

Background

- There is high co-occurrence between autism (ASD) and both internalizing and externalizing behaviors
- Historical trends indicate that rates of maladaptive behaviors among non-autistic (NASD) youth populations vary over time
 - Externalizing behaviors decreasing
 - Internalizing behaviors increasing¹
 - These trends have not been explored in autistic youth
- The relationship between age and maladaptive behaviors in ASD youth has been examined with mixed results

Objectives:

1. Evaluate trends in the prevalence of maladaptive behaviors among autistic and non-autistic youth over time
2. Examine age as a predictor of maladaptive behaviors

Methods

Dataset:

- Data obtained from the Yale Developmental Disabilities Clinic (DDC) in New Haven, CT
- Families received a comprehensive diagnostic evaluation from a multidisciplinary team of expert clinicians
- Data spans 1983-2012

Clinical Measures:

- Vineland Adaptive Behavior Scales Parent/Caregiver Interview
 - Vineland-1 and Vineland-2 versions
 - Maladaptive Behavior section consists of 36 questions rated on a scale from 0-2
 - Total raw score calculated as the Maladaptive Behavior Index (MBI)
- Demographic Information
 - Families reported sex and date of birth
- Diagnoses
 - Participant diagnoses categorized as ASD and NASD for analyses

Participants:

	<i>n</i>	Age (yrs)	% female	MBI
ASD	534	8.10(3.69)	20.04%	20.65(9.09)
NASD	209	8.59(3.68)	19.14%	20.43(9.68)

Statistical Analyses:

1. Linear regression of MBI x Age
2. Linear regressions of MBI x Date of Evaluation (DOE) by diagnostic group

Results

Maladaptive Behavior Severity is Positively Correlated with Age

- MBI estimated to increase 0.34 for every 1-year increase in age ($p < .001$, $R^2 = .02$)
- Age accounts for 2% of the variance in MBI

