

# UCLA

## UCLA Previously Published Works

### Title

Concordance in Child-Parent Reporting of Social Victimization Experiences in the Adolescent Brain Cognitive Development Study

### Permalink

<https://escholarship.org/uc/item/7c53j34b>

### Journal

Academic Pediatrics, 23(4)

### ISSN

1876-2859

### Authors

Tang, Judy T

Saadi, Altaf

Dunn, Erin C

et al.

### Publication Date

2023-05-01

### DOI

10.1016/j.acap.2022.09.018

### Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Peer reviewed



Published in final edited form as:

*Acad Pediatr.* 2023 ; 23(4): 747–754. doi:10.1016/j.acap.2022.09.018.

## Concordance in child-parent reporting of social victimization experiences in the Adolescent Brain Cognitive Development (ABCD) study

Judy T. Tang, MSN, RN<sup>1</sup>, Altaf Saadi, MD, MS<sup>2</sup>, Erin C. Dunn, ScD, MPH<sup>3,4,5</sup>, Kristen Choi, PhD, RN, FAAN<sup>6,7</sup>

<sup>1</sup>Keck Medicine of USC, Los Angeles, CA

<sup>2</sup>Department of Neurology, Massachusetts General Hospital, Harvard Medical School, Boston, MA

<sup>3</sup>Center for Genomic Medicine, Massachusetts General Hospital, Boston, MA

<sup>4</sup>Department of Psychiatry, Harvard Medical School, Boston, MA

<sup>5</sup>Harvard Center on the Developing Child, Cambridge, MA

<sup>6</sup>Department of Health Policy and Management, Fielding School of Public Health, UCLA, Los Angeles, CA

<sup>7</sup>School of Nursing, UCLA, Los Angeles, CA

### Abstract

**Objective:** To investigate child-parent concordance in reporting social victimization experiences and whether concordance was associated with child behavioral symptoms.

**Methods:** This was an observational study with data from the Adolescent Brain Cognitive Development (ABCD) study. The analytic sample was 11235 9- or 10-year-old children from the United States. Exposure variables were demographic and protective factors (child perceptions of parental relationships, school protective factors, neighborhood safety). The outcome was parent-child concordance on six domains of child social victimization: conventional crime, peer victimization, witnessing violence, internet victimization, school victimization, and gun violence. Child behavior symptoms were measured using the Child Behavior Checklist.

**Results:** Exposure to social victimization was low (9% of the sample). Concordance ranged from 18-50%. The highest levels of concordance were observed for conventional crime ( $k=0.48$ ,  $P<.001$ ) and witnessing violence ( $k=0.48$ ,  $P<.001$ ). Parents' perceptions of greater neighborhood safety was associated with lower odds of concordant conventional crime ( $OR=0.92$ , 95%  $CI=0.86-0.99$ ) and witnessing violence ( $OR=0.92$ , 95%  $CI=0.84-0.99$ ). Concordance was associated with more internalizing/externalizing behaviors.

**Conclusions:** Parents under-report social victimization in relation to children. Concordance in reporting social victimization may be an indicator of the severity of experiences, underscoring the need to consider child reports when screening for adversity.

---

## Introduction

Traumatic events in childhood can have lifelong consequences for health and development<sup>1,2</sup>. However, there are challenges to measuring these events in clinical care where trauma is often reported by parents or caregivers, especially for younger children<sup>3,4</sup>. Parents tend to under-report their children's trauma experiences and related symptoms, with lower concordance for interpersonal trauma<sup>5</sup>. Discordance in perceptions of maltreatment between parents and their children is associated with higher levels of child trauma symptoms and behavioral problems, as discordance may be a marker of family communication problems, lack of parental support, or parental misunderstanding of trauma and its harm<sup>5-7</sup>. Less is understood about patterns of concordance in trauma reporting for community and social victimization experiences. Several studies have documented poor concordance between parents and children in reports of bullying, with child self-reports of bullying being consistently higher than their parents<sup>8,9</sup>. Other studies have found discrepancies in parent versus child reports of witnessing violence in homes, neighborhoods, and schools<sup>10-12</sup>.

Secondary prevention of childhood adversity through screenings is critical for preventing negative health consequences as by-products of altered neurodevelopment and changes in physiological systems<sup>13,14</sup>. Efforts are underway to implement screening for maltreatment and other adverse childhood experiences, including social victimization experiences, in pediatric clinical care throughout the United States<sup>14</sup>. Many commonly used adversity screening instruments rely on parent-report only or youth-report only and do not assess concordance in scoring algorithms, despite known discordance between parent and child reports of maltreatment adversity and limited empirical evidence on concordance in reporting social victimization experiences<sup>14</sup>. Further understanding the nature of concordance/discordance in reporting adversity from the perspectives of youth and parents, as well the relationship of concordance and discordance to child health outcomes, has critical implications for best practices in implementation of these screening tools.

