
THE ROLE OF FAMILY STRUCTURE AND OF TRYPTOPHAN HYDROXYLASE 2 (TPH2) ON THE STABILITY OF DEFICIENT EMOTIONAL SELF-REGULATION SYMPTOMS THROUGHOUT ADOLESCENCE

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Introduction. Deficient emotional self-regulation (DESR) have been found to be a very heritable trait that increases susceptibility for later psychopathology, including severe mood problems and aggressive behaviour. A common single nucleotide polymorphism (SNP G-703T, rs 4570625) in the transcriptional control region of TPH2 has been reported to modulate amygdala responsiveness to affective stimuli and has been found to be associated with emotional dysregulation.

Aims we have investigated the moderating role of a TPH2 polymorphism on genesis and stability/instability of DESR during the transition from early to late adolescence, taking also into account the possible interaction with family structure.

Methods This is a five year follow-up study of the genetic section of the PrISMA project (Progetto Italiano Salute Mentale Adolescenti) The final study population included 287 subjects (50.9% boys, 49.1% girls, aged 15-19). To test for hypothesized influences and moderation effect of TPH2 genotype we performed a path analysis using Mplus 6.11 and the bootstrapping procedure describe by Preacher et al. (2007)

Results. The effect of family structure on early-adolescence DESR is moderated by TPH2 genotype: subjects living in monoparental families which are also homozygous for G-allele show higher scores on DESR index. Otherwise, the effect of family structure on late-adolescence DESR is mediated by the same symptoms in early-adolescence and this mediation is moderated by TPH2 G-703T polymorphism

Conclusions Future models of the developmental link between environmental adversities and dysregulation problems therefore need to consider that a more 'dynamic' G×E perspective.