



Symposium: The role of digital approaches to alcohol screening and brief intervention



Digital approaches for people with alcohol problems

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- According to the World Health Organization (WHO) reports there are causal relationships between average volume of **alcohol abusive consumption** and more than 60 types of disease and injury and this is the major avoidable contributor to the burden of global diseases.
- Although there is evidence that **Screening followed by Brief interventions (SBI)** is an important strategy to deal with alcohol risk users in primary care, oftentimes its implementation is a challenge due to insufficient resources or organizational difficulties in health care settings.
- In spite of the potential effectiveness of these interventions in real world situations, when they are applied face-to-face, the effectiveness of **virtual Brief Intervention** approaches still remains unclear.



Web-based interventions

- Web-based interventions have been emerging as a promising approach, **focused on harm reduction or** prevention targeted to at-risk populations.
- There are several **advantages** in the use of electronic screening and brief interventions (e-SBI) over traditional face-to-face approaches, since they are an alternative to people who live in **rural/ isolated areas** or are resistant to looking for help due to the **stigma** associated with alcohol or drug users.



- E-SBI provides anonymous intervention, a **24h/7 days** accessible system at a relatively low implementation cost

2010-2012: The World Health Organization supported the development of a general portal with information on alcohol in which there is a link to a specific self-help program to adult problem drinkers developed in collaboration with universities and research institutes from Brazil, India, Mexico, Belarus and Netherlands. December 2012: The intervention was launched in English, Portuguese, Spanish and Russian



The image shows a screenshot of the Informalcool portal website. The main navigation bar includes links for 'Alcool e Você', 'Para profissionais', 'Políticas e Atividades', 'Novidades', 'Informação e Evidências', and 'Beber menos'. A large orange arrow points from the 'Beber menos' link in the navigation bar to a separate screenshot of the 'Beber menos' program interface. The 'Beber menos' interface features a login section with fields for 'Usuário:' and 'Senha:', a 'Entrar' button, and a 'Registre-se' link. Below the login section is a 'Depoimentos' section with a 'Faça o teste' button. To the right, there is a promotional banner for the 'Beber menos' program, which includes the text 'Bem vindo ao programa de autoajuda Beber menos' and 'Você já pensou: Excesso Beber menos ou parar de beber? Este programa poderá ajudá-lo!'. Below the banner are sections for 'Faça um teste' and 'Para familiares e amigos'.

Informalcool portal
www.informalcool.org.br (Portuguese)
www.alcoholwebindia.in (English)

Beber menos (virtual SBI)
www.informalcool.org.br (Portuguese)
www.alcoholwebindia.in (English)

OBJECTIVES

- 1) To analyze the acceptability of a six-week virtual intervention (www.bebermenos.org.br) for reducing alcohol use;
- 2) To describe the social, demographic and alcohol related-problems profile of the users and to evaluate if it can predict the adherence to the intervention or the success in reducing alcohol consumption.

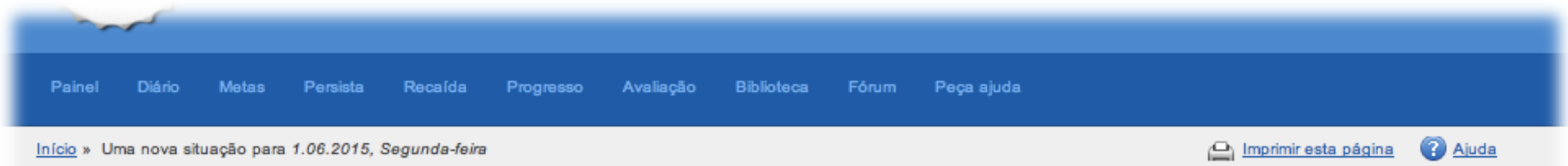
We hypothesized that problem drinkers who adhere to this web-based self-help intervention would reduce their alcohol consumption after the six-week intervention period.

We also expected that users with different levels of severity of alcohol-related problems (evaluated by the AUDIT scores) would present different levels of adherence to the intervention.

METHODS

- The intervention protocol and the site structure were designed based on previous studies from researchers linked to the Dutch *Trimbos Instituut*. The program has three steps to help users to drink less:
- **Step 1: Preparing for Action** (knowing about their alcohol use/ finding out if they are at-risk of having problems related to drinking);
- **Step 2: Goal Setting** (setting weekly goals for them to cut down or stop drinking) and
- **Step 3: Action** (using a Diary to find out more about their drinking; accessing the step-by-step guide with suggestions on how to cut-down or stop drinking; performing exercises to think and feel more positive and not giving up if they slipped or relapsed on some days).