Our study aimed to address this knowledge gap on concordance in social victimization reporting by investigating agreement in child versus parent reports in the population-based Adolescent Brain Cognitive Development (ABCD) study. We had three specific aims: 1) measure inter-rater agreement (concordance) between parents and children on six domains of social victimization, 2) assess what sociodemographic variables and family/community protective factors were associated with concordance in reporting social victimization; and 3) estimate the association between concordance and child internalizing/externalizing behavioral symptoms, which may be one sign of toxic stress and a signal of need for trauma-specific intervention<sup>15</sup>. We included investigation of family and community protective factors because they may have a protective influence on the relationship between social victimization experiences and behavioral symptoms, as well as concordance in reporting victimization.

## Methods

### Design

This observational study was a secondary analysis of data from the ABCD study. The ABCD study is a large, population-based investigation of brain development of children in the United States, with approximately 12,000 children recruited at ages 9 or 10 years who will be followed prospectively into adulthood<sup>16</sup>. We used ABCD data from baseline and year one follow-up. Because some measures required for the analysis were only collected at one—but not both—time points, we treated the one-year period from baseline to the first follow up as a cross-section and used measures from both time points. As an analysis of de-identified data, the study was determined to be exempt from Institutional Review Board (IRB) oversight at the University of California, Los Angeles.

### Data Collection Procedures

Details about data collection in the ABCD study are reported elsewhere<sup>17</sup>. Briefly, a probability sample of children were recruited from 21 school-based catchment areas. The sample was recruited on the basis of age, sex, race and ethnicity, socio-economic status, and urbanicity to reflect population demographics from the American Community Survey. Recruitment took place through schools with mailed letters, face-to-face recruitment, and parent referrals. Each catchment area had a research site where neuroimaging, biologic, and survey data from parents and children were collected. Participants were compensated and provided childcare, transportation, and food to promote long-term retention in the ABCD study<sup>18</sup>.

### Sample

There were 11,878 children in the ABCD baseline sample. All children in the cohort were eligible for inclusion except those who were missing social victimization measures. After excluding children who did not meet this eligibility criterion (6% of the overall sample), the final analytic N was 11,235 children. Participants in our analytic sample were not different from the larger ABCD sample with respect to sex or age. There was slight statistical under-representation of children who identified as Asian, Black, and Hispanic in the analytic sample ( $P < .001$ ), but overall proportions of children in these race/ethnicity groups were comparable to the US population.

### Measures

#### Outcomes

**Social Victimization.** Lifetime incidence of child social victimization experiences were measured with the Juvenile Victimization Questionnaire (JVQ), a validated measure developed for the National Survey of Children's Exposure to Violence<sup>19</sup>. Children and parents each reported individually on this 32-item measure in the baseline ABCD survey<sup>20</sup>. Items were reported as Yes/No for the following domains: conventional crime (9 items), peer victimization (8 items), witnessing violence (8 items), internet victimization (2 items), school victimization (2 items), and gun violence (2 items). To reduce multiple testing, we collapsed items within each domain into a total of six Yes/No victimization domains.

Internal consistency reliability was acceptable for both child report (Cronbach alpha= 0.75, 95% CI=0.73–0.76) and parent report (Cronbach alpha= 0.72, 95% CI=0.71–0.74). Discordance was defined as child reports of social victimization when parents did not report the exposure, because prior studies suggest that parents under-report trauma in relation to their children; concordance was defined as agreement between parents and children on exposures. We examined concordance/discordance for each social victimization domain and the total number of discordant/concordant social victimization experiences (0-6).

**Child Internalizing/Externalizing Behavior.:** The Child Behavior Checklist (CBCL) is a 113-item measure of emotional and behavioral problems among children, scored on a three-point Likert scale of problem frequency<sup>21,22</sup>. The CBCL is completed by parents/caregivers and has two broadband scales for internalizing and externalizing behavior problems. Internalizing behaviors reflect withdrawn mood disturbances, including depression and anxiety, while externalizing behaviors entail aggression, attentional, oppositional symptoms. Broadband scores are age-normed into t scores with a mean of 50 and standard deviation of 10. Scores of 65-69 are considered borderline for a clinical-range behavioral problem, while scores of 70 or higher are indicative of a clinical-range problem<sup>21</sup>. We examined t scores as continuous variables and overall internalizing/externalizing t scores of 65 or greater.

## Exposures

**Family and Community Protective Factors.:** We examined measures of child perceptions of parental monitoring and school protective factors, and parent perceptions of neighborhood safety. Child perceptions of parental monitoring was measured with the five-item ABCD Parental Monitoring Survey. This survey was administered to children and scored on a five-point Likert scale assessing frequency of parent monitoring of child location, contact, and disclosure<sup>24</sup>. Child perceptions of school protective factors were measured with the PhenX School Risk and Protective Factors Survey (SRPF)<sup>23,24</sup>. The SRPF is a 12-item survey administered to children that measures agreement with statements about general connectedness of a child to their school environment and academic interests. Parental perceptions of neighborhood safety were measured by the ABCD Parent Neighborhood Safety/Crime Survey modified from the PhenX toolkit<sup>23</sup>. The three-item measure assesses agreement on a five-point Likert scale to statements regarding feelings about safety and presence of crime in the neighborhood, with higher scores indicating more perceived safety. Scores from each measure were summed to measure child and parental perceptions of home, school, and community safety.

