

Behavioral inflexibility and explosive outbursts in children with Tourette syndrome



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Introduction

- Several children with Tourette syndrome (TS) have recurrent episodes of sudden and intense anger, known as explosive outbursts.^{1,2}
- Characteristics influencing the onset of such outbursts remain poorly understood.
- Being reprimanded or having plans/routine changed may precipitate explosive outbursts.³
- These difficulties could reflect behavioral inflexibility, which refers to a pattern of rigid behavior in situations requiring to adapt one's behavior.⁴

Objectives

- Assess whether children with TS have enhanced behavioral inflexibility relative to typically developing children (TDC).
- Assess whether behavioral inflexibility is associated with explosive outbursts.

Methods

- Data were aggregated from 3 ongoing studies
- Participants
 - Study 1 (n = 44)
 - 26 children with TS (5 girls), 18 TDC (7 girls)
 - Range: 10-14 years old
 - Mean TS = 11.7 ± 1.4
 - Mean TDC = 11.8 ± 1.4
 - Study 2 (n = 40, 13 girls)
 - Range: 9-17 years old
 - Mean = 12.1 ± 2.2
 - Study 3 (n = 43, 14 girls)
 - Range: 6-14 years old
 - Mean = 9.7 ± 2.3
- Measures
 - Behavioral inflexibility scale⁴ (parent-report)
 - Rage Attack Questionnaire-Revised⁵ (self-report: study 1, parent-report: studies 1, 2, & 3)

