

Family heritability as a biological factor for the appearance of eating disorders (ED)

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Abstract

Introduction: The biological predisposing factors for the appearance of eating disorders (ED) are diverse. One of them, and one of the most important factors, is family heritability.

Objective: To determine, reviewing the scientific publications of the last 11 years, family heritability in ED.

Methods: A review in PubMed was performed with the terms "eating disorders", "family heritage" and "family heritability".

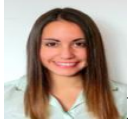
Results & Discussion: Gene expression can be modified in the uterus of the mother due to maternal stress or malnutrition. These changes, in the genes, are related to the development of ED. If these changes are transmitted to descendants, it affects family heritability. In family studies (with "cases" and "controls"), the genetic influence is clear, especially in first-degree relatives. Family "cases" of patients with anorexia nervosa (AN), are 11.3 times more likely to suffer from AN, than in relatives of "controls". An increased incidence of bulimia nervosa (BN) has also been found in relatives of patients with BN.

Conclusions: The findings suggest that there are many genes that may be intervening in the family heritability and the dynamics of ED. The majority of studies are from cases and controls, so I consider that the spectrum should be expanded in relation to new designs. It seems evident that there is a great genetic influence in ED. Perhaps in the near future, with advances in genomics and

proteomics, the amount of these studies can be multiplied and there will be more unanimous and clear conclusions.

Recent Publications:

1. Gamero Villarroel C, Gonzalez LM, et al., (2017) Influence of TFAP2B and KCTD15 genetic variability on personality dimensions in anorexia and bulimia nervosa. *Brain Behav.* 7 (9): e00784.
2. Klump KL, Suisman JL, Burt SA, McGue M and Iacono WG (2009) Genetic and environmental influences on disordered eating: An adoption study. *J Abn. Psychol.* 118: 797-805.
3. Dolinoy DC, Das R, Weidman JR and Jirtle RL (2007) Metastable Epialleles, Imprinting, and the Fetal Origins of Adult Diseases. *Pediatric Research.* 61 (5): 30-37.
4. Procopio M and Marriott P (2007) Intrauterine Hormonal Environment and Risk of Developing Anorexia Nervosa. *Archives of General Psychiatry.* 64 (12): 1402-1407.
5. Klump K, Burt SA, McGue M and Iacono WG (2007) Changes in Genetic and Environmental Influences on Disordered Eating across Adolescence: A Longitudinal Twin Study. *Archives of General Psychiatry.* 64 (12): 1409-1415.



Biography

Gina Lladó has completed her PhD from Universidad Europea de Madrid, Spain. She works as Investigator and Teacher at Universidad Isabel I, Burgos, Spain. She has completed five Master's degrees related to various aspects of health sciences. She has directed 20 Final Degree Projects and participated in multiple studies and research groups. Her main line of research is eating disorders and nutrition.

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Notes/Comments: