DOCTORAL
PROGRAMME IN
EXPERIMENTAL
SCIENCES AND
TECHNOLOGY

# HEALTH PROMOTION, INTEGRAL CARE AND SOCIAL INCLUSION



Efficacy of a smartphone game in smoking cessation for pregnant women attending primary care:
A randomized controlled clinical trial

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#### **Project abstract**

Tobacco consumption is the most preventable cause of morbiditymortality in the world and their effects during pregnancy are specially demonstrated as harmful for mother and child.

The trial evaluate the efficacy of a smartphones' game for smoking cessation among pregnant women who attend to a sexual and reproductive health unit (ASSIR) in primary care.

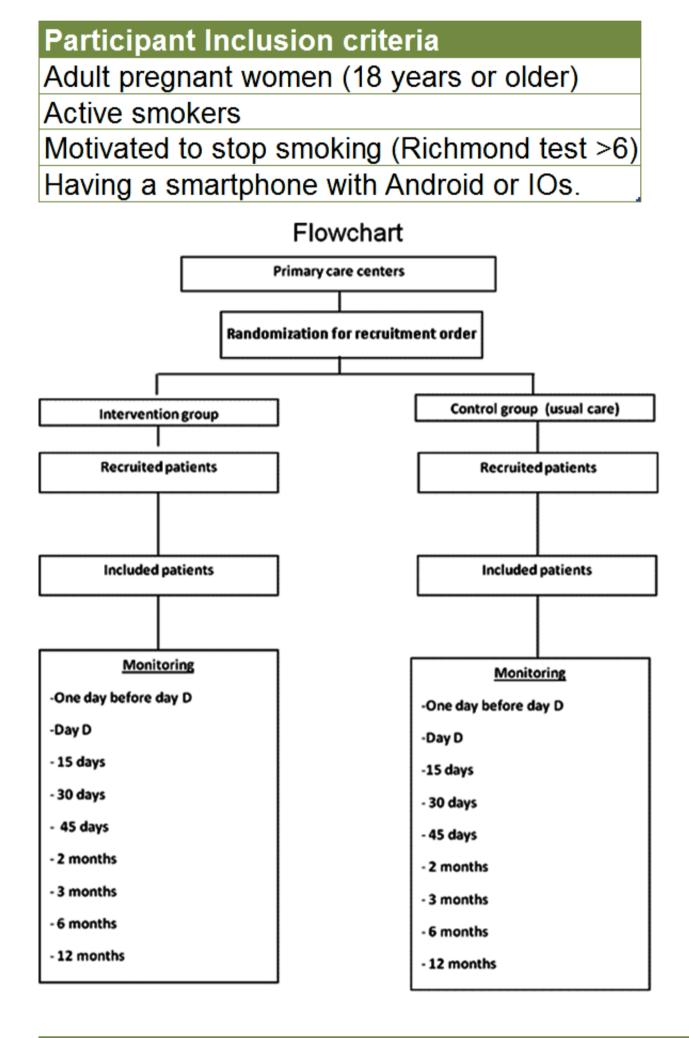
It is expected that the percentage of ex-smoker women in the intervention group is significantly higher than in control group at the end of their pregnancy and continues postpartum.

## **Objectives**

The main objective is to evaluate the effectiveness of a game for smartphones in smoking cessation, compared with the usual intervention to stop smoking during pregnancy and its influence for preventing relapse during the postpartum period.

Also want to determine the player profile among pregnant women participating in the trial and evaluate the characteristics of the game and the effectiveness of health-related apps that exist in the market for the improvement and promotion of health of its users.

# Methodology / Materials



Randomized controlled case-control trial
Intervention group → provide & instruct in
the use of a game for smartphone.
TOBBSTOP (www.tobbstop.com) which has
been designed by a multidisciplinary team
(health experts, educators, engineers, graphic
designers and video games) and is regarded
as a 'serious games', 'half games' or 'healthy

Control group → will receive usual care.