Results

Study 1

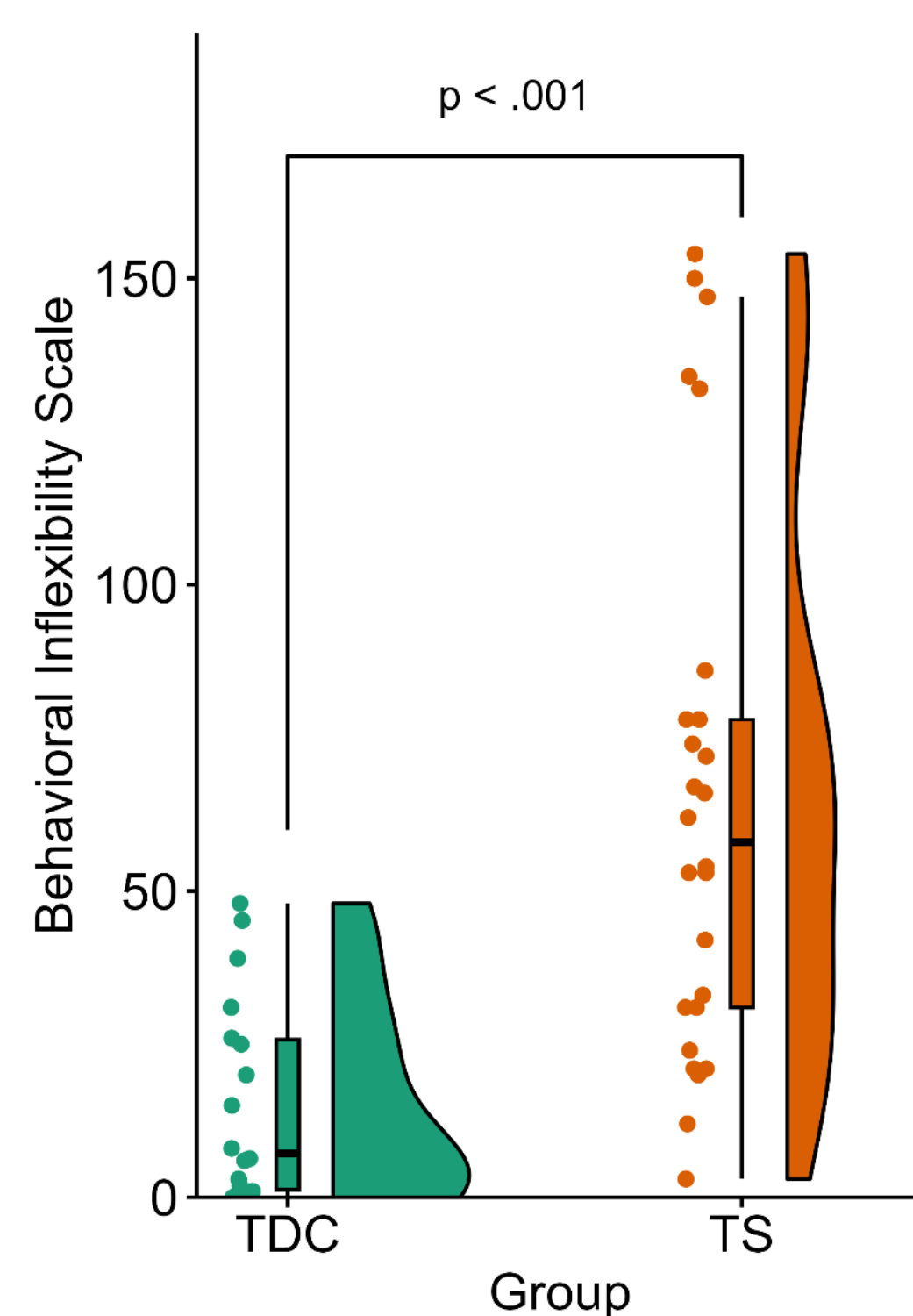


Figure 1: Behavioral inflexibility in TDC and children with TS

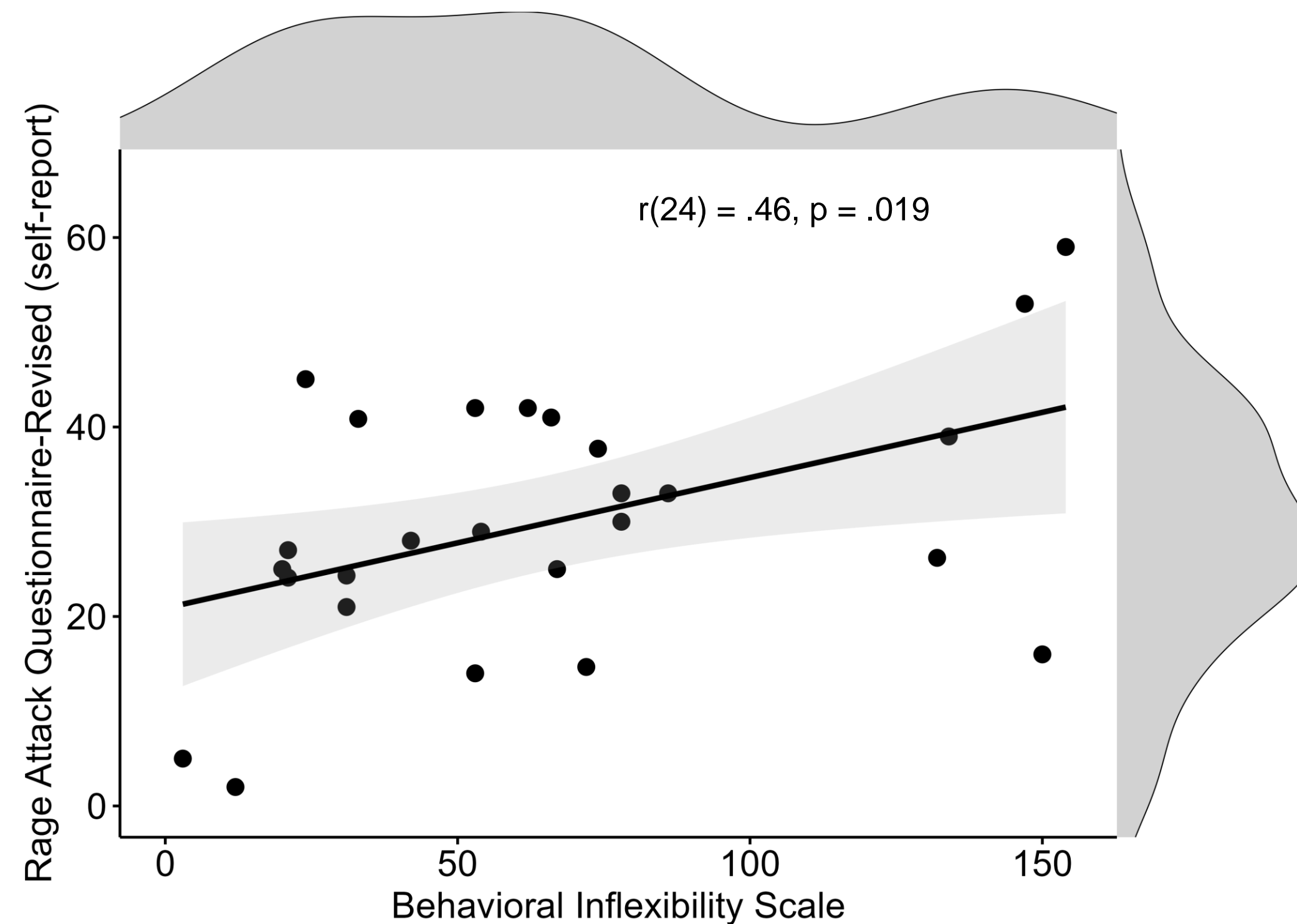


Figure 2: Association between behavioral