

## O-17 - CRHR1 GENE MAY MODULATE THE INFLUENCE OF CHILDHOOD ABUSE ON DECISION-MAKING ABILITIES

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**Introduction:** Decision-making impairment has been found associated with several neuropsychiatric disorders. This cognitive function has been found under influence of genetics factors, but very few are known on how development of decision-making process may be modulated by early environmental factors.

Childhood sexual abuse has also been linked with numerous psychiatric disorders mainly through persistent changes in corticotrophin-releasing factor neurotransmission and sustains alteration of the HPA axis.

**Objective:** We explored the link between decision-making abilities in adulthood and sexual childhood abuse. We hypothesises than childhood sexual abuse may be associated with a lower decision making abilities. We have also hypothesises than this association may be modulated by some genotype critical in modulation of stress response.

**Method:** The Iowa Gambling Task was used to assess decision-making in 217 patients with a personal history of attempted suicide. The Childhood Trauma Questionnaire was used to examine traumatic childhood experiences. Patients were genotyped for 8 single-nucleotide polymorphisms on four genes related to stress: CRHR1, CRHR2, FKPB5 and AVP.

**Results:** There was a trend of association between IGT total score and sexual abuse showing that sexually abused subjects had lower scores than non-sexually abused one. This association became significant in the last part of the game (61-80). There was a significant interaction between rs1396862, rs878886 and rs242948 within *CRHR1* and childhood sexual abuse in IGT total scores.

**Conclusion:** Decision making abilities in adulthood may be influenced by the interaction between childhood sexual abuse and functional polymorphism in the CRHR1 gene.