

TREATMENT

Characteristics of Alcoholics Attending ‘Clubs of Alcoholics in Treatment’ in Italy: A National Survey

Olivia Curzio¹, Angela Tilli², Lorena Mezzasalma¹, Marco Scalese¹, Loredana Fortunato¹, Roberta Potente¹, Guido Guidoni² and Sabrina Molinaro^{1,*}

¹Institute of Clinical Physiology, Italian National Research Council (IFC-CNR), Via Moruzzi 1, Pisa 56124, Italy and ²Italian Association of Clubs of Alcoholics in Treatment (AICAT), Udine, Italy

*Corresponding author: Tel: +39-50-3152094; Fax: +39-50-3152095; E-mail: molinaro@ifc.cnr.it

(Received 3 November 2011; accepted 30 January 2012)

Abstract — Aims: To provide an overview of alcoholics attending a socio-ecological treatment programme [Clubs of Alcoholics in Treatment (CATs)] and to identify factors associated with abstinence and self-perceived improvement in lifestyle. **Methods:** A national sample of 7522 subjects (76% males and 24% females, mean age 53.2 ± 11.3 years \pm SD) attending CATs was evaluated using a self-administered questionnaire completed at a weekly meeting in 2006. **Results:** Of participants, >70% reported no alcohol use in the last year and around 90% indicated no use in the previous month, whereas 4% of them declared no alcohol use before club attendance. Abstinence and lifestyle improvement were related positively to the number of years of club attendance but negatively to the presence of other problems in addition to the alcohol-related one. Moreover, being older or female was associated with more likely achievement of abstinence as well as with the perception of a better lifestyle. Finally, attending the club with one or more family members was associated with achievement of better lifestyle. **Conclusion:** These data provide an overview of alcoholics attending the CAT programme and are a first step toward developing a surveillance system. In addition, on the basis of this preliminary picture further research (notably longitudinal studies) can be planned considering this method and its effectiveness.

INTRODUCTION

The use of alcohol produces a well-known healthcare burden, and it compromises both individual and social development. It leads to 2.5 million deaths worldwide each year, including those of 320,000 young people between 15 and 29 years of age (World Health Organization, 2011).

According to the last report of the Italian National Institute of Statistics (2011), alcohol consumption is widespread mostly in the northeastern regions and involves 66% (79% of men and 53% of women) of the population aged 11 years or older. Twenty-six percent of the population (with notable gender differences, 39% of males and 15% of females) drink on a daily basis, and 16% report heavy or binge drinking.

High levels of alcohol consumption and unhealthy drinking patterns are associated with increased risk of developing alcoholism, leading to clinically significant impairment, as well as financial and social losses (Poznyak *et al.*, 2005; Flensburg-Madsen *et al.*, 2007).

In this regard, in Italy, the total number of subjects with alcohol-related problems has been estimated to be around 1 million individuals (Scafato *et al.*, 2006). In 2008, more than 66,000 alcoholics were followed by local alcohol services with a relevant increase over the previous year. Mostly men approached services—about 3.4 men for every woman who did so. Mean age was 45.6 years and decreased particularly in new male users (42.4 years). In addition, an increase in new users aged 20–29 years was observed (Italian Health Ministry, 2010).

The approach to treatment of subjects with alcoholism may vary greatly, depending on socio-cultural background and on access to institutional facilities. A large body of research (Kelly, 2003) supports the benefits of self-help group membership, which is considered a valuable treatment adjunct, or a treatment in itself, particularly for extended periods.

Although alcoholics anonymous (AA) is the most widely known self-help organization for addressing alcohol-related problems, other mutual-help organizations are also gaining

recognition. Among them, the socio-ecological method developed by Hudolin *et al.* (1972, 1984) in the early 1970s in Croatia has spread rapidly in Italy, reaching 2200 clubs in a few years and from the 1990s it spread to over 30 countries in the world.

Hudolin's method incorporates concepts derived from social ecology. This comprehensive approach, besides integrating individual-focused efforts with environment-focused interventions to modify health behaviour, offers a theoretical framework for understanding the dynamic interplay among individuals, groups, and their milieu suggesting, therefore, that individual behaviour is affected at multiple levels of influence (Stokols, 1996).

For this reason, the socio-ecological method, directed towards the correction of malfunction within the familial environment, involves the whole family of the alcoholic subjects in the treatment programme. It is organized in a locally based network of clubs, called ‘Clubs of Alcoholics in Treatment’ (CATs) which exert a pivotal influence on the cultural changes of health promotion within the community.

