

Summary of findings

The Prevalence and Clinical Implications of Anorexia Nervosa and co-morbid Autism Spectrum Disorder

What did we want to know?

Some previous research has suggested that there are similarities between Anorexia Nervosa (AN) and Autism Spectrum Disorder (ASD). These similarities include difficulties with social communication and relationships as well as a preference for following routines and attention to detail. There has also been some studies which have shown that people with AN are more likely to have ASD than people without AN. These studies have tended to use questionnaires or have asked people about symptoms associated with ASD. This might not be the best way to assess ASD as there is a chance that these symptoms might be side-effects of AN or could be the result of other mental health difficulties, such as anxiety or depression.

We therefore wanted to use standardised clinical assessments to assess ASD in females with AN, to find out what proportion of females with AN had symptoms of ASD. We also wanted to know whether symptoms of ASD were associated with other mental health problems, including obsessive-compulsive disorder, depression and anxiety and whether they were associated with eating disorder symptoms, including BMI and how long someone has had AN.

Eating disorders including AN are associated with a specific thinking style, characterised by difficulties with flexibility and a preference for detail. This thinking style is also seen in people with ASD and we therefore wanted to know whether it was specifically associated with a higher level of symptoms of ASD in females with AN.

How did we do this?

We assessed 100 females with a diagnosis of AN to see whether they had symptoms of ASD. We used a clinical assessment for ASD, the Autism Diagnostic Observation Schedule (ADOS), which is one of the gold-standard tools used in the diagnosis of ASD. If the ADOS showed that a participant aged 12 to 18 had behaviours or symptoms of ASD then we also completed another assessment with their parents. This assessment, the Developmental, Dimensional and Diagnostic Interview (3Di), is used to find out whether these symptoms were present when the person was younger, such as when they were at school. This lets us know whether behaviours associated with ASD were present before the eating disorder began, rather than just being a side-effect of the AN.

We also gave everyone some questionnaires to complete, which asked about some mental health problems including OCD, depression and anxiety. Everyone also completed some activities involving drawing, puzzles and words. These activities are designed to find out about someone's thinking style.

When we had completed all of these assessments and collected all of this information, we looked for patterns in the data and worked out the proportion of people who displayed symptoms associated with ASD.

What did we find?

We split our findings into adults (aged over 18) and younger people (aged 12-18). We assessed 60 adults and 40 young people.

Out of our adult participants, 14 appeared to have symptoms associated with ASD, as measured by the ADOS. These symptoms included difficulties starting and maintaining conversations or “small talk”; limited use of gesture, eye contact or facial expression when talking; and tending not to ask people about their experiences, feelings or opinions. These difficulties were all centred around social interaction. It is difficult to assess a preference for routine or difficulties being flexible on the ADOS but eight participants did show some evidence of these symptoms, including speaking in an unusual way and having an excessive or overriding interest in a particular topic.

In adults, displaying symptoms associated with ASD was associated with higher levels of obsessive-compulsive symptoms and with difficulties identifying and describing one’s own emotions. However, there was no relationship between ASD symptoms and features of AN including BMI, level of concern around eating weight or shape, or the length of time someone had an eating disorder for.

Of our younger participants, 21 appeared to have symptoms associated with ASD, as measured by the ADOS. These symptoms were similar to those found in our adult participants. In young people, there were no differences concerning any other mental health symptoms, features of AN or difficulties with emotions between participants who had ASD symptoms and those who didn’t. On the 3Di parental interview, only 4 participants appeared to have symptoms of ASD prior to the onset of their eating disorder. This means that for the other 17 participants, it could be that the symptoms of ASD were a side-effect of AN or that the symptoms were not obvious to their parents when they were younger.

We combined the information collected from both our adults and young people when looking at the relationship between ASD symptoms and thinking style. We found that symptoms of ASD were associated with inflexibility and cognitive rigidity. However, there was no relationship between ASD symptoms and attention to detail.

What does this mean?

This research suggests that when females are unwell with AN, they may display symptoms associated with ASD. They may experience difficulties with social interaction and become more rigid or more focused on small details. While these symptoms are not directly related to characteristics of AN, including BMI or duration of the illness, they do appear to be related to other mental health symptoms, including obsessive-compulsive symptoms. This may mean that people with AN are not really more likely to have ASD but that they just come to behave like people with ASD when they are very unwell with an eating disorder. In a small number of people (around 10%), ASD may be present before AN develops, although it may not have been diagnosed or recognised by the individual, their family or health care professionals.

What next?

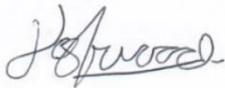
We need to carry out more research to find out whether ASD may be a risk factor for developing eating disorders in some people. We also need to look at whether symptoms of ASD, including difficulties with social interaction and flexibility, improve when people recover from AN. This will help us know whether these symptoms are temporary, or whether they are more stable and long-lasting. Once we find these things out, we can work to develop treatments or interventions for people who have AN and ASD.

We would like to take this opportunity to thank you for taking part in this research. By giving up your time and agreeing to participate, you have contributed to our knowledge and understanding of the relationship between ASD and AN. We could not have done it without you and we are extremely grateful. We wish you the very best for your future.

If you have any questions or wish to discuss the findings of this research in more detail, then please contact Heather Westwood (heather.l.westwood@kcl.ac.uk) or Dr Kate Tchanturia (kate.tchanturia@kcl.ac.uk). However, please note that we will not be able to discuss individual results.

Kind Regards

Heather Westwood, PhD student



Dr Kate Tchanturia, supervisor