inflexibility and self-reported explosive outbursts in Study 1

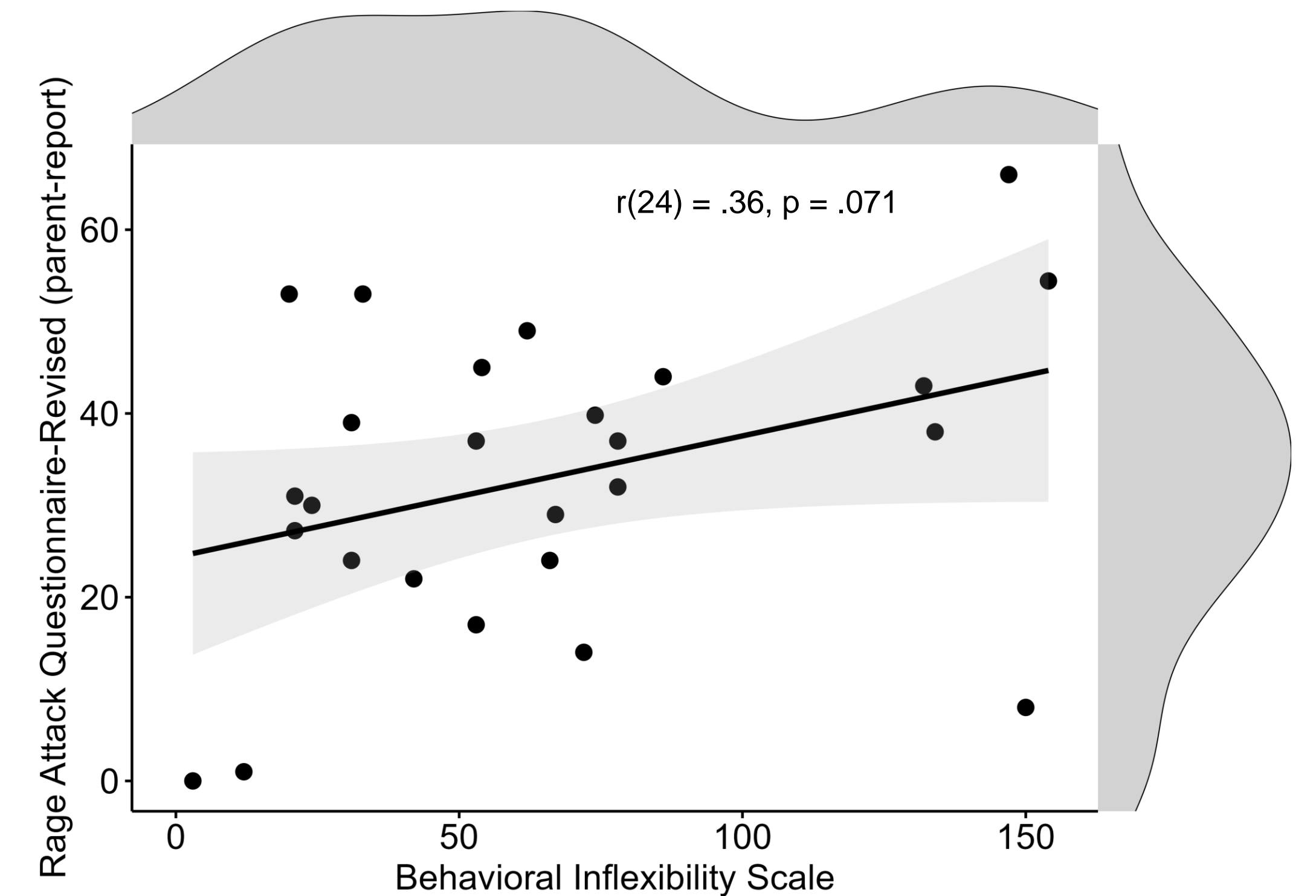


Figure 3: Association between behavioral inflexibility and parent-reported explosive outbursts in Study 1

