

# Assessment of multiple facets of social connection among autistic adults: Development of the Connections With Others Scale – Autistic Version (CWOS-AV)

Annabelle M. Mournet, BA, Vanessa H. Bal, PhD, Edward A. Selby, PhD, & Evan M. Kleiman, PhD

Rutgers, The State University of New Jersey, United States



## Background

- Social connectedness, the perception that one is close and connected to other people, is an established protective factor against mental health disorders.<sup>1</sup>
- The social motivation theory of autism poses the misconception that autism represents an “extreme case of diminished social motivation.”<sup>2</sup>
- Earlier work suggested that humans have an intrinsic motivation and need to connect with others.<sup>3</sup>
- Work by self-advocates highlight the inaccuracy of the social motivation theory.
  - den Houting (2020) demonstrated the toll of social isolation emphasizing an inherent preference for social connection.<sup>4</sup>
- Research is needed to advance the understanding of the extent to which autistic individuals are motivated to socially connect.
- Limited measures exist to assess levels of motivation, desire, and value associated with social connection.

## Aim

- To develop a measure to assess facets of social connection that is valid among autistic adults.
- To use this measure to examine the extent to which autistic adults are motivated, desire, and value connection with others, compared to non-autistic adults.

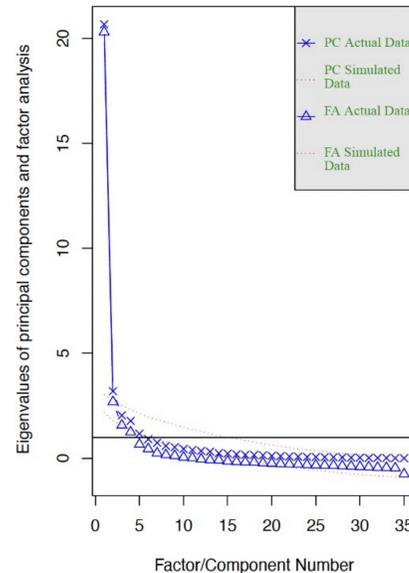
## Methods

- Sample: 200 participants recruited online, including through an autism registry (autistic sample M age = 35.9, SD=12.6; non-autistic sample M age = 41.7, SD=18.8)
  - Half of the sample self-reported a diagnosis of autism.
- Participants completed an initial set of 35 items to assess the desire, value, enjoyment, and motivation to connect with others and provided feedback on these items (e.g., “I am motivated to talk with other people”).
- Exploratory factor analyses (EFA) were conducted using 100 participants. Confirmatory factor analyses using the remaining 100 participants were then performed.
- After development of the measure, a series of independent sample t-tests were performed to compare the total scores on the developed measure among autistic participants compared to non-autistic participants.

## Results

Scree plots and visual inspection of factor loadings for the EFAs revealed four factors, with three overlapping factors for the autistic sample and non-autistic sample. Accordingly, two measures, one for each group were developed.

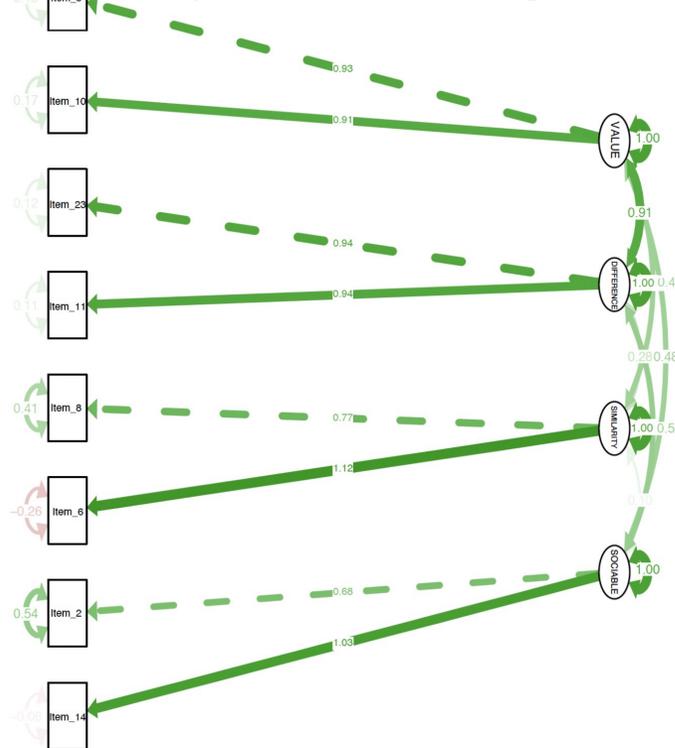
**Figure 1. Parallel analysis scree plot for autistic sample**



**Table 1. Connections with Others Scale – Autistic Version (CWOS-AV)**

Factor	Item	Loading Factor
Value	I enjoy talking with other people	0.89
	I want to get to know other people	0.87
Similarity	I want to interact with people who are similar to me	0.77
	I want to interact with people have similar interests as me	0.93
Time Spent	I am part of a group of friends	0.73
	I spend time with other people	0.62
Difference	I enjoy interacting with people who are different than me	0.84
	I value interacting with people who are different than me	0.85

**Figure 2. CFA for autistic sample**



**Figure 3. Connections with Others Scale – Autistic Version (CWOS-AV)**

Connection With Others Scale – Autistic Version

Please judge how much you agree with each of the following statements.

	7 (Strongly Agree)	6 (Mostly Agree)	5 (Slightly Agree)	4 (Neither Agree nor Disagree)	3 (Slightly Disagree)	2 (Mostly Disagree)	1 (Strongly Disagree)
1. I am part of a group of friends							
2. I enjoy talking with other people							
3. I want to interact with people who are similar to me							
4. I want to interact with people who have similar interests as me							
5. I want to get to know other people							
6. I enjoy interacting with people who are different than me							
7. I spend time with other people							
8. I value interacting with people who are different than me							

Scoring Information: Compute totals by adding up the sum of the following

Total (Range = 7 – 58) =

- CFA of the 8-item 4 factor model for the autistic sample had a CFI of 0.980, an SRMR of 0.064, and a RMSEA of 0.097 (90%CI=0.000-0.184; p=.205), indicating adequate fit.
- In a comparison of outcome scores, autistic participants had significantly greater scores on the CWOS-AV (mean=26.48) compared to the scores of non-autistic participants on the CWOS (mean=20.43) (t(196)=4.55; p<.001).

## Discussion

- The CWOS-AV had excellent CFI and RMSR and the RMSEA value was acceptable, based on the p-value for the RMSEA being greater than 0.05.
- Autistic participants had significantly greater scores on the CWOS-AV, demonstrating higher levels of motivation, desire, enjoyment, and value associated with connecting with others.
  - Clear evidence in contradiction with the social motivation theory.
  - Coupled with theoretical work on the human need to connect, results suggests that the social motivation theory of autism cannot be generalized to all autistic people, or even most autistic people.
- The CWOS-AV has utility for use in a variety of areas for future including, the role of thwarted belongingness, including in the Interpersonal Theory of Suicide, advancing understanding of mental health related phenomenon such as bullying and suicidal thoughts and behaviors, as well as in research surrounding introversion.
- Limitations include that participants had to be legally independent to participate, there was a higher proportion of females than males, and participants were predominantly non-Hispanic/Latinx and White, thereby impacting generalizability.

## Conclusions

- The CWOS-AV was developed to facilitate measurement of social motivation, desire, and value among autistic individuals.
- This measure will allow for greater ability to assess numerous facets of social connection, resulting in improved ability to produce research that clarifies theories and describes psychological phenomenon.

## References

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