INTRODUCTION

A single nucleotide polymorphism BDNF Val66Met is a functional psychogenetic marker which affects hippocampal structure and memory processes [1]. Obtaining higher education requires high-level cognitive performance. We investigated if the polymorphism in the BDNF gene affects educational achievements in young adults. Also we investigated whether the educational achievement by age 25 depends on personality, and furthermore, if parental assessment of their child’s personality at the age of 15 can predict educational achievements 10 years later, at the age of 25.

RESULTS

We did not find any effect of the BDNF Val66Met genotype on early obtaining of university education. However, we found some effects of personality traits on educational levels.

**Figure 1.** Personality traits and education levels at age 25. Participants who had been obtaining higher education scored higher on Openness to experience scale. * - p<0.0001, ANOVA

**Figure 2.** Personality traits at age 15 and education levels at age 25. Personality is assessed by participant’s parents. * - p<0.5; ** - p=0.001; *** - p<0.0001

CONCLUSIONS

Personality traits are strongly associated with educational level in early adulthood and assessments by family members are good predictors of educational achievement of young adults. Lower neuroticism and higher openness, agreeableness and conscientiousness predict higher education level. We did not find any genotype effect on participants’ early academic achievements.

METHODS

The sample consisted of the older cohort of the Estonian Children Personality, Behaviour and Health Study [2] and data for current analysis were collected during the third follow-up in 2008 (N = 541; 229 male; mean age = 24.7). Subjects were asked to report their current level of education, either as 1) primary; 2) secondary; 3) vocational; 4) incomplete higher; 5) higher education. For statistical analysis level of education was grouped in three – 1) primary; 2) secondary (secondary and vocational); 3) higher (incomplete and complete higher education). For the personality assessment participants completed the five-factor model of personality using the EPIP-NEO questionnaire. Parental assessments of their children’s personality were collected with the EBBFI inventory during the first study wave in 1998. BDNF Val66Met was genotyped as previously reported [3].

REFERENCES


DISCLOSURE

No potential conflicts of interests.