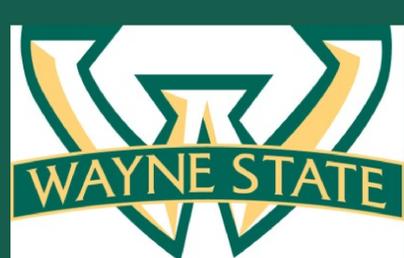


# Social Determinants Effect on Autism Treatment

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## PATIENT PRESENTATION

**Chief Complaint:** "Our child does not talk to other children or make good eye contact."

Patient: Six-year-old African American male

Presentation: Referral from pediatrician for child's perceived lack of social development, rocks back and forth in chair, does not maintain eye contact, and consistently repeats words and phrases. Condition has progressed over the last three years.

Mitigating factors:

- Difficulty making friends at school
- Does not listen to parents or teacher
- No interest in playing with other children
- Not able to follow instructions

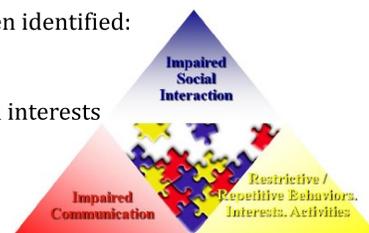
Parents also have a ten year old son who they say did not display these attributes during development.

## BACKGROUND

Autism spectrum disorder (ASD) is a prevalent disease affecting 1 in 68 children, according to the latest reports from the Center for Disease Control and Prevention<sup>1</sup>.

Three core areas of development have been identified:

- Social development
- Communication
- Repetitious behaviors and restricted interests



Zuckerman et al. found that parents<sup>2</sup>:

- With a higher education level are more likely to believe that their child's condition can be prevented or decreased with treatment
- In a lower income bracket are most likely to believe their child's condition is a mystery and least likely to believe they have the power to change their child's condition
- Of African American children with ASD are more likely to believe their child's condition is temporary

## PATHOPHYSIOLOGY

ASD is a multifactorial disorder, with a strong genetic component as demonstrated by family and twin studies. As people with ASD exhibit a wide variety of symptoms, it can be expected that there may be several genes involved. Current studies support the likelihood of a gene-disrupting or a splice site mutation that result in a shortened or truncated protein in people with ASD compared to their healthy relatives or unaffected individuals.

Torre-Ubieta et al. has identified several rare *de novo* mutations with strong evidence of being involved with ASD including mutations in the helicase DNA binding protein, dual-specificity tyrosine phosphorylation-regulated kinase 1A, and a deletion or duplication of the p arm of chromosome 16<sup>3</sup>.

## SOCIAL DETERMINANTS OF HEALTH

### Parents

Employment: Factory workers  
Education: High school, reading level below third grade  
Household income: \$22,000  
Insurance: Medicaid

### Treatment compliance

Difficulty keeping doctor's appointments – work schedules  
Transportation – location of clinic, single car household  
Child-care  
Belief that their son's condition may be temporary  
Alternative care – Speech or Occupational therapy

## TREATMENT PLAN

Standard of Care: **Applied Behavior Analysis (ABA)**<sup>1</sup>

Targets behaviors to change that will have real-life application  
Initial assessment required  
Treatment plans need to be individualized

Medicaid insurance will cover ABA

Interventions per week: 10-25 hours recommended

Evening hours scheduled to accommodate parents' work schedules  
OR  
Home-visits while parent present

Specific behaviors to be targeted:

Attentiveness at home, school, playground  
Response to authoritative figures  
Social interaction – playing in groups

Parent involvement:

Decreases average cost of therapy  
Promotes long term advocacy



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## ADVOCACY AND SUPPORT

Parents must understand and play an important role in child's treatment.

It is strongly recommended that parents attend Autism Center support groups.

Parents need to be empowered to take control and advocate for their child's treatment.

Pamphlets provided to family about Autism and treatment that is reading grade level adjusted.

Resources:

- Autism Society of America – [www.autism-society.org](http://www.autism-society.org)
- Autism Speaks – [www.autismspeaks.org](http://www.autismspeaks.org)
- Autism Alliance of Michigan – <https://autismallianceofmichigan.org/>

You can help your child and the team taking care of him by:

1. Making it to your appointments.
2. Knowing where to find answers.
3. Filling your prescriptions.
4. Confirm that your insurance covers the treatment or ask for alternatives.
5. If you need more help, ask.

Ways to make the most of your visit with your doctor

## REFERENCES

1. Center for Disease Control and Prevention. Last updated April 11, 2016. Web: "<http://www.cdc.gov/ncbddd/autism/index.html>. Accessed June 27, 2016.
2. Zuckerman, Katharine E., Olivia J. Lindly, Brianna K. Sinche, and Christina Nicolaidis. "Parent Health Beliefs, Social Determinants of Health, and Child Health Services Utilization Among US School-age Children With Autism." *Journal of Developmental & Behavioral Pediatrics* 36.3 (2015): 146-57.
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