Example of a Diary consumption page



Uma nova situação para 1.06.2015, Segunda-feira

Preencha o quanto você bebeu e em quais situações.

Para isto selecione as bebidas (use a barra de rolagem à direita para ver todas as opções disponíveis) e "arraste-as" até a faixa amarela abaixo de EU BEBI. Ao soltar a faixa ficará verde por algum tempo, indicando que você pode adicionar outras bebidas. Depois de registrar todas as bebidas de uma situação escolha abaixo a descrição de onde, com quem, etc. Para isto, escolha as alternativas e depois passe para a próxima. Ao finalizar clique no sinal verde e então poderá registrar novas situações ou ir para a próxima fase.

- Adicione somente uma situação por vez.
- Após salvá-la, você pode adicionar uma nova situação no mesmo dia ou em outro dia.
- Por exemplo: no mesmo dia, você bebeu em casa e em um restaurante ao final da tarde; estas são duas situações distintas.

Eu bebi

Bebida	Quantidade
Caneca de chop	<input type="button" value="-"/> 1 <input type="button" value="+"/> 2 <input type="button" value="X"/>
Taça de vinho	<input type="button" value="-"/> 1 <input type="button" value="+"/> 1 <input type="button" value="X"/>

Arraste as bebidas até aqui

Total de doses bebidas: 3

Garrafa de bebida Ice 275ml / 4%	Um copo de licor 200ml / 35%	Dose de tequila 35ml / 35%	Caipirinha 150ml / 20%	Garrafa de arak 970ml / 33.5%
 1	 24	 1	 24	 1
Copo de arak 40ml / 33.5%	Garrafa de rum 750ml / 40%	Copo de rum 25ml / 40%	Garrafa de vodka 750ml / 40%	Copo de vodka 25ml / 40%
				

Brazilian site data

Data collected from October, 2013 to January 2015. From those people who accessed the Portal:

- **19,259** filled the Audit-C
- **4,148** people registered to start the intervention
- **1,327** accepted to participate in the study and filled the Full Audit.

Based on their AUDIT scores these users were classified into:

- **Low Risk Users (LRU, n=400, scores < 8)**
- **Harmful/Hazardous Users (HHU, n=431, scores 8 - 19)**
- **Suggestive of Alcohol Dependence Users (SDU, n=496, scores >19).**

Effectiveness of the Intervention

- In order to evaluate the effectiveness of the intervention, we analyzed data from **189 users (HHU=96, SDU=93)** who filled out the evaluation form immediately **after the 6-week period of intervention.**
- A **follow-up form** was filled out **one-month after the end of the intervention** by:
 - 43.8% (N=42) of the HHU group
 - 46.2% (N=43) of the SDU group

Statistical analysis

We considered those users who completed the alcohol consumption diaries both at baseline and six weeks thereafter to have **adhered**.

We considered “**success**” the consumption of not more than 14 standard units of alcohol (if male), or 7 standard units (if female) in the previous week, or having reduced consumption to less than 50% of the baseline levels.

Logistic regression models were conducted to evaluate the **predictors of adherence** to the program (1= completed the intervention 0= did not complete) **and of success** (1=success 2= unsuccessful), considering the following variables as predictors: gender, age, educational level, motivational level (RCQ classification), AUDIT group (LRU, HHU or SDU) and total number of standard drinks before the intervention.

RESULTS

- **Good acceptability:**
 - More than **19,000** people filled the **screening test**
 - **4,148** have **registered to start the intervention**
- **Who uses the site? People from all Brazilian regions:**
47.4% from the Southeast region of Brazil, 17.9% from the Northeast, 21.1% from the South, 4.9% from the Midwest and 4,5% from the North region (**proportional to Brazilian population distribution**).

