Thursday 10.30-11.45 - **Session 2**

EIBI/SBI in emerging economies

Chair: Maristela Monteiro Plenary (Auditori)

Implementation of EIBI in Brazil

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Alcohol and other drugs use in Brazil (people from 12-65 y.o)

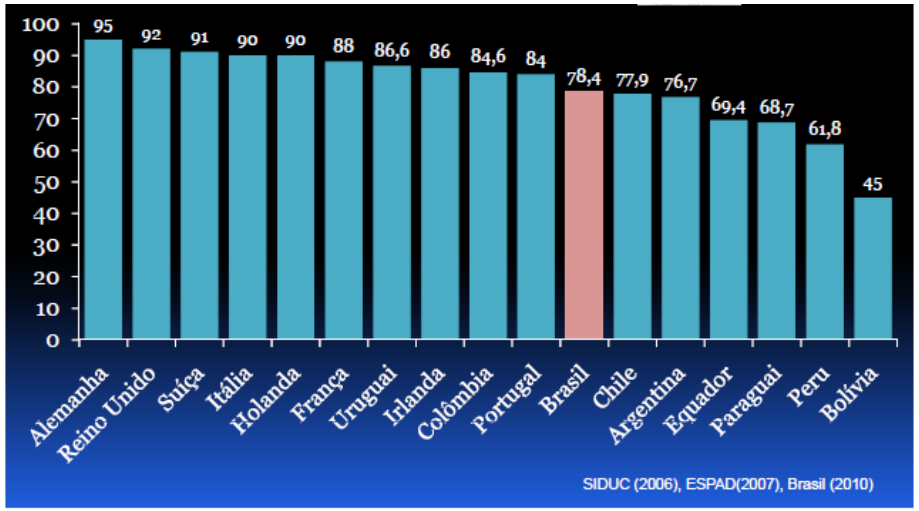
Lifetime use: 74.4% (54.3% of those 12 - 17 y.o.)

Dependence: 12,3% (19.5% men 6.9% women) - **about 6,268,000 inhabitants**

Lifetime use among youth

Alcohol **78.4% (15-16 y.o.) - similar data in comparison with other countries**

Tobacco	10.1%
Cannabis	1.2 %
Benzodiazepines	0.5 %
Inhalants	0.2 %
Stimulants	0.2 %



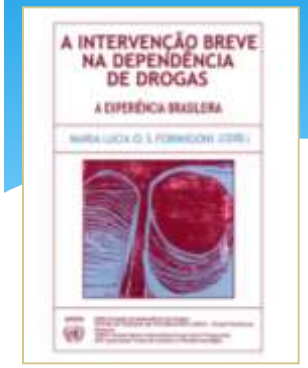
Source:
SENAD, CEBRID "II National household survey on psychotropic drug use in Brazil" (2005)

Early Detection and Brief Intervention may reduce the transition to dependence

- Alcohol and drug-related problems are an important issue which must be faced by **health professionals and social workers.**

- However, in Brazil, most of them did not receive any specialized training courses to deal with people who suffer the consequences of addictive behaviors during their under graduation courses.

Brief Intervention history in Brazil



- Screening and Brief Intervention (SBI) instruments and techniques were introduced and adapted to Brazilian Portuguese and culture by Jandira Masur and colleagues in collaboration with researchers from ARF/Canada (**1988-1990**)

- Since **1998**, Brazilian researchers participated in multicentric projects supported by the Program on Substance Abuse from the World Health Organization (WHO), involving many countries (**1998-2012)**.