**Children's Reports of Parental Behavior Inventory.:** The CRPBI measures child perceptions of the quality of relationship with their primary and secondary caregivers, by assessing a caregiver's warmth and acceptance toward their child from their behavior<sup>25</sup>. The CRPBI is a five-item measure of parental relationship quality, which is completed by children and scored on a three-point scale to describe accuracy of the parent's behavior. Responses were dichotomized into two scores: 'Not at all like him/her' (1) and 'Somewhat like him/her' or 'A lot like him/her' (0). Scores for all five items were summed.

**Demographics.:** Child and family demographic variables included child sex (male, female, other), child race/ethnicity (White, Asian, Black/African American, Hispanic/Latinx, Multiracial, Native American/Alaskan, and other), and total estimated family income (<\$25,000, \$25,000-\$49,999, \$50,000-\$74,999, \$75,000-\$99,999, \$100,000-\$199,999, or >\$200,000).

## Analysis

All statistical analyses were conducted using R, version 4.0.4<sup>26</sup>. We used frequencies and descriptive statistics to characterize all study variables. For aim 1, Pearson Chi-square tests were used to test for differences in parent- versus child-report of the six domains of social victimization. We also calculated inter-rater agreement between parents and children using Cohen's Kappa and Prevalence-Adjusted Bias-Adjusted Kappa (PABAK). Cohen's Kappa is used to measure inter-rater agreement, above and beyond agreement expected due to chance. PABAK is an alternative measure of inter-rater agreement adjusted for reporting relatively rare experiences<sup>27,28</sup>. It has been used previously to study agreement in trauma reporting and other behavioral health constructs<sup>29,30</sup>. Because Cohen's Kappa may under-estimate agreement for rare events, PABAK was included as an indicator of agreement. Kappa values were evaluated as follows: 0= no agreement; 0.01–0.20= none to slight agreement; 0.21–0.40= fair agreement; 0.41–0.60= moderate agreement; 0.61–0.80= substantial agreement; and 0.81–1.00= close to perfect agreement<sup>31</sup>.

For aim 2, multiple logistic regression models were used to estimate the odds of concordant social victimization experiences (i.e., concordance in reporting between parents and children for a given social victimization domain) from demographic predictor variables including the child's race/ethnicity, sex, total household income, and family/community protective factors (child perception of parental monitoring, child perception of school protective factors, parent perception of neighborhood safety). For these models, we restricted the sample to children who had concordant social victimization (agreement between parent and child) compared to those with discordant social victimization (reported by the child but not the parent) with four of the six domains of social victimization (conventional crime, peer victimization, witnessing violence, school victimization). Two domains had too few exposed children in the subsample (internet victimization n=55, gun violence n=39) and thus were not included in models.

Then, multiple linear and logistic regression models were used to estimate the association between concordant social victimization experiences and child internalizing and externalizing behavioral symptoms (t scores and clinical-range scores). These models were adjusted for the child's age, sex, race/ethnicity, and household income given known disparities in ACE exposure by demographics<sup>32</sup>. We adjusted for the overall count of the child's social victimization experiences to increase confidence that odds ratios were estimating the influence of concordance in ACE reporting, not simply cumulative ACE exposures. We also adjusted models for family/community protective factors and the child's perception of the quality of the relationship with their caregiver (CRPBI scores), which are stress-buffering factors that might bias odds ratios towards under-estimation of effect size.

## Results

### Sample Demographics

The sex distribution of the total sample of children (N=11,235) was 48% male (N=5347), 52% female (N=5869), and 0.2% other (N=17). The race/ethnicity distribution was reflective of the U.S. adolescent sample, with 53% identifying as White, 2% Asian, 15% Black/African American, 16% Hispanic/Latinx, 12% Multiracial, 1.0% Other, and less than 1 % Native American/Alaskan. Child exposure to social victimization experiences was relatively low. Only 9% (N=954) of the sample had one or more social victimization experiences as reported by either children or parents. The most frequently endorsed item was witnessing violence (2.2%, n=247).

### Parent-Child Concordance on Child Social Victimization

There were differences between parent-reported and child-reported social victimization across all six domains (Table 2) when using Cohen's Kappa, but strong agreement when using PABAK. With Cohen's Kappa, moderate agreement was observed for conventional crime ( $k=0.48$ ,  $P<.001$ ), peer victimization ( $k=0.41$ ,  $P<.001$ ), and witnessing violence ( $k=0.48$ ,  $P<.001$ ). Fair agreement was observed for school violence ( $k=0.25$ ,  $P<.001$ ), and low agreement was found for both internet ( $k=0.18$ ,  $P<.001$ ) and gun violence ( $k=0.18$ ,  $P<.001$ ).

