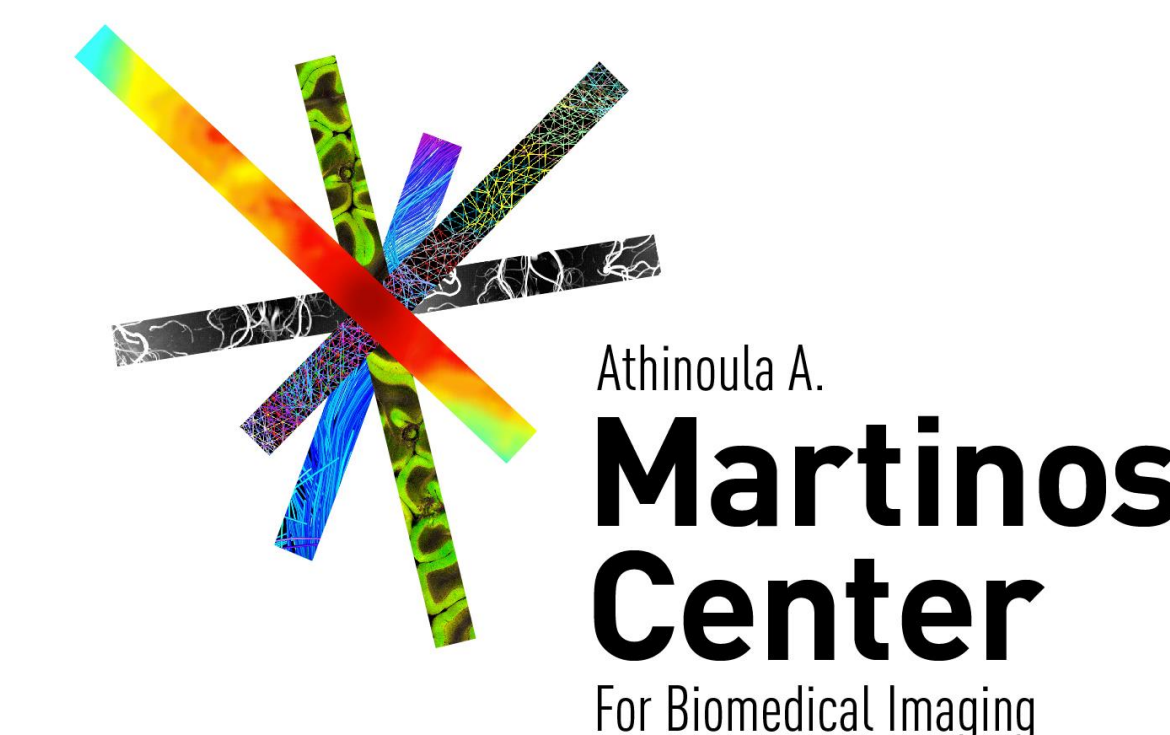


The contributions of childhood adversity and social anhedonia to social isolation in serious mental illness

Johnson, D.J.¹, Sussman, R.F.¹, DeTore, N.R.^{1,2}, & Holt, D.J.^{1,2,3}

¹Department of Psychiatry, Massachusetts General Hospital, Boston, MA;

²Department of Psychiatry, Harvard Medical School, Boston, MA; ³Athinoula A. Martinos Center for Biomedical Imaging, Charlestown, MA



Introduction

- Many people with serious mental illnesses (SMI) are socially isolated, having few routine social contacts, and social isolation has been associated with diminished quality of life, poor physical health, and a shortened lifespan.¹
- The causes of social isolation in SMI are complex and the psychological underpinnings of social isolation in SMI remain poorly understood.²
- Associations have been found between childhood adversity and social withdrawal and isolation in non-SMI populations which may extend to individuals with SMI.³
- High rates of childhood adversity in people with SMI may be responsible in part for observed social isolation.
- This study tested whether greater childhood adversity is associated with higher rates of social isolation and if this association is mediated by social anhedonia in people with SMI.

Method

- 60 individuals between the ages of 18 and 50 with a history of at least one psychotic episode completed self-report surveys of childhood adversity, social anhedonia, and social network size as part of participation in a larger study.
- We used Pearson's correlations and a mediation analysis to investigate the relationship between these three facets of social behavior and experience.

