



Impact of training health-care professionals in brief intervention of smoking cessation on hospitalized patients

Authors:

Gual, A; Ballbè, M; Nieva, G; Mondon, S; Walther, M; Saltó, E.

26th October 2006 - Lisbon



Presentation Outline

- Background
- Objective
- Methods
- Results
- Conclusions



Objective

To evaluate changes in perceived knowledge, attitudes and actions in health care professionals, after offering them training in brief intervention for smoking cessation.



Background

- Smoking is the first cause of evitable death in the world (WHO, 2002).
- In-patient settings offer a great opportunity for smoking cessation interventions (Fiore et al., 2000).
- Smoking might interfere the recovery of in-patients, yielding longer hospitalization and greater economic burden (Chang et al., 1996; Browman et al., 1993; Lavernia et al., 1999)
- Brief interventions on in-patients and after a 1 month follow-up have proved their effectiveness (Rigotti et al., 2003).
- Lack of training is the main barrier for the promotion of smoking cessation (Twardella et al., 2005).



Methods

Subjects

In-patients from 5 hospital wards:

Psychiatry, Traumatology, Gynecology, Obstetrics and Internal Medicine:

- Basal evaluation: **170** in-patients recruited
22,9% men / 77,1% women
mean age=51,4; SD=20,4
- Final evaluation: other **170** in-patients recruited
30,6% men / 69,4% women
mean age=48,9; SD=20,6



Methods (cont'd)

Subjects (cont'd)

Health care professionals from the same 5 hospital wards

-Basal evaluation: **66** health care professionals

-Final evaluation: the same professionals were re-interviewed (with 7 drop-outs), for a final *N* of **59**.

33,3% doctors

48,5% nurses

18,1% other

84,8% women

15,2% men

mean age=51,4; SD=38,5



Methods (cont'd)

Instruments

PATIENTS - self-administered questionnaire

Personal data

Smoking status (NS, ES, CS)

Received 5 A's from professionals

For smokers:

Heatherton dependence index



Previous attempts to quit

Willingness to quit (state of change).



Method's (cont'd)

Instruments

PROFESSIONALS - self-administered questionnaire

- Personal data
- Implementing 5 A'S in two situations:
When patients suffer/don't suffer from pathologies related to smoking.
- Perceived knowledge about pharmacological and psychological skills
- Importance of the model function of professionals.
- Smoking status
- For smokers: as in the patient's questionnaire



Methods (cont'd)

Training

Content:

- Importance of promoting smoking cessation in hospitalization settings.
- Tobacco addiction mechanisms.
- Pharmacological therapy.
- Psychological skills.
- Brief intervention:
 - 5 A's
 - 5 R's



Methods (cont'd)

Training

WHO recommends: brief and systematic intervention described in 5 different steps (5 A's):

ASK and record it
ADVISE
ASSESS
ASSIST
ARRANGE follow up

WHO. *Evidence based core recommendations for health care systems in Europe.* Partnership Project to Reduce Tobacco Dependence. February, 2001.



Methods (cont'd)

Training

And the 5 R's for smokers who reject to quit smoking:

Relevance
Risks
Rewards
Roadblocks
Repetition



Method's (cont'd)

Procedure (internal marketing)

- 1 Introducing the project to the Smoke-Free Hospitals Commission.
- 2 Introducing the training project to the 5 Department's Chiefs by the Chief of the project.
- 3 Information briefing with head doctors and head nurses of each hospital ward.
- 4 Information about the training session to the health care professionals through posters & mailing.
- 5 Giving CME credits to the participants.



Method's (cont'd)