Despite its rapid spread, the method has not been evaluated at the national level aside from a few studies concerning some areas in northern Italy (Barra *et al.*, 1992; Arico' *et al.*, 1994; Giuffredi *et al.*, 2003). Therefore, this survey aimed to provide an overview of the population with alcohol-related problems attending CATs, and if possible to identify factors associated with abstinence and self-perceived lifestyle improvement.

METHODS

The treatment programme

Detailed information about the socio-ecological method can be found on the website www.alcoholnet.net/Wacat/wacat_english.htm.

Briefly, CATs are the core of the socio-ecological method for alcohol-related problems. Their primary goal is the full

involvement of the individual with personal alcohol-related problems as well as his/her family in order to achieve and maintain abstinence, and to improve quality of life through a long-term process. Each CAT is a multi-family community consisting of 2–12 families and a servant–teacher. When the club exceeds 12 families, it has to split because a big club is believed to be unable to provide good mutual contacts and interactions among members. The servant–teacher is a trained person whose main role is to facilitate communication and interaction among all the members starting with the initial motivational phase and, afterwards, during the weekly meetings. Servant–teachers from the same area meet once a month to discuss their experiences, problems and difficulties as a procedure of self-supervision. The expression ‘servant’ was introduced to point out the function of ‘service’. His/her presence is essential and marks the difference between the clubs and the self-help groups, as AA.

A club is not a selected group as anyone who feels the need to join is accepted. All members of a club have to follow several basic rules: regular weekly attendance, punctuality, no smoking at meeting and no dissemination of personal information, due to its confidential nature.

Each session lasts about two hours and is chaired by a club member. During the meeting all members share their own experience and receive feedback from the others, expected as comments, not advice. A report is maintained by a designated member. The chairperson and the reporting person would have been chosen at the previous meeting.

The club is self-conducted, self-reliant and independent from any private or public organization.

The clubs are distributed over the whole country; their total number is around 2200, and the current membership estimate is more than 24,000. They take an active part not only in the rehabilitation process but also in primary prevention projects.

Data collection

The study was carried out in 2006 and 75% of clubs participated in the survey (DATA CLUB Project, Florence, Italy).

A self-administered questionnaire was voluntarily filled out by club members ($n = 18,180$) during a meeting of the treatment programme. However, in this study only that data from those attending the CAT for a personal alcohol-related problem are included ($n = 7522$). All subjects who were asked to take part in the survey agreed to participate.

The aim of the research was explained before filling out the questionnaire and participants were guaranteed anonymity.

The questionnaire consisted of multiple-choice questions. The first section included variables on socio-demographic characteristics and lifestyle conditions (age, sex, marital status, educational and employment status, residential situation), while the second part referred to club attendance (first contact with the club, previous treatment programmes). The third part of the questionnaire focused on alcohol consumption as well as combined substance use, psychiatric treatment, gambling and possibility of homelessness before club attendance, in the last 12 months and in the last 30 days. Finally, lifestyle improvement was assessed through a rating scale, answering the question ‘On a scale from –10 to +10, estimate how much your lifestyle has changed during the last

12 months?’ The original rating scale was then transformed into a five intervals as follows: –10 to –7 = worsening, –6 to –3 = slight worsening, –2 to +2 = no change, +3 to +6 = slight improvement and +7 to +10 = improvement. In the data analysis, this interval parameter defined the lifestyle improvement variable. All questionnaires were stored using data entry in a web-based system. The application software was implemented by using bio-medical framework, a tool developed in a Java environment on an Oracle database platform. At the end of data entry, data were exported and analysed using standard statistical software.

Data analysis

A χ^2 test was applied to evaluate abstinence maintenance (alcohol use vs no alcohol use) in the last year in groups with different club attendance duration (≤ 1 , 2–3 and >3 years, respectively).

