

The neural correlates of cognitive and emotion processing in children and adolescents with Anorexia Nervosa: Are different profiles related to stage of illness?

(project no. 58-16)

Authors

Dr. Kate Tchanturia, Professor Steven Williams,
Dr. Katie Lang, Dr. Mima Simic, Leon Fonville, Jenni Leppanen

Aim

The overall aim of the research is to study neurobiological factors that may contribute to the development and maintenance of Anorexia Nervosa (AN) in children and adolescents.

Background

Effective treatment options for Anorexia Nervosa are lacking, and research suggests that longer illness duration is linked to treatment resistance. There is a need for research investigating underlying mechanisms linked to illness stage that are likely to be important in the pathogenesis and maintenance of AN. This could lead to developing more efficacious treatments.

Research has demonstrated an inefficient neurocognitive style and poor emotion-processing in adults with AN, which is likely to contribute to the development and maintenance of AN. Children and adolescents have similar profile, albeit in an attenuated form. Several studies from our group with adult AN investigated the neural underpinnings of such processing and demonstrated differential patterns of brain activation between AN and HCs during the performance of cognitive or socio-emotional tasks. There is a need to investigate this further in younger AN populations. Demonstrating differential neural correlates related to illness stage will aid the development of stage-based targeted treatments.

Method

This study will employ a cross-sectional design, whereby individuals with AN and HC will be asked to complete neurocognitive and emotion processing measures inside and outside of the scanner. Structural and functional imaging will be used to assess the neural correlates of neurocognitive and emotion processing. We will also investigate whether differences in brain structure and function are related to specific stages of AN illness, by not only using the data collected from the young people in the present study, but by reanalysing data collected in a study with adults AN that was previously funded by the Swiss Anorexia Foundation.

Execution

April 2017 - April 2018

The project is funded by the Swiss Anorexia Nervosa Foundation.