

RESEARCH STUDY RESULTS

Benefits of Broccoli Extract in Autistic Young Men

04/22/2022

PRINCIPAL INVESTIGATOR

Laura Politte, M.D.

Child and Adolescent Psychiatrist

WakeMed Physician Practices

Adjunct Assistant Professor of Psychiatry

UNC School of Medicine



PURPOSE

The purpose of this research study was to explore possible benefits of a broccoli extract supplement (sulforaphane) for young men with autism. Young broccoli plants contain high levels of something called sulforaphane, which has health protective benefits, like reducing inflammation and increasing the body's natural antioxidants. In other studies, sulforaphane has been found to be very safe with few side effects.

PARTICIPANTS

A total of 48 autistic young men between the ages of 18 and 30 years old participated. Twenty-four participants were assigned to take sulforaphane, and 24 participants were assigned to take placebo for approximately three months. One participant assigned to sulforaphane stopped the study medication early due to concerns about worsening irritable mood, and another participant stopped the medication early due to problems swallowing the capsules. All other participants completed the study.

RESULTS

There were no differences between the sulforaphane group and the placebo group on any of the primary and secondary outcome measures. The measures assessed social communication, repetitive behaviors, irritability, agitation, crying, lethargy, social withdrawal, stereotypic behavior, hyperactivity, and inappropriate speech. A standardized tool to rate overall symptom severity and improvement (Clinical Global Impressions scale) was used.

In this particular study, sulforaphane did not appear effective for improving symptoms of autism or other behaviors mentioned above. Sulforaphane was well-tolerated overall, and the two groups did not differ significantly in terms of side effects of laboratory tests.

*Funding for this study was provided by the Nutritional Research Institute of UNC
<https://uncnri.org/>*



SCHOOL OF MEDICINE

Carolina Institute for Developmental Disabilities