MARIA LUCIA O. SOUZA-FORMIGONI | ROSELI BOERNGEN-LACERDA | VÂNIA PATRÍCIA T. VIANNA

Research report

Implementation of alcohol screening and brief intervention in primary care units in two Brazilian states: a case study

ABSTRACT

M. L. O. Souza-Formigoni & R. Boerngen-Lacerda & V. P. T. Vianna: Implementation of alcohol screening and brief intervention in primary care units in two Brazilian states: a case study

In this paper, we present some historical aspects of the dissemination of alcohol screening and brief intervention (SBI) in Brazil in the Brazilian states of São Paulo and Paraná. Primary health care (PHC) professionals (N = 174) from the Brazilian cities of Sao Paulo (N = 140) and Curitiba (N = 34) were trained in the use of the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), and in the use of standard brief intervention procedures. In spite of following the training, few of them incorporated the procedures into their daily routine. In Sao Paulo some health professionals conducted the screening. In contrast, in Curitiba, only researchers at the Federal University of Paraná screened patients and delivered BI in primary care units. Considering both cities, 2665 patients were screened. We observed a higher frequency of high risk alcohol users in Curitiba (13.3%) than in S. Paulo (6.8%), perhaps due to differences in the level of motivation between the health professionals and the researchers who applied the screening. Half of the patients who scored within the high risk range received a brief intervention. The remaining patients (control group)

Introduction

■ Alcohol-related problems in Brazil

According to the World Health Organization (WHO 2002), 10.3% of the disease burden in established market economies, as quantified by disability-adjusted life years (DALYs), was attributable to alcohol in 2000. Babor and Caetano (2005) reported that alcohol consumption in the Americas is about 50% higher than the world average. In Brazil, problems related to alcohol consumption are an important public health issue. Recent household surveys conducted with a representative sample of the

This article was written as part of an international collaborative project (Evaluating Alcohol Brief Intervention Implementation) supported by the Brazilian agency CNPq (408753/2006-4), the World Health Organization (WHO) and NIH/NIAAA-R21 AA014635. Phases II and III of the Brazilian ASSIST project were funded by FAPESP-Brazil and the World Health Organization. The authors would like to acknowledge the contributions of the WHO-ASSIST Study Group for Phase III: R. Ali (Australia), T. Babor (USA), M. Farrell (UK), M. Formigoni (Brazil), R. Humeniuk (Australia), J. Jittiwutikarn (Thailand), R.Boerngen-Lacerda (Brazil), W. Ling (USA), J. Marsden (UK), B. McRee (USA), M. Monteiro (WHO Geneva), D. Newcombe (Australia), H. Pal (India), V. Poznyak (WHO Geneva), S. Simon (USA), J. Vendetti (USA) and to the researchers from University of Connecticut Health Center, Thomas Babor and John Higgins-Biddle, for their suggestions and permission to use the questionnaires applied to Brazilian health professionals. These data were presented in the symposium "Translating research into practice: evaluating alcohol screening and brief intervention demonstrations in large population areas", at the Joint Scientific Meeting of the Research Society on Alcoholism and the International Society for Biomedical Research on Alcoholism, 2008, Washington, DC. The abstract of the presentation was published in Alcoholism: Clinical and Experimental Research, 32(S1):297A (2008) (DOI: 10.1111/j.1530-0277.2008.00688.x)

received an intervention 3 months later, when all patients returned for a follow-up evaluation, during which the ASSIST was re-administered. On average, the group that received brief intervention had significantly lower risk scores at follow-up than the control group. After presenting these results to the health system managers, they showed more interest and motivation for implementing screening and brief intervention techniques than at the beginning of the project. It is concluded that data on the effectiveness of SBI procedures can be influential in convincing health managers to adopt early intervention programs. Besides the level of motivation and skills training of the health professionals, inner organizational and outer societal contexts also influenced SBI adoption in the Brazilian PHC system.