Procedure

Administration of
base-line questionnaires





Results

BASELINE RESULTS



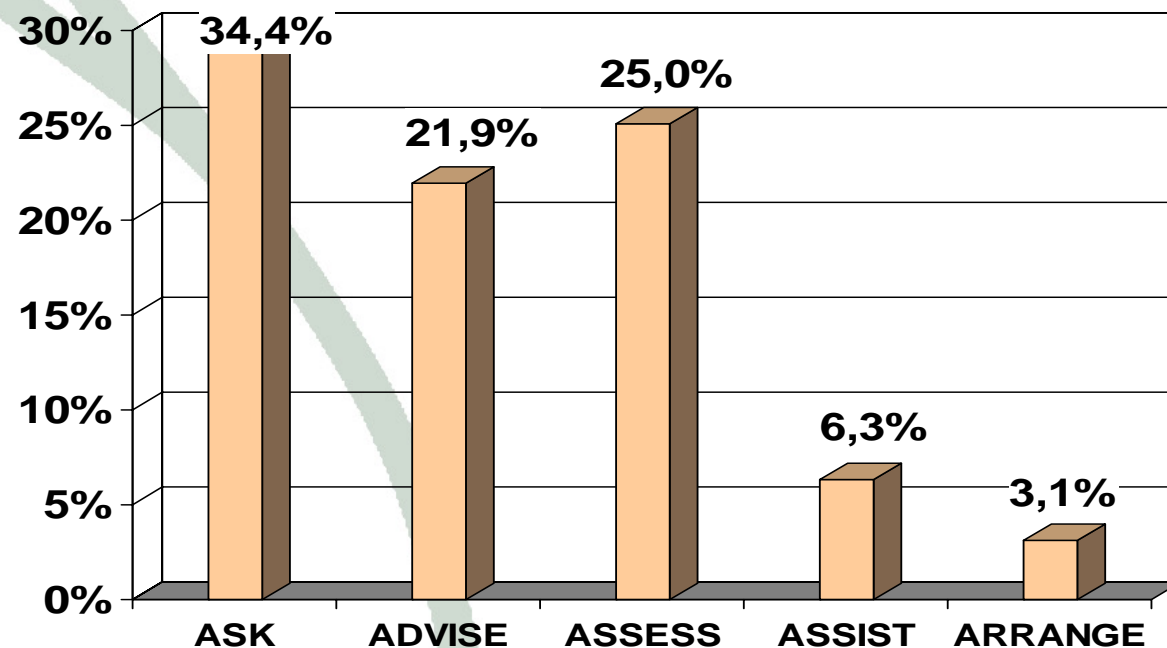
Baseline results (patients)

29,5% of in-patient smokers referred their will of not smoking once they went back home.

BUT JUST...

Among the smokers

Received:





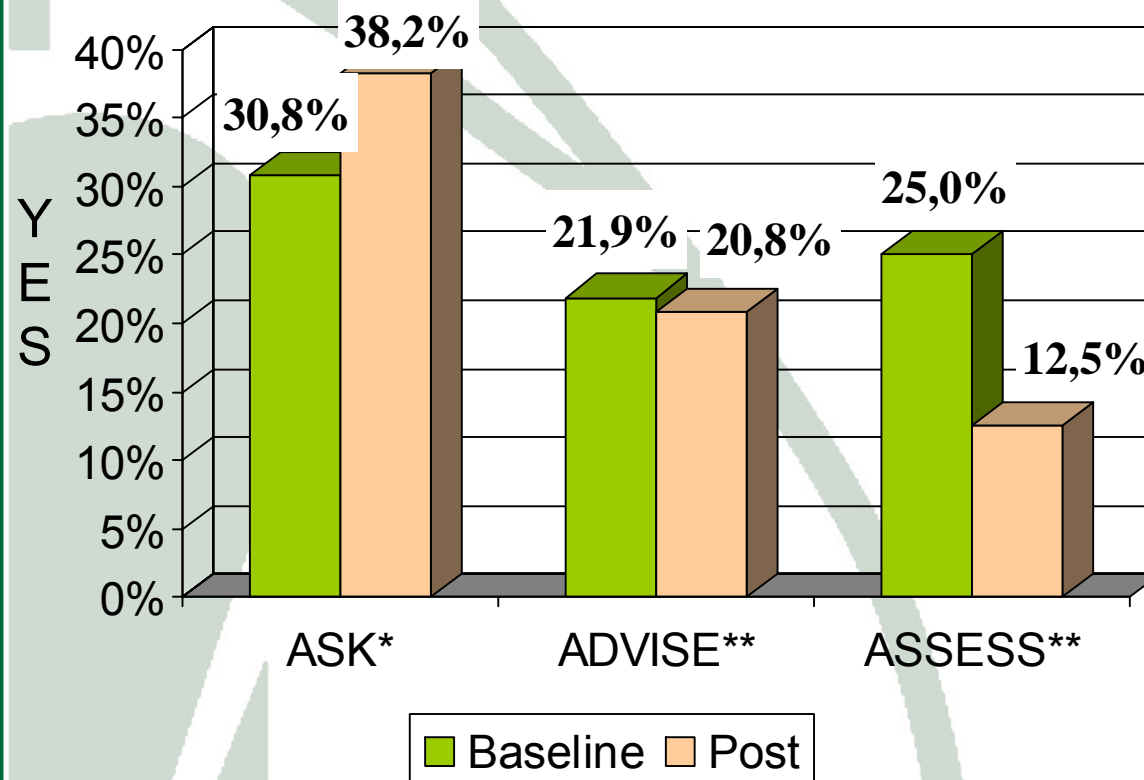
Results (patients)

