Psychoendocrinology

PNEC-D-15-00052

Gene-environment interaction between the brain-derived neurotrophic factor val66met polymorphism, psychosocial stress and dietary habits in the psychosis prodrome

**Comment:** this study aims to investigate the relationship between the BDNF val66met polymorphism, stress and food intake in at-risk individuals, individuals with psychotic disorders and healthy controls. The rationale of the study is novel as it addresses recent findings on the high incidence of metabolic abnormalities in mental disorders as well the hypothesis that there may be a gene-environment interaction within the “allostatic load” theory of bipolar disorder. I commend the authors for the work they have done and have few suggestions that in my opinion would facilitate the understanding of this manuscript.

Title: suitable but please consider making it shorter, to the point

Abstract: make sure to explain the acronym PD.

Introduction: page 6: when they authors mention infusions of BDNF do they mean directly into the brain and if so where exactly.

Material and methods: did ARMS have a family history of psychiatric disorder? if so please state it or mention it in the methods section. Also could the authors mention how the clinical populations were recruited.

If “perceived stress” was based on self-rating evaluations of past event, did the authors consider the possibility that the events may have not been stressful enough to initiate a physiological response? Or that the events took place to start with?

Statistical analyses: please mention 1. What statistical threshold did the authors select 2. Did the authors run 2 regression analyses to predict scores of stress and food intake? Or did they predict their interaction? Please provide as many details as possible.

Results: were participants well matched at an age/gender/education/IQ level? I would recommend that the authors separate the results section in “exploratory analyses”, “correlational measures” and “regression analyses” to improve understanding.

I noticed that the authors do not mention statistical parameters such as F/p-values in the results section. Is it intentional? Can they please provide these important details?

Discussion: I think that the authors should define the term “allostatic load”. Also do the authors suggest that an increased allostatic load may induce a “chronic stress”- like eating response? Please clarify.

Typos: Please proofread paper, e.g. “apetite”