In order to analyse features that may affect abstinence and achievement of lifestyle improvement, a backward logistic regression analysis was conducted. The backward method, where the analysis began with a full model and variables were eliminated in an iterative process, appeared to yield a more appropriate exploratory model. The fit of the model was tested after the elimination of each variable to ensure that the model still adequately fit the data. For those with a club attendance of at least 12 months, regression models were implemented to assess the association of abstinence, lifestyle improvement and the combination of both (abstinence and improvement, no abstinence and no improvement), with the covariates sex, age, educational level, occupational status, marital status, presence of other problems (illicit drug use, gambling, homelessness or psychiatric treatment), club attendance (with whom they attended) and years of attendance. Before entering the model, some variables were dichotomized as follows: educational level (low vs medium/high), occupational status (employed vs other), club attendance (with family member/s vs else) and other problems (no vs yes). Only the variables that maintained the statistical significance in the multivariate analysis were reported in Table 3.

Statistical analyses were performed using the SPSS (release 17.0) software. In all analyses, values <0.05 (two-tailed) were considered statistically significant.

RESULTS

The study sample consisted of 7522 subjects (76% males and 24% females) with a mean age of 53.2 ± 11.3 (years \pm SD, range 17–85).

As shown in Table 1, subjects were, on average, socially integrated: the majority of them (55.4%) were married, and only 18% lived alone. Moreover, 48% of them had regular employment. As regards club attendance, 31.5% usually attended alone, whereas 60.7% participated with one or more family members. Interestingly, $>65\%$ had an attendance duration of 2 or more years. Finally, 67% reported a positive change in their lifestyle in the last 12 months.

Table 2 describes some sociodemographic variables with regards to alcohol and other substance use before attending the club, in the last year and in the last month respectively. Overall, decreasing proportions of subjects reported use of

alcohol both in the last year and in the last month (25.8 and 7.4%, respectively), compared with their habits before attending the club (97%): alcoholics without mixed

problems, older individuals and those with employment are particularly concerned.

Investigating the relationship between alcohol use in the last year and duration of club attendance (Fig. 1), alcoholics who had extended attendance (>3 years) were more likely to be abstinent compared with those attending <3 years (Pearson $\chi^2 = 1303.206$, $P < 0.0001$).

Abstinence was affected by age [odds ratio (OR) 1.023, 95% confidence interval (CI) 1.016–1.030], years of club attendance (OR 1.199, 95% CI 1.175–1.222) and by the presence of other problems (OR 2.565, 95% CI 2.090–3.147): in other words, subjects with only alcohol-related problems were likely to achieve abstinence more than twice as often as the ones with at least one other related problem. The same results were found for changes in lifestyle. Moreover, being employed also gave a better chance of maintaining abstinence (OR 1.176, 95% CI 1.009–1.371).

Other specific factors such as being female, attending the club for a long time along with one or more family members or having a low educational level increased the probability of lifestyle improvement.

Being abstinent with a perceived better life was again more likely for females, subjects not having other problems (OR 3.190, 95% CI 2.555–3.984), with long-lasting club attendance and for older people. Continued alcohol use along with failure to achieve lifestyle improvement was more likely for men (OR 1.267, 95% CI 1.036–1.549), in the presence of other problems, and for those with a shorter club attendance. Finally, subjects with complex problems were likely to experience a negative outcome more than twice as often as those who did not present other particular problems in addition to alcohol use (Table 3).

Table 1. Sociodemographic characteristics and club attendance information of the study sample

Variables	Categories	All ($n = 7522$) ^a
Sex	Males	76.3
	Females	23.7
Age (years)	<45	23.9
	45–64	58.7
	≥65	17.4
Educational level	Low	74.2
	Medium	23.2
	High	2.7
Occupational status	Employed	48.0
	Unemployed	5.0
	Other	47.0
Marital status	Single	24.6
	Married	55.4
	Separated/divorced	13.3
	Widowed	6.7
Residential situation	Alone	18.0
	Family	62.5
	Parents	16.2
	Other	3.3
Club attendance	Alone	31.5
	Family	49.3
	Parents	11.4
	Other	7.8
Attendance duration (years)	<2	34.6
	2–3	17.7
	>3	47.7

Data are expressed as percentage.

^aTotal sample size varies due to missing information.