■ KEYWORDS
Brief intervention, BI, ASSIST, alcohol risk-use, implementation program, primary health care system, health professionals, secondary prevention, dissemination

109 largest Brazilian cities showed that 83.5% of men and 68.3% of women reported lifetime alcohol use. Alcohol use was initiated early: 54.3 % of the adolescents aged 12–17 and 78.6% of young adults aged 18–24 reported lifetime alcohol use, and 5.7% and 12% of those age groups, respectively, reported alcohol-related problems. In the adult population, 12.3% fulfilled criteria for alcohol dependence (Carlini et al. 2007). In another study of Brazilian alcohol consumption patterns (Laranjeira et al. 2007), this one having significant methodological differences from the above mentioned study, 48% of the Brazilian adult population could be considered abstinent (35% men, 59% women). Out of the 52% of drinkers, 27% were considered occasional drinkers and 25% reported drinking at least once a week. Risky patterns of drinking were reported by 24% of those surveyed. The authors reported that half of the population does not drink and among drinkers half present a risky pattern, defined as at least 4 standard drinks for women and 5 standard drinks for men, with drinks consumed on the same occasion.

■ Substance use screening and brief interventions in Brazil

In spite of the extent of alcohol-related problems in Brazil, until the 1980s the public health response was mainly directed to primary prevention or to the treatment of alcohol dependent people. One of the first secondary prevention initiatives took place in 1986, at Escola Paulista de Medicina, currently Universidade Federal, in Sao Paulo city, when Dr. Jandira Masur (born 1940–†1990) invited two Canadian researchers, Martha Sanchez-Craig and Adrian Wilkinson, to collaborate in the development of the first Brazilian randomized clinical trial of brief intervention, comparing alcohol counseling with a typical modality of treatment used in Brazilian public health services, at that time, group psychoanalytic psychotherapy (Formigoni 1992; Formigoni & Neumann 1993). The study showed that brief intervention (BI), composed of 3–6 sessions of 45–60 minutes delivered within a 6 month-period, produced similar results to those of Group Psychotherapy, consisting of 15 weekly sessions of 90 minutes each, delivered over a 6 month-period. However, most of the patients who participated in that study were classified as alcohol or drug-dependent, not presenting

the profile of problem-drinking without dependence as proposed in the literature. In spite of this, those patients with alcohol dependence were able to cut down their drinking to about the same degree as Canadian problem drinkers (Sanchez-Craig et al. 1991). The need of aftercare treatment was clear in the follow-up evaluation of these patients, showing that although brief intervention contributed to a significant reduction of substance-related problems in 30–40% of the patients, it was probably not the best intervention option for that population.

One of the greatest difficulties in delivering brief intervention to the target-population, i.e., high risk alcohol and drug users, was early detection. Until the late 1980's, few screening instruments had been translated into Brazilian Portuguese, and most of them were developed to identify alcohol dependent patients (e.g. CAGE and MAST) and were not appropriate for high risk drinkers (Masur & Monteiro 1983; Jorge & Masur 1986). Saunders et al. (1993), supported by the World Health Organization, developed an international screening test for hazardous and harmful alcohol use called the Alcohol Use Disorders Identification Test (AUDIT). The instrument has been found to be reliable and valid in many studies (Reinert & Allen 2007) and is now widely used in primary and other health care settings as part of screening and brief intervention programs (Babor & Higgins-Biddle 2000). In Brazil, Mendez (1999), Mendoza-Sassi et al. (2003) and Lima et al. (2005) translated and validated the Brazilian Portuguese version of AUDIT.

Based on AUDIT's success, the WHO sponsored an international group of substance abuse researchers to develop a reliable and valid screening test for problematic or risky substance use. Called the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), the new screening test was found to be feasible, reliable and valid in primary care settings in a variety of different countries (WHO ASSIST Working Group 2002; Humeniuk et al. 2008). Brazilian researchers, who had been supervised by Masur during their post-graduate training (Souza-Formigoni and Boerngen-Lacerda) were invited by WHO officers to participate in an international multicenter study to provide further validation of the ASSIST. They translated the ASSIST into Brazilian Portuguese and participated in the different phases of the study which tested the validity of the ASSIST and the feasibility of brief interventions linked to the ASSIST, focusing on illicit drugs (cocaine, amphetamines and opiates). (details in http://www.who.int/substance_abuse/activities/assist/en/index.html, WHO ASSIST Working Group 2002; Henrique et al. 2004; Humeniuk et al. 2008).