Development of the screening test ASSIST

In order to standardize the identification procedures the Brazilian Portuguese version of the ASSIST-WHO screening test was validated as part of a multicentric WHO supported project

ASSIST
– good sensitivity and specificity as a screening test

Addiction
RESEARCH REPORT
doi:10.1111/j.1360-0443.2007.02114.x

Validation of the alcohol, smoking and substance involvement screening test (ASSIST)

Rachel Humeniuk[1], Robert Ali[1], Thomas F. Babor[2], Michael Farrell[3], Maria L. Formigoni[4], Jaroon Jittiwutikarn[5], Roseli B. de Lacerda[6], Walter Ling[7], John Marsden[3], Maristela Monteiro[8], Sekai Nhiwatiwa[9], Hemraj Pal[10], Vladimir Poznyak[8] & Sara Simon[7]

Drug and Alcohol Services Council, Adelaide, Australia,[1] Department of Community Medicine, University of Connecticut Health Center Farmington, CT, USA,[2] National Addiction Centre, London, UK,[3] Departamento de Psicobiologia, Universidade Federal de Sao Paulo, Sao Paulo, Brazil,[4] Northern Drug Dependence Treatment Centre, Chiang Mai, Thailand,[5] Departamento de Farmacologia, Universidade Federal do Parana, Curitiba, Parana, Brazil,[6] Los Angeles Addiction Treatment Research Centre, UCLA, Los Angeles, USA,[7] Department of Mental Health and Substance Abuse, World Health Organization, Geneva,[8] Department of Psychiatry, Medical School, University of Zimbabwe, Harare, Zimbabwe[9] and Department of Psychiatry, All India Institute of Medical Sciences, New Delhi, India[10]

Table 2 Self-reported use of substances compared with presence in hair over the last 3 months.

	Cocaine	*ATS*	*Benzodiazepines*	*Opioids*
TPF percentage (sensitivity)	82%	66%	73%	91%
TNF percentage (specificity)	91%	73%	75%	80%

ATS: amphetamine-type stimulants; TPF: true positive fraction, TNF: true negative fraction. n = 110 for each substance group.

Table 3 Discrimination between use and abuse; abuse and dependence using analysis of variance (ANOVA) and receiver operating characteristic (ROC) analysis.

ASSIST domain	*ROC (AUC)*	*ROC sensitivity (%)*	*ROC specificity (%)*	*ASSIST cut-off score*	*ANOVA Mean diff ($P \leq 0.001$)**
TSI					
Use/abuse	0.84	80	71	14.5	15.5
Abuse/depend	0.73	73	66	28.5	14.3
SSI score for alcohol					
Use/abuse	0.87	83	79	5.5	6.2
Abuse/depend	0.70	67	60	10.5	3.4
SSI score for cannabis					
Use/abuse	0.96	91	90	1.5	8.1
Abuse/depend	0.62	57	61	10.5	2.2
SSI score for cocaine					
Use/abuse	0.95	92	94	0.5	5.4
Abuse/depend	0.84	70	77	8.5	7.4
SSI score for amphetamines					
Use/abuse	0.96	97	87	0.5	7.5
Abuse/depend	0.77	72	68	11.5	5.7
SSI score for sedatives					
Use/abuse	0.96	94	91	0.5	11.1
Abuse/depend	0.45	54	50	10.5	-1.1^{NS}
SSI score for opioids					
Use/abuse	0.97	94	96	0.5	11.9
Abuse/depend	0.74	76	65	14.5	4.2

SSI: Specific Substance Involvement score; Depend: dependence. Participants in the dependence group met independent clinical evaluation (ICE) criteria for current dependence; participants in the abuse group met MINI International Neuropsychiatric Interview (MINI-Plus) criteria for current abuse. NS: not significant. *All analyses significant at $P \leq 0.001$ with the exception of abuse versus dependence for sedatives. Too few cases to undertake analysis for inhalants and hallucinogens. No information available for tobacco. ASSIST: Alcohol, Smoking and Substance Involvement Screening Test; AUC: area under the curve; TSI Total Substance Involvement.

Evaluation of the effectiveness of the Brief Intervention after the screening test ASSIST

(one SBI session applied by Brazilian health professionals -face-to-face training)

for alcohol risk users

– significant reduction in ASSIST scores)

Alcohol ASSIST score (means ± SD)

		Control	Brief Intervention
LOW ASSIST risk score (11-15)	Baseline	12,9 ± 1,2	13,3 ± 1,4
	Follow-up	***10,9 ± 5,7*** #	***6,9 ± 3,9*** ** ##
HIGH ASSIST risk score (16-26)	Baseline	19,8 ± 3	20,7 ± 3
	Follow-up	*14,6 ± 7,1* ##	***10,7 ± 6,9*** * ##

