

NAME OF PRESENTING AUTHOR: Shannon O'Connor

EMAIL ADDRESS OF PRESENTING AUTHOR: oconn184@gmail.com

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TITLE: Exploring puberty as a moderator of genetic and environmental influences on body weight and shape concerns in females

FULL AUTHOR LIST: Shannon M. O'Connor¹, Kristen M. Culbert², Laura A. Mayhall³, S. Alexandra Burt⁴, & Kelly L. Klump⁴

AFFILIATIONS:

¹ Department of Psychiatry and Behavioral Neuroscience, University of Chicago, Chicago, Illinois, USA

² Department of Family Medicine and Public Health, Wayne State University School of Medicine, Detroit, MI, USA

³ Department of Communicative Sciences and Disorders, Michigan State University, East Lansing, MI, USA

⁴ Department of Psychology, Michigan State University, East Lansing, MI, USA

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ABSTRACT:

The heritability of disordered eating increases during puberty; however, prior studies have largely examined a composite score of disordered eating, rather than specific symptoms. Body weight and shape concerns cut across all eating disorder diagnoses and are some of the strongest prospective risk factors for the development of eating disorders. Yet, little is known about potential developmental increases or decreases in genetic and environmental influences for these key symptoms. This study examined differences in genetic and environmental effects on a range of body weight and shape concerns during puberty and compared results to findings for an overall disordered eating composite score. Participants were 926 same-sex female twins (ages 8–16) from the Michigan State University Twin Registry. Well-validated questionnaires were used to examine pubertal

maturation, overall disordered eating, and a range of cognitive body weight/shape constructs: body dissatisfaction, weight/shape concerns, and weight preoccupation. Findings for overall disordered eating were similar to previous work, with significantly increased genetic effects in girls at more advanced pubertal development. Importantly, these same pubertal increases in genetic influences were observed for body dissatisfaction and weight/shape concerns. However, no pubertal moderation of genetic effects was observed for weight preoccupation; instead, pubertal moderation of nonshared and shared environmental effects was observed. Findings point to differences in the extent to which genetic and environmental factors contribute to various cognitive body weight and shape symptoms during puberty.

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