In 2003 and 2004, researchers linked to Federal Brazilian Universities (Souza-Formigoni and Ronzani from UNIFESP and Boerngen-Lacerda from UFPR) invited health managers from the cities of São Paulo and Diadema in the state of São Paulo and in the city of Curitiba in the state of Parana to participate in the above mentioned international research project sponsored by the World Health Organization (WHO). Brazilian health managers invited by those researchers agreed to allow health professionals to be trained by the researchers' team in order to conduct screening for alcohol and other psychoactive substance

use and to conduct brief interventions (BI). Those health professionals worked at primary health care settings under their supervision. One of the researchers who initially participated in this project (Ronzani) moved to another Brazilian university in Minas Gerais state (Juiz de Fora) and in 2005 was invited by researchers of the University of Connecticut Health Center to participate in an evaluation of large-scale demonstration projects of Screening, Brief Intervention and Referral to Treatment (SBIRT) in developing countries. Another Brazilian site in Ribeirao Preto (linked to the State University of Sao Paulo) and sites in South Africa also participated in that project, which was supported by a grant from the U.S. National Institutes of Health. The experience of the Juiz de Fora, Ribeirao Preto and South Africa has been reported previously (Ronzani et al. 2005; Ronzani et al. 2008; Minto et al. 2007; Peltzer et al. 2006)

Some qualitative methodological techniques (focus groups, for instance) used in the SBIRT project were also added in the ASSIST phase III of the Brazilian project. The main difference was that in Juiz de Fora the training of health professionals was focused only on alcohol screening, using the AUDIT, whereas in S. Paulo, Diadema and Curitiba the training included alcohol and other drugs and the ASSIST test was used to screen patients.

In the present paper, we describe the dissemination of alcohol screening and brief interventions in the Brazilian states of São Paulo and Paraná. The data presented in this communication were collected simultaneously to those collected as part of an international multicenter project, a randomized controlled trial of brief intervention with persons who screen positive for moderate risk for cannabis, opiate, cocaine, or amphetamine-type stimulant use in the ASSIST. Considering the importance of alcohol-related problems in the Brazilian population, we also delivered brief intervention to those patients classified as "alcohol risk-users" by the ASSIST. The general aim of the present paper was to discuss not only the results obtained, but also the inner organization and the outer societal context (including policies, norms and laws) that influence the adoption of alcohol screening, brief intervention, referral and treatment as a standard of care within the regional and/or national health care system, starting with an evaluation of demonstration programs in the Brazilian cities of São Paulo, Diadema and Curitiba.

Methods

■ Training of primary health care professionals

Researchers from the Brazilian Federal Universities of São Paulo and Parana trained 174 professionals (physicians, nurses, orderlies or community health agents) in the use of the ASSIST in order to identify risky use of alcoholic beverages and other substances. Out of those professionals, 71 were from São Paulo, 69 from Diadema and 34 from Curitiba. The professionals came from 17 primary health care units in Diadema (13 from Basic Units of Health and 4 from the Family Health Care Program), four in São Paulo and nine in Curitiba. The 16-hour training included presentations on the main effects of alcohol and other drugs of abuse, the principles of brief intervention and some role-plays of brief intervention. The health

professionals were also trained in the use of ASSIST as well as in the instruments of the research study in a standardized way. Before the training, the professionals completed a questionnaire that assessed their concepts of alcohol and other drugs (Ronzani et al. 2008). According to the WHO research protocol, after the training, the primary health care professionals would apply the ASSIST to their patients seeking general health care. In the international multicenter research protocol, patients who scored in the ASSIST risk zone for illicit drugs were randomly assigned to receive a 30-min brief intervention session immediately after the screening (BI group) or immediately after the re-application of the ASSIST during the follow-up evaluation interview that took place 3 months later (control group). Considering the relevance of alcohol-related problems in Brazil, we also included the alcohol risk-users in the protocol, in addition to illicit drug users and these are the data on which the present paper focuses in on.

