



A Randomized Controlled Trial of a Nurse-delivered Smoking Cessation Intervention for Cardiac Patients in Hong Kong

Sophia SC Chan¹, Tai-Hing Lam², Chu-Pak Lau³

¹Department of Nursing Studies, ²Department of Community Medicine, ³Department of Medicine, The University of Hong Kong

Background: Smoking is the single most preventable cause of death and heart disease is one of the most common smoking related causes of death. Second heart attacks are more common in cardiac patients who continue to smoke, and smoking cessation improves exercise tolerance, reduces the risk of amputation after peripheral artery surgery, as well as increases overall survival.

Objectives: To study the effectiveness of the stage-matched intervention provided by nurses in motivating Chinese cardiac patients to quit smoking.

Methods: A randomized controlled trial was conducted in Chinese cardiac patients attending the cardiac outpatient clinics of six major hospitals in Hong Kong. The intervention group received a staged-matched smoking cessation intervention by trained nurse counselors and a telephone reminder at 1 week and 1 month, while the control group received usual care and a placebo intervention on healthy diet education. All subjects received a telephone follow up at 3, 6 and 12 months to assess the quit-rate, cigarette consumption, and stages of readiness to quit.

Results: Up to September 2004, 1165 patients (91.1% male and about half over 60 years of age) completed the 6-month follow up interview. The period of having diagnosed cardiovascular disease ranged from less than 1 month to over 30 years, with 82.5% requiring long term medication. Only 23.8% smoked more than 1 pack of cigarettes daily in the past years and 68.4% had low nicotine dependence. Yet over 80% were not ready to quit smoking (pre-contemplators/contemplators), and about 90% had low self-efficacy towards smoking cessation. At 6-month follow up, the quit rate for intervention and control group was 19.7% vs. 13.3% ($p < .01$). For the remaining smoking patients, 51.7% of the intervention group reduced their daily cigarette consumption by half or above, vs. 48% in the control group ($p = .26$). About 34% of the intervention group moved up the stage of readiness to quit vs. 28.1% in the control group ($p = .03$).

Conclusion: Although most subjects were non-heavy smokers with low nicotine dependence, the majority was not ready to quit smoking and most have low self-efficacy. The nurse-delivered stage-matched smoking cessation intervention seemed to be effective in helping cardiac patients stop smoking and improve their motivation to quit. Patients who received the intervention achieved a significantly higher quit rate than the controls, and a significantly higher proportion has improved their motivation and became more ready to quit.

Supported by the Research Grants Council, Hong Kong (grant no. HKU7224/01M)