Pet ownership and profiles of prosocial behavior and peer interactions in adolescence

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Introduction

- Relationships with companion animals have been associated with increases in prosocial behavior and decreases of socioemotional difficulties for children and adolescents
- Companion animals may be supportive of developing prosocial behavior in youth through practice with positive social interactions and the development of empathy and reciprocity skills
- **Study Goal:** to investigate if having a pet (and pet species) predicted profiles of adolescent peer social behaviors (e.g., prosocial, aggressive), and size and strength of their peer network

Methodology

- This study used data from the Adolescent Brain Cognitive Development (ABCD) Study®, a longitudinal study of brain development and youth health outcomes in the United States (Garavan et al., 2018).

Average age: 12.43 (range: 10–14)

Gender: 52.1% male, 45.8% female, 2.4% Gender queer, other, don't know, refuse to answer, or missing

Race/Ethnicity (not mutually exclusive): Asian (6.3%), Black/African American (15.6%), Indigenous (3.5%), Other Race (6.6%), White (79.6%), Hispanic/Latinx (19.3%)

Dog Owners: 56.3%

Non-Dog Pet Owners: 20.4%

No Pet: 23.3%

- This study analyzed a subset of surveys from 5,218 participants who were included in the 3-year follow up data of the ABCD Annual Curated Release 4.0 (DOI: 10.15154/1523041) and who completed the relevant survey measures.
- We conducted a latent profile analysis (LPA) to identify subgroups of peer social behaviors using the following indicators:
  - Prosocial behavior
  - Perpetrator behavior
  - Number of friends
  - Number of close friends
  - Number of delinquent friends

Results

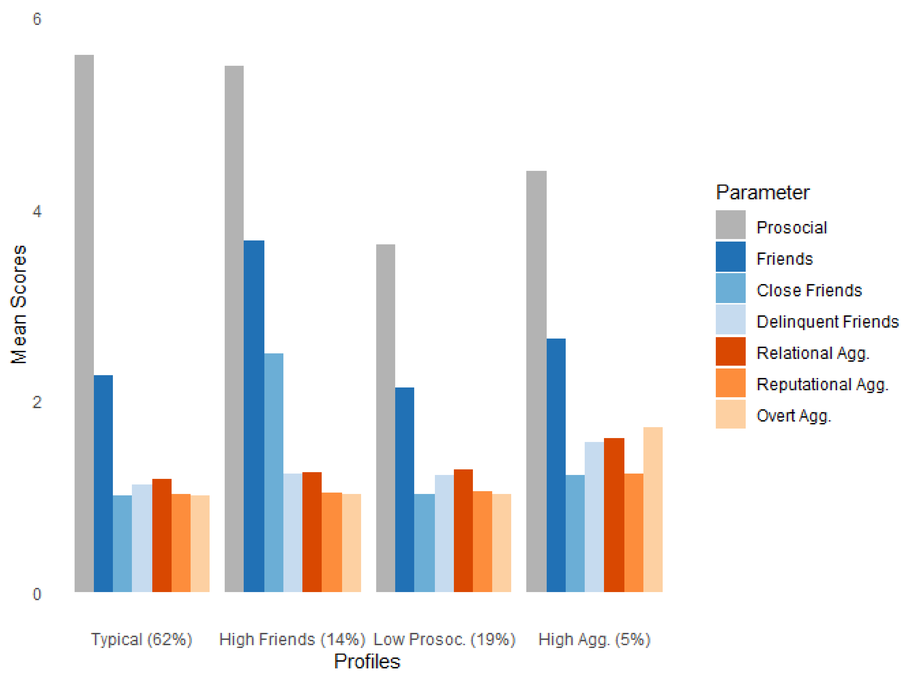
- Youth clustered into four different distinct profiles of peer social behavior:

	Typical	High Friends	Low Prosocial	High Aggression
Description	**High** prosocial behaviors **Low** peer aggression **Average** number of friends	**High** prosocial behaviors **Low** peer aggression **Many** friends	**Few** prosocial behaviors **Low** peer aggression **Average** number of friends	**Moderate** prosocial behaviors **High** peer aggression **Average** number of friends
Percentage of participants	**62%**	**14%**	**19%**	**5%**

- There was a significant interaction between gender and pet ownership status in predicting likelihood of being in the High Aggression profile.
  - Female non-pet owners were almost twice as likely (OR = 1.97) to be in the High Aggression profile as compared to dog owners
  - Female other pet owners were 2.37 times more likely to be in the High Aggression profile as compared to dog owners
- Pet ownership did not predict whether youth were in the profiles characterized by high and low prosocial behaviors or size of peer network.

Figure 1

Average Prosocial, Friend network, Delinquency, and Peer Aggression Scores by Profile



Discussion

- Youth did cluster into different distinct profiles of peer social behavior, and pet ownership status was associated with profile membership
- Pet ownership was **not** significantly associated with the likelihood of youth being in the most adaptive High Friends profile, or the Low Prosocial as compared to the Typical profile
- Pet ownership may not be beneficial for all youth, but that dog ownership could be protective for female youth in particular
  - **However**, these relationships are not directional or causal due to the cross-sectional nature of the data and should be explored further in future research

Conclusions

- This study was innovative in using a large, nationally-representative sample of youth, finding that pet ownership status predicted likelihood of membership in the High Aggression profile for female youth
- Future research should explore how male and female youth engage with their pets—both in terms of frequency of interactions as well as relationship quality/emotional attachment—as well as examine these relationships over time to assess causality

Open Practice Statement

This study utilized an OSF Preregistration, which can be found at the following URL: https://osf.io/5gx4z

References

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