■ Supervision of primary health care professionals, data collection and feedback of the outcome

The researchers supervised the data collection, initially once a week, and afterwards every other week. During the supervision sessions the researchers discussed the use of brief intervention techniques and collected the ASSIST questionnaires, which were entered into a database. After the end of data collection, the researchers analyzed the data and invited the health professionals who had been trained, as well as their managers and the Secretary of Health's team, to participate in a meeting where the researchers presented the results of the project. After the presentation, a focus group study was conducted with those professionals in order to identify factors that influenced screening and brief intervention implementation. Two open-ended questions were proposed: *"What were the main obstacles that your healthcare unit faced during the project implementation?"* and *"What were the main aspects that facilitated the project implementation?"*. The discussion included not only the issues related to the professionals' training and skills, but also the societal context, including stigmatization of the patients and inner organizational aspects. In Curitiba, the focus group study was convened with the representatives from each unit. Out of the nine healthcare units that participated in the training, six professionals, one from each unit, attended the meeting. There, the study consisted of a single question. *"What were the main obstacles that your healthcare unit faced during the project implementation?"* Each professional answered the question freely with no time limit for answering. The answers were written down by the interviewer and read later to each participant for approval. Their answers were then interpreted and sorted by two independent researchers according to content.

Results

■ Adherence of health professionals to the protocol

Sixty five (37.4%) of the 174 trained health professionals participated in the study. Participation varied among cities (63% in Diadema, 26.8% in São Paulo and 14.7% in Curitiba). In Curitiba, most of the trained health professionals did not participate in the project. The main reasons were the de-

lay between the training and the beginning of the project (10 months) and the redistribution of 15 professionals (44%) to different healthcare units. Because the WHO project needed to screen a lot of risky drug users as quickly as possible, 12 students and researchers from the Federal University of Paraná were trained to do that work in these nine primary health care units. The average number of screenings conducted by professionals varied considerably across sites. In Diadema, the median number of ASSIST screenings by professionals was 14 (minimum 1-maximum 156, quartile range 29) and in Curitiba the median was 6 (minimum 3-maximum 10, quartile range 5.5).

■ Risk-users detected and follow-up evaluation

The percentage of patients who received a positive score on the ASSIST for alcohol use (i.e. scoring between 11 and 26) was 6.8% of the 1518 patients screened in S. Paulo, 13.3% in Curitiba (out of 1147) and 7.3% in Diadema (out of 1149). Data on illicit drugs were part of the ASSIST project and will not be presented here. After the screening using the ASSIST, the patients who scored within the risk range for alcohol were invited to participate in the research protocol. Of all participants screened, 108 scored between 11 and 26 (moderate risk) for alcohol and agreed to participate. They were randomly allocated to receive a brief intervention immediately after the screening (N=52, BI group) or to receive brief intervention only after the ASSIST re-administration, 3 months later (N=56, control group) when all patients returned for the follow-up evaluation (Vianna 2008). In summary, the brief intervention group was found to have a significantly lower average alcohol ASSIST score at follow-up (52% of the baseline level) than the control group (79% of the baseline level). In addition, whereas 72.6% of the BI group scored in the low risk range (ASSIST score for alcohol <11) at follow-up, only 33.8% of the control group reduced their use to the low risk zone.

■ Feedback from focus groups with health professionals

The positive outcomes reported from the randomized trial of brief intervention for alcohol (described in Vianna 2008) were welcomed by the Diadema´s professionals, as well as by their Secretary of Health's team. In Curitiba, perhaps because the screening was conducted by researchers, the positive outcomes observed, which were presented to the primary health care managers, promoted less impact than that observed in Diadema. Curitiba´s managers declared that they wanted to implement SBIRT officially. Six professionals representing the nine primary health care units in Curitiba participated in the focus group meeting. In general, the majority of health professionals from the 3 cities, especially the community health agents, suggested that they had become aware of the importance of the issue, but they also pointed to difficulties with the implementation. The main problems were the lack of adequate team support (they did not consider themselves "a united team"), the lack of time to perform all the procedures and the lack of physical space that could ensure privacy to do the SBIRT. Another important point was that the project was considered by most of the professionals "a pilot project from the university" and not an "official

health policy" of the service. Other obstacles to implement the project were the lack of staff awareness, lack of time, the belief that the patient lies or does not cooperate, the development of other programs in the unit at the same time, and professionals who are stressed to keep up with the routine schedule.