### Predictors of Concordant Social Victimization Experiences

Several community factors and demographic variables were related to concordance in parent-report and child-report of social victimization experiences among the subsample of children who had self-reported victimization (Table 3). Parents' perceptions of neighborhood safety was negatively associated with concordance, such that perceiving one's neighborhood to be more safe was associated with lower odds of concordant conventional crime (OR= 0.91, 95% CI=0.85–0.98) and witnessing violence (OR=0.91, 95% CI=0.84–0.98). Identifying as Black/African American (OR= 0.45, 95% CI= 0.25–0.79) and Hispanic/Latinx (OR=0.29, 95% CI= 0.09–0.85) were negatively associated with concordance in conventional crime.

### Associations between Concordance Social Victimization and Child Behavioral Problems

Multiple linear and logistic regression models were used to evaluate the association of social victimization concordance with child behavioral symptoms, adjusting for child age, sex, race/ethnicity, household income, and overall exposure to social victimization experience. Having a greater number of discordant social victimization experiences was associated with fewer internalizing and externalizing symptoms, as well as lower odds of clinical-range scores on both broadband scales. Also, a greater number of concordant social victimization experiences was associated with higher t scores and odds of clinical-range scores for both broadband scales. When examining individual social victimization domains, concordance in parent-child reports of conventional crime was significantly associated with more internalizing behavioral symptoms ( $\beta=3.42$ ,  $SE=1.50$ ), while discordance was associated with fewer symptoms ( $\beta=-2.95$ ,  $SE=1.21$ ) and lower odds of a clinical-range internalizing



t score. Concordance in conventional crime reports ( $\beta=2.85$ ,  $SE=1.41$ ) and internet victimization reports ( $\beta=8.13$ ,  $SE=3.81$ ) were both associated with more externalizing behavioral symptoms.

## Discussion

Our study examined concordance in child-/parent-reporting of social victimization experiences and found discrepancies in agreement when parents, children, or both endorsed social victimization. This study supports existing literature demonstrating that discrepancies between child and parent reports of stressful or traumatic experiences are common, with children reporting more experiences than their parents<sup>5,7</sup>. Though there are several studies indicating disagreement in reporting between parents and children for child maltreatment<sup>5,7,33</sup>, less is known about reporting agreement for social or community victimization. When there was discordance in reporting social victimization experiences among dyads in our sample, parents tended to under-estimate the social victimization experiences of their children. This finding suggests a need to reconsider current methods of evaluating social victimization adversity from only the perspective of parents and instead adding or prioritizing assessments of the child's account of events.

We found that several demographic and community factors were independently associated with lower odds of concordant parent-child reported social victimization experiences, including identifying as Black/African American or Hispanic and perceiving one's neighborhood to be safe. Lowered concordance for Black and Hispanic was only observed for conventional crime. Studies of ethnicity, culture, and child violence or abuse disclosure have mixed findings, but some research suggests that non-White children may delay disclosure because of cultural norms emphasizing family and filial loyalty or a perception that caregivers may not be supportive following disclosure<sup>34</sup>. Parental perceptions of living in a safer community were also predictive of discordant parent-child reported victimization experiences. It is possible that parent assumptions about neighborhood safety prevent them from talking with their children about social victimization risks and experiences.

Because concordance in parent-child reported social victimization was associated with internalizing and externalizing behavioral symptoms in our analysis, concordance in social victimization reporting may be a marker of the severity of the experience. This finding differs from prior research on concordance in maltreatment reports. Discordance between children and their parents in reporting maltreatment experiences have been previously associated with behavioral and trauma symptoms<sup>29</sup>. However, in our study of non-maltreatment social victimization, concordance was associated with behavioral symptoms. Concordant endorsement of social victimization for children in this age group may indicate severe enough social victimization that parents were more likely to be aware of the experience and that the event had a negative behavioral impact on children.

Overall, our findings suggest that child reports should be prioritized when assessing on social victimization exposures and that parent reports may have limited added value, except to identify concordant or discordant ACEs that might be markers of severity—or markers of a lack parental awareness of child experiences. Future research should investigate the



validity of parent-child concordance in endorsement of social victimization experiences as an indicator of the severity of the experience. While it is evident that using multiple reporters for childhood adversity, including children themselves, is beneficial in clinical care, more research is needed to determine how to incorporate reporting concordance in scoring algorithms, as discordance may be an indicator of need for some types of adversity (e.g., maltreatment) while concordance may be an indicator of severity for others (e.g., social victimization).

### Strengths and Limitations

The ABCD study sampled a diverse, representative population sample of children and their parents in the US. Social victimization experiences were independently reported by both parents and their child, and there were a variety of measures available to examine the community context of the family. There were also some study limitations inherent to the design of the ABCD Study. The study relies on self-reported data, and social victimization reports cannot be independently verified and may be subject to recall bias. This study also does not measure the impact of experiencing such social victimization events, nor does it ask about child disclosure of their experiences to their parents. These may be important factors to consider in investigating concordance in child and parent reporting. Children of color were slightly under-represented in the analytic sample compared to the ABCD sample as a whole, although overall race/ethnicity proportions in this analysis were comparable to US population demographics.

