Adolescent civic engagement: Lessons from Black Lives Matter

Supporting Information (SI)

Methods

   All parents/caregivers providing informed consent and youth informed assent for the ABCD

Study were sent the supplemental survey. A supplemental survey was sent to adolescents in the ABCD

Study on October 8, 2020. Reminders were sent October 16, 2020, November 8, 2020, and November 19,

2020. The survey link expired on December 14, 2020.

Survey questions

1a. Since April 2020, did you watch TV stories, look on the internet, or listen to news on the radio about public demonstrations (public marches, rallies) on Black Lives Matter?

Yes No

[If "Yes" to 1a, then ask:]

1b1. Since April 2020, how much time did you spend, on average, watching TV stories, looking on the internet, or listening to news on the radio about demonstrations related to Black Lives Matter?	0= none 1= <30 minutes per day 2= 30 minutes-1 hour per day 3= 1-5 hours per day 4= >5 hours per day

[If "Yes" to 1a, then ask:]

1c1. How did you feel when you saw or heard about the demonstrations on the TV, internet, or radio for Black Lives Matter?	Angry: 1= not at all, 2= a little, 3=somewhat, 4=very much Afraid: 1= not at all, 2= a little, 3=somewhat, 4=very much Inspired: 1= not at all, 2= a little, 3=somewhat, 4=very much Hopeful: 1= not at all, 2= a little, 3=somewhat, 4=very much

2a. Since April 2020, did you scroll, write, or post to social media (e.g., Facebook, Instagram, Twitter, Snapchat, TikTok) about the demonstrations (public marches, rallies) on Black Lives Matter?

Yes No

[If "Yes" to 2a, then ask:]

2b1. Since April 2020, how often did you scroll, write, or post to social media (e.g., Facebook, Instagram, Twitter, Snapchat, TikTok) about the demonstrations for Black Lives Matter?	0= none 1= 1-10 times 2= 11-30 times 3= 31-50 times 4= over 50 times

[If "Yes" to 2a, then ask:]

2c1. How did you feel when you scrolled, wrote, or posted to social media (e.g., Facebook, Instagram, Twitter, Snapchat, TikTok) about the demonstrations for Black Lives Matter?	Angry: 1= not at all, 2= a little, 3=somewhat, 4=very much Afraid: 1= not at all, 2= a little, 3=somewhat, 4=very much Inspired: 1= not at all, 2= a little, 3=somewhat, 4=very much Hopeful: 1= not at all, 2= a little, 3=somewhat, 4=very much

3a. Since April 2020, do you know people who attended a public demonstration (public marches, rallies) without you on Black Lives Matter?

Yes	No

[If "Yes" to 3a, then ask:]

3b1. Who attended a public demonstration without you for Black Lives Matter?	Parents: Yes No Siblings: Yes No Friends: Yes No Neighbors: Yes No	3c1.1. If Parents "yes", how did you feel having your parent(s) attend the Black Lives Matter demonstration(s) without you? Afraid: 1= not at all, 2= a little, 3=somewhat, 4=very much Proud: 1= not at all, 2= a little, 3=somewhat, 4=very much	3c1.2. If Siblings "yes", how did you feel having your parent(s) attend the Black Lives Matter demonstration(s) without you? Afraid: 1= not at all, 2= a little, 3=somewhat, 4=very much Proud: 1= not at all, 2= a little, 3=somewhat, 4=very much

4a. Since April 2020, how many demonstrations (public marches, rallies) have you attended on Black Lives Matter?

0= 0
1= 1
2= 2
3= 3 or more

[If >0 to 4a, then ask:]

4b1. How did you feel when you attended the in-person demonstrations for Black Lives Matter?	