■ Official implementation of SBIRT in Diadema city

After several months a second phase of the process was started in Diadema city, under the initiative of one of the health system's managers who was highly motivated and who participated from the beginning of the project. She conducted a new training of health professionals from Diadema who had not participated in the first phase. She negotiated the official program character with the Health Secretary and initially implemented the new program in three primary health care units. She trained 45 additional health professionals and was instrumental in developing a plan to have 10 more health care units team trained in order to reach the whole primary health care network. According to the health manager who implemented this second phase of the program, one of the factors that facilitated the SBIRT implementation was the higher motivation of the managers and health professionals after the presentation of the first results and the fact that the training was conducted by an inside person who was aware of how the health system functions. In order to break resistances and overcome barriers from patients reluctant to talk about alcohol or other drug use, the new implementation process included poster advertisements in the waiting room of the public health care units, inviting patients to be screened with phrases such as: "The Health Secretary is concerned about your alcohol and drug use. Do you know how much is too much? Would you like to do a test?"

■ Implementation of SBIRT in São Paulo and Curitiba cities

During the development of the project, the high turnover in the team of managers in S. Paulo and Curitiba hindered the establishment of a permanent commission that should be responsible for the integration, planning, implementation and frequent mobilization of all sectors involved in the project. Perhaps for this reason, the project was considered an "unofficial program," under the responsibility of the university researchers. Although the SBIRT project was considered very important, the professionals had other priorities in their daily practice (such as programs to control diabetes and hypertension, as well as other "official" projects) reducing their available time to do SBIRT. They also pointed to the lack of a comprehensive network to refer dependent patients to as a significant obstacle to implementation. However, in the focus group conducted with the professionals, the local managers participated and demonstrated interest in the implementation of SBIRT strategies as a "routine" procedure not only in the primary health care but also in the admission (screening) stage of the Psychosocial Care Centers, which specialize in alcohol and other drug treatment. On that occasion they also pointed out that the support of the managers was essential to the program's implementation.

Following these developments, the health secretaries in the Greater Curitiba

area supported by the State Health Secretary developed an official pilot program to implement SBIRT. A new training of 110 health professionals was conducted by the Federal University of Parana researchers, which included 48 primary health care centers in the area. The implementation project includes a meeting to give the professionals and the local community feedback about the results obtained from previous research.

■ Impact of the SBIRT dissemination project on Brazil

Although the SBIRT dissemination project did not reach all its original objectives during the initial implementation period, its impact has been noted throughout the regions of the country where dissemination has occurred. SBIRT procedures are now much better known by Brazilian health professionals. Due to the presentation of some of the implementation results of this project as well as the WHO-ASSIST project at national and international scientific meetings, the coordinator of the Sao Paulo site (Souza-Formigoni) was invited by the Treatment and Prevention Director of the National Secretariat of Policy on Drugs (SENAD), an official branch of the Brazilian Presidency, to develop a national distance learning program on SBIRT. In 2006/2007, SENAD sponsored a Distance Learning course called SUPERA (an acronym translated as: System for the detection of abuse and dependence on psychoactive substances; see www.supera.org.br/senad).

The contents of the SUPERA program focus on transmission of useful and current information, taking into account the context of Brazilian society and its health care system. The main parts deal with the process of implementing screening and brief intervention in the daily practice routine. In its initial dissemination, six experienced substance abuse professionals linked to Brazilian Federal Universities participated as regional coordinators in different parts of the country. The SUPERA project, in its first edition (2006–2007) provided SBIRT training for 4000 health professionals associated with public health services, distributed in the 26 Brazilian states. Participants in the initial dissemination gave very positive evaluations of the course and more than 80% were certified after taking a competency exam. The second edition of this course will take place in 2009, as part of a SENAD directors plan to implement SBIRT as an official national strategy.

Discussion

Babor and Higgins-Biddle, in a review published in 2000, emphasized the importance of the context of a public health approach in the dissemination of alcohol brief interventions. They considered this a task that requires cooperation among many organizations, including employers, government agencies, consumers, health management organizations, medical providers, philanthropies and the media. They also highlighted the importance of clinical research on screening and brief intervention, since research may increase professional acceptance and support practice guidelines and accountability standards. According to them, researchers should participate actively in "political" alliances of organizations as partners. Babor & Higgins-Biddle (ibid.) suggest that for a successful screening and brief intervention implementation program, the following levels of soci-

ety should be involved in dissemination strategies: (1) individual practitioners and their patients, (2) health care settings and health systems, and (3) communities and the general population.