When reporting social victimization experiences that happen outside of households in a child's community, parents and children generally disagree. Concordance in reporting social victimization is lower for Black/African American and Hispanic families and families that live in unsafe neighborhoods, and concordantly-reported social victimization experiences are associated with child behavioral problems. In clinical care, child-report instruments should be used whenever possible when assessing childhood adversity. There is also potential value in determining how concordance/discordance in reporting can be incorporated in adversity scoring and risk assessment algorithms in future research.

### Disclosures and Funding:

The authors have no conflicts of interest to disclose. This research was supported by the UCLA Office of Equity, Diversity, and Inclusion. Dr. Dunn receives funding from the National Institute of Mental Health of the National Institutes of Health (E.C.D., Award Number R01MH113930). The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

### References

1. Grummitt LR, Kreski NT, Kim SG, Platt J, Keyes KM, McLaughlin KA. Association of Childhood Adversity With Morbidity and Mortality in US Adults: A Systematic Review. *JAMA Pediatr.* 2021;175(12):1269–1278. doi:10.1001/JAMAPEDIATRICS.2021.2320 [PubMed: 34605870]
2. Cuca YP, Shumway M, Machtinger EL, et al. The Association of Trauma with the Physical, Behavioral, and Social Health of Women Living with HIV: Pathways to Guide Trauma-informed Health Care Interventions. *Women's Heal Issues.* 2019;29(5):376–384. doi:10.1016/j.whi.2019.06.001
3. Davis KA, Mountain RV., Pickett OR, Den Besten PK, Bidlack FB, Dunn EC. Teeth as Potential New Tools to Measure Early-Life Adversity and Subsequent Mental Health Risk: An

Interdisciplinary Review and Conceptual Model. *Biol Psychiatry*. 2020;87(6):502–513. doi:10.1016/J.BIOPSYCH.2019.09.030 [PubMed: 31858984]

4. Oh DL, Jerman P, Purewal Boparai SK, et al. Review of Tools for Measuring Exposure to Adversity in Children and Adolescents. *J Pediatr Heal Care*. 2018;32(6):564–583. doi:10.1016/J.PEDHC.2018.04.021
5. Oransky M, Hahn H, Stover Carla • S. Caregiver and Youth Agreement Regarding Youths' Trauma Histories: Implications for Youths' Functioning After Exposure to Trauma. *J Youth Adolesc*. 2013;42:1528–1542. doi:10.1007/s10964-013-9947-z [PubMed: 23580028]
6. Howard DE, Cross SI, Li X, Huang W. Parent–youth concordance regarding violence exposure: relationship to youth psychosocial functioning. *J Adolesc Heal*. 1999;25(6):396–406. doi:10.1016/S1054-139X(99)00102-0
7. Wamser-Nanney R, Campbell CL. Factors Associated With Caregiver–Child Symptom Concordance Among Trauma-Exposed Children. *Child Maltreat*. 2021;26(2):152–161. doi:10.1177/1077559520927472 [PubMed: 32462927]
8. Holt MK, Kantor GK, Finkelhor D. Parent/Child Concordance about Bullying Involvement and Family Characteristics Related to Bullying and Peer Victimization. *J Sch Violence*. 2009;8(1):42–63. doi:10.1080/15388220802067813
9. Demaray MK, Malecki CK, Secord SM, Lyell KM. Agreement among students', teachers', and parents' perceptions of victimization by bullying. *Child Youth Serv Rev*. 2013;35(12):2091–2100. doi:10.1016/J.CHILDYOUTH.2013.10.018
10. Lewis T, Thompson R, Kotch JB, et al. Parent–youth discordance about youth-witnessed violence: Associations with trauma symptoms and service use in an at-risk sample. *Child Abuse Negl*. 2012;36(11-12):790–797. doi:10.1016/J.CHIABU.2012.09.009 [PubMed: 23153569]
11. Thomson CC, Roberts K, Curran A, Ryan L, Wright RJ. Caretaker-Child Concordance for Child's Exposure to Violence in a Preadolescent Inner-City Population. *Arch Pediatr Adolesc Med*. 2002;156(8):818–823. doi:10.1001/ARCHPEDI.156.8.818 [PubMed: 12144374]
12. Hungerford A, Ogle RL, Clements CM. Children's Exposure to Intimate Partner Violence: Relations Between Parent-Child Concordance and Children's Adjustment. *Violence Vict*. 2010;25(2):185–201. doi:10.1891/0886-6708.25.2.185 [PubMed: 20514816]
13. Harris NB. Screening for Adverse Childhood Experiences. *JAMA*. 2020;324(17):1788–1789. doi:10.1001/JAMA.2020.16452 [PubMed: 33141203]
14. Thakur N, Hessler D, Koita K, et al. Pediatrics adverse childhood experiences and related life events screener (PEARLS) and health in a safety-net practice. *Child Abuse Negl*. 2020;108:104685. doi:10.1016/J.CHIABU.2020.104685 [PubMed: 32898839]
15. Shonkoff JP, Garner AS, Siegel BS, et al. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*. 2012;129(1):e232–e246. doi:10.1542/peds.2011-2663 [PubMed: 22201156]
16. Volkow ND, Koob GF, Croyle RT, et al. The conception of the ABCD study: From substance use to a broad NIH collaboration. *Dev Cogn Neurosci*. 2018;32:4–7. doi:10.1016/j.dcn.2017.10.002 [PubMed: 29051027]
17. Garavan H, Bartsch H, Conway K, et al. Recruiting the ABCD sample: Design considerations and procedures. *Dev Cogn Neurosci*. 2018;32:16–22. doi:10.1016/j.dcn.2018.04.004 [PubMed: 29703560]
18. Feldstein Ewing SW, Chang L, Cottler LB, Tapert SF, Dowling GJ, Brown SA. Approaching Retention within the ABCD Study. *Dev Cogn Neurosci*. 2018;32:130–137. doi:10.1016/J.DCN.2017.11.004 [PubMed: 29150307]
19. Finkelhor D, Hamby SL, Ormrod R, Turner H. The Juvenile Victimization Questionnaire: Reliability, validity, and national norms. *Child Abuse Negl*. 2005;29(4):383–412. doi:10.1016/J.CHIABU.2004.11.001 [PubMed: 15917079]
20. ABCD Protocol Summary: Baseline. Accessed April 27, 2021. [https://abcdstudy.org/wp-content/uploads/2019/12/Brochure\\_Protocol-Baseline-eg.pdf](https://abcdstudy.org/wp-content/uploads/2019/12/Brochure_Protocol-Baseline-eg.pdf)
21. Achenbach TM, Rescorla LA. Child Behavior Checklist. University of Vermont Research Center for Children, Youth and Families.

