

STUDY ON THE INFLUENCE OF GENETIC AND ENVIRONMENTAL FACTOR ON PERSONALITY OF CHONGQING TWINS CHILDREN

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Objective: To estimate the heritability of personality of children by using a twin design method of quantitative genetic analysis. To analysis the influences of family environment on children personality.

Methods: EPQ(Eysenck Personality questionnaire) applying on twins children aged 6-16years to evaluate the children personality.

The general questionnaire、 PSDQ Parenting Style and Dimension Questionnaire 、 FAD-GFS(The General Functioning Scale of the MacMaster Family Activity Device)、 SLE(stressful life events)、 FSQ(Family Stresses Questionnaire)、 FLQ(Family Life Questionnaire)、 EFQ(Everyday Feelings) were used to collect information about family environment from parents. Zygosity was determined by the DNA picked up from cheek mucosa of twins children. Holzinger analysis was employed to estimate the heritability of mental health.

Results: 122 pairs(244 children) of twins (103 twin pairs DNA were picked up successfully), including 54 MZ twin pairs and 49 DZ twin pairs.The heritability of personality:N(Extrovision-Introvision):0.71,P(Psychoticism):0.56,L(Lie):0.43,E(Neuroticism):0.07.

In twins family educated-year of father was significantly correlated with EPQ-E,EPQ-N($r=0.167,0.145$);educated-year of mather was significantly correlated with EPQ-N($r=-0.145$);the score of FAD-GFS was significantly correlated with EPQ-E($r=-0.235$);FLQ was significantly correlated with EPQ-n($r=0.356$);the score of father authoritative parenting style was significantly correlated with EPQ-p $r=-0.196$;the score of mather authoritative parenting style was significantly correlated with EPQ-e $r=0.230$. the score of family cohesion was significantly correlated with EPQ-n($r=0.198$).

Conclusion: Emotional problems were influenced by genetic factors most followed by inattention-hyperactivity problems and total difficulties environment factors play a main role in conduct problems and prosocial degree while peer problems were only influenced by environment factors. Each aspect of family environment, influence children personality and mental differently.