

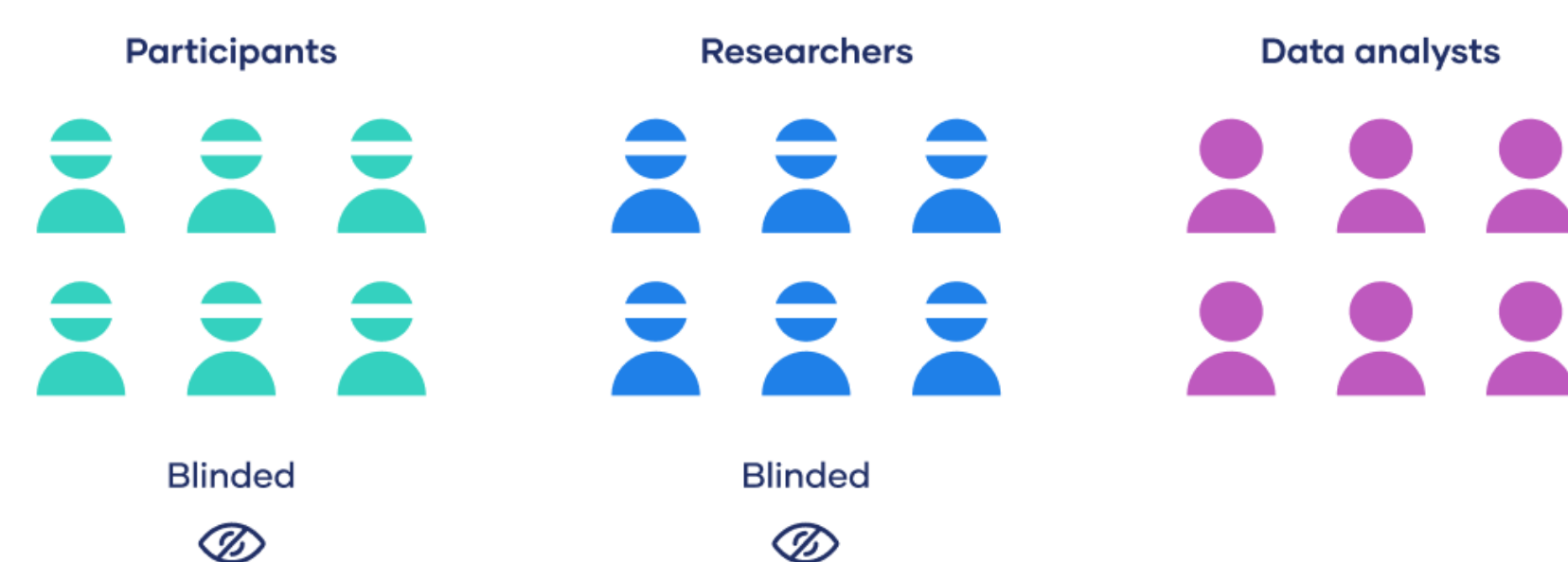
Food Dyes Linked to Attention Deficit Hyperactivity Disorder in Children

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INTRODUCTION

- Attention deficit hyperactivity disorder is a neurodevelopmental disorder that primarily affects children but can persist into adolescence and adulthood.
- The concept of using an elimination diet to address food allergies and its potential impact on the nervous system was first proposed by Albert Rowe in 1926.
- The first study conducted in England concluded that food additives contribute to hyperactivity, prompting the European Union Parliament recently to require warning labels on foods containing 6 colors.
- Another large European study, conducted in the Netherlands, also attracted considerable attention and some controversy.