Maladaptive Behavior Index by Age

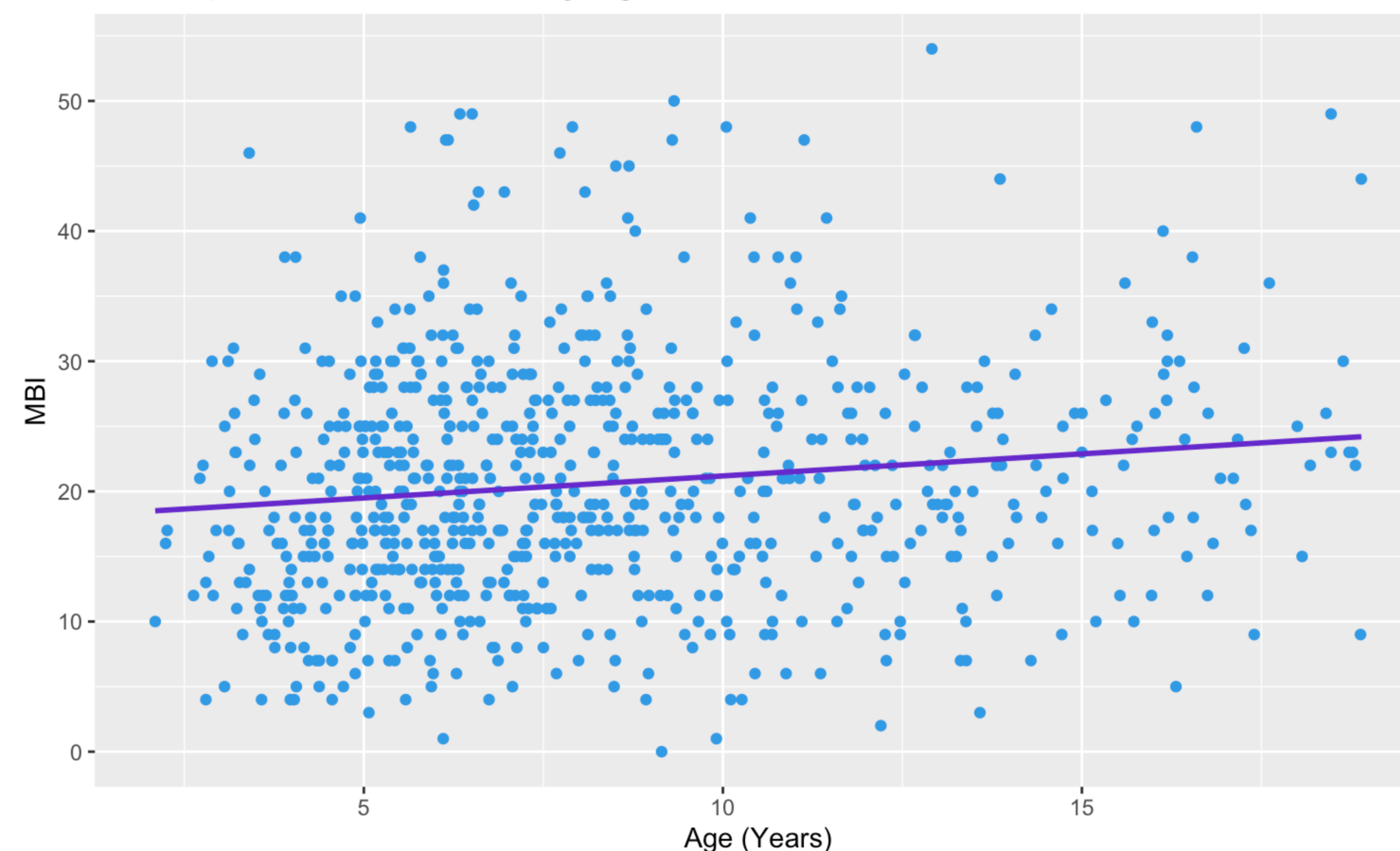


Figure 1. MBI x Age

No Significant Trends between Maladaptive Behavior Severity and Date of Evaluation across Diagnostic Groups

- Negative trend is slightly stronger among non-autistic group, but remains nonsignificant ($p = .15$)

