65	5.711	2.382	3.329
Norway	National		Face-to-face (with self-administration)	1999	quota	15+	2.170	1.034	1.136
Spain	Regional	Galicia, Valencia, Cantabria	Face-to-face (sensitive questions self-administered*)	2003	quota	18+	1.850	894	956
Sweden	National		Telephone	2002	67.8	17+	5.472	2.656	2.816
Switzerland	National		Telephone	1997	68.4	15+	12.994	5.755	7.239
The Netherlands	Regional	Limburg	Postal	1999	71.0	16–69	4.222	2.008	2.214
UK	National		Face-to-face and CAPI	2000	quota	18+	2.001	963	1.038

*Sensitive: sexual and romantic relations, violence, illicit drug use.

the same construct and multiple response questions, and the creation of a codebook. In the second phase, datasets were edited to reduce inconsistencies, including differences across surveys in skip (or route) instructions (e.g. if questions on alcohol related problems were skipped for those drinking less frequently than once a month) and in restrictions on ranges of values (e.g. assigning of missing values for codes that are not valid). The third step consisted of creating new variables. The measurement of alcohol consumption requires combining different variables, for example, the multiplication of annual frequencies and usual quantities to yield a volume measure (see paper by Mäkelä *et al.* in this issue for description of drinking variable construction). A nomenclature was developed to construct unique variable names for these newly created variables, and thus repeated the ‘coding’ step for this set of variables. Finally, ‘links to other files’, as an important step of the metadata processing (Bethlehem, 1997), were provided. This included the creation of ‘workdecks’ across countries, and the development of a data model that allowed the linking of workdecks. Workdecks are subgroups of variables which are thematically interrelated (e.g. variables for drinking indicators, socio-demography, or drinking consequences).

Creating workdecks meant that researchers did not have to explore the full data model across all variables and all countries, but instead could concentrate on interrelations among variables that are important for specific (sub)hypotheses. The creation of linking variables guaranteed that different

workdecks could be easily connected. Additional information was collected about the different surveys and archived (including survey questionnaires in the original survey language and their translations) along with a description of the sampling design and the use of weighting variables to adjust for the sampling design. For additional details about data centralization the reader is referred to Bloomfield *et al.* (2005).

IMPLICATIONS AND CONSIDERATIONS FOR FUTURE RESEARCH

The results reported in the present papers confirm the very clear existence of gender differences in drinking behaviour amongst the study countries. Although this finding is not new, it has become apparent through our research that there are indeed factors which influence the degree and nature of these gender differences across societies. One of the most notable factors is gender equality: the greater the gender equality in a country, the smaller the gender differences in drinking behaviour. In most of our analyses the smallest gender differences in drinking behaviour were found in the Nordic countries, followed by western and central European countries, with the largest gender differences in countries with developing economies.

At first glance, this finding may appear banal. But it is a finding which reoccurs throughout the present study with differing analysis techniques and with varying groups of

study countries. This consistency, first, can confer a measure of validity and credibility to the overall pattern of findings. Second, to observe that the 'gender gap' in drinking behaviour is related to the gender equality of a society is interesting in so far that one may then begin to look for confirmation of similarities in other social and health behaviours (e.g. nutrition, smoking, other life style factors). It would indeed be interesting to know which behaviours are influenced by or correlated with gender equality and which are not (and ultimately why not). Finally, mainly because our data are cross-sectional, our results do not tell us in any detail how gender differences in drinking behaviour decrease. Is it because women are drinking more in the countries where the differences are smaller, or are the differences smaller because men are drinking less or experiencing fewer problems? Or perhaps both are true. This is indeed an important question to answer since for policy formulation it is necessary to know who is drinking more or less when gender differences converge. We hope that our study will provide for other European alcohol researchers, as well as alcohol researchers in general, an interesting and provocative point of departure, from which to conduct future studies. These, then, can further increase our understanding of cultural and gender-related influences on women's and men's drinking behaviour.

A NOTE ON COLLABORATION

With the exception of the Kuntsche *et al.* paper, the first author of each article in this special issue was the coordinator of that particular 'work package' in the EU project which contained the relevant research objective. Additional authors of a paper are other colleagues at the coordinator's institution, other consortium colleagues or colleagues of the broader GENACIS project who contributed substantially to the paper.

Study country partners whose data were involved in a particular analysis (listed as 'with' in the acknowledgements section) were also involved in the preparation of the relevant paper. At various stages of the project, they gave feedback and additional information for the accurate interpretation of the data and analyses pertaining to their countries.

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