* Differs from control group (*p< 0,05, **p< 0,0005)

differs from baseline (p< 0,05, ## p< 0,0005)

Evaluation of effectiveness of the Brief Intervention after the screening test ASSIST

for illicit drugs risk users

Addiction
RESEARCH REPORT

A randomized controlled trial of a brief intervention for illicit drugs linked to the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) in clients recruited from primary health-care settings in four countries

Rachel Humeniuk[1,2], Robert Ali[1,2], Thomas Babor[3], Maria Lucia O. Souza-Formigoni[4], Roseli Boerngen de Lacerda[5], Walter Ling[6], Bonnie McRee[7], David Newcombe[1,2,10], Hemraj Pal[1,8], Vladimir Poznyak[9], Sara Simon[4] & Janice Vendetti[3]

Table 1 Total illicit substance involvement scores—brief intervention and control group means at baseline and follow-up by country compared using two-way repeated-measures analysis of variance (ANOVA) (intention-to-treat analysis).

	Intention-to-treat analysis/ANOVA total illicit substance involvement scores					
	n	*Baseline score (SD)*	*Follow-up score (SD)*	*Mean effect size (% decrease)*	*Interaction effect[a], P power*	*Interaction by country effect, P*
Australia						
BI	86	46.8 (19.3)	39.0 (17.6)	16.7%	$F = 14.9$, $P < 0.001$, power = 97%	
Control	84	43.7 (18.4)	42.7 (20.0)	2.3%		
Brazil						
BI	94	29.2 (14.4)	21.8 (13.9)	25.3%	$F = 9.5$, $P < 0.005$, power = 86%	
Control	71	24.7 (11.9)	22.6 (11.8)	8.5%		$F = 6.5$, $P < 0.001$
India						
BI	89	34.7 (14.0)	26.5 (13.1)	23.6%	$F = 9.4$, $P < 0.005$, power = 86%	
Control	88	34.8 (14.7)	31.2 (13.5)	10.3%		
USA						
BI	103	34.9 (22.3)	31.1 (19.7)	10.9%	$F = 2.5$, $P = 0.11$, power = 35%	
Control	115	39.0 (24.6)	31.3 (18.7)	19.7%		
Pooled						
BI	372	36.1 (18.9)	29.5 (17.5)	18.3%	$F = 7.4$, $P = < 0.01$, power = 77%	
Control	359	36.2 (19.9)	32.2 (17.9)	11.0%		

[a]Interaction of time and experimental condition in predicting total illicit substance involvement score. BI: brief intervention; SD: standard deviation.

In Brazil and India BI effect sizes were a bit higher (23-25%) than in other countries (on average *18%*).

Cultural differences?
Different levels of motivation or needs?
Different kind of problems/ drugs ?

Effectiveness for other drugs

Table 2 Cannabis-specific substance involvement scores—brief intervention and control group means at baseline and follow-up by country compared using two-way repeated-measures analysis of variance (ANOVA) (intention-to-treat analysis).

	Intention-to-treat analysis—cannabis scores					
	n	Baseline score (SD)	Follow-up score (SD)	Mean effect size (% decrease)	Interaction effect[a], P, power	Interaction by country effect, P
Australia						
BI	17	20.2 (5.3)	17.2 (6.1)	14.9%	$F = 2.6$, $P = 0.12$, power = 34%	
Control	14	19.4 (7.6)	19.0 (7.6)	2.1%		
Brazil						
BI	67	13.3 (6.5)	9.3 (8.2)	30.0%	$F = 9.5$, $P < 0.005$, power = 86%	
Control	45	12.0 (6.0)	12.0 (7.1)	0.0%		$F = 5.9$, $P < 0.001$
India						
BI	54	22.8 (2.0)	18.9 (6.1)	17.1%	$F = 10.8$, $P < 0.001$, power = 90%	
Control	52	22.3 (2.5)	21.8 (4.9)	2.2%		
USA						
BI	74	16.8 (7.7)	15.1 (9.5)	10.1%	$F = 3.0$, $P = 0.08$, power = 41%	
Control	72	16.2 (6.7)	12.3 (7.0)	24.1%		
Pooled						
BI	212	17.5 (7.1)	14.4 (8.9)	17.7%	$F = 4.0$, $P < 0.05$, power = 52%	
Control	183	17.1 (6.8)	15.4 (7.9)	9.9%		

[a]Interaction of time and experimental condition in predicting cannabis-specific substance involvement score. BI: brief intervention; SD: standard deviation.

