

**ABNORMALITY: HOLLAND ET AL.  
ANOREXIA TWIN STUDY**

**Aim:**

to investigate whether there is a genetic basis for anorexia by studying identical (MZ) and non-identical (DZ) twins where at least one twin in each pair suffered from anorexia

**Procedures:**

- ❑ Participants were: 30 female twin pairs (16 MZ and 14 DZ), four male twin pairs, and one set of male triplets
- ❑ The twins and triplets were selected because one of the twins (and one of the triplets) had been diagnosed as suffering from anorexia nervosa
- ❑ Data were collected on the other twin and triplets to check for concordance

**Findings:**

- ❑ High concordance rates were found for monozygotic female twins – 55% compared to 7% for dizygotic female twins
- ❑ Five of the non-anorexic female co-twins had either other psychiatric illnesses or minor eating disorders
- ❑ None of the male co-twins (or triplets) had anorexia (i.e. they were discordant)
- ❑ The anorexic male twins tended to have been disadvantaged at birth and to be the less dominant of the pairs

**Conclusions:**

- ❑ Results support the view that there is some genetic basis for anorexia among females, since identical twins (who share the same genes) had 55% concordance, while DZ (fraternal) twins (who share only half of their genes) showed only 7% concordance
- ❑ No conclusions can be drawn from the data from the male twins owing to small numbers

**Criticisms:**

- ❑ The higher concordance rates among MZ twins may be caused by the similar ways in which they were treated by family and friends
- ❑ If genes contribute to anorexia, their contribution is small
- ❑ Holland's findings have not been supported by other studies