Maladaptive Behavior Index by Date of Evaluation

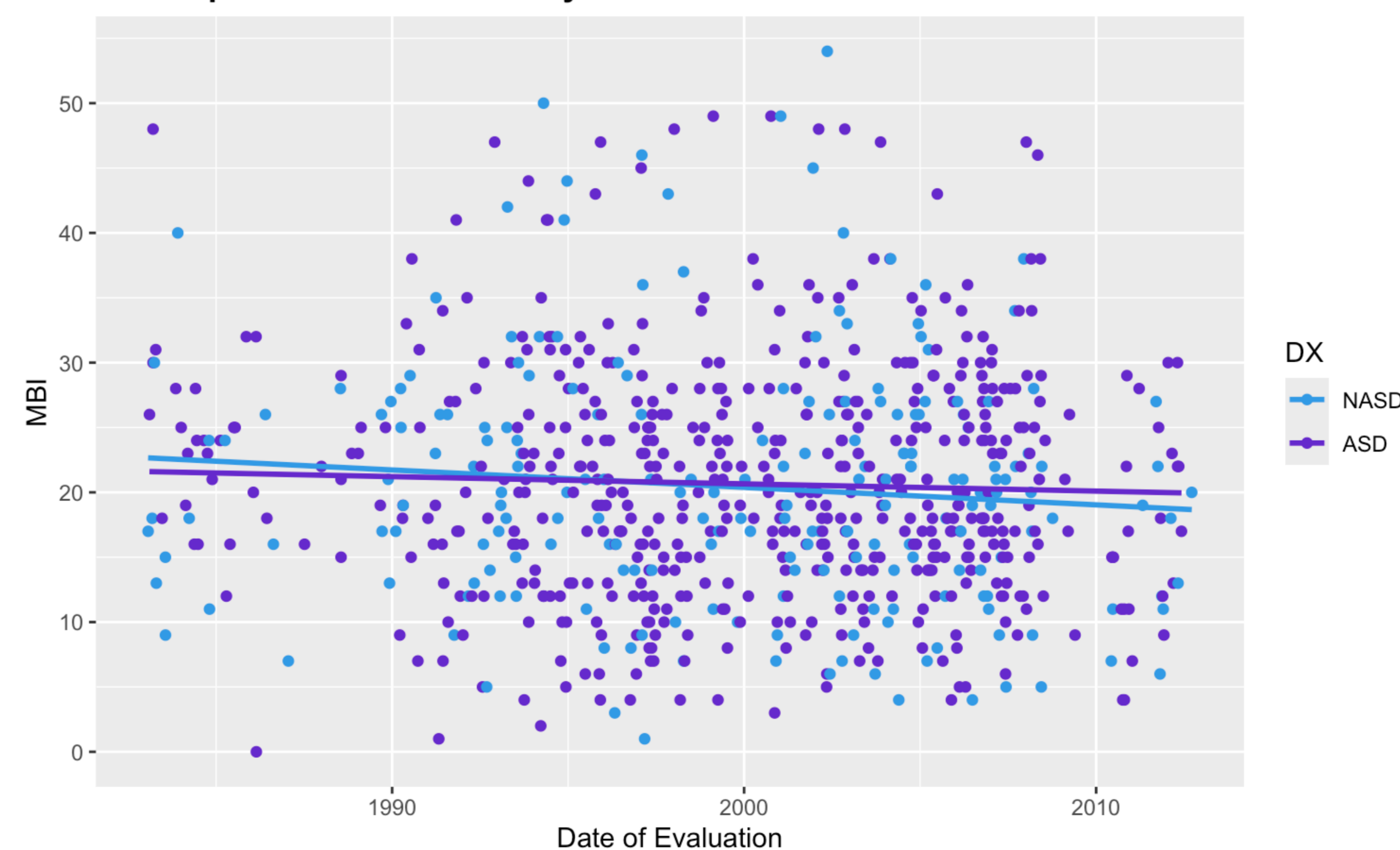


Figure 2. MBI x DOE

Conclusions

Main Conclusions

- No significant trends in maladaptive behavior emerged across a 30-year time span within either autistic or non-autistic diagnostic groups
- Maladaptive behavior positively correlated with age
 - Maladaptive behavior increased as age increased
 - Consistent across diagnostic groups
 - Many internalizing and externalizing behaviors manifest in adolescence
- Internalizing vs. Externalizing Behaviors
 - Vineland 1 does not differentiate internalizing vs. externalizing behaviors, while Vineland 2 does
 - Non-significant effects may be a result of internalizing and externalizing behaviors cancelling each other out

Limitations

- Data loss based on digitization of participant records
 - To be included in analyses, participants needed to have Vineland MBI scores, DOE, date of birth, and sex stored digitally
- No true control group
 - Participants in the non-autistic group were referred to the DDC for an autism evaluation
 - While they did not meet qualifications for an autism diagnosis, they may have received alternate diagnoses
- Missing recent data
 - The latest date of evaluation in this sample was in 2012
 - More recent data may have revealed a significant trend

Future Directions

- Evaluate trends within more recent data
- Investigate trends by internalizing vs. externalizing behaviors
- Investigate how historical events such as 9/11 and/or the COVID-19 pandemic have affected the prevalence of maladaptive behaviors
- Include a non-clinical sample as the control group

References

1 Mojtabai, R., & M., O. (2020). National Trends in Mental Health Care for US Adolescents. *JAMA Psychiatry*, 77(7), 703-714. <https://doi.org/https://doi.org/10.1001/jamapsychiatry.2020.0279>

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