Table 2. Sociodemographic variables in different subgroups of alcoholics before attending the club, in the last year and in the last month

Variables	Before attending the club				In the last year				In the last month			
	Alcohol 1 ^a	Alcohol 2 ^b	Other ^c	None ^d	Alcohol 1 ^a	Alcohol 2 ^b	Other ^c	None ^d	Alcohol 1 ^a	Alcohol 2 ^b	Other ^c	None ^d
Sex												
Males	83.7	13.3	1.7	1.3	21.2	4.6	36.6	37.6	6.5	0.9	45.7	46.9
Females	80.0	14.8	2.2	3.0	19.5	6.3	30.5	43.7	4.8	1.8	38.4	55.0
Age (years)												
<45	69.9	26.3	2.6	1.2	28.1	11.3	40.0	20.6	8.9	2.3	58.3	30.5
45–64	85.7	10.7	1.8	1.8	20.1	3.5	36.8	39.6	6.0	0.8	43.8	49.4
≥65	91.8	4.8	1.0	2.4	12.9	1.2	21.6	64.3	3.0	0.5	22.9	73.6
Educational level												
Low	89.3	7.4	1.1	2.2	17.7	2.0	26.7	53.6	5.5	0.5	31.1	62.9
Medium	81.0	15.2	2.2	1.6	22.4	6.0	38.2	33.4	6.8	1.3	48.5	43.4
High	77.7	18.7	2.2	1.4	21.8	7.4	40.7	30.1	6.1	1.6	52.2	40.1
Occupational status												
Employed	80.9	15.7	2.1	1.3	24.1	5.5	40.9	29.5	7.2	1.1	52.2	39.5
Unemployed	60.2	35.2	3.6	1.0	31.5	16.6	38.9	13.0	11.0	4.2	62.9	21.9
Other	87.0	9.3	1.4	2.3	16.2	3.4	28.7	51.7	4.7	0.9	33.2	61.2
Residential situation												
Alone	81.4	16.0	1.8	0.8	20.9	5.1	37.6	36.4	7.2	1.4	45.5	45.9
Family	86.4	9.9	1.6	2.1	20.3	3.5	32.8	43.4	5.3	0.7	40.6	53.4
Parents	73.1	23.3	2.5	1.1	23.5	9.7	40.2	26.6	9.5	2.5	52.6	35.4
Other	63.0	32.4	2.9	1.7	17.6	14.1	42.7	25.6	3.5	2.2	61.7	32.6

Values are expressed as percentage.

^aAlcohol use.

^bAlcohol and other problems (illicit drugs or psychoactive substances without prescription or psychiatric treatment or gambling or homelessness).

^cOther problems but not alcohol.

^dNothing at all.

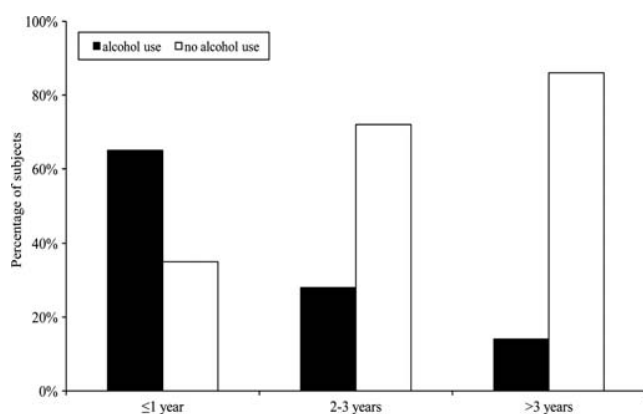
Table 3. Logistic regression analyses of alcohol abstinence and lifestyle improvement during the last 12 months as a function of several features of alcoholics in treatment at the clubs

Alcoholics' features	No. of alcohol use OR (95% CI)	Lifestyle improvement OR (95% CI)	No. of alcohol use and lifestyle improvement OR (95% CI)	Alcohol use and no lifestyle improvement OR (95% CI)
Sex				
Females	Reference	Reference	Reference	Reference
Males	0.961 (0.823–1.122)	0.767 (0.663–0.887)*	0.844 (0.735–0.970)*	1.267 (1.036–1.549)*
Educational level				
Medium/high	Reference	Reference	Reference	Reference
Low	0.990 (0.859–1.141)	1.318 (1.158–1.500)*	1.211 (1.065–1.376)*	0.888 (0.747–1.056)
Occupational status				
other	Reference	Reference	Reference	Reference
employed	1.176 (1.009–1.371)*	0.981 (0.852–1.129)	1.038 (0.905–1.192)	0.868 (0.719–1.048)
Club attendance				
Other	Reference	Reference	Reference	Reference
Family	0.935 (0.820–1.066)	1.199 (1.065–1.349)*	1.093 (0.975–1.226)	0.922 (0.782–1.088)
Other problems				
Yes	Reference	Reference	Reference	Reference
No	2.565 (2.090–3.147)*	2.205 (1.816–2.679)*	3.190 (2.555–3.984)*	0.419 (0.335–0.524)*
Attendance (years)	1.199 (1.175–1.222)*	1.030 (1.018–1.043)*	1.081 (1.068–1.095)*	0.876 (0.855–0.897)*
Age (years)	1.023 (1.016–1.030)*	1.008 (1.002–1.015)*	1.016 (1.010–1.023)*	0.980 (0.972–0.989)*

OR, odds ratio; CI, confidence interval.

