

Comparing Two Approaches to Manage Weight in Youth with Overweight or Obesity and Bipolar Spectrum Disorders Who Take Antipsychotic Medicines -- The MOBILITY Study

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What was the research about?

Bipolar spectrum disorders, or BSD, are serious mental health disorders that cause people to have times of unstable mood. BSD often begins when a person is young. Taking medicines called second-generation antipsychotics can help to reduce symptoms of BSD, but these medicines often cause weight gain.

In this study, the research team compared two approaches to help youth with BSD who were taking antipsychotic medicines to control their weight and manage their health:

- **Educational program alone.** In the program, clinic staff gave youth and their caregivers a video to watch and handouts to learn about healthy eating and exercise.
- **Educational program plus metformin.** Youth and their caregivers received the educational program. Youth also received a prescription for metformin. Metformin is a medicine that may help patients lose weight or prevent further weight gain.

What were the results?

At 6 and 24 months, compared with youth who received the educational program alone, youth who also received metformin had greater reductions in their body mass index, or BMI. BMI is a measure of a person's body fat based on their height and weight. The difference in BMI reductions was small. After 24 months, youth who received metformin had improved quality of life. They also had more side effects, like nausea and vomiting.

Youth with and without metformin prescriptions didn't differ in mood and anxiety symptoms, number of hospital stays, or how regularly they took their antipsychotic medicine.

Who was in the study?

The study enrolled 1,565 youth who were ages 8–19 and had a diagnosis of BSD and were receiving care at one of 64 clinics in 11 states. All youth had overweight or obesity and had received treatment with or had just started a second-generation antipsychotic medicine. Of these youth, 67 percent were White, 17 percent were Black, and 12 percent were Hispanic. The average age was 14 years, and 53 percent were male.

What did the research team do?

The research team assigned youth by chance to receive the educational program with or without a prescription for metformin.

The research team tracked weight among youth in the study for two years. At their regular checkups, youth and their caregivers completed surveys about their health, quality of life, and whether they were taking their medicines as directed.

Youth with BSD, their caregivers, and doctors helped to design the study.

What were the limits of the study?

Most youth were already taking second-generation antipsychotic medicines when the study began. As a

result, the research team couldn't determine whether metformin would have prevented weight gain for youth starting medicines for BSD.

Future studies could include youth with new prescriptions for antipsychotic medicines to see if metformin can prevent weight gain.

How can people use the results?

Youth with BSD, their caregivers, and their doctors can use the results to help youth with BSD manage their weight and health.

To learn more about this project, visit www.pcori.org/DelBello447.