TOBS STOP the game

## Conclusions

To our knowledge this is the first randomised controlled trial of a programme comparing the efficacy of usual care with a smoking cessation intervention in pregnant women involving a mobile app.

If effective, the modality could offer a universal public health management approach to this common health concern.

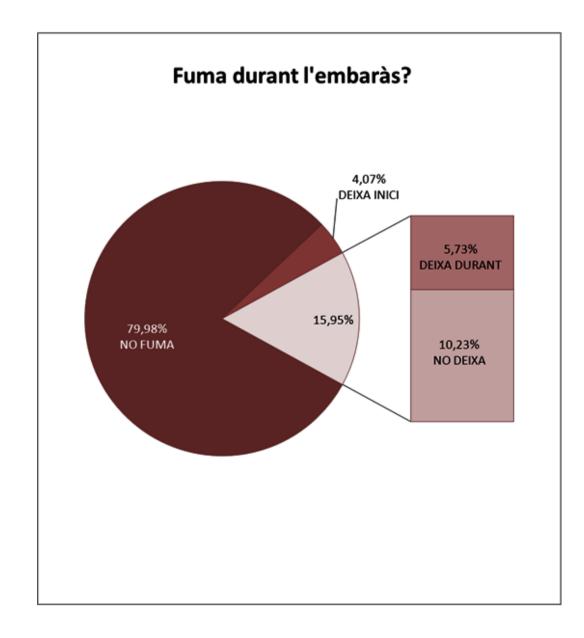
### Materials and Procedure

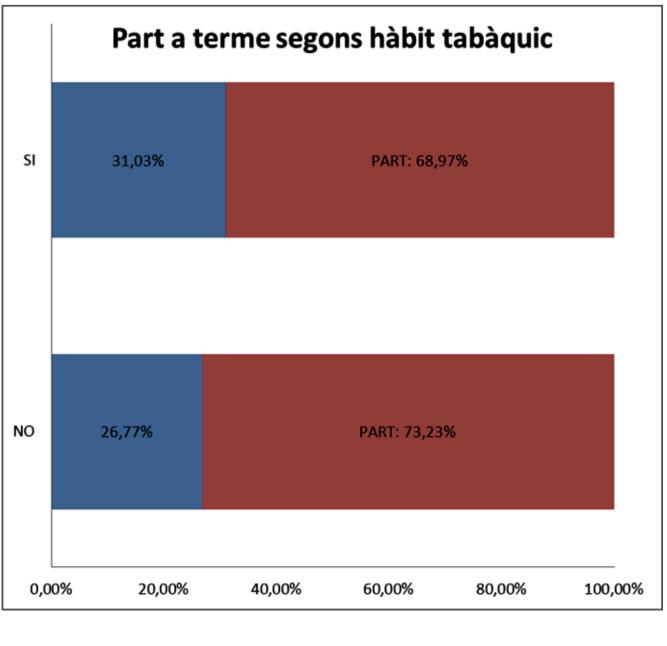
Tobacco withdrawal and continuous abstinence after delivery objectified by carboxymeter, will be registered in each follow-up visit.

### Findings / Research update

Various programs shows that only 40.1% of pregnant smokers quit smoking during pregnancy and less than 23% remain without smoking 12 months postpartum.

New technologies —and specifically a targeted app— provide benefits that can be useful for assist pregnant smokers in their efforts to quit.





# Bibliography

- 1. Valdivieso E, Flores G, Molina JD. Efficacy of a mobile application for smoking cessation in young people: study protocol for a clustered, randomized trial. BMC Public Health. 2013;13:704.
- 2. Bloch M, Parascandola M. Tobacco use in pregnancy: a window of opportunity for prevention. Lancet Glob Health. 2014 Sep;2(9):e489-90
- 3. Mateos PM, Aranda JM, Díaz G. Smoking prevalence and associated factors during pregnancy in Andalucía 2007-2012. Rev Esp Salud Publica. 2014 May-Jun; 88(3):369-81