Other problems = alcohol use associated with illicit drugs or psychoactive substances without prescription or psychiatric treatment or gambling or homelessness.

*Significant values ($P < 0.05$).



* Pearson chi-square=1303.206, $p < 0.0001$

Fig. 1. Abstinence maintenance in the last year in relation to duration of club attendance.

DISCUSSION

This was the first national survey involving the CAT, a model treatment programme well-established in Italy.

Summing up, abstinence achievement and lifestyle improvement were positively related to duration of club attendance. This may be explained by the definite advantage of a treatment path specifically created for a condition exhibiting chronic features.

The involvement of family members in the weekly meetings plays a significant role in lifestyle improvement, and active family participation is a basic factor in the socio-ecological method; its relevance, along with a wider social network, has also been recognized in other studies (McCready *et al.*, 2006). Besides family, another important factor is occupational status, which may be perceived as a higher or

lower integration in the social context: also, in our data it seems to be important in achieving and maintaining abstinence from alcohol.

Overall, women had an increased likelihood of being abstinent and improving their lifestyle. Other studies have found that women reported a higher degree of involvement and integration than men and similar beneficial effects (Dawson *et al.*, 2005; Ammon *et al.*, 2008; Witbrodt and Romelsjo, 2010), whereas a meta-analysis performed by Jarvis (1992), aimed to measure the magnitude and direction of trends of sex differences in treatment outcome, indicated that women had better treatment outcomes than men in the first 12 months but not in longer-term follow-ups.

The factor having the most negative effect on abstinence was the presence of mixed problems; in fact, subjects with illicit drug use, gambling, homelessness and psychiatric treatment were likely to have a negative outcome more than twice as often as those who had only problems related to alcohol use. Similar findings have been reported in other studies (Kelly, 2003; Bottlender and Soyka, 2005).

As stated in the report to Parliament on drug and alcohol use in Italy, the number of alcoholics has been growing constantly in the last 10 years (Scafato and Ghirini, 2011). This figure and the increasing need of cost-containment and managed care policies represent an important issue of such a rehabilitation programme in terms of cost savings for the healthcare system: in fact, the voluntary basis of the organization and the involvement in self-conducted family groups contribute to minimizing the social and economic costs.

Some constraints of the current study deserve comment. First, being a cross-sectional study, follow-up data are not available but, on the other hand, a large sample of subjects involved in a regular treatment programme was analysed. Moreover, in spite of the descriptive nature of the study, an attempt to assess treatment impact was possible because the collected information referred to different periods (before

attending the club, in the last year and in the last month) and this allowed detection of relevant changes.

These observations can be considered a first wave of analysis and evaluation in the implementation of a surveillance system and of particular value for planning longitudinal studies on this method and its effectiveness. At present, this study is part of a longitudinal project with data collection currently in progress.

Second, all data are self-reported by means of a questionnaire: although this could be a limitation, several studies have shown the high reliability of self-report data (Brown *et al.*, 1992; Mundle *et al.*, 1999; Bottlender and Soyka, 2005).

Third, in our survey, there is a lack of information on relapse and drop-out rates, important issues to be considered for a future study, and further attention should be devoted as well, to quality-of-life indicators.

Overall, our preliminary findings suggest that the socio-ecological method may play a valuable role in alcoholics' recovery. Its usefulness for subjects with mixed problems requires further assessment.

Acknowledgements — We thank Ennio Palmesino and Nello Baselice, former (1999–2007) and current President of Italian Association of Clubs of Alcoholics in Treatment, respectively, for promoting and supporting the project, the national working group of 'DATA CLUB project 2000–2006' and all the Clubs participating in the study. Alison Frank edited the English language.

Funding — The present work was not supported by a research grant.

Conflict of interest statement. None declared.