Table 3 Stimulant-specific substance involvement scores—brief intervention and control group means at baseline and follow-up by country compared using two-way repeated-measures analysis of variance (ANOVA) (intention-to-treat analysis).

	Intention-to-treat analysis—stimulant scores					
	n	Baseline score (SD)	Follow-up score (SD)	Mean effect size (% decrease)	Interaction effect[a], P, power	Interaction by country effect, P
Australia						
BI	68	16.8 (7.1)	11.9 (7.3)	29.2%	$F = 8.5$, $P < 0.005$, power = 83%	
Control	70	15.5 (6.8)	13.7 (7.7)	11.6%		
Brazil						
BI	27	15.7 (6.9)	6.5 (5.7)	58.6%	$F = 7.0$, $P < 0.01$, power = 74%	$F = 2.8$, $P = 0.06$
Control	26	11.1 (6.0)	7.7 (6.1)	30.6%		
USA						
BI	23	20.9 (7.9)	16.2 (11.8)	22.5%	$F = 0.08$, $P = 0.8$, power = 6%	
Control	33	18.5 (7.6)	13.2 (10.5)	28.6%		
Pooled						
BI	118	17.3 (7.4)	11.5 (8.6)	33.5%	$F = 9.4$, $P < 0.005$, power = 86%	
Control	129	15.4 (7.2)	12.4 (8.5)	19.5%		

[a]Interaction of time and experimental condition in predicting stimulant-specific substance involvement score. BI: brief intervention; SD: standard deviation.

ASSIST-linked brief Intervention

(on average 15 minutes)
significantly reduced illicit substance use and associated risk among clients recruited from a range of primary health-care settings and countries.

4 Opioid-specific substance involvement scores—brief intervention and control group means at baseline and follow-up by ry compared using two-way repeated-measures analysis of variance (ANOVA) (intention-to-treat analysis).

	Intention- to-treat analysis—opioid scores					
	n	Baseline score (SD)	Follow-up score (SD)	Mean effect size (% decrease)	Interaction effect[a], P, power	Interaction by country effect, P
	35	22.7 (2.6)	13.0 (8.6)	42.7%	$F = 7.6$, $P < 0.01$, power = 78%	
trol	36	22.5 (2.2)	18.2 (7.8)	19.1%		

ction of time and experimental condition in predicting opioid-specific substance involvement score. BI: brief intervention; SD: standard deviation.

The Brazilian challenge: how to train a huge number of professionals in a big country?

* Brazilian researchers have trained health professionals in the Screening of alcohol risk users and in Brief Interventions techniques, using face-to-face courses, but the number of trained professionals was not enough to supply the health system needs.

The Brazilian challenge: how to train a huge number of professionals in a big country?

2004: Brazilian Government challenge: to provide training on SBIRT (Screening, Brief Intervention and Referral to Treatment) for health professionals, social workers and community leaders from all Brazilian states, to deal with alcohol and other drugs associated problems

2005: The National Secretary on Drug Policy (SENAD) established a partnership with the Universidade Federal de São Paulo (UNIFESP) to develop a Distance Learning Course for health professionals - **SUPERA** (an acronym in Portuguese meaning: System for detection of abusive Use and dependence on Psychoactive substances: Brief Intervention, Social reinsertion and follow-up)

SUPERA Didactic materials

SUPERA 1st edition didactic materials:

- 6 books
- Internet site: with theoretical contents and discussion forums
- call-center (0800) with trained tutors
- tele/webconferences with AOD specialists
- videos with 4 examples of SBI cases:

1) old man with alcohol problems; 2) adult man cocaine user; 3) adult woman BDZ + amphetamine user and 4) young boy cannabis user)

Two distance Learning Courses: SUPERA and Faith on Prevention

2006: SUPERA 1st edition: 5,000 professionals were selected to participate in the course and 3,927 (79.6% of the ones enrolled /84.2% of the ones who started) successfully completed the course.

