Additive Interaction Between Cannabis Use and Social Adversity On Predicting Psychosis: Beyond the Main Effects

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A number of studies have suggested that age of cannabis use (Arseneault 2002), type of cannabis used (high potency cannabis preparations such as skunk) and frequency (Di Forti 2009) might be more important than the use of cannabis per se in increasing risk of psychosis. We investigated the interaction between pattern of cannabis use and social adversity. We hypothesised that the combined effect of skunk/every day use of cannabis and the experience of social adversity in adulthood would increase the likelihood of a diagnosis of psychosis over and beyond the main effects of cannabis use and social adversity alone. Detailed data on patterns of cannabis use and socio-demographic information have been collected as part of the GAP study and the on-going EU-GEI study of first episode psychosis being conducted in London, UK. A sample of 406 cases and 407 controls was recruited. To assess interaction on an additive scale, Interaction Contrast Ratios [ICR] were calculated. The regression model indicated that, compared with controls, cases were around 16 times (OR 16.2, 95% CI 7.4-35.1) more likely to report both social adversity and skunk and/or everyday use of cannabis. A significant additive interaction was found between pattern of cannabis use and social adversity (ICR 9.82, 95% CI 0.80-18.83, p=0.03). In essence, this suggests there were some people who developed psychosis who would not have developed it if either social adversity or heavy pattern of cannabis use had been absent.