

Relationship between Self-Assessment of Autism traits and Quality of Life in ASD and TD Youth: The GENDAAR Study

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Background

- Autism Spectrum Disorder (ASD) is a complex developmental disorder that is characterized by persistent challenges in social, behavioral, and communication functioning.
- Previous research has focused on the relationship between others' reports of autism traits (parent or clinician) and self-report of Quality of Life (QoL) for autistic individuals (Mason et al., 2018), and only few reports have used self-report of autism traits and self-report of QoL.
- Self-report measures provide direct self-assessment rather than other's interpreting a behavior from observation. The use of self-report provides a better understanding of how autistic youth evaluate autism traits and QoL without others' bias.
- The aim of this study is to:
 - Do a preliminary analysis on
 - There is a significant difference of QoL in ASD and TD group.
 - There is a relationship between self-report of autism traits and QoL in ASD and TD groups.
 - There are gender differences between the self-report assessment of autism traits and QoL in ASD and TD group.
- We hypothesize that:
 - ASD group will report a lower QoL than TD peers replicating previous findings.
 - There will be a negative strong correlation between SAAT and QoL scores in both groups.
 - Females will report a lower autism traits considering more males are clinically diagnosed with ASD than females.

Methods

Participants:

Participants (ASD = 37, TD= 51) ages 16-34 years old from a four-site NIH funded study on gender differences in autism were included. All participants met inclusionary criteria on standardized measures and had an IQ>70.

ASD (M=25)			
	N	Mean	Std. Deviation
Physical QoL	37	65.81	19.20
Emotional QoL	37	51.65	19.85
Social QoL	37	59.43	21.53
SAAT Score	37	49.28	12.61

TD (M=22)			
	N	Mean	Std. Deviation
Physical QoL	51	77.49	16.14
Emotional QoL	51	62.39	16.84
Social QoL	51	71.45	18.87
SAAT Score	51	37.33	14.99

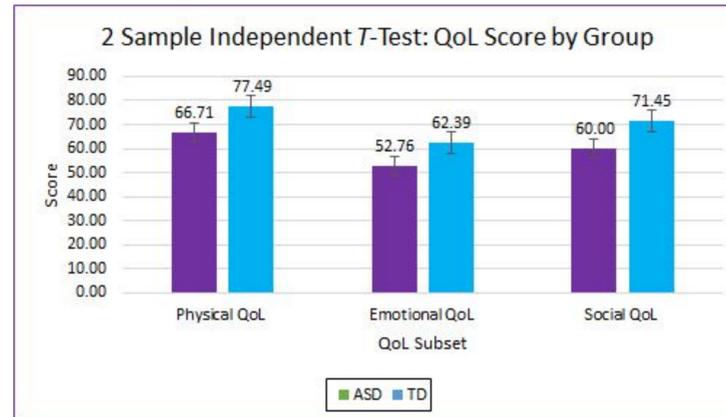
Measures:

- Quality of Life (Teen)/WHOQOL-BREF (Adults):** Participants completed the quality of life measure and answered questions on physical functioning, emotional health, social functioning, and school functioning. Scores were calculated for the subscales; higher scores indicates higher self-reported quality of life. The physical, emotional and social subscales were used in the analysis.
- Self-Report Assessment of Autism Traits (SAAT)** (in development Davenport et.al), Participants completed a 58 item questionnaire and reported on autism traits. Higher score indicates higher self-reported autism traits. 4 questions regarding community stress were not considered in the analysis as they do not reflect aspect of self assessment traits.

Results

Aim 1: Is there a difference of QoL in ASD and TD groups?

A 2 sample independent T-test was run on the subset of Quality of Life Scores in ASD and TD

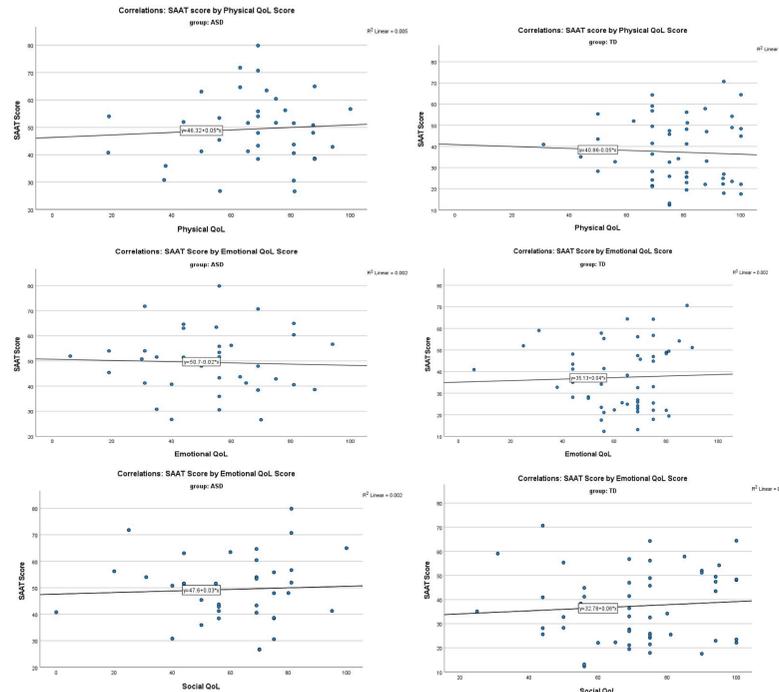


There was a main effect of group in which TD youths ($M = 77.49, SD = 16.14$) scored higher on all subsets of QoL than ASD youths ($M = 65.81, SD = 19.20$).