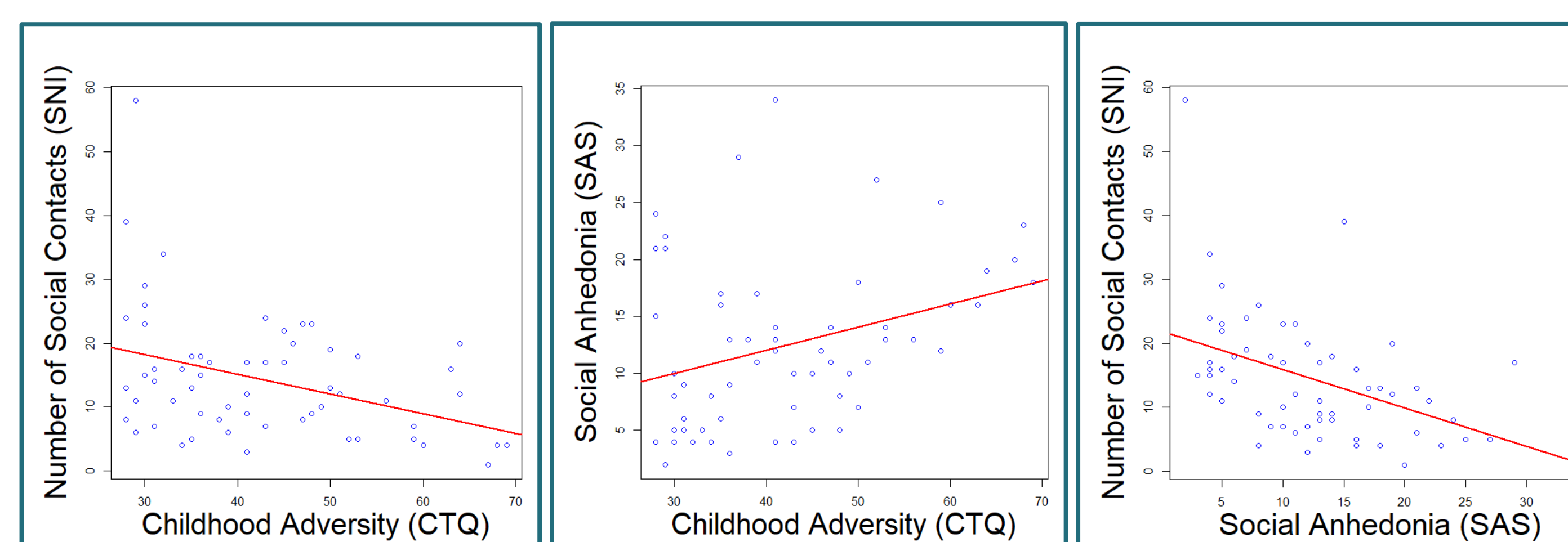
Measures

- Childhood Trauma Questionnaire (CTQ)⁴
- Chapman Revised Social Anhedonia Scale (SAS)⁵
- Social Network Index (SNI)⁶

