

# Sibling Location within the Social Network of Youth with Autism Spectrum Disorder: A Case Series with Comparison to Matched Typically-Developing Youth

Christen Fechtel, Undergraduate Honors Student; Consuelo M. Kreider, MHS, OTR/L; Roxanna M. Bendixen, PHD, OTR/L

## Purpose and Background

Siblings impact each other's social skills (Jalongo & Dragich, 2008). However, few studies have examined the impact siblings can have on each other when a sibling has a disability (Jalongo & Dragich, 2008). We are using social network analysis and qualitative interview to describe the social networks of the youth with disability and explore perceptions of sibling involvement in the youths' networks. We present three cases describing the social networks of 15 and 16 year old youth with Autism Spectrum Disorder (ASD). Social networks of typically developing age and gender-matched youth are shown.

## Methods

- Sub-study within larger social network study
- IRB approval and written consent prior to data collection
- Demographics questionnaire given
- Examples of demographics questions include size of household, number of minors in household, type of schooling, and therapies received
- Social network with 15 close ties and 10 loose ties created and analyzed using EgoNet, an open source software
- Qualitative interview done while looking at the youth's network map
- Interviews were audio-recorded and transcribed
- Member checking on later interviews and follow-up interviews for elaboration or clarification as needed
- Coding and thematic analysis done by two researchers

## Results from Social Network Mapping

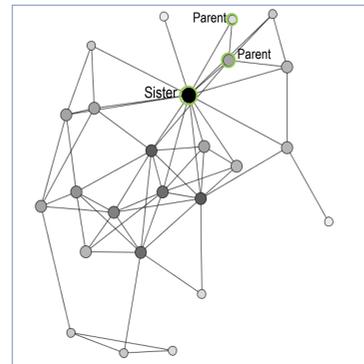
Degree centrality refers to the number of ties a person on the network has with other people on the network, relative to other people's number of ties in the network. Siblings and parents have some of the highest centrality measures in both groups' networks. Siblings of teenagers with ASD are located more centrally in the network. Friends of youth with ASD are not as dark, or central to the network as friends of typically developing youth. There are more defined clusters in the networks of typically developing youth and friends.

## Case Results

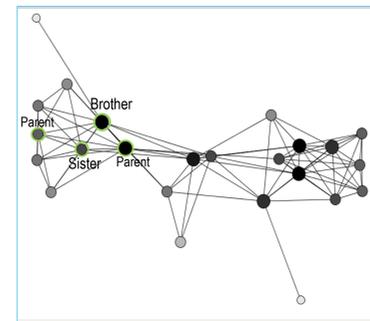
Youth with Autism Spectrum Disorder

Typically-Developing Matched Comparisons

### Case 1: Female, 16 year old

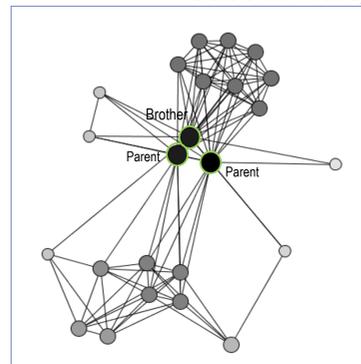


Sibling Degree Centrality Measure  
Raw = 14 Normalized = .583

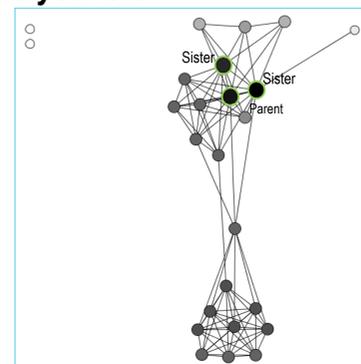


Sibling Degree Centrality Measure  
Raw = 11,8 Normalized = .458, .333

### Case 2: Male, 15 year old

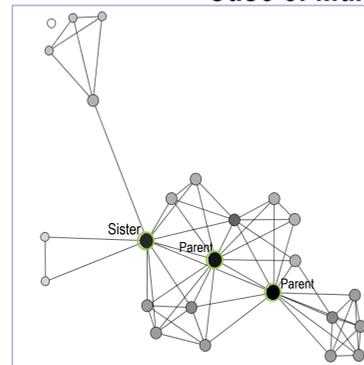


Sibling Degree Centrality Measure  
Raw = 16 Normalized = 0.666

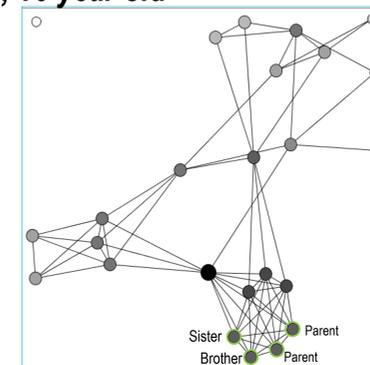


Sibling Degree Centrality Measure  
Raw = 13, 11 Normalized = .541, .458

### Case 3: Male, 16 year old



Sibling Degree Centrality Measure  
Raw = 11 Normalized = .458



Sibling Degree Centrality Measure  
Raw = 7,7 Normalized = .291, .291

### Average of Siblings' Degree Centrality Measure

	ASD Group	Typical Group
Raw	13.666	9.500
Normalized	0.569	0.395

## Quotes from Interviews with Youth with ASD

- "[Sibling] introduced me to [them]. They are nice. I just say hi to them in the hall or something. Some of them try to get to know me" (Case 1)  
→ sibling as resource by introducing others
- "[Sibling's] very understanding of him...she smiles and just tries to snuggle up to him and tries to get him to interact" (Mom of Case 3)  
→ sibling engages youth
- "If [sibling doesn't] want us to do something, I'll [say], I need to be a part of this too because I am limited in my resources" (Case 2)  
→ youth asserts self socially with sibling and acknowledges differences between each other's peer groups
- "...it'll be the two of them talking and me just overhearing [and] making comments...we'll be talking and they'll get excited with each other" (Case 2)  
→ sibling has connection with youth's friend; youth as "third wheel" with friend and sibling – sibling subtly excludes

## Discussion

- In this sample, sibling degree centrality is higher for youth with ASD.
- Knowing sibling location and ties to people and cliques could assist therapists and parents. Siblings could be engaged in social interventions by modeling interactions with target individuals or by "bridging" into new groups since siblings of youth with ASD already exist as "bridgers" in this sample.
- Mapping network structure may help occupational therapists, teachers, and families assist youth with impairments or difficulties by facilitating social support. Social network mapping can help them form a plan of how to structurally strategize enhancing the child's social world.
- Demographics factors, such as sibling birth order, may play a factor in centrality observed.

## References

- Jalongo, M. R., & Dragich, D. (2008). Brothers and sisters: the influence of sibling relationships on young children's development. In M.R. Jalongo (Ed.), Enduring bonds the significance of interpersonal relationships in young children's lives, 73-90. London: Springer.
- <http://sourceforge.net/projects/egonet/> [EgoNet website link – a free access network-building tool]