

Boise couple create app for diagnosing autism

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Quinn, an autistic boy, and the line of toys he made before falling asleep. Repeatedly stacking or lining up objects is a behavior commonly associated with autism. Credit: Wikipedia.

Robby Oberleitner was 18 months old when his parents noticed changes in his personality. By age 2, the boy wasn't talking. He would cry and hurt himself.

What happened over the next year would inspire his parents, Ron and Sharon Oberleitner, to start a business they now operate from downtown Boise.

It was the mid-1990s when the Oberleitners, worried about their son, sought answers from doctors in the Dallas area, then in New Jersey. Finally, a specialist diagnosed 3-year-old Robby with autism.

"Diagnosis is the place to start, and with the diagnosis you, by and large, can get treatment," Ron Oberleitner said.

But the delay in diagnosis meant 18 months of lost time when Robby could have benefited from therapy.

"It's a crime not to help a family get a diagnosis so they can begin early intervention for their [child](#), if they have instincts that something is going wrong," Oberleitner said.

It occurred to the Oberleitners in the 1990s and early 2000s that the rapid exchange of video over the Internet, and increasing openness to telemedicine, could make it easier for families to get a diagnosis and [early intervention](#) for their children. Ron Oberleitner had spent much of his career working in technology product development and marketing products such as surgical instruments, and he had experience with training doctors over the Internet.

Parents could use iPads and iPhones to break free of long waiting lists for doctors and the uncertainty about whether a child would show autism symptoms during a one-hour office appointment.

The couple founded a business, now known as Behavior Imaging, that makes several products tailored to autism but which, Ron Oberleitner thinks, could also be used for disorders such as attention deficit

hyperactivity disorder, dementia and Alzheimer's.

Oberleitner worked with a number of colleagues and business partners, including his wife, to develop a remote autism-diagnosis tool called NODA, or naturalistic observation diagnostic assessment.

NODA gives the parents detailed instructions for capturing video that a health-care provider somewhere in the world can use to assess the child for autism. For example, a parent could be instructed to start the video recorder while the child is playing with a sibling or while the family is at the dinner table. The parent could try a few prompts: asking the child for a spoon, pointing to something in the room and calling the child by name. If the child reacts in a certain way, the evaluator can "bookmark" the behavior.

That kind of service could be a game-changer in Idaho, according to Idaho Parents Unlimited, a statewide organization that works with people with disabilities, as well as parents and families of children with disabilities.

The waiting list for an autism diagnostic assessment in the Boise area is 10 to 11 months, according to the organization. For families in rural Idaho, the waiting list is just as long, but the families also must drive hours to get to the appointment.

At this point, though, the NODA program may not be enough to get treatment in Idaho. Idaho Medicaid does not accept telehealth-based diagnoses for disorders in the autism spectrum, so a child would not be eligible for services based just on the NODA diagnosis, according to Tom Shanahan, spokesman for the Idaho Department of Health and Welfare.

However, Shanahan said the Idaho Legislature's recent passage of a

telehealth law might pave the way for that rule to change.

Behavior Imaging is going through the process of patenting its work, Oberleitner said.

With about \$3 million in federal grants in the past few years, Behavior Imaging's various tools and methods for diagnosing and assessing children with autism have undergone clinical trials to show they're effective. They are used in about 40 states today, not just by parents but by states such as Pennsylvania and by social-service agencies that provide school-based services.

Sharon Oberleitner oversees sales and customer support for video-assessment and diagnostic tools. The company makes about \$300,000 in sales each year for its assessment and behavior-capturing programs. For example, its assessment program is used by states to meet No Child Left Behind requirements.

The goal, she said, is to make the services more affordable for parents, by encouraging organizations to buy memberships and offer the product to families.

The autism-diagnosis service is available in Arizona now for \$250, a discounted rate thanks to grant funds, and will be available nationwide for \$495 later this year.

The company expects to hear soon that it has won another three-year, \$1 million federal grant to use its technology to link 40 to 50 autism patients in remote, rural areas with an autism clinic in Moscow. The Oberleitners hope most of the participants in the trial program will be Idahoans.

Robby is now 22 years old. While he is considered low-functioning, he works, volunteers and takes a physical-education class at Boise State

University. He and his two brothers all have roles in the Behavior Imaging offices.

"Our passion (is) to really help our own child and the growing number of children around the world who have [autism](#)," Ron Oberleitner said.

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