Effect of Smoking Cessation Interventions on Adult Tobacco Smokers in Colombo District, Sri Lanka

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Effective strategies are needed to improve the motivation of smokers to quit. The aim of the study was to assess the effect of a smoking cessation program among the selected smokers who live in peri-urban areas of the Colombo district. 180 smokers with a median age of 39.0±18.75(IQR)(years), were selected for a prospective follow-up from a previously recruited pool of 360 smokers. Counselling interventions were applied at two levels based on the WHO 5A and 5Rcounselling protocol. Previously analysed cardio-pulmonary test results were used to create a strong motivation to quit. Compliance for the first intervention was assessed after one week. Second interventions were delivered on the day of the first follow-up and compliance was re-assessed after one month. Smoking status was confirmed with the assessment of a smoking biomarker of carbon monoxide e-CO (ppm)and carboxyhaemoglobin (COHb%) with Smokerlyzer® (Bedfont Scientific, UK). The pre-intervention values were daily consumption of cigarettes 5.73±4.88(SD) sticks; e-CO7.0±8.0(IQR)(ppm), COHb1.75±1.44(IQR) (%). Among the selected 180 smokers, 156(86.7%) attended the first follow-up. There was a significant difference of all smoking variables at one week after the counselling compared to the baseline values; the number of cigarettes, (Z=-10.644, p<0.001), e-CO (Z=-9.626, p<0.001), and COHb%(Z=-9.466, p<0.001). Changes in the smoking variables between baseline and one month were assessed. Out of the 156 smokers who participated in the week one follow-up, 113(72.5%) males presented for follow-up conducted one month later. There was a significant difference in all smoking variables at one month following the cessation interventions when compared to the baseline values, including the number of cigarettes (Z=-9.077, p<0.001), CO (Z=-8.707, p<0.001), and COHb% (Z=-8.574, p<0.001). In conclusion, compliance with smoking cessation can be achieved with proper education, motivation, and follow-up.

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