Total cost (direct + indirect costs) by student who completed the course: USD 110

2008 and 2009: SUPERA 2nd and 3rd editions - 5.000 health professionals/edition
Faith in Prevention – 1st edition –to community and religious leaders
Basic knowledge on drug effects, Screening and Brief Intervention

***Faith in Prevention didactic* material:**
Text *book and booklets to be delivered to general population + 4 SBI videos + Internet site (with tutors support + discussion forums)*

2011-2012 - more than 50,000 professionals applied to the 4th edition of the SUPERA course and more than 15,000 to the 2nd edition of Faith in Prevention. From those who started the course most of them concluded it successfully (84% of those from the SUPERA and 78% of those from the FAITH IN PREVENTION courses).

Dissemination of SBI in Brazil:

More than 16,000 professionals who successfully completed the "SUPERA" course and 8,000 community and religious leaders who completed "Faith in Prevention" are distributed in more than 1,900 the Brazilian cities (in red the numbers of cities with trained participants in the region). Some professionals from other South America countries also participated.
An international edition (English/Spanish) is being prepared to be launched in 2013-2014.
Brazil had 192 million inhabitants in 2010.
In the insert, map of Brazilian population distribution. http://batchgeo.com/map/6eb12df9d15c0225d4dcb25a63577ec3

Brazilian government strategy to deal with AOD problems

•The Brazilian government strategy to deal with AOD problems includes the continued education of a network of professionals from health, social work, education, legal system areas as well as community and religious leaders, in order to prepare them to deal with this issue, using an **interdisciplinary approach.**

• They demonstrated a **good acceptance of and adherence to distance learning courses** for training on SBI for AOD related problems.
• In all editions the **adherence was high, on average about 80%** of those who started the course.

• A qualitative analysis of the forums contents showed **most of the participants were enthusiastic about participating in a network to deal with AOD related problems.**
•Th e adoption of these techniques in their routine and the effectiveness of the training provided is being evaluated.

Results after the first edition of SUPERA

80.6% used SBI techniques in their workplace

23.9% used the structured method

54.6% had made adaptations to their worksettings (schools, NGO, etc.)

Average of people screened by participant (3 month period):**37.5** (SD=67)

Average of brief intervention delivered: **36.4** (SD=50)