Our data are in agreement with their considerations, indicating that the dissemination of a national SBIRT program depends on local policy and its active implementation by a variety of stakeholders. In order to reach this goal many strategies can be used. At the local level, the presentation of empirical findings on the effectiveness of SBIRT procedures can be influential in convincing health managers to adopt early intervention programs. However, other factors such as the inner organization of the health system, and the existence of an adequate venue (isolated place) to perform screening and brief intervention can also be considered essential to the adoption of SBIRT by professionals from primary health care units.

As regards inner organization, similar data as ours on barriers were reported by other authors such as Johansson et al. (2005) who found that, for nurses, the main reasons that prevent them from alcohol screening and intervention included lack of time, lack of self-efficacy, and fear of harming their relationship with the patient. Barry et al. (2004) also reported that lack of time was the most important barrier perceived in a study on the implementation of alcohol screening and brief intervention in primary health care settings. Several authors have proposed ways for overcoming these barriers. Thompson and colleagues (2005) suggested motivating professionals by identifying barriers to application during continuous training programs. Aalto et al. (2005) also proposed increasing motivational skills to overcome the barriers. Other authors have suggested that, in addition to training, constant attendance is necessary to increase health care professionals' involvement (Anderson et al. 2003). Another study suggested introducing methods of detection and intervention into the curricula and continuing education programs of medical schools, nursing schools, and other professional training programs (Babor & Higgins-Biddle 2000).

■ Impact of research on screening and brief intervention on national policy

At the level of national public health policies, it is important to bring together experts in the field with health system managers to adopt successful strategies based on scientific evidence and to provide adequate training. These aspects should be part of a clear policy on alcohol and drugs. During the development of the research projects on ASSIST screening test and on the SBIRT dissemination, Brazilian researchers working with WHO and an international network of clinical researchers presented scientific evidence from both Brazil and other countries at scientific and political meetings, increasing the visibility of the project. They were invited to meetings sponsored by the SENAD in order to develop a National Policy on Alcohol and other Drugs. In November 2005, SENAD, in a partnership with the PAHO (Pan American Health Organization), promoted the First Pan American Conference on Alcohol Policies. Held in Brasilia (Brazil's national capital), a document known as the "Brasilia Declaration on Alcohol Public Policies" recommended that "preventing and reducing alcohol-related harms be con-

sidered a public health priority for action in all countries of the Americas" (Brasil, Secretaria 2005). During that meeting the idea of early identification and brief interventions as harm-reduction strategies was strongly reinforced and adopted as a public health priority. In 2007, SENAD published the revised version of the Brazilian National Policy on Drugs. The Brazilian National Policy on Drugs also emphasizes the relevance of the scientific community in guiding the best opitons of intervention. Besides SENAD, the Brazilian Ministry of Health published a document in 2004 on its Policy on Alcohol and Drugs, in which they mentioned the importance of screening and early treatment (Brasil, Ministério 2004). In summary, the Brazilian policy was influenced by the results obtained in scientific projects, including epidemiological surveys and studies on the effectiveness and dissemination of brief interventions. Currently, there are ongoing studies on the dissemination of SBI. Those studies are supported by the Brazilian government through the analysis of impact of a national training of health professionals on screening and brief intervention distance learning tools, including a web-based course. This way, a virtuous cycle closes itself: research influences policy and the product calls for more research.

Maria Lucia O. Souza-Formigoni
Departamento de Psicobiologia
Universidade Federal de São Paulo (UNIFESP)
Brazil
E-mail: mlosformigoni@unifesp.br
Roseli Boerngen-Lacerda
Departamento de Farmacologia
Universidade Federal do Paraná (UFPR)
Brazil
E-mail: boerngen@ufpr.br
Vânia Patrícia T. Vianna
Departamento de Psicobiologia
Universidade Federal de São Paulo (UNIFESP)
Brazil
E-mail: vianna@psicobio.emp.br

REFERENCES

Aalto, M. & Pekuri, P. & Seppä, K. (2005): Implementation of brief alcohol intervention in primary health care: do nurses' and general practitioners' attitudes, skills and knowledge change? Drug and Alcohol Review 24: 555–558