22. Achenbach TM, Ruffle TM. The Child Behavior Checklist and Related Forms for Assessing Behavioral/Emotional Problems and Competencies. *Pediatr Rev* . 2000;21(265). doi:10.1542/pir.21-8-265
23. Stover PJ, Harlan WR, Hammond JA, Hendershot T, Hamilton CM. PhenX: a toolkit for interdisciplinary genetics research. *Curr Opin Lipidol*. 2010;21(2):136–140. doi:10.1097/MOL.0b013e3283377395 [PubMed: 20154612]
24. Hamilton CM, Strader LC, Pratt JG, et al. The PhenX Toolkit: Get the Most From Your Measures. *Am J Epidemiol*. 2011;174(3):253–260. doi:10.1093/aje/kwr193 [PubMed: 21749974]
25. Schaefer ES. Children's Reports of Parental Behavior: An Inventory. *Child Dev*. 1965;36(2):413. doi:10.2307/1126465 [PubMed: 14300862]
26. R Core Team. R: A language and environment for statistical computing. R Foundation for Statistical Computing.
27. Gisev N, Bell JS, Chen TF. Interrater agreement and interrater reliability: Key concepts, approaches, and applications. *Res Soc Adm Pharm*. 2013;9(3):330–338. doi:10.1016/J.SAPHARM.2012.04.004
28. Byrt T, Bishop J, Carlin JB. Bias, prevalence and kappa. *J Clin Epidemiol*. 1993;46(5):423–429. doi:10.1016/0895-4356(93)90018-V [PubMed: 8501467]
29. Stover CS, Hahn H, Berkowitz S, Im JY. Agreement of parent and child reports of trauma exposure and symptoms in the early aftermath of a traumatic event. *Psychol Trauma Theory, Res Pract Policy*. 2010;2(3):159–168. doi:10.1037/A0019156
30. Nguyen TQ, Simpson PM, Braaf SC, Cameron PA, Judson R, Gabbe BJ. Level of agreement between medical record and ICD-10-AM coding of mental health, alcohol and drug conditions in trauma patients. *Heal Inf Manag J*. 2019;48(3):127–134. doi:10.1177/1833358318769482
31. Warrens MJ. Five ways to look at Cohen's Kappa. *Psychol Psychother*. 2015;5:4. doi:10.4172/2161-0487.1000197
32. Giano Z, Wheeler DL, Hubach RD. The frequencies and disparities of adverse childhood experiences in the U.S. *BMC Public Health*. 2020;20(1):1–12. doi:10.1186/S12889-020-09411-Z/TABLES/3 [PubMed: 31898494]
33. Stover CS, Hahn H, Berkowitz S, Im JY. Agreement of parent and child reports of trauma exposure and symptoms in the early aftermath of a traumatic event. *Psychol Trauma Theory, Res Pract Policy*. 2010;2(3):159–168. doi:10.1037/a0019156
34. Elliott K, Urquiza A. Ethnicity, Culture, and Child Maltreatment. *J Soc Issues*. 2006;62(4):787–809. doi:10.1111/J.1540-4560.2006.00487.X

