Global search for anorexia nervosa genes

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Flinders Professor Tracey Wade is part of a global search for genes linked to anorexia nervosa

(Medical Xpress)—Flinders University Professor Tracey Wade is collaborating with researchers worldwide in a global effort to identify genes that cause eating disorders.

Professor Wade, Dean of the School of Psychology, is one of three Australian investigators on the Anorexia Nervosa Genetics Initiative – a major international study to detect genetic risk-factors for anorexia

nervosa, in the ultimate aim of finding a cure.

Researchers in the United States, Australia, Sweden and Denmark are trying to collect 25,000 blood samples from individuals who have suffered anorexia nervosa at any point in their lives by 2016, with more than 1,800 samples currently on the database.

Professor Wade said the study, funded by US philanthropic group the Klarman Family Foundation, aimed to identify a group of common genes among the samples that could act as a marker for anorexia nervosa and related disorders.

"Numerous studies in twins and families around the world have shown that eating disorders run in families, not because of a shared environment but because of shared genes," Professor Wade said.

"We know genes play a role in eating disorders but we don't know which ones. While researchers have tried to detect these genes, a common finding hasn't emerged due to a lack of samples," she said.

"From similar work done in schizophrenia and bipolar disorder, you really only start to see a consistent picture when you have 20,000-plus samples, which is why we're working in a collaborative group spanning several countries to reach our target.

"No-one expects to find a single gene or even a handful of genes because anorexia nervosa is such a complex disorder, but we do hope to detect a discrete group of genes that can help us identify risk."

By understanding the genetic profile of anorexia nervosa, Professor Wade said researchers would be able to individualise treatments.

"In a study treating post-traumatic stress disorder, researchers identified

a certain combination of genes that were less responsive to treatment. If we detected something similar in anorexia, it means we could tailor our treatments accordingly.

"The conventional approach is stepped care, so we offer a small amount of treatment to see whether they get better, then intensify it if they don't improve, to the final option which is hospitalisation.

"But by knowing the genetic risk factors from the start, we could tailor treatments to prevent people from having a lengthy but unproductive course of treatment."

Professor Wade said data would also be collected about the type and course of anorexia nervosa, thereby broadening scientific knowledge of the complex disease.

"Anorexia doesn't discriminate – it affects girls and boys, women and men, and in my view it's the most difficult psychiatric disorder to treat.

"With depression, schizophrenia and bipolar there are medications and cognitive behavioural treatments that help but with anorexia there's also a medical component because those affected by it are starving themselves, which is not only life-threatening but impairs their ability to think clearly."

Provided by Flinders University

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