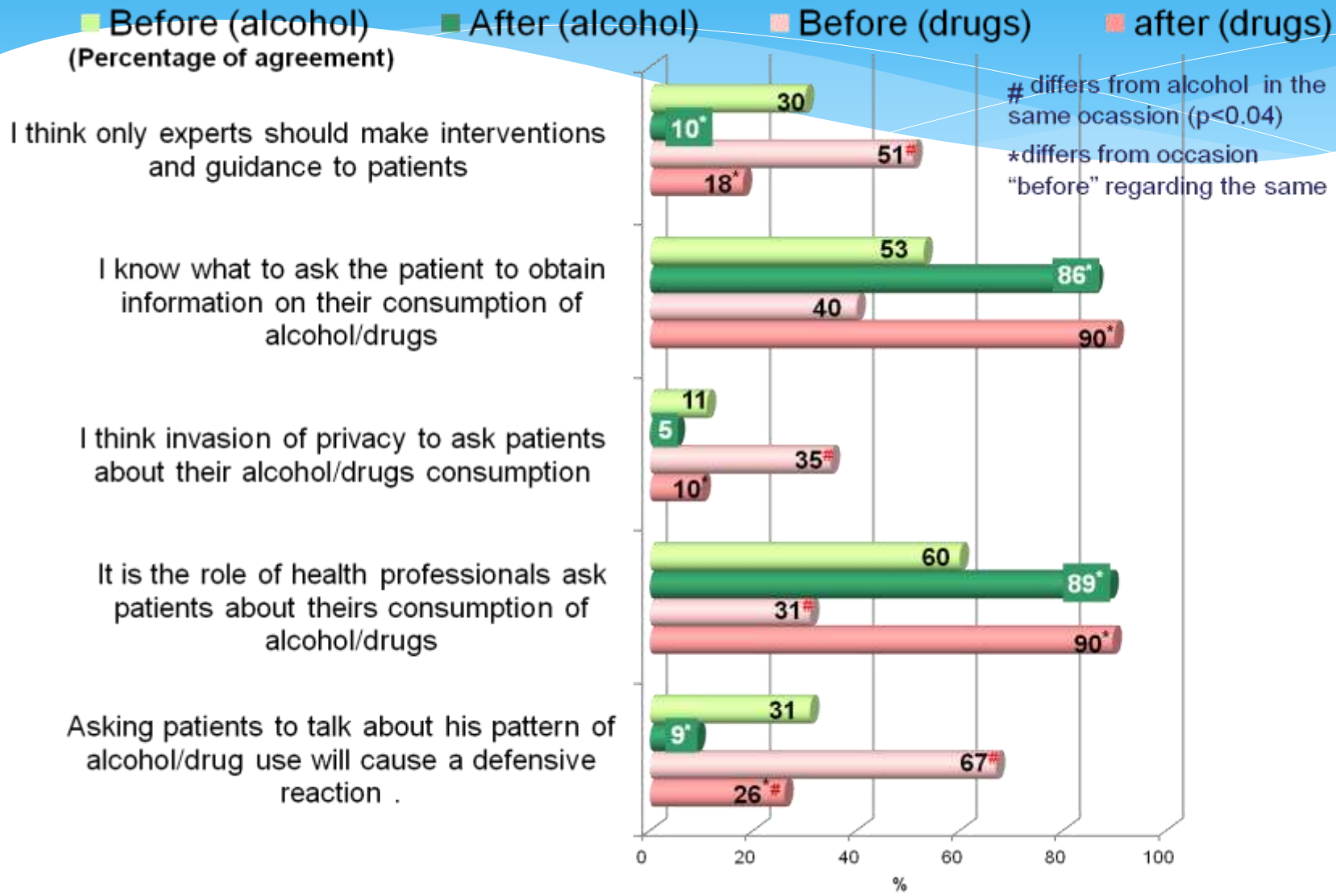
Facilitators and main barriers reported (by SUPERA participants)

Binary logistic regression model (0=not used vs. 1=used SBI)
Hosmer and Lemeshow Test: X2(df=7)=13.04; p=0.071

