



Job, L. E., & White, S. W. (2007). Loneliness, social relationships, and a broader autism phenotype in college students. *Personality and Individual Differences*, 42(8), p. 1479-1489. doi:10.1016/j.paid.2006.10.021

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Annotated by Kara Smith & Michael Hong - 11/15/2016

**ABSTRACT** "Impaired social functioning is a hallmark of autism spectrum conditions. The purpose of this study was to investigate possible relationship between social functioning and a broader autism phenotype. With a sample of non-clinical undergraduate students from a large, urban university (N=97; mean age= 19.4 ± 2 years), characteristics associated with autism were measured as well as self-reported dating and friendship history, feelings of loneliness, and social motivation. Results indicate that those individuals with a stronger autism phenotype (e.g., rigidity, preference for sameness, high attention to detail) report significantly more loneliness ( $r = .52, p < 0.01$ ) and fewer and shorter duration friendships. Also, for participants in romantic relationships, a stronger phenotype was moderately and positively correlated with length of relationship ( $r = .34, p < 0.05$ ). Findings support the view that individuals with characteristics of autism and related conditions do not necessarily prefer aloneness, as once assumed, but rather experience increased levels of loneliness related to lack of social skill and understanding. Significance and limitations of these findings are discussed and future directions for research and possibilities for social skills training in this population are explored."

## SUMMARY

**Purpose of Study** The researchers want to know the extent to which social functioning and a broader autism phenotype were related. This relationship was assessed based on observable characteristics of an individual

## Framework

The researchers were interested in examining the "broader autism phenotype", which refers to a set of personality characteristics that are identifiable with individuals who have autism spectrum disorder (ASD). The researchers used the autism spectrum quotient (AQ) as a tool to measure college age students' occurrences of characteristics associated with those on the ASD spectrum. The AQ measures these broader autism phenotype characteristics. The researchers used the AQ to examine social deficits, loneliness, and relationships of individuals in college. Chronic loneliness in the general population is correlated with social anxiety and low self-esteem. Since social difficulties are a primary indicator of ASD, observing loneliness as a characteristic of ASD was worthy of interest.



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In addition, there is a preconceived notion that individuals with ASD prefer loneliness. However, the authors explore the idea of engagement in social relationships in light of their social deficits that may act as a barrier in forming these relationships.

### **Population and Sample**

The sample included 97 undergraduate students who attended a large, Southeastern region university were sampled from a university database. The students received class credit for their involvement in this study. As a result, 65 participants were female, 32 participants were male, and the participants' ages ranged from 18-31.

### **Overview of Methods**

The instruments used in this study were the following:

- i. The students in the sample completed the AQ, which is a 50-question questionnaire that analyzed the traits of autism within the population.
- ii. The UCLA loneliness scale is a 20-question questionnaire that measured loneliness.
- iii. The SAS questionnaire measured the ability to commit to goals and personal strivings by evaluating life tasks.
- iv. Lastly, the dating and friendship questionnaire simply asked the number, length, and level of commitment in each relationship the participants have had.

Surveys were completed anonymously in a classroom setting, where there were groups of about 15-20 participants.

### **Variables or Broad Topics**

The results of the study were measured through a survey instruments, thus, the study did not include experimental variables. Rather, the investigators examined the relationships between traits related to autism to social motivation, loneliness, and social integration with special attention to friendships and relationships.

### **Findings/Results**

Findings of the study support the idea that the characteristics of autism actually correlate with individual's levels of loneliness.

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- i. The higher individuals scored on the AQ was positively correlated with experiencing increased levels of loneliness.
- ii. The Pearson Correlation also resulted in moderate but positive correlation between a broader autism phenotype and social motivation and social integration.
- iii. The results showed that students with stronger autism phenotype experienced fewer and shorter duration of friendships.
- iv. None of the participants scored at or above the threshold of 32. The score of 32 indicates that an individual falls into the range of clinical diagnoses of autism spectrum disorder (ASD) and would need the necessary follow up evaluations to confirm or disprove the diagnosis.

### **Implications**

- i. Those who have stronger autism phenotype, are most impacted by the findings of this study.
- ii. There is a need to screen college students for these characteristics associated with ASD earlier in order to get a clinical diagnosis to identify ensure students have the necessary support they need to succeed academically and socially.
- iii. Group or individual coaching or therapies are potential resources that could positively impact these individuals expressing characteristics of ASD associated with loneliness.

### **CRITIQUES & LIMITATIONS**

#### **Conceptual**

There seems to be a negative connotation behind the authors' idea of loneliness. Loneliness might not necessarily be a bad thing since some of the individuals might prefer to be alone and do not necessarily experience the feelings of loneliness. Thus, information from the assessment tools of what defined loneliness needed further clarity within the article.

#### **Data**



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- i. The individuals assessed were mostly college freshmen and sophomores, which leaves out data from college juniors and seniors. Negating upperclassmen who may be out of the transition stage, may provide different data. Perhaps, the information of loneliness could stem from the typical experience of transitioning to a college campus and may not be associated with autism phenotype. An alternative explanation for the freshmen and sophomore students to report significantly more occurrences of loneliness could be attributed to the fact that they are not fully acclimated to college. Opposed to their junior and senior counterpart who have more college experience and have established relationships. Thus, inclusion of juniors and seniors would be needed to void this alternative explanation.
- ii. In addition, there were more women than men in the study that could have potentially skewed the results.
- iii. Also, in regards to the survey tools, the measurements often switched between binary and 4-point scale systems. This switching may provide inconsistencies in data, which could be problematic in cross comparisons of findings from different survey tools.

### **Analysis**

Attention switching and imagination subscales had much lower correlation coefficients (.47 and .40 respectively) than social skill, attention to detail, and communication. How this affects the reliability of the data was conceded in the Reliabilities section in the article.

### **Interpretation**

The under-representation of men in this study could have possibly skewed results since there were not included and there may be a difference in prevalence of autism spectrum characteristics within the male and female population.

### **Application**

- i. This research study should be conducted again at several universities to expand on the diversity in the sample.



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- ii. Also, bringing awareness to social issues that college students face could potentially increase advocacy for destigmatizing students who struggle with the social characteristics associated with ASD and other disorders.

## **FOLLOW-UP**

### **Little Questions**

- i. What other measure could have been utilized in the study to analyze and predict the romantic relationships of the individuals?
- ii. There are more women than men in the study. Was this done intentionally to be reflective of the general population in regards to the broader autism phenotype?

### **Big Questions**

- i. Are there life events that could bring forth broader autism phenotype characteristics phenotype such as loneliness, aggression, fewer and shorter or relationships? What assessment tool could have been implemented in order to address this alternative explanation of life events?
- ii. What are some other social dimensions that researchers should explore to provide early intervention and clinical support for students with ASD?

### **Next Steps**

- i. Most of these individuals were freshmen and sophomores, which could infer results reflective of the college transition that may make broader autism phenotype characteristics more pronounced. Thus in order to address these characteristics, there could be support services implemented to help these newer college students in their transition period to give them more aid in getting acclimated to their environment.
- ii. Also, counselors at the high school and university settings can to use these findings of this research to develop support systems for non-clinical students who seem to display social deficits that may be associated to broader autism phenotype. As a result, students could receive assistance in further development of social skills early on to offset the impact of these ASD traits on loneliness during college.



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