Study 2

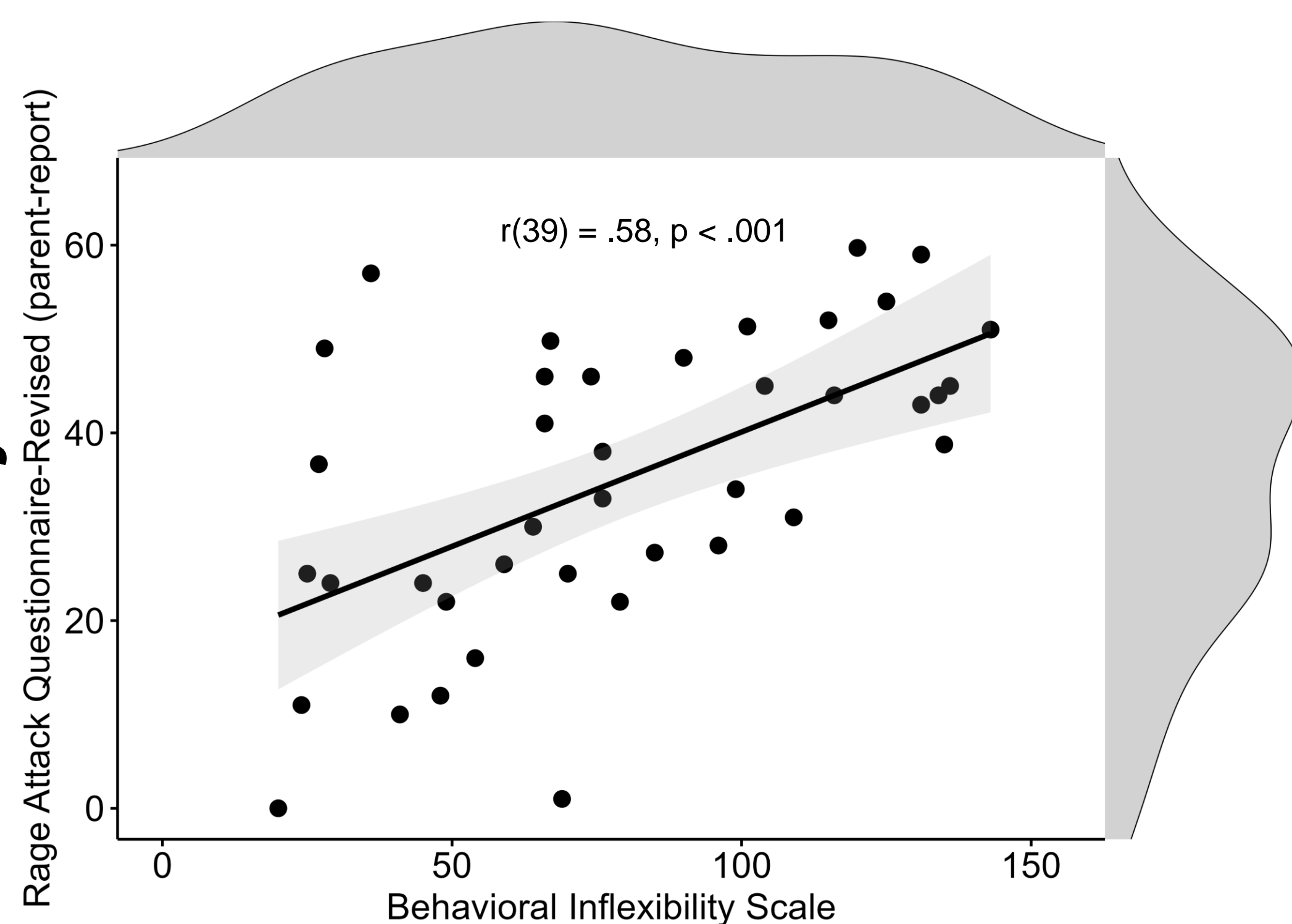


Figure 4: Association between behavioral inflexibility and explosive outbursts in Study 2