**Table 1.**

## Sample Description

	N (%)
Total	11235 (100%)
Child Sex	
Male	5347 (47.6%)
Female	5869 (52.2%)
Other	17 (0.2%)
Child Race/Ethnicity	
White	5999 (53.4%)
Asian	217 (1.9%)
Black/African American	1670 (14.9%)
Hispanic/Latinx	1825 (16.2%)
Multiracial	1378 (12.3%)
Native American/Alaskan	27 (0.3%)
Other	108 (10.0%)
Parent Income	
<\$25,000	1454 (12.9%)
\$25,000-\$49,999	1478 (13.2%)
\$50,000-\$74,999	1426 (12.7%)
\$75,000-\$99,999	1528 (13.6%)
\$100,000-\$199,999	3129 (27.9%)
>\$200,000	1219 (10.9%)

**Notes.** N=11235 children ages 9 and 10 in the Adolescent Brain Cognitive Development (ABCD) study.

**Table 2.****Parent Versus Child Report of Social Victimization Experiences**

		<b>Child-report n (%)</b>	<b>n (%)</b>	<b>Cohen's K</b>	<b>PABAK</b>
<b>Conventional crime</b>		No	Yes	0.48 **	0.92 **
Parent-report	No	10573 (97.9%)	223 (50.0%)		
	Yes	216 (2.0%)	223 (50.0%)		
	Total (%)	10789 (100%)	446 (100%)		
<b>Peer victimization</b>		No	Yes	0.41 **	0.91 **
Parent-report	No	10566 (97.3%)	186 (50.3%)		
	Yes	299 (2.8%)	184 (49.7%)		
	Total (%)	10865 (100%)	370 (100%)		
<b>Witnessing violence</b>		No	Yes	0.48 **	0.94 **
Parent-report	No	10693 (98.3%)	173 (49.0%)		
	Yes	189 (1.7%)	180 (51.0%)		
	Total (%)	10882 (100%)	353 (100%)		
<b>Internet victimization</b>		No	Yes	0.18 **	0.98 **
Parent-report	No	11136 (99.6%)	45 (81.8%)		
	Yes	44 (0.4%)	10 (18.2%)		
	Total (%)	11180 (100%)	55 (100%)		
<b>School victimization</b>		No	Yes	0.25 **	0.96 **
Parent-report	No	10983 (99.3%)	134 (77.9%)		
	Yes	80 (0.7%)	38 (22.1%)		
	Total (%)	11063 (100%)	172 (100%)		
<b>Gun violence</b>		No	Yes	0.18 **	0.99 **
Parent-report	No	11175 (99.8%)	33 (84.6%)		
	Yes	21 (0.19%)	6 (15.4%)		
	Total (%)	11196 (100%)	39 (100%)		

**Notes.** Inter-rater agreement between parent- and child-reported social victimization experiences with Cohen's kappa coefficient in the Adolescent Brain Cognitive Development (ABCD) study (N=11235). PABAK= Prevalence-Adjusted Bias-Adjusted Kappa.

\*\*  
P<.001

Table 3.

## Predictors of Parent-Child Agreement on Social Victimization

	Physical victimization (n=446) OR (95% CI)	Peer victimization (n=370) OR (95% CI)	Witnessing violence (n=353) OR (95% CI)	School victimization (n=172) OR (95% CI)
Child perception of parental monitoring	0.99(0.91, 1.06)	0.96(0.88, 1.04)	0.96(0.88, 1.05)	0.96(0.83, 1.13)
Parent perception of neighborhood safety	0.91(0.85, 0.98)	0.95(0.88, 1.03)	0.91(0.84, 0.98)	0.97(0.83, 1.13)
Child perception of school protective factors	0.99(0.96, 1.03)	1.01(0.96, 1.05)	1(0.96, 1.05)	0.99(0.92, 1.07)
Race/ethnicity				
Asian	NA	0.39(0.05, 2.27)	NA	NA
Black/African American	0.45(0.25, 0.79)	1.08(0.59, 2)	0.75(0.39, 1.45)	0.49(0.15, 1.46)
Hispanic/Latinx	0.29(0.09, 0.85)	0.96(0.3, 3.09)	0.33(0.06, 1.4)	NA
Multiple	0.79(0.4, 1.57)	1.24(0.62, 2.52)	1.25(0.57, 2.76)	0.68(0.17, 2.41)
Other	0.91(0.13, 7.6)	0.32(0.02, 2.4)	0.66(0.11, 4.11)	NA
Female sex	0.73(0.48, 1.12)	1.3(0.82, 2.07)	1.2(0.73, 1.97)	0.9(0.39, 2.07)
Household income				
<\$25,000	0.99(0.49, 2.01)	0.71(0.32, 1.56)	1.64(0.75, 3.61)	0.47(0.13, 1.63)
\$25,000-\$49,999	2.04(0.95, 4.43)	1.02(0.44, 2.35)	1.66(0.72, 3.88)	0.94(0.22, 3.83)
\$75,000-\$99,999	0.86(0.36, 2.01)	1.11(0.43, 2.83)	1.13(0.4, 3.19)	0.82(0.16, 3.91)
\$100,000-\$199,999	1.04(0.5, 2.17)	1.83(0.85, 3.95)	1.02(0.4, 2.6)	0.81(0.21, 3.2)
>\$200,000	0.47(0.16, 1.32)	1.92(0.7, 5.46)	2.65(0.76, 9.81)	0.43(0.05, 2.66)

