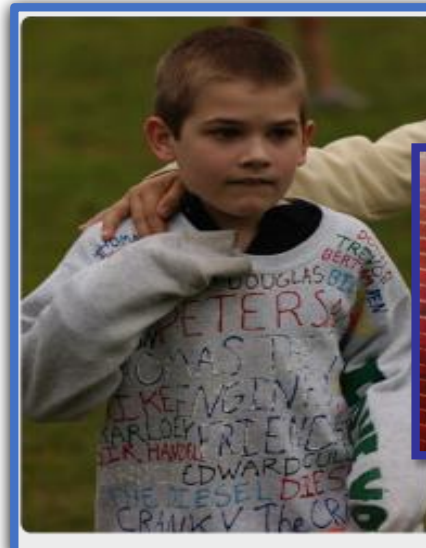




# Technology “Meet the Parents”– Ron Oberleitner

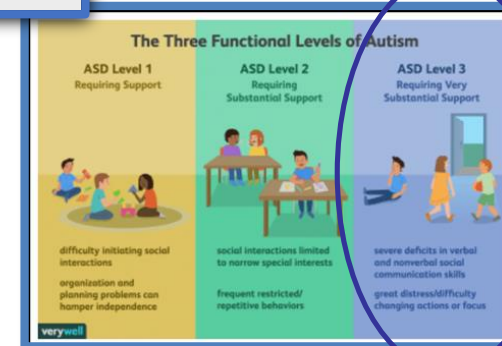
1996 – 2019: ‘Home Life and Passion’



Robby diagnosed at  
3 ½ years



Robby at 26 yr..



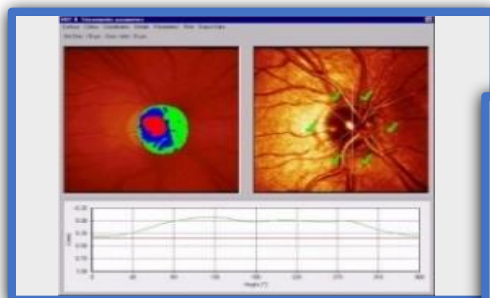
## Disclosure -

CEO, Shareholder of Caring Technologies, Inc. (Boise, ID), dba Behavior Imaging



# Technology “Meet the Parents”– Ron Oberleitner

1990's: 'My Day Job'



Surgery Software



Image Guided Surgery



Telemedicine w/ Operation Smile

## Disclosure -

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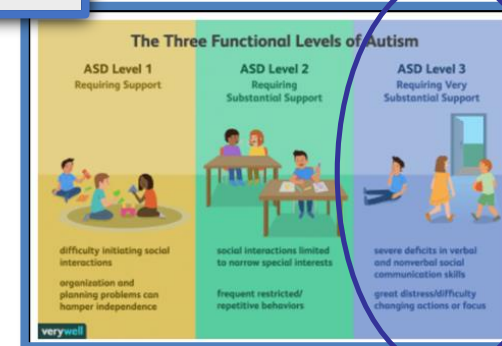
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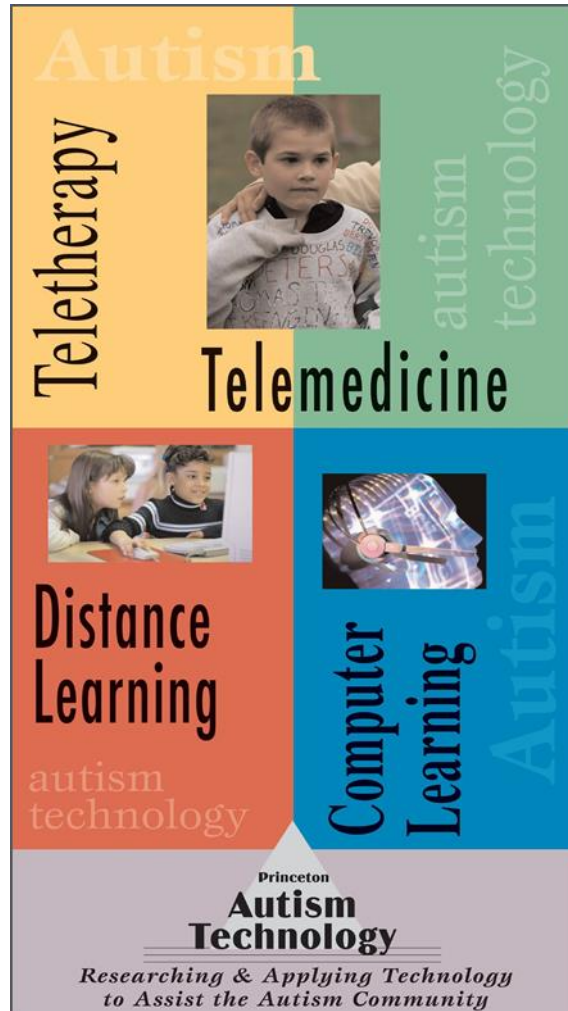
Robby at 26 yr..