Study 3

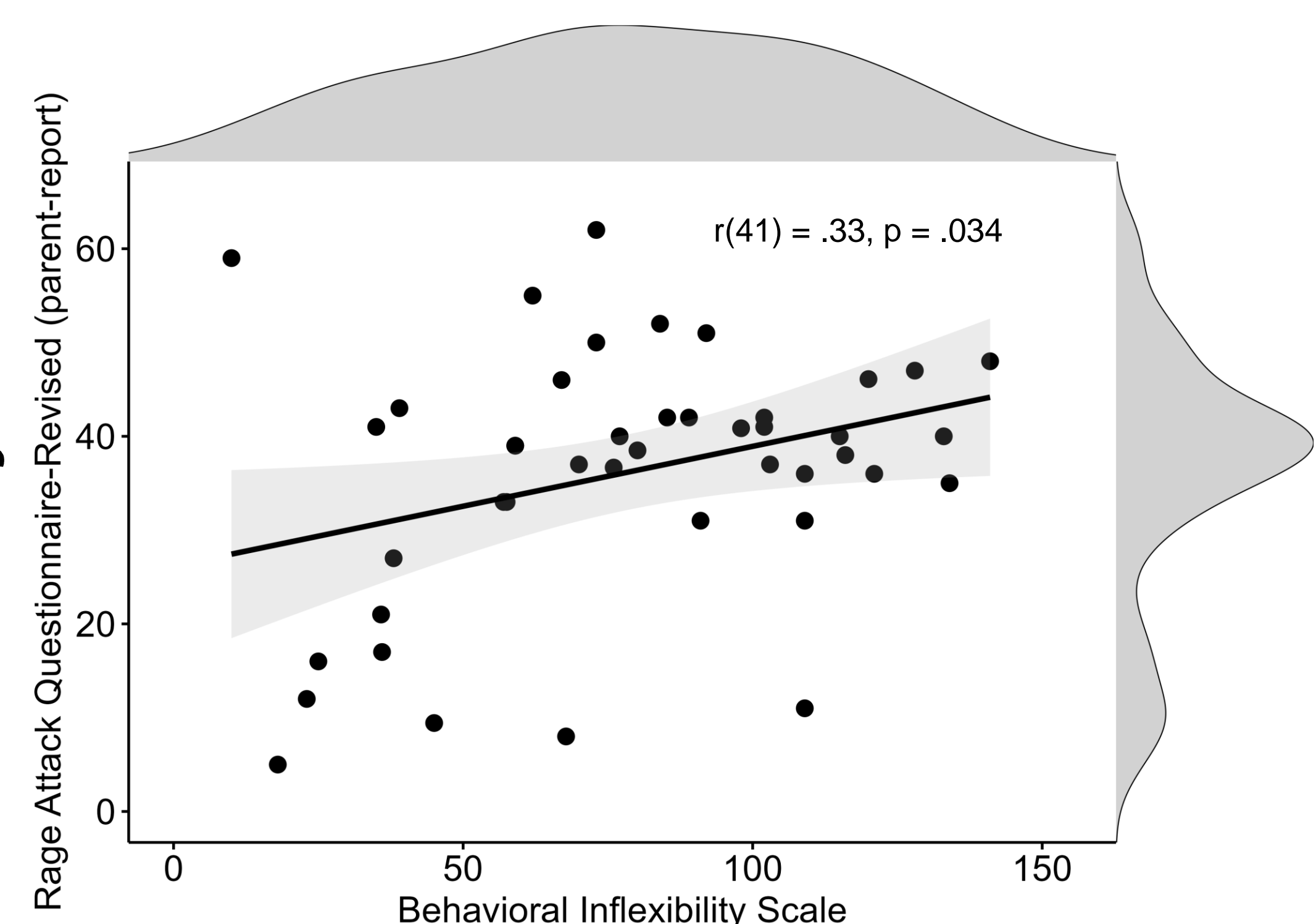


Figure 5: Association between behavioral inflexibility and explosive outbursts in Study 3

Conclusions

- Children with TS showed increased behavioral inflexibility scores relative to typically developing children.
- Across studies, we found positive associations between ratings on the BIS and RAQ-R.
- These results suggest that behavioral inflexibility may be an important feature in children with TS, and that it may also drive explosive outbursts. Behavioral inflexibility may thus be an important factor to address during interventions for explosive outbursts.

References

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