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Mobile phone text messaging for smoking cessation. Assessment of the effectiveness as an adjuvant tool to health advice. Randomized clinical trial

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Background/Aim: health advice is one of the most cost-effective interventions in smoking cessation treatment; however, changes produced don't persist over time, therefore it is necessary to implement enforcement mechanisms. Our objective was to evaluate the effectiveness at 12 months of a smoking cessation program consisted of health advice and text messaging to mobile phone.

Methods: randomized, single-blind, clinical trial, carried out in two primary care health centres, comparing health advice (control group-CG) with the same advice reinforced with messages to patient's mobile phone (intervention group- IG). Inclusion criteria: Smokers over 18 years with mobile phone, and score ≥ 5 in the Richmond scale. Endpoint: negative cooximetry at 6 months and kept at 12 months, according by levels of CO in exhaled air. Statistical analysis: bivariate analysis comparing ratios (negative -positive cooximetry) and multivariate analysis by logistic regression, adjusted for potential confounding variables. Limitations: CO has a half-life of 5 hours, which could lead to false negative results.

Results: 320 patients were included, of which, 40 (12.5%) performed the cooximetry at 12 months; 9 in the CG and 31 in the IG. Statistical analysis was by intention to treat, with a higher proportion of ex-smokers in the IG (26/160 = 16.25%) than in the CG (9/160 = 5.6%) at 12 months ($p = 0.002$). Among those who reported NOT smoking within seven days from the beginning, the percentage of ex- smokers at 12 months was also higher in the IG (24/64 = 41%) than in the CG (7/40 = 17.5%) ($p = 0.030$). Among potentially confounding variable, greater success of the intervention was observed with lower nicotine dependence ($p=0.003$).

Conclusions: Combined program is effective to quit smoking, especially among those who show lower basal dependence. The program favors the maintenance among those who report an early abandonment (within 7 days) of habit.