

## **An exploration of "brain fog" investigating the cognitive ability of adults with newly diagnosed coeliac disease: a multiple case study design**

### **Introduction**

The gastrointestinal symptoms of coeliac disease (CD) are generally well known, however, CD can be present without these symptoms, or alongside other non-gastrointestinal symptoms, and research is starting to recognise that symptoms are more varied than previously thought.

Some people report problems with memory and not being able to think clearly before they have removed gluten from their diet or if they eat gluten again, having started a gluten free diet (GFD). Within the CD community this is becoming a recognised complication and has been labelled in a variety of ways including "brain fog" or "fuzzy thinking". It includes things like memory problems, some people find it hard to find the right word when they are talking or feel like their thinking is slowed down and harder work than usual.

There is little research into what this phenomenon is and it is rarely mentioned in research literature. This study aims to investigate and report this group of symptoms in the hope that people with these types of difficulties are tested for the presence of CD and treated more quickly.

The study will focus on adults who have recently been diagnosed with CD, but who have not started a GFD or if they have started a GFD they have been on it for less than two weeks.

### **Who can take part?**

If you would like to take part in the study you must be:

- **Aged between 18 - 60 years**
- **Newly diagnosed with coeliac disease**
- **Not have started a gluten free diet more than two weeks before you complete the tests**
- **Not have any mental health or neurological condition**
- **Be otherwise fit and well**
- **Currently be experiencing the symptoms listed above (memory problems, difficulty finding words and feeling that you are thinking more slowly)**

### **What is involved?**

Anyone who is interested in taking part will be asked to contact the chief investigator via email or telephone. They will then be given more information about the research and be given time to decide if they would like to take part.

Those who do want to participate will meet with the chief investigator and be asked to complete a number of short cognitive assessments; these will identify any areas of strength or difficulty for each individual.

They will also be asked some interview questions about their experience and concerns with the cognitive symptoms. The whole process will last no more than 2.5 hours and can be split across two different days if that is more convenient. This will be repeated three months later to identify any changes following the removal of gluten from the diet.

Participants will be seen at their own home or a location they prefer such as a GP surgery or health centre if this is possible.

### **How to take part**

If you are interested in taking part in the study, or would like more information, please contact Jo Talbot on **07848 182009** or **[coeliacresearch@contacts.bham.ac.uk](mailto:coeliacresearch@contacts.bham.ac.uk)**. Please note that by making contact and showing an interest you are not obliged to take part in the study.

This is a study by the University of Birmingham and has been approved by the University of Birmingham Ethics Committee. The study is funded by the University of Birmingham.

Jo Talbot is studying for a Doctorate degree in Clinical Psychology. This research will form part of Jo Talbot's thesis.