Double-blind study



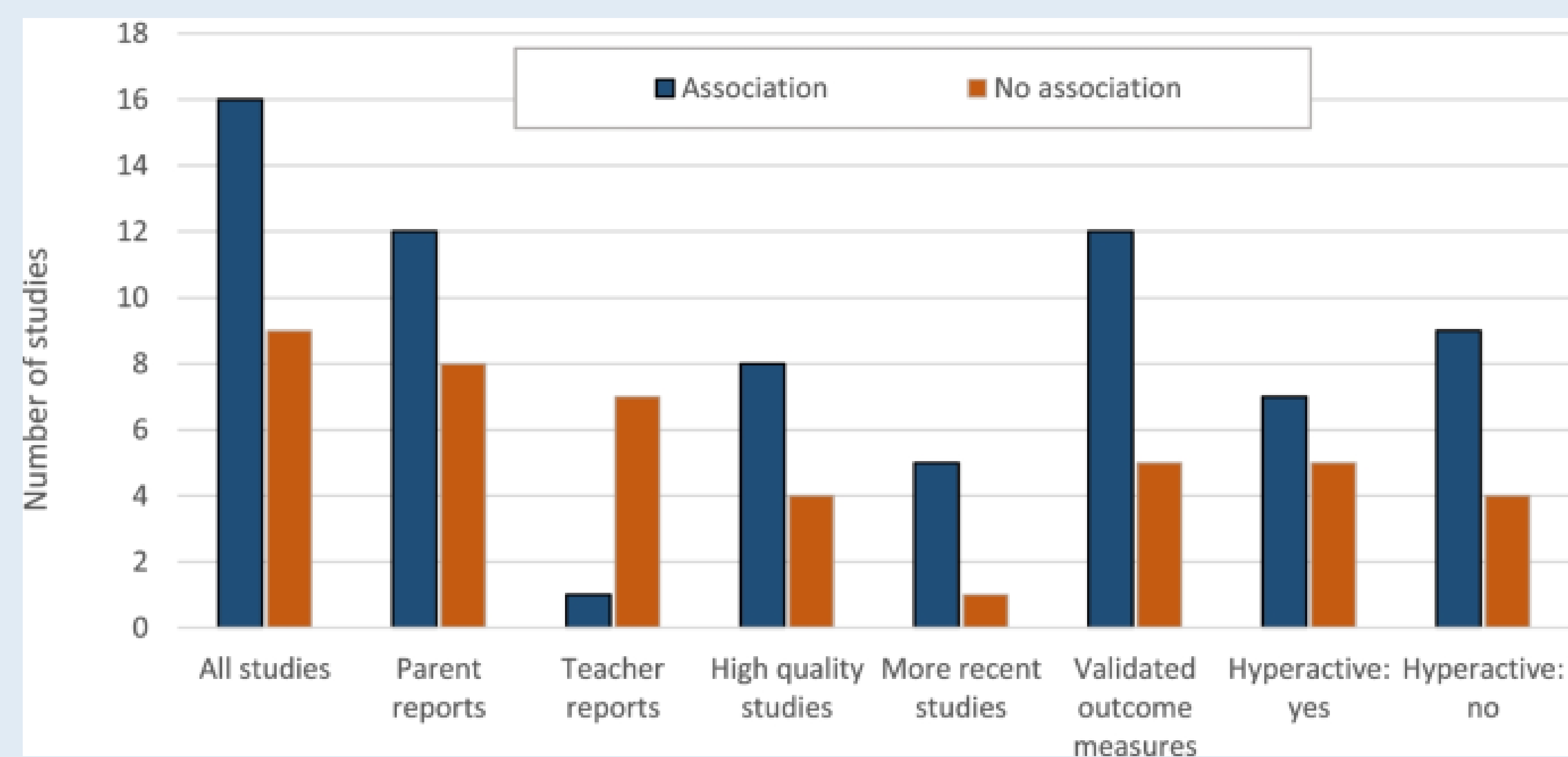
A double-blind study is a research design commonly used in clinical trials, where neither the participants nor the researchers involved know which participants are receiving the active treatment and which are receiving a placebo or a comparison treatment.

METHODS

Elimination diets involve a 2-step process:

1. Following the diet for a period
 2. Then reintroducing foods one by one to check for symptom recurrence.
- First study: The children were a group of 3 year olds (n = 153) and a group of 8 year olds (n = 144).
 - Second study: They randomized 50 children with ADHD to an individually designed few foods diet and 50 to healthy diet counseling.
 - Third study: Rowe and Rowe experiment involved 200 children that underwent an open-label, nonblind trial of a diet free of food colorings.

RESULTS



Number of clinical studies reporting positive associations by key study variables

REFERENCES

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Cupcakes with food dye in frosting. Some food dyes used are blue 1, blue 2, red 3, red 40, green 3 and yellow 5.

Conclusion

- Due to factors like small sample sizes and outdated methodologies (from 19970's-1990's), coupled with the relatively minor effect, the impact of food dye consumption on cognitive development in early childhood is difficult to discern with certainty.