- Physical QoL $t(86) = -2.6, p = 0.011$
- Emotional QoL $t(86) = -2.2, p = 0.029$
- Social QoL $t(86) = -2.5, p = 0.016$

Aim 2: Is a correlation between self-report of autism traits and QoL scores in ASD and TD groups

A correlation was implemented between self-report of autism traits and QoL subscale scores



Correlation: SAAT Score and QoL Score in ASD group				
SAAT Score	Pearson's r	Physical QoL	Emotional QoL	Social QoL
		0.07	-0.04	0.05
	Sig. (2-tailed)	0.69	0.82	0.77

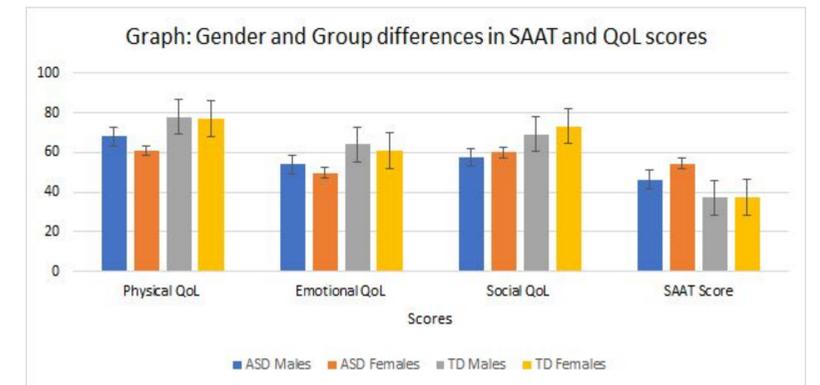
Correlation: SAAT Score and QoL Score in TD group				
SAAT Score	Pearson's r	Physical QoL	Emotional QoL	Social QoL
		-0.05	0.04	0.08
	Sig. (2-tailed)	0.73	0.78	0.58

In this preliminary analysis there are **no** correlations observed between self-report of autism traits and any subscales of the QoL Scores in the ASD and TD group. All $ps > .05$

Aim 3: Are there gender differences between the SAAT and QoL in ASD and TD groups

2 Way ANOVA: Fixed factor - Gender and Group

Dependent Variable - Physical, Emotional, Social QoL, SAAT Score



There is a main effect in group but no main effect in gender

There is no interaction effect between the Group and Gender

Group & Gender: F-value and Sig. (p) value			
Group	Physical QoL	F-value	Sig.
	Emotional QoL	8.50	0.005
	Social QoL	5.77	0.019
	SAAT Score	5.59	0.020
		17.84	0.000
Gender	Physical QoL	F-value	Sig.
	Emotional QoL	2.22	0.140
	Social QoL	1.27	0.263
	SAAT Score	0.09	0.762
		1.71	0.194

Group*Gender Interaction: F-value and Sig. (p) value			
Group*Gender	Physical QoL	F-value	Sig.
	Emotional QoL	1.84	0.178
	Social QoL	0.12	0.736
	SAAT Score	0.46	0.501
		1.59	0.210

Discussion

- Our preliminary results show that TD youths scored higher on all QoL subscales when compared to ASD youths, suggesting that ASD youths might experience lower QoL potentially from related symptoms from autism and other co-morbidities.
 - However, there was no correlation with self-assessment of autism traits and QoL scores.
- Additionally, we didn't find any gender differences in QoL scores and SAAT scores in either group. We had expected to see lower SAAT scores in females due to the higher diagnosis rate in males. This could potentially be due to the sample size. The SAAT measure is still in development and further follow-up analysis will be conducted after collecting more data and after the questionnaire is finalized.

Limitations and Future Findings

- There could also be other factors that may have contributed to these results such as whether having a sibling without ASD would impact ASD group.
- Future research may conduct thorough data analysis with the completed SAAT measure to provide insight whether the importance of timely recognition of QoL challenges in youths with autism so supports can be developed and provided.

Acknowledgement & References

Mason, D., McConachie, H., Garland, D., Petrou, A., Rodgers, J., & Parr, J. R. (2018). Predictors of quality of life for autistic adults. *Autism research: official journal of the International Society for Autism Research*, 11(8), 1138–1147. <https://doi.org/10.1002/aur.1965>

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