1. PATIENTS
Comparative results (baseline vs post)



Results (patients' report)

Were patients **ASKED**, **ADVISED** or **ASSESSED**?



No significant differences were found in ASK, ADVISE and ASSESS before and after training

* n=all patients

** n=smokers



Results (patient's discharge report)

No significant differences were found regarding the record of the smoking status in the patient's discharge report:

Record status	Baseline	POST
YES	73,4%	65,9%

No significant differences were found regarding the record of any advise or arrangement of follow-up in the patient's discharge report:

Record advise/follow up	Baseline	POST
YES	0%	1'9%



Results

2. HEALTH CARE PROFESSIONALS **Comparative results (baseline vs post)**



Results

% of professionals in each ward that attended the training:

	Psychia-try	Internal Medicine	Gyneco-logy	Obste-trics	Trauma-tology	Total
Doctors	(7/6) 100%	(4/7) 57,1%	(0/6) 0%	(9/3) 100%	(0/2) 0%	83,3%
Nurses	(8/8) 100%	(9/11) 81,8%	(4/14) 28,5%	(12/36) 33,3%	(7/16) 43,7%	47,0%
TOTAL	(14/14) 100%	(13/18) 72,2%	(4/20) 20%	(21/39) 53,8%	(7/18) 38,8%	54,1%
Others	1	0	0	0	0	--



Results (Professionals' report)

Significant differences were found in perceived knowledge about pharmacological and psychological skills before and after training:

($p=0,006$; $df=1$)

Psychol. skills	Baseline	POST
High - quite good level	25,8%	49,2%

($p=0,002$; $df=1$)

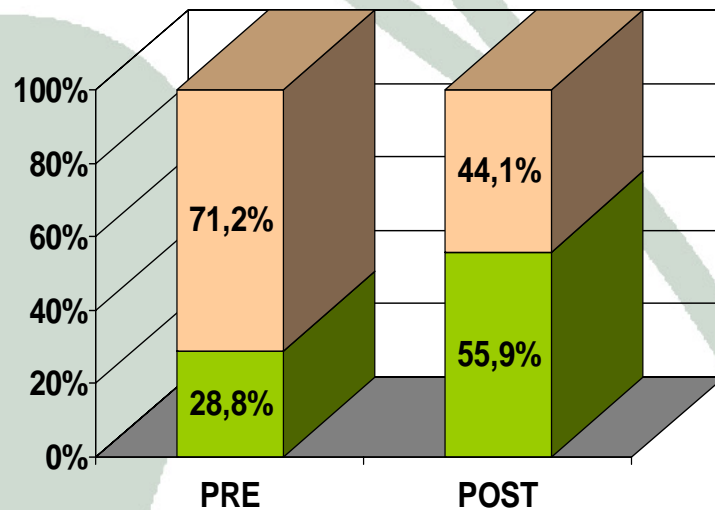
Pharmacol. skills	Baseline	POST
High - quite good level	28,8%	55,9%



Results (Professionals' report)

Significant differences were found in perceived knowledge of skills before and after training:

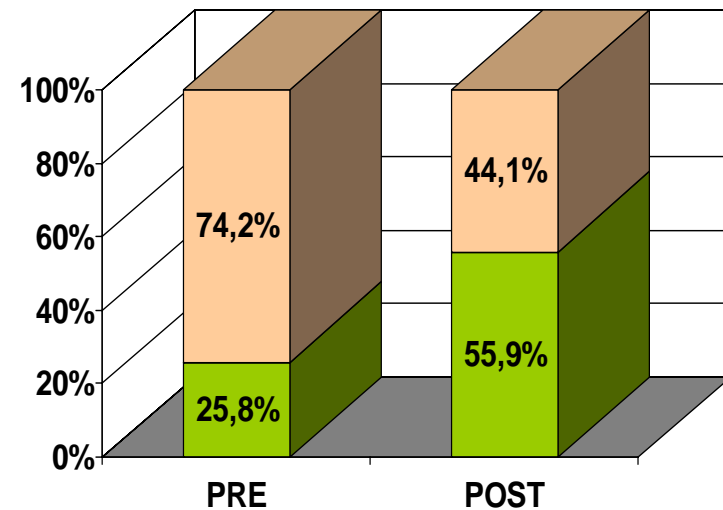
Pharmacological skills



■ Good - quite good ■ Poor - none

($p=0,006$; $df=1$)

Psychological skills



■ Good - quite good ■ Poor - none

($p=0,002$; $df=1$)



Results (Professionals' report)

No significant differences were found for ASK, ADVISE, ASSESS, ARRANGE and RECORD between pre-evaluation and post-evaluation.

Significant differences were found for these variables depending on patient's disease (smoking related diseases or not).



Results (Professionals' report)

Pre

Always - often	Smoking disease	No smoking disease	p
Ask	53,1%	39,7%	p=0,011; df=4
Advise	75,4%	31,3%	p=0,002; df=4
Assess	43,1%	17,2%	p=0,001; df=4
Assist	24,6%	10,9%	p=0,000 df=4
Arrange	40,0%	9,4%	p=0,000 df=4



Results (Professionals' report)

Post

Always - often	Smoking disease	No smoking disease	p
Ask	61,4%	45,8%	p=0,001 df=4
Advise	69,0%	27,1%	p=0,017 df=4
Assess	49,1%	17,2%	p=0,000 df=4
Assist	34,5%	15,5%	p=0,000 df=4
Arrange	51,7%	13,8%	p=0,000 df=4



Results (Professionals' attitudes)

- 35,4% of the professionals are current smokers. Do they want to quit?

No significant differences

INTENTION	Baseline	Post
YES In 1 month	9,5%	19,0%
YES In 6 months	47,6%	61,9%

- Do professionals consider important their model function?

No significant differences

IMPORTANCE	Baseline	Post
High- quite high	74,2%	87,3%



Results (Professionals' report)

Model function: After training, non-smoker professionals give significantly more importance to the model function

($p=0,039$; $df=2$)

IMPORTANCE	Smokers prof.	Non-smokers prof.
High - quite high	82,6% → 75,0%	80,0% → 94,3%
Low - non	17,4% → 30,0%	20,0% → 5,7%

Baseline data. POST training data in *italics*



Conclusions

Results regarding intervention referred by patients and professionals are congruent and similar to other found in the literature:

- Low levels of activity of professionals in the promotion of smoking cessation in hospital settings (Emmons et al., 1992; Houston Miller et al., 1997; Rigotti et al., 1997).
- Even lower levels of activity when patients who smoke do not currently suffer conditions related to smoking (Nicholson et al., 2000; Frank et al. 1991).



Conclusions

- Short-timed training in brief intervention of smoking cessation substantially improved perceived knowledge about psychological skills and pharmacological resources in health care professionals.
- The systematic promotion of smoking cessation remains unchanged and low after training.
- Although proved necessary: training does not imply an implementation of what has been learned or a significant change in actions and attitudes.



Conclusions (cont'd)

Hospital practice focuses on treating pathologies
Preventive interventions are commonly forgotten.

Patients who smoke but are not currently suffering
conditions related to smoking → generally don't
receive intervention in smoking cessation

Quite often professionals do not help patients to quit
smoking even when they suffer conditions related to
smoking and may be willing to quit.



Conclusions (cont'd)

Some barriers spontaneously referred by professionals who were interviewed in our study were:

- Lack of time
- Lack of coordination between doctors and nurses
- Smoking status not considered formally in the first evaluation formulary
- Lack of interest
- Not having an specific unit able to provide follow-up to these patients



Conclusions (cont'd)

Health care professionals appear to be poorly motivated towards preventive projects, because they might not see them useful enough to solve their daily practice problems.

