

Sasithorn Puksrisuk 2011: Effect of Running and Small Side Games on Smoking Volume and Nicotine Dependence in Male Student Smokers. Master of Science (Sports Science), Major Field: Sports Science, Interdisciplinary Graduate Program. Thesis Advisor: Assistant Professor Ratre Ruangthai, Ed.D. 118 pages.

The purpose of this research were the study and comparison of the effect of running and small side games on smoking volume and nicotine dependence in male student smokers and cardiopulmonary functions. Thirty young male smokers 5 years and smoke 10 cigarettes/day, aged between 18-25 years were the volunteer subjects in this study. The participants were divided into three groups, to 10 subjects in each group. The control group performed normal daily life activities, the experiment group 1 performed the running exercise program and the experiment group 2 performed the small side games exercise program, 3 day per week during a period of 6 weeks. The measurement of the smoking volume, nicotine dependence, lung function ( $FEV_1$ ), maximal oxygen consumption ( $VO_{2max}$ ), skin blood flow was done before and after the test. Data was analyzed by the application of mean, standard error of mean, matched pair t-test, one-way ANOVA and multiple comparison assessment by Tukey method. The significance difference of this research set at .05.

The results show that the mean of smoking volume was significant differences between the control group and the experiment group 1 and the experiment group 2 after a 6 week training period ( $p < .05$ ). Both experiment group 1 and 2 were significant reduction of smoking volume after 6 week. The nicotine dependence was not significantly different among the three groups. Lung function ( $FEV_1$ ), maximal oxygen consumption ( $VO_{2max}$ ), skin blood flow were significantly increased in both of experiment group 1 and group 2 ( $p < .05$ ). This study concludes that both running exercise and small side games exercise programs can reduce smoking volume and induce improved cardiopulmonary functions in young smokers and reduced the risk of disease caused by smoking.

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Student's signature

Thesis Advisor's signature