Anderson, P. & Kaner, E. & Wutzke, S. & Wensing, M. & Grol, R. & Heather, N. & Saunders, J. (2003): Attitudes and management of alcohol problems in general practice: descriptive analysis based on findings of a World Health Organization international collaborative survey. Alcohol and Alcoholism 38: 597–601

Babor, T.F. & Higgins-Biddle, J.C. (2000): Alcohol screening and brief intervention: dissemination strategies for medical practice and public health. Addiction 95: 677–686

Babor T.F. & Caetano R. (2005): Evidence-based alcohol policy in the Americas: strengths, weaknesses, and future challenges. Revista Panamericana de Salud Publica/Pan American Journal of Public Health 18 (4/5): 327–337

Barry, K.L. & Blow, F.C. & Willenbring, M.L. & McCormick, R. & Brockmann, L.M. & Visnic, S. (2004): Use of alcohol screening and brief interventions in primary care settings: implementation and barriers. Substance Abuse 25: 27–36. doi: 10.1300/J465v25n01_05

Brasil. Ministério da Saúde. Secretaria

Executiva. Coordenação Nacional de DST/Aids. (2004): A Política do Ministério da Saúde para atenção integral a usuários de álcool e outras drogas / Ministério da Saúde,Secretaria Executiva, Coordenação Nacional de DST e Aids. – Brasília: Ministério da Saúde, [Available in http://bvsms.saude.gov.br/bvs/publicacoes/pns_alcool_drogas.pdf]

Brasil. Secretaria Nacional Anti-drogas (2005): National Policy on Drugs – [available in http://www.obid.senad.gov.br/portais/OBID/biblioteca/documentos/Legislacao/326981.pdf]

Carlini, E.L.A. & Galduróz, J.C.F. & Noto, A.R. & Fonseca, A.M. & Carlini, C.M.A. & Oliveira, L.G. et al. (2007): II Levantamento Domiciliar sobre o Uso de Drogas Psicotrópicas no Brasil: Estudo envolvendo as 108 maiores cidades do país. São Paulo: Páginas & Letras. [available in http://www.unifesp.br/dpsicobio/cebrid/lev_domiciliar2005/index.htm]

Formigoni, M.L.O.S. (ed.) (1992): A intervenção breve na dependência de drogas: a experiência brasileira. São Paulo: Contexto

Formigoni, M.L.O.S. & Neumann, B.R.G. (1993): Treatment of Drug and Alcohol dependents through Brief Intervention: the first Brazilian experience. In: Monteiro MG, Inciardi JA (eds).Brasil-United States Binational Research – São Paulo, Brasil, CEBRID.

Henrique I.F.S. & De Micheli D. & Lacerda R.B. & Lacerda L.A. & Souza-Formigoni M.L.O. (2004): Validação da versão brasileira do teste de triagem do envolvimento com álcool, cigarro e outras substâncias (ASSIST) Revista da Associação Medica Brasileira 50(2): 199–206. [available in http://www.scielo.br/scielo.php?script=sci_abstract&pid=S0104-42302004000200039&lng=en&nrm=iso&tlng=en]

Humeniuk, R. & Ali R. & Babor, T.F. & Farrell, M. & Formigoni, M.L.O.S. & JJittiwutikarn, J. & Lacerda R.B. & Ling, W. & Marsden, J. & Monteiro, M. & Nhiwatiwa, S. & Pal, H. & Poznyak, V. & Simon, S. (2008) : Validation of the alcohol, smoking and substance involvement screening test (ASSIST) Addiction 103 (6):1039–1047 doi: 10.1111/j.1360-0443.2007.02114.x

Johansson, K. & Åkerlind, I. & Bendtsen, P. (2005): Under what circumstances are nurses willing to engage in brief alcohol interventions? A qualitative study from primary care in Sweden. Addictive Behaviors 30: 1049–53. doi: 10.1016/j.addbeh.2004.09.008

Jorge, M.R. & Masur, J. (1986): Questionários padronizados para avaliação do grau de severidade da síndrome de dependência do álcool. Jornal Brasileiro de Psiquiatria 35:287–92

Laranjeira, R. & Pinsky, I. & Zaleski, M. & Caetano, R. (2007): I Levantamento Nacional sobre os padrões de consumo de álcool na população brasileira. Brasília: Secretaria Nacional Antidrogas-SENAD. [available in http://bvsms.saude.gov.br/bvs/publicacoes/relatorio_padroes_consumo_alcool.pdf]

