The Impact of Cigarette Smoking on Cognition & Personality

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ABSTRACT

Nicotine from cigarette smoking has different effects on perceptual and motor processes.Acute nicotine administration and acute nicotine withdrawal have been shown to have effects on mood,arousal,and cognition in humans.The aim of this work is to study the effect of cigarette smoking on cognitive abilities,and the relationship between cigarette smoking and personality. Subjects: The sample consisted of four groups of Egyptian volunteers;group I composed of forty-five participant of smokers,group II composed of twenty-five participants of smokers who did not smoke within the last eight hours,group III composed of twenty participants of ex-smokers, group IV composed of thirty participants of non-smokers.Selection was according to the following inclusion criteria: Male, age ranging from twenty-five to fifty years,Minimum twelve years of education,and intelligence quotient ninety or above. Methods: Each participant was subjected to the following:semi structured sheet, physical examination,tests to assess cognitive abilities, personality, socioeconomic status and cotinine in urine in addition to quality assessment. All results were subjected to statistical analysis. Results: Accuracy,a dimension of visual perception was highest in the non-smokers,followed by the ex-smokers, the abstaining smokers then the smokers.Criminality (impulsivity),lie scale, passive dependent, explosive, asthenic, avoidant, paranoid and hypochondriacal traits were highest in the abstaining smokers, followed by the smokers, the ex-smokers then the non-smokers.Psychopathic,anankastic,schizoid and dysthymic traits were higher in the smokers, followed by the abstaining smokers, the ex-smokers then the non-smokers. Histrionic, anxious, and the sensitive aggressive traits were highest in both the smokers and the abstaining smokers, followed by the ex-smokers then the non-smokers. Conclusions: Nicotine administration did not exert a significant impact on cognitive functions.There was a significant association between smoking and personality psychopathology.

Introduction

Nicotine from cigarette smoking has different effects on perceptual and motor processes (Pineda et al.,1998). Acute nicotine administration and acute withdrawal have effect on mood, arousal,and cognition on humans(Waters and Sutton, 2000).Several previous studies has reported that cigarette smoking enhance performance of cognitive processing.This enhancement is generally attributed to the pharmacologic effect of nicotine,while there is somedebatewhethertheeffect of smoking/nicotine is a result of recovery from abstinence.Ascioqlu et al.(2004) studied the effect of cigarette smoking on cognitive functioning by applying evoked potentials and event related potentials of the brain-as an index of information processing on healthy chronic smokers and non smokers,they found that there were no significant differences between eitherN, P2,N2,differences between eitherN,P2,N2,P300 amplitudes of peak latency values of cigarette smokers and non smokers. They concluded that cigarette smoking generally does not improve cognitive processing.Park et al.(2000) investigated the effects of nicotine on spatial working memory and spatial selective attention in young healthy smokers.Nicotine impaired spatial working memory in smokers but did not affect spatial selective attention. Richard et al.(2003) found smoking to be associated with faster decline in verbal memory and slower visual search speeds.Kalmijn et al.(2002) found current smokers to have reduced psychomotor speed and cognitive flexibility. A study done by Hill et al.(2003) showed that current smokers performed more poorly than never smokers on the more cognitively demanding tasks;namely,block design and free recall.The authors concluded that cigarette smoking may exert its greatest deleterious effect on those cognitive tasks that place the heaviest demand on processing resources.Ghatan et al (1998) stated that nicotine abstinence has a