1= facilitated 0= made it difficult

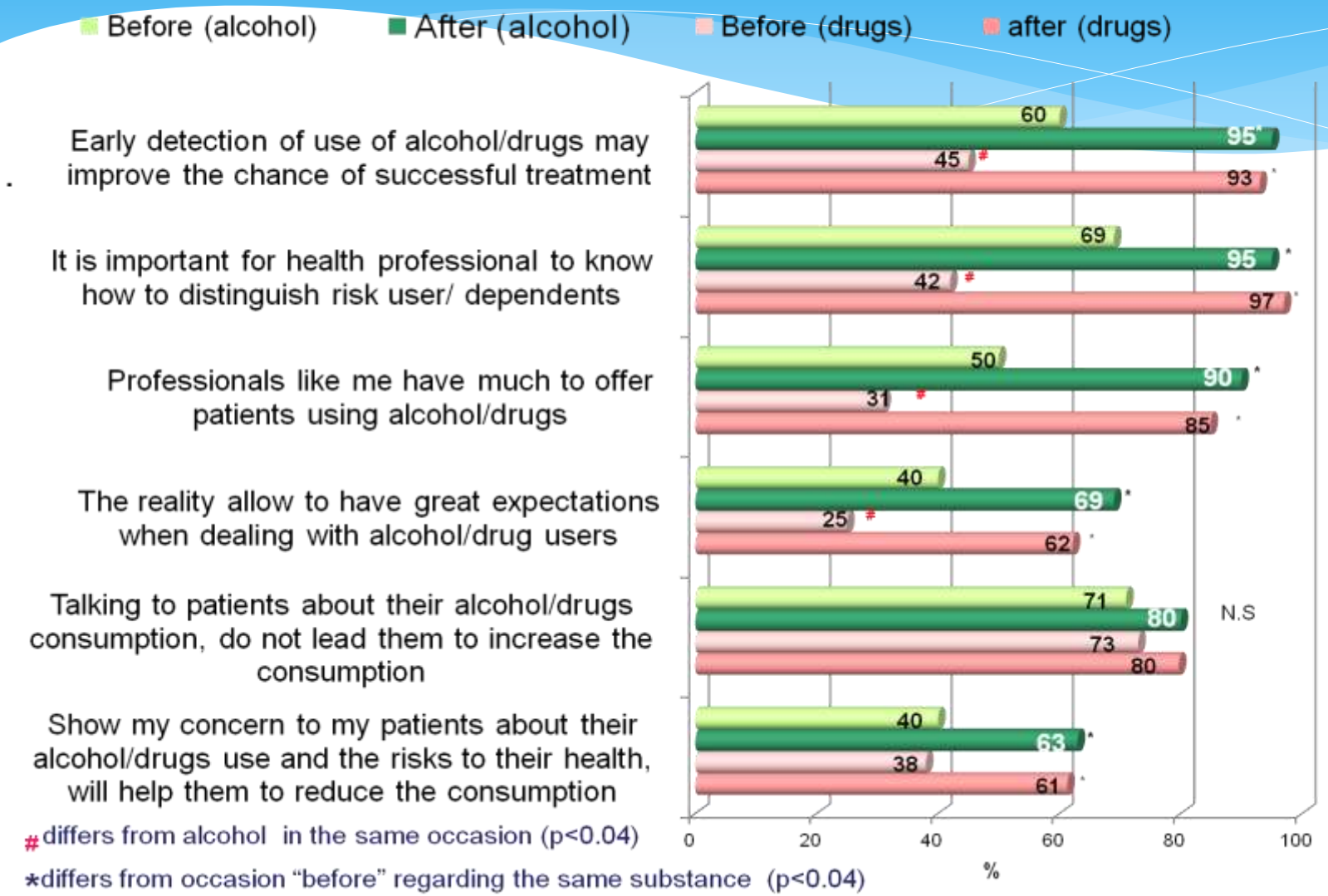
Workplace characteristic	O.R.	95% C.I.		p
Municipal health management	1.97	0.97	3.99	0.060
Existence of a similar program in their service	1.04	0.54	1.99	0.909
Management of the service	0.81	0.44	1.52	0.517
Work organization	**1.71**	**1.08**	**3.47**	**0.026**
Number of tasks under their responsibility	0.97	0.45	2.11	0.939
Co-workers' support	1.20	0.69	2.09	0.528
Infrastructure	1.09	0.53	2.24	0.818
Available time	**0.45**	**0.23**	**0.90**	**0.024**
Service users' attitudes regarding the program	**2.97**	**1.74**	**5.09**	**0.001**

Self-evaluation of 2nd edition SUPERA participants
(before and after the course)



Self-evaluation of 2nd edition SUPERA participants
(before and after the course)