Further research should be undertaken to detect main barriers associated to the low promotion of smoking cessation other than the lack of knowledge of professionals



Conclusions

It is necessary:

View the patient's care in a more holistic perspective rather than just treating the specific condition in which each department is specialized.



Conclusions

Introducing any new routine in our daily practice is usually difficult and slow.

Efforts aimed at promoting smoking cessation in patients should be continued, and modest results should be viewed as little steps in a long journey.



References

Browman, GP. et al. (1993). Influence of cigarette smoking on the efficacy of radiation therapy in head and neck cancer. *New England Journal of Medicine*, 328 (3): 159-63.

Chang, L. et al. (1996). Cigarette smoking, plastic surgery and microsurgery. *Journal of Reconstructive Microsurgery*, 12 (7): 467-74.

Emmons, KM. et al. (1992). Smokers who are hospitalized: a window of opportunity for cessation interventions. *Preventive Medicine*, 21: 2 262-9.

Fiore, M.C. et al. (2000). Treating Tobacco Use and Dependence. *Clinical Practice Guideline*. Rockville: U.S. Public Health Service.

Frank, E. et al. (1991). Predictors of physicians's smoking cessation advice. *JAMA*, 266: 3139-44.

Heatherton, T.F. et al. (1991). The Fagerström test for nicotine dependence: a revision of the Fagerström Tolerance Questionnaire. *British Journal of Addiction*, 86: 1119-1127.

Houston Miller, N. et al., (1997). Smoking cessation in hospitalized patients: results of randomized trial. *Archives of Internal Medicine*, 157: 409-15.



References (cont'd)

Lavernia, C.J. et al. (1999). Smoking and joint replacement: resource consumption and short-term outcome. *Clinical Orthopaedics and Related Research*, 367: 172-80.

Nicholson, J.M. et al. (2000). Patient recall versus physician documentation in report of smoking cessation counselling performed in the inpatient setting. *Tobacco Control*, 9: 382-388.

Nieva, G. et al. (2006). Evaluación de la intervención mínima en tabaquismo en cinco salas hospitalarias. Under revision.

Rigotti, N.A. et al. (1997). Efficacy of a smoking cessation program for hospital patients. *Archives of Internal Medicine*, 157: 2653-60.

Rigotti, N.A. et al. (2003). Interventions for smoking cessation in hospitalized patients (Cochrane Review). *The Cochrane Database of Systematic Reviews*, Issue 1.

Twardella, D. and Brenner, H. (2005). Lack of training as a central barrier to the promotion of smoking cessation: a survey among general practitioners in Germany. *European Journal of Public Health*, 15, 2, 140-145.

WHO. (2002). The World Health Report 2002. Reducing risks, promoting healthy life. Geneva, *World Health Organization*.



Departament d'Alcoholologia. Institut de Neurociències. Hospital Clínic de Barcelona

Nom Xxx?

Nom Xxx?

For more information: mail ??





Heatherton et cols. nicotine dependence index

1. How many cigarettes do you smoke each day?

- 10 or fewer (0 points)
- 11 to 20 (1 point)
- 21 to 30 (2 points)
- 31 or more (3 points)

2. How soon after you wake up do you smoke your first cigarette?

- Within 5 minutes (3 points)
- 5 to 30 minutes (2 points)
- 31 to 60 minutes (1 point)
- After 60 minutes (0 points)

Scoring:

- 0 to 2: low dependence
- 3 to 4: medium dependence
- 5 to 6: high dependence



Results (Professionals' report)

ASSESS: The percentage of professionals that rarely or never ASSESS if the patient wants to quit is significantly higher in non-smokers' professionals at baseline ($p=0,031$; $df=2$).

ASSESS	Smokers prof.	Non-smokers prof.
Always - often	40,9% → 55,0%	42,9% → 33,3%
Sometimes	40,9% → 30,0%	14,3% → 19,4%
Rarely - never	18,2% → 15,0%	42,0% → 47,2%

Baseline data. POST training data in *italics*