Table 1. Social and demographic characteristics of the site users. Percentage of users classified according to the AUDIT scores into: **LRU**= Low Risk Users, **HHU**= Harmful/Hazardous Users and **SDU**= Suggestive of Dependence Users.
(Data represent percentages of column)

	LRU N=400	HHU N=431	SDU N=496
Gender			
Female	45.5	43.7	45.6
Male	54.5	56.3	54.24
Educational Level			
Elementary/High School	30.2	28.1	31.4
College/ University	69.8	71.9	68.6
Stages of Readiness			
Precontemplation	14.6	10.4	11.4
Contemplation	61.9	72.8	74.2
Action	23.5	16.8	14.4

Both men and women used the site

Most were about forty years old (mean \pm SEM): SDU= 40 \pm 11; HHU= 38 \pm 10 and LRU= 40 \pm 11

Most with a good educational level and in the “contemplation” phase

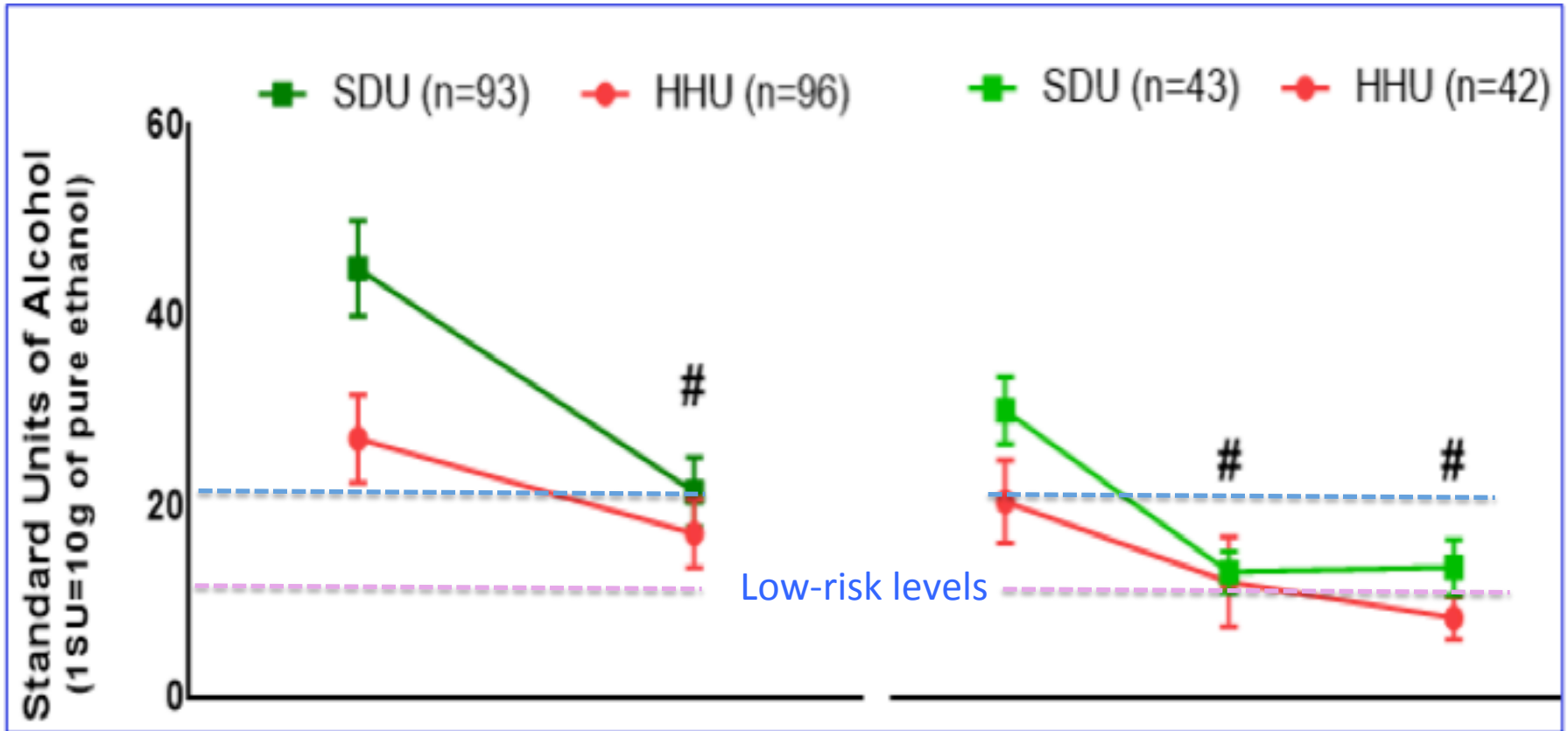
Table 2. Logistic regression models used to study the influence of social and demographic characteristics, as well as alcohol baseline consumption and readiness to change, as predictive factors of adherence and outcome (success).

