**The correlation of two nicotine dependence measurement methods: Fagerstrom Test for Nicotine Dependence (FTND) and saliva cotinine among a group of Muslim smoker in Malaysia**


ABSTRACT

Introduction: One of the known factors that hindered smoking cessation is nicotine dependence. Measurement of the nicotine dependence is important to better understand cigarette smoking addiction dependence and ways to overcome it. Among methods of nicotine dependence measurement are self-reported Fagerstrom Test for Nicotine Dependence (FTND) and biochemical assessment such as saliva cotinine. Biochemical assessment can be used to measure the accuracy of the self-reported measurement of nicotine dependence. Objective: To explore the correlation between the FTND and the saliva cotinine of the smokers in three different timeline. Methods: A total of 61 male smokers who currently smoke cigarette on daily basis were recruited. The study used the one-group pretest-posttest study design and the data were collected three times. The self-reported measurement were measured by using FTND and the biochemical assessment measured by using saliva cotinine from Saliva Bio oral swab (SOS) with the sensitivity of 0.15ng/ml. Data analysis was conducted by using Pearson correlation. Results: There was a significant association between the FTND score and saliva cotinine level of the smokers at baseline, second and third data collection ($p=0.014$, $p=0.003$, $p<0.001$). Conclusion: Both the self-reported measurement of nicotine dependence and biochemical assessment of the smokers are correlated and it could provide reliable information of the nicotine dependence.



**Keyword:** Nicotine dependence; Fagerstrom Test for Nicotine Dependence (FTND); Saliva cotinine; Correlation