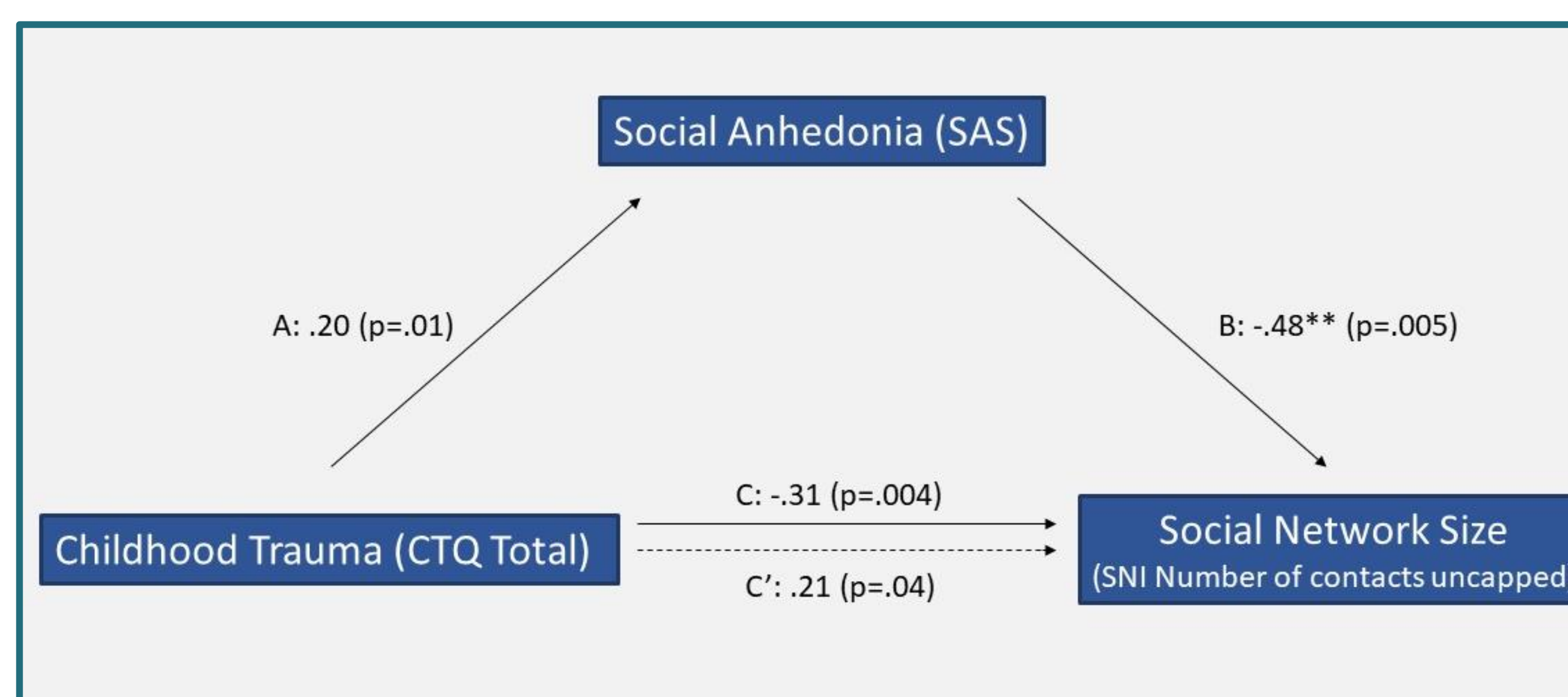
Demographics

Demographic	N, %
Female	16, 26.7%
Race/ Ethnicity	
Black or African American	9, 15%
Asian	13, 21.7%
White	37, 61.7%
Hispanic or Latino	2, 3.3%
Multiracial	1, 1.7%
	M, SD
Age	26.8, 6.38
Mean Parental Education (years of school)	15.5, 2.62

Results, Figure 1: Correlation Analysis



Results, Figure 2: Mediation Analysis



Summary of Findings

- Individuals who experienced greater childhood adversity reported both higher levels of social anhedonia ($r=-.37, p=.004$) and a smaller social network size ($r=.33, p=.01$). Those who reported higher levels of social anhedonia also reported a smaller social network size ($r=-.44, p<.001$) (Figure 1).
- The total effect of childhood adversity on social network size ($\beta=-.31, p=.004$) was found to be partially mediated by social anhedonia ($\beta=-.10, p=.009$) (Figure 2).

Conclusions

- Our findings indicate that for individuals with SMI, adverse childhood experiences may contribute to social isolation later in life in part by driving greater levels of social anhedonia.
- As childhood adversity is immutable, treatments targeting the reduction of social isolation in this population may benefit from addressing social anhedonia and negative assumptions about others.

References

1. Mueser, K.T., Bellack, A.S., Douglas, M.S., Morrison, R.L. Prevalence and stability of social skill deficits in schizophrenia. *Schizophr Res.* 1991;5(2):167-176.
2. Green, M.F., Horan, W.P., Lee, J., McCleery, A., Reddy, L.F. & Wynn, J.K. At Issue: Social Disconnection in Schizophrenia and the General Community. *Schizophr Bull.* 44(2):242-249 (2018).
3. Crawford, K.M. et al. Exposure to early childhood maltreatment and its effect over time on social cognition. *Dev Psychopathol.* 34(1):409-419 (2022).
4. Bernstein, D. P. et al. Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child abuse & neglect* 27, 169-190 (2003).
5. Chapman, L. J., Chapman, J. P. & Raulin, M. L. Scales for physical and social anhedonia. *J Abnorm Psychol* 85, 374-382 (1976).
6. Cohen, S., Doyle, W.J., Skoner, D.P., Rabin, B.S., Gwaltney, J.M. Jr. Social ties and susceptibility to the common cold. *The Journal of the American Medical Association* 227, 1940-1944 (1997).

Acknowledgements

This research was supported by NIMH 5R01MH109562 (DJH); as well as by grants 1S10RR023043 and 1S10RR023401 for shared resources provided by the Athinoula A. Martinos Center for Biomedical Imaging.

Contact:

For more information or future collaborations, please contact Daniel Johnson dsjohnson@mgh.harvard.edu