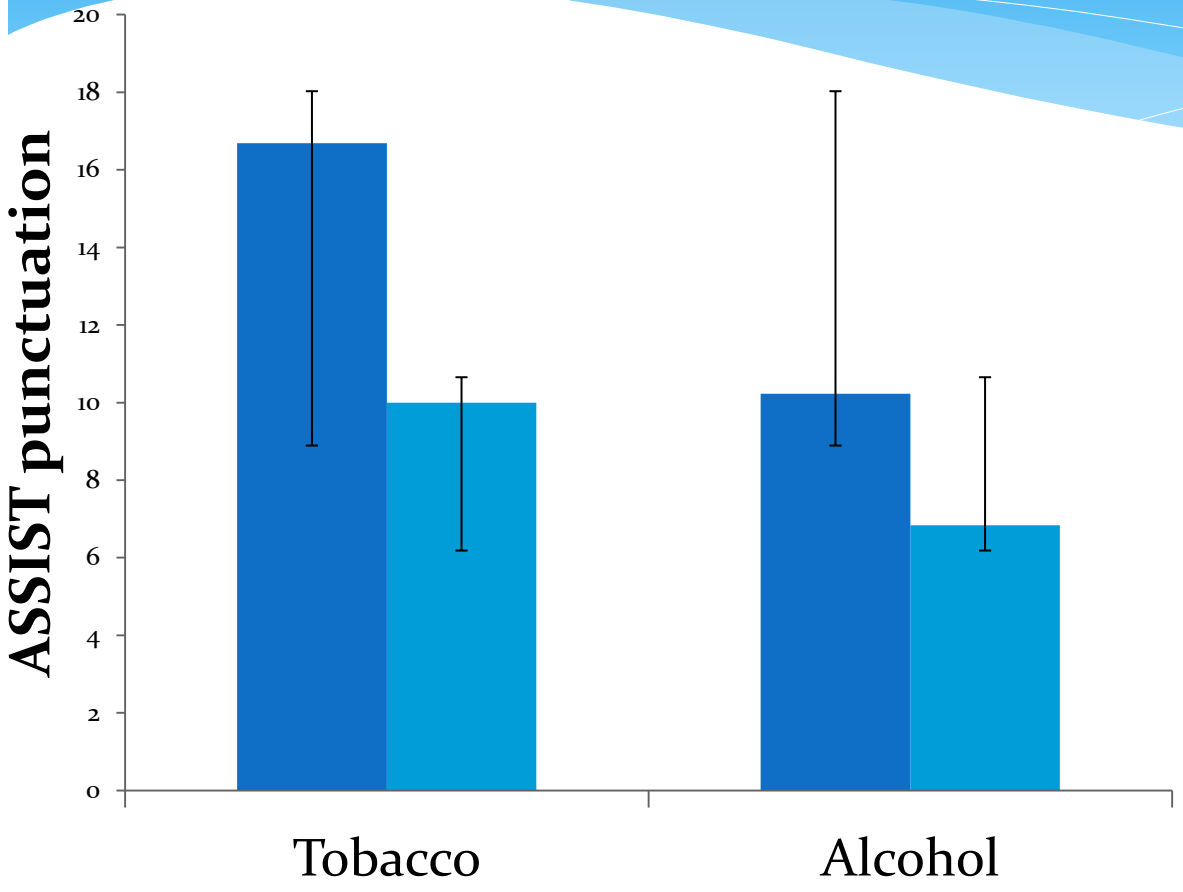
Professional's beliefs on SBI procedures. Percentage of agreement.



#differs from alcohol in the same occasion ($p<0.04$)

*differs from occasion "before" regarding the same substance ($p<0.04$)

Preliminary results – effectiveness of SBI applied by health professionals trained by the distance learning course SUPERA (N=18-20)



If the effectiveness is a bit lower than face-to-face training, other tools as personal support by Internet chat with experienced professionals will be developed

New challenges

* To evaluate the effectiveness of Brief Intervention applied by professionals and community/religious leaders trained by distance learning courses.

* To stimulate the development of a network composed by health professionals, community and religious leaders, educators and legal officers able to identify and provide Brief Intervention to alcohol and other drugs risk users.

THANK YOU!

SUPERA and Faith in Prevention Teams

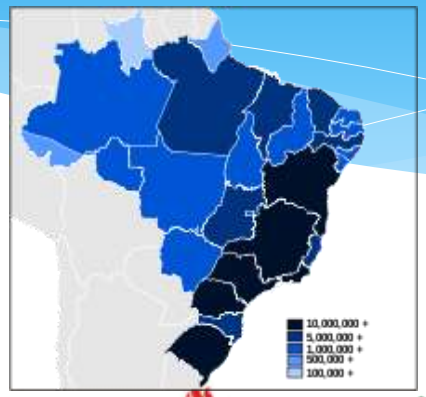
Financial support:

- SENAD (Secretaria Nacional de Políticas sobre Drogas)- Ministério da Justiça do Brasil
- AFIP (Associação Fundo de Incentivo à Pesquisa)

To the five other Brazilian Federal Universities worked as regional centers in the most inhabited Brazilian States:

Universidade Federal de Juiz de Fora

Minas Gerais



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- And YOU for your attention

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