behaviorimaging.com



## Idaho Rural Health Telemedicine Network (2003! )



2002- First PSA for Autism Telehealth video

- 2005- Autism Telehealth presented at ATA
- 2006- 'Technologies to Lessen the Distress of Autism' book chapter
- 2007- 1st Autism Telehealth Summit
- 2010- Telehealth for Rural Therapy via Military Project





# Telehealth' for Autism Healthcare

## Medical



Sleep issues  
Seizures  
Obesity  
GI  
Genetic

## Mental' Health



Earlier Diagnosis (waitlists)  
Anxiety  
Depression / Suicidality  
Behavior in Natural Environment  
Med Management

## Why???

- Conventional care is \$\$\$, unsustainable
- > 25% (non verbal) can't communicate their health needs
- Distance from helpful Providers (helpful experts is another trip for patients.)
- Behaviors and Medical symptoms don't always appear at office visit
- People with ASD needlessly die younger!







# Realtime Telehealth

## Diagnosis via Realtime Telemedicine



- Reischl, U, Oberleitner, R, Simper P, **Connecting Autism Families with Emergency Support** (Katrina Families aided by Telehealth Technologies), Northwest Public Health, Fall, 2006

## Connecting Autism Families with Emergency Support

Reischl, U, Oberleitner, R, Simper P

In August 2005, Hurricane Katrina created serious public health problems in the coastal communities of Louisiana, Mississippi, and Alabama by destroying or degrading the capacity of many communities to deliver critical social services. Among the people adversely affected by the hurricane were more than 50,000 families with a member who has autism. People with autism can have great difficulty adjusting to change. The disruption of daily routines can cause severe anxiety and stress not only for the people with autism but also for their families and caregivers. During the evacuation from Hurricane Katrina, for example, many autism families were asked to leave public shelters because of the disruptive behaviors of their children. These families were in desperate need of services that local, state, or federal agencies could not provide at the time. In response, autism support groups mobilized to help.

### Autism challenge

Autism is one of the fastest-growing and most prevalent childhood developmental disorders in the United States, affecting as many as one in every 166 births. Autism is a neurological disorder that interferes with normal development in language, intuitive thought, social interac-

tion, and the ability to connect with surroundings. Approximately half of all children with autism are unable to communicate their needs using spoken words. Most are unable to accommodate changes in their daily routines. Associated problems can include hyperactivity, self-injurious behavior, sleeplessness, eating disorders, and gastrointestinal problems. Order and consistently administered therapeutic interventions are important for the child and the family's well-being.

### Relief initiative

To help autism families deal with the after-effects of Katrina, a consortium of leading national autism organizations, coordinated through the Center for Health Policy at Boise State University (BSU), formed an emergency relief and recovery initiative in September 2005, called AutismCares ([www.autismcares.org](http://www.autismcares.org)). The initiative began in order to raise funds and provide immediate help by leveraging the existing network of autism support groups. The consortium includes a number of support organizations: Autism Speaks, Cure Autism Now, First Signs, TalkAutism, Southwest Autism Research and Resource Center, Unlocking Autism, The Help Group, and Princeton Autism Technology.

The services provided by the AutismCares initiative was made possible by the support received from volunteers living in the affected coastal regions and by the volunteers at BSU who contacted displaced families using the Internet and telephone. Key to locating displaced families was the sharing of contact information, family names, and known addresses contained in the files of the autism support group membership lists.