**Notes.** Multiple logistic regression models estimating odds of parent-child agreement on four domains of social victimization experiences in the Adolescent Brain Cognitive Development Study (N=11235). There were six social victimization domains in total; however, two domains had a too-small number children in the sub-sample for modeling (internet violence n=55, gun violence n=39). Children who identified their gender category as 'Other' are not shown in the above table due to small cell counts (n=17). OR= odds ratio; CI= confidence interval.

**Table 4.**  
Association of parent-child social victimization concordance/discordance to child behavioral symptoms

	Internalizing T Score B (SE)	Clinical- Range Internalizing B (SE)	Externalizing T Score B (SE)	Clinical- Range Externalizing B (SE)
Discordant social victimization experiences (0-6)	-1.12 (0.3)**	-0.29 (0.12)*	-0.37 (0.15)*	-0.35 (0.15)*
Concordant social victimization experiences (0-6)	2.12 (0.33)**	0.24 (0.09)*	1.17 (0.17)**	0.36 (0.1)**

**Notes.** Multiple linear regression models estimating t scores on internalizing/externalizing behavior broadband scales from the Child Behavior Checklist (CBCL); and multiple logistic regression models estimating clinical-range internalizing/externalizing t scores (scores 65) in the Adolescent Brain Cognitive Development Study (N=11235). SE= standard error. Exposure variables are the number of social victimization experiences (0-6) that were discordant and the number that were concordant. Discordance refers to child-reported victimization when parents did not also report victimization; concordant refers to both parent- and child-reported victimization. Models are adjusted for child sex, race/ethnicity, household income, neighborhood safety school, and school protective factors score.

\* Value is significant at the 0.05 level

\*\* Value is significant at the 0.01 level.



**Table 5.**  
Association of parent-child social victimization concordance/discordance to child behavioral symptoms

	Internalizing T Score B (SE)	Clinical-Range Internalizing B (SE)	Externalizing T Score B (SE)	Clinical-Range Externalizing B (SE)
Conventional crime discordant	-2.95 (1.21) *	-1.77 (0.8) *	-1.78 (1.14)	-0.48 (0.65)
Conventional crime concordant	3.42 (1.5) *	0.6 (0.52)	2.85 (1.41) *	0.32 (0.67)
Peer victimization discordant	-1.34 (1.16)	-0.37 (0.49)	-1.21 (1.1)	-1.36 (0.7)
Peer victimization concordant	0.38 (1.31)	-0.41 (0.53)	0.24 (1.24)	-0.31 (0.6)
Witnessing violence discordant	-0.52 (1.29)	-0.52 (0.59)	-1.03 (1.22)	-0.87 (0.77)
Witnessing violence concordant	0.1 (1.52)	-0.16 (0.54)	0.82 (1.44)	0.67 (0.58)
Internet victimization discordant	-1.1 (2.38)	-0.49 (0.79)	4.3 (2.25)	0.68 (0.74)
Internet victimization concordant	0.87 (4.03)	-11.09 (171.83)	8.13 (3.81) *	-12.05 (267.73)
School victimization discordant	-0.82 (1.44)	0.24 (0.55)	-2.25 (1.36)	0.22 (0.61)
School victimization concordant	1.13 (3.27)	1.48 (0.85)	5.33 (3.09)	1.58 (1)
Gun violence discordant	0.39 (2.55)	1.07 (0.95)	0.76 (2.41)	0.69 (0.95)
Gun violence concordant	0.11 (5.31)	0.96 (1.23)	1.57 (5.02)	-12.79 (429.69)

**Notes.** Multiple linear regression models estimating t scores on internalizing/externalizing behavior broadband scales from the Child Behavior Checklist (CBCL); and multiple logistic regression models estimating clinical-range internalizing/externalizing t scores (scores > 65) in the Adolescent Brain Cognitive Development Study (N=11235). SE= standard error. All exposure variables of social victimization concordance/discordance are in reference to no victimization. Discordance refers to child-reported victimization when parents did not also report victimization; concordant refers to both parent- and child-reported victimization. Models are adjusted for child sex, race/ethnicity, household income, neighborhood safety school, and school protective factors score.

\* Value is significant at the 0.05 level

\*\* Value is significant at the 0.01 level.