	Adherence (N= 1,042) OR Adjusted (95% CI)	Success (N= 269) OR Adjusted (95% CI)
Gender		
Female	1	1
Male	0.94 (0.67-1.30)	1.53 (0.79-2.94)
Educational Level		
Elementary/High School	1	1
College/ University	0.97 (0.71-1.33)	0.85 (0.40-1.82)
Drinking behavior Standard drinks in the week before intervention	1.03 (0.99-1.00)	1.11 (1.08-1.15)
AUDIT		
LRU	1	1
HHU	0.61 (0.43-0.87)	0.52 (0.24-1.15)
SDU	0.52 (0.37-0.74)	0.63 (0.28-1.40)
Stages of Readiness		
Precontemplation	1	1
Contemplation	0.84 (0.55-1.30)	0.53 (0.19-1.15)
Action	0.55 (0.33-0.94)	0.56 (0.17-1.93)

No social or demographic characteristics were good predictors of adherence or success

Those classified as “suggestive of dependence” presented lower adherence as well as those in the “action” stage of readiness

Alcohol consumption in standard units of alcohol (mean \pm S.E.M.) reported by the users of the site, classified according to the AUDIT # differs from their baseline levels Low-risk limits: dashed lines (men / women).



BASELINE AND AT THE END OF THE 6-WEEK INTERVENTION

BASELINE, AT THE END OF THE 6-WEEK INTERVENTION AND AT FOLLOW-UP

Reduction in relation to baseline

- HHU users reduced about 36% of their alcohol consumption in relation to their baseline levels
- SDU users did it at a slightly higher rate (48%).
- These reductions were maintained at the follow-up conducted one-month later

Intention to continue to use the program after the 6-week intervention period

(60.7%) intended to continue to use the program
(39.3%) did not intend to continue

Out of these:

- 51.8% had already reach their goal
- 19% considered they needed more intensive care
- 29% other reasons

Conclusions

- To the best of our knowledge, this is the first study on the feasibility, adherence and effect of a web-based intervention directed to alcohol problem drinkers in Latin America and, particularly, in Brazil.
- Considering the high potential of reaching alcohol misusers by Internet and the reasonable effectiveness of web-based interventions, the relatively low adherence to the intervention may be compensated by the high number of people reached.

First paper with the main data

ANDRADE, ANDRÉ LUIZ MONEZI ; DE LACERDA, ROSELI BOERNGEN ; GOMIDE, HENRIQUE PINTO ; RONZANI, TELMO MOTA ; SARTES, LAISA MARCORELA ANDREOLI ; MARTINS, LEONARDO FERNANDES ; BEDENDO, ANDRÉ ; SOUZA-FORMIGONI, MARIA LUCIA OLIVEIRA . **Web-based self-help intervention reduces alcohol consumption in both heavy-drinking and dependent alcohol users: A pilot study.** [Addictive Behaviors, v. 63, p. 63-71, 2016.](#)



**Brazilian team from
3 Federal Universities:**

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Contents lists available at ScienceDirect

Addictive Behaviors

journal homepage: www.elsevier.com/locate/addictbeh



Web-based self-help intervention reduces alcohol consumption in both heavy-drinking and dependent alcohol users: A pilot study



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Next...

- A Randomized Controlled Trial involving the four countries (Belarus, Brazil, India and Mexico) has just started this month (September 15th) and is intended to be complete until March 2018.
- The control group will be directed to a waiting list and will not be exposed to an immediate feed-back. The trial participants only will receive a delayed feed-back at the end of the session.

Institutions participants of the Project

Belarus - The Information and Training Centre of Belarusian Psychiatric Association at the Republican Mental Health Research and Practice Centre

India- National Drug Dependence Treatment Center (NDDTC) at the All India Institute of Medical Sciences

Mexico - Instituto Nacional de Psiquiatria Ramón de la Fuente Muñiz

Brazil - Associação Fundo de Incentivo à Pesquisa, Universidade Federal de Juiz de Fora, Universidade Federal de Sao Paulo and Universidade Federal do Parana

Financial Support



Thank you for you attention!

Merci! **Danke!** **Grazie!** **Obrigada!**

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