Lima, C.T. & Freire, A.C.C. & Silva, A.P.B. & Teixeira, R.M. & Farrel, M. & Prince, M. (2005): Concurrent and construct validity of the AUDIT in an urban Brazilian sample. Alcohol and Alcoholism 40 (6): 584–9

Masur, J. & Monteiro M.G. (1983): Validation of the CAGE, alcoholism screening test in brazilian psychiatric inpatient setting. Brazilian Journal Medical Biology 16: 215–8

Méndez E.B. (1999): Uma Versão Brasileira do AUDIT (Alcohol Use Disorders Identification Test) [dissertação]. Pelotas: Faculdade de Medicina, Universidade Federal de Pelotas

Mendoza-Sassi R.A. & Béria J.U. (2003): Prevalence of alcohol use disorders and associated factors: a population-based study using AUDIT in southern Brazil. Addiction 98: 799–804

Minto, E.C. & Corradi-Webster, C.M. & Gorayeb, R. & Laprega, M.L. & Furtado, E.F. (2007): Brief interventions for alcohol abuse in primary health care. Epidemiol. Serv. Saúde 16 (3): 207–220 [available in http://scielo.iec.pa.gov.br/scielo.php?script=sci_arttext&pid=S1679-49742007000300007&lng=en&nrm=iso]

Peltzer, K. & Seoka, P. & Babor, T. & Obot, I. (2006): Training primary care nurses to conduct alcohol screening and brief interventions in South Africa. Curationis 29 (2): 16–21

Reinert, D.F. & Allen, J.P. (2007): The alcohol use disorders identification test: an update of research findings. Alcoholism Clinical and Experimental Research 31 (2): 185–199

Ronzani, T.M. & de Castro, P.M. & Formigoni, M.L.O.S. (2008): Avaliação de um processo de implementação de práticas de prevenção ao uso de risco de álcool entre agentes comunitários de saúde [Evaluation of a process of implementation of techniques of prevention of the harmful use of alcohol in communitarian health agents] HU Revista 34 (1) 39–48. [available in http://ojs.hurevista.ufjf.br/ojs/index.php/hurevista/article/view/66/71]

Ronzani, T.M. & Ribeiro, M.S. & Amaral, M.B. & Formigoni, M.L.O.S. (2005): Implantação de rotinas de rastreamento do uso de risco de álcool e de uma intervenção breve na atenção primária à saúde: dificuldades a serem superadas. Cadernos de Saúde Pública 21 (3): 852–861 [availablein http://www.scielo.br/scielo.php?script=sci_abstract&pid=S0102-311X2005000300019&lng=en&nrm=iso&tlng=en]

Sanchez-Craig, M. & Neumann, B. & Souza-Formigoni, M.L.O. & Rieck, L. (1991): Brief Treatment for alcohol dependence: level of dependence and treatment outcome. Alcohol & Alcoholism Suppl. 1: 515–518

Saunders, J.B. & Aasland, O.G. & Babor, T.F. & de la Fuente, J.R. & Grant, M. (1993): Development of the Alcohol Use Disorders Identification Test (AUDIT): WHO Collaborative Project on Early Detection of Persons with Harmful Alcohol Consumption--II. Addiction 88 (6): 791–804

Thompson, R. S. & Taplin, S.H. & McAfee, T.A. & Mandelson, M.T. & Smith, A.E. (1995): Primary and secondary prevention services in clinical practice: twenty years' experience in development, implementation, and evaluation. Journal of the American Medical Association 273: 1130–1135

Vianna, V.P.T. (2008): Eficácia de uma sessão de intervenção breve na redução do uso de álcool e problemas relacionados. Doctoral thesis. Universidade Federal de Sao Paulo. [available in http://unifesp.phlnet.com.br/cgi-bin/wxis.exe?IsisScript=phl81/052.xis&cipar=phl81.cip&lang=por&pft=decorado&exp=TIT=019554]

WHO ASSIST Working Group (2002): The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST): development, reliability and feasibility. Addiction 97 (9): 1183–1194

World Health Organization (2002): Global Status Report on alcohol 2002. Geneva.