A Norwegian E-Health program: predictors for successful smoking cessation among more than 4,000 men and women

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Purpose: The main aim of the study was to identify predictors for successful smoking cessation at 6 months after enrolment in an E-health cessation program.

Context: In 2010, 30% Norwegian men and 28% of women were smokers (daily and occasionally). The website www.slutta.no was open to the Norwegian public. It was free, and a part of the national smoking cessation strategy of the Directorate of Health. As many as 94% of the population in Norway have access to Internet in their homes and 96% owns a mobile phone.

Methods: We followed 4,335 Norwegian men and women who signed up to a multi component Norwegian internet based smoking cessation program, www.slutta.no. The enrolment was from May 2010 until October 2012. The inclusion criteria were smokers above 16 years of age, who wanted to quit, who reported to have regular access to the internet, had their own mobile cell phone, had writing skills in Norwegian and who gave an informed consent. The outcome was self-reported, no smoking past 7 days, six months subsequent to the personal quit date. We used Cox proportional hazards (PH) regression model to test for predictors of successful quitting at 6 months compared with those who continued to smoke, while adjusting for relevant confounders.

Results and discussion: At six months, those who reported to have more than 9 years of education were more than twice as likely to successfully having quit smoking [10-12 (HR=2.16; 95% CI=1.16-4.02), 13-16 (HR=2.68; 95% CI=1.45-4.96) and 17 + (HR=2.63; 95% CI=1.40-4.95)] compared with those who reported to have fewer than 9 years of education. Compared with participants who reported to have a weak motivation at baseline, those who reported to have a very strong motivation had a 93% statistically significantly higher success of quitting (HR=1.93; 95% CI=1.32-2.83). Those who reported to use snus daily were less likely to achieve successful quitting compared with non-snus users at baseline(HR=0.49; 95% CI=0.27-0.87). Those who reported that they had never tried to quit smoking before, were more likely to succeed compared with those who reported that they had tried to quit smoking earlier.

Snus use has been advocated as a help tool for quitting smoking. Our results showing that snus users were less likely to successfully quit smoking is in contradiction to this belief. Our results suggest that the current E-Health program for quitting smoking may be revised and improved so it to a greater extent also help those with less education and less motivation to quit smoking.
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**Keywords:** E-health; smoking cessation; evidence based practise