REFERENCES

- Ammon L, Bond J, Matzger H *et al.* (2008) Gender differences in the relationship of community services and informal support to seven-year drinking trajectories of alcohol-dependent and problem drinkers. *J Stud Alcohol Drugs* **69**:140–50.
- Arico' S, Zannero A, Galatola G *et al.* (1994) Family compliance to a treatment programme for alcoholics: a prospective study of prognostic factors. *Alcohol Alcohol* **29**:679–85.
- Barra S, Franceschi S, Maccioni A *et al.* (1992) Characteristics of alcoholics attending 'Alcoholics in treatment' clubs in north-eastern Italy. *Eur J Epidemiol* **8**:527–31.
- Bottlender M, Soyka M. (2005) Outpatient alcoholism treatment: predictors of outcome after 3 years. *Drug Alcohol Depend* **80**:83–9.
- Brown J, Kranzler HR, Del Boca FK. (1992) Self-reports by alcohol and drug abuse inpatients: factors affecting reliability and validity. *Br J Addict* **87**:1013–24.
- Dawson DA, Grant BF, Stinson FS *et al.* (2005) Recovery from DSM-IV alcohol dependence: United States, 2001–2002. *Addiction* **100**:281–92.
- Flensburg-Madsen T, Knop J, Mortensen EL *et al.* (2007) Amount of alcohol consumption and risk of developing alcoholism in men and women. *Alcohol Alcohol* **42**:442–7.
- Giuffredi C, Di Gennaro C, Montanari A *et al.* (2003) Alcohol addiction: evaluation of alcohol abstinence after a year of psycho-medical-social treatment. *Addict Biol* **8**:219–28.
- Hudolin V, Bano N, Milakovic I *et al.* (1972) Health education of patients in the field of social psychiatry, notably alcoholics. *Int J Soc Psychiatry* **18**:157–70.
- Hudolin V, Sakoman S, Macasovic P. (1984) The register of treated alcoholics in the Social Republic of Croatia. *Med Inform* **9**:31–43.
- Italian Health Ministry (2010) *Report to Parliament on 'Legge quadro in materia di alcol e problemi alcolcorrelati'*. Rome, Italy. Available at http://www.salute.gov.it/imgs/C_17_pubblicazioni_1451_allegato.pdf (15 February 2012, date last accessed).
- Italian National Institute of Statistics (2011) *Report on 'L'uso e l'abuso di alcol in Italia'*. Rome, Italy. Available at http://www3.istat.it/salastampa/comunicati/non_calendario/20110405_00/testointegrale20110405.pdf (15 February 2012, date last accessed).
- Jarvis TJ. (1992) Implications of gender for alcohol treatment research: a quantitative and qualitative review. *Br J Addict* **87**:1249–61.
- Kelly JF. (2003) Self-help for substance-use disorders: history, effectiveness, knowledge gaps, and research opportunities. *Clin Psychol Rev* **23**:639–63.
- McCrary BS, Zucker RA, Molina BS *et al.* (2006) Social environmental influences on the development and resolution of alcohol problems. *Alcohol Clin Exp Res* **30**:688–99.
- Mundle G, Ackermann K, Günthner A *et al.* (1999) Treatment outcome in alcoholism—a comparison of self-report and the biological markers carbohydrate-deficient transferrin and gamma-glutamyl transferase. *Eur Addict Res* **5**:91–6.
- Poznyak V, Saraceno B, Obot IS. (2005) Breaking the vicious circle of determinants and consequences of harmful alcohol use. *Bull World Health Organ* **83**:803–4.
- Scafato E, Ghirini S. (2011) Il consumo di alcool nei giovani e negli adulti. In *Report to Parliament on Drug Use and Addiction in Italy*. Rome, Italy: Department of Antidrug Policies, Council of Ministers Presidency. Chapter IV.6, 417–28. Available at <http://www.dronet.org/monografia.php?monografie=76> (15 February 2012, date last accessed)..
- Scafato E, Allamani A, Codenotti T *et al.* (2006) A country-based strategy. The implementation and integration of early detection and brief intervention in the daily Gps activities in Italy. *Salute e Territorio* **155**:85–119.
- Stokols D. (1996) Translating social ecological theory into guidelines for community health promotion. *Am J Health Promot* **10**:282–98.
- Witbrodt J, Romelsjo A. (2010) Gender differences in mutual-help attendance one year after treatment: Swedish and U.S. samples. *J Stud Alcohol Drugs* **71**:125–35.
- World Health Organization (2011) *Global Status Report on Alcohol and Health*. Geneva, Switzerland: WHO Press.