To date, AutismCares has raised more than \$140,000 for the relief program. Additionally, in-kind donation offers were received from more than 700 people from across the country. Christ-



BOISE STATE UNIVERSITY

AutismCares™



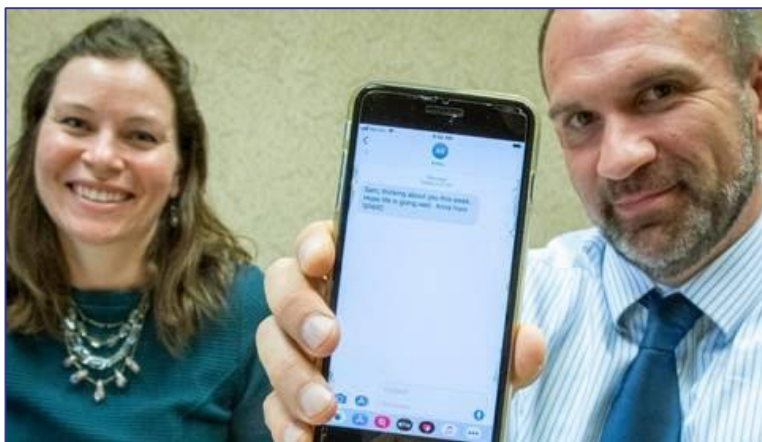
behaviorimaging.com



# Realtime Telehealth (aka Live Virtual Interactions)



Secure Videoconferencing



Secure Text



Collaborative Care During Patient visit with Family Doctor

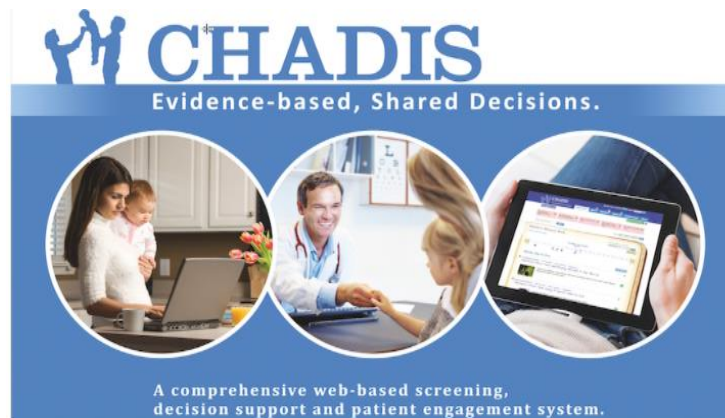


# Other Telehealth Technologies

## Asynchronous Telehealth



*Behavior Imaging*



*Remote 'screeners' / questionnaires*

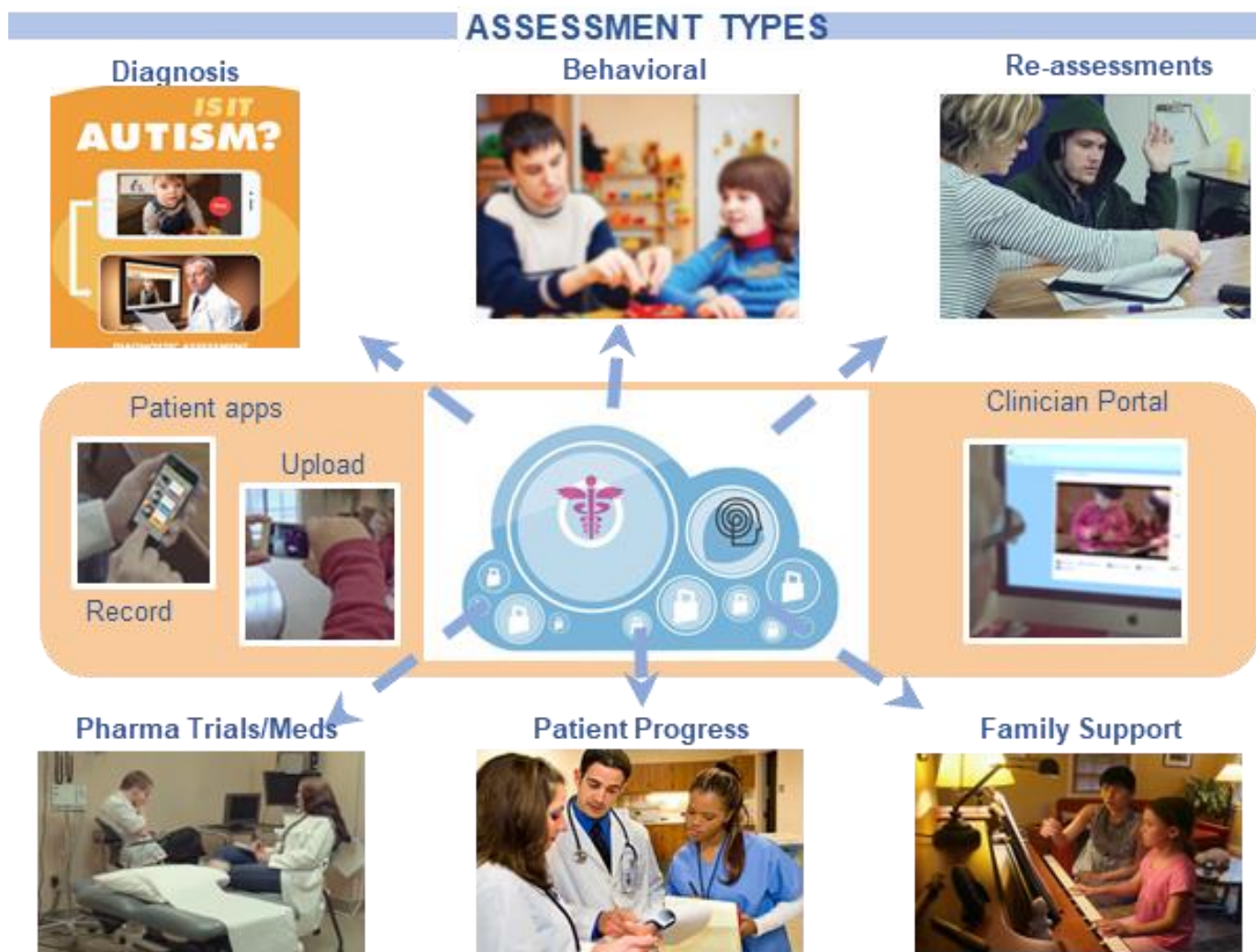
## Remote Monitoring / Patient-centric apps







# (Remote) Health Assessments via Behavior Imaging







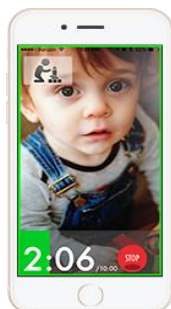
## What Families do.....

## What Clinicians do....



NODA Capture

- **Diagnostic Assessments**



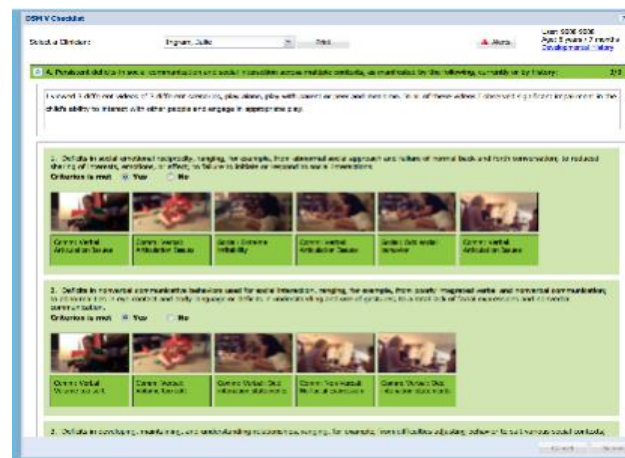
Behavior Capture

- **Behavior Assessment**
- **Remote Consultation**
- **Staff / Parent Training**
- **Skill Assessment**



Med SmartCapture

- **Medication Management**
- **Better Pharma Trials**



Expert 'Radiology' Suite



Eg. Organize per DSM 5



Reporting





## Expertise in the Field



### Diagnosis



10 States, 4 Countries, 9+ Publications

### Treatment /Supervision



40 States, 7 Countries, 20+ Publications





# Results vs. Traditional Methods

## Diagnostic Assessment ...

- 88% agreement to InPerson
- ½ the time for Diagnostic Assessment

## (Functional) Behavior Assessment

- Response = 1 vs. up to 30 days (*t*)
- 42% less costly (\$)
  - Eg. Saves \$12,000 / year per client
- Save Clinical Time (reduce travel)
- 43% less data collection errors
- Video data invaluable to measure progress

## ACCESS-TO-CARE TIMELINE

FOR NODA (TELEHEALTH) VS. IN-PERSON ASSESSMENT (57 CLIENTS)





# System of Care Telehealth Platform



How would it work for the most FAMOUS behavior specialist ? <https://youtu.be/El9-t58S8no?t=10>





## **Telehealth Call to Action!**

