Title Page for all entries in the Biomedical Breakthroughs and My Life Contest

Date: February 27, 2016

Student Name: Cassidy Williams

Title of Entry: How Ritalin Changed My Brother’s Life

Teacher’s Name (if entering as part of a school class): Mrs. Bailey

School Name (requested from all participants): Post Middle School

Category: (Essay, Poster, or Video): Essay

Theme (Animal Research Saves Lives, Animal Research Helping Animals, or Advances in Medical Biotechnology) Advances in Medical Biotechnology

Enter this essay in the English Language Learner (for 5 years or less of English) category: 

___ Yes       ___ No

How ritalin Saved Jacob’s life
In 2003, Jacob was diagnosed with autism at the age of three. Autism is a pervasive developmental disorder that involves abnormal development and function of the brain. People with autism show decreased social communication skills and restricted or repetitive patterns of behaviors or interests. An official government estimate says that 1 in 68 American children will be diagnosed with Autism. Jacob never stopped moving. He couldn’t focus on anything, couldn’t communicate, and had multiple violent temper tantrums each day. For his own safety, his mom had to keep him strapped in a stroller whenever they went outside so that he wouldn’t run away. At the time, his mom had little hope for my brother’s future. Advances in Biomedical Technology changed that.

January of 2006, the University of Texas Health Science Center, Houston, began conducting a study where 24 participants with autism spectrum disorder and ADHD underwent a randomized, placebo-controlled, cross-over designed trial, which included: 1 week of placebo, 1 week of low dose methylphenidate (Ritalin), 1 week of medium dose methylphenidate, 1 week of high dose methylphenidate. Ritalin is a central nervous system stimulant that affects chemicals in the brain and nerves that contribute to hyperactivity and impulse control. Jacob was chosen to participate in this study in the spring of 2007. At the end of the study, his mom was shocked at the difference in my brother. On the week that the researchers gave Jacob the highest dose of Ritalin, he was able to focus on activities, started to communicate more, and his behavior was much more stable. His mom knew at this moment that Ritalin would change our
family’s life. After the study, Jacob began taking Ritalin daily, and has to this day. It has greatly helped him in his social development.

Another study, published in June of 2013, in the Journal of Child and Adolescent Psychopharmacology, concluded that there were significant declines in hyperactive, impulsive, inattentive, and oppositional behaviors, and improvements in social skills at both home and school while using Ritalin.

Children with autism are known to be at a high risk for several emotional and behavioral disorders. My mom feels that my brother would not be nearly as successful in his life today had he not started taking Ritalin.

In a study published in May 2013, optimal dosing of methylphenidate was shown to be practical and effective in some children with an intellectual disability. ADHD is increased in this group of children, and in the study, 40% of those on methylphenidate versus 7% of children on a placebo were judged “improved” or “much improved” on the actual drug.

Thanks to Advances in Biomedical Research, Jacob is able to have a more normal life than he would have had had he never participated in the clinical study. Due to the fact that he can focus better and his behavior is more controlled using the medication, he is able to participate in activities that further his social development skills.
Reflection Paragraph

Doing the research for this essay has helped me to learn how important medications can be in helping people to lead more normal lives despite their disabilities. I have always known that my brother had autism, but I didn’t know all that he and my mom went through when he was younger. By interviewing my mom, I now understand how much better my brother’s life is because my mom decided to take part in this clinical study. Without this study, he may never have learned to talk or interact with people. He now has a First Class Rank in Boy Scouts, is joining the track team at the high school, and volunteers weekly with my mom at our church. Clinical studies give hope to parents that their children will be able to have more normal lives as adults.
1. "Drugs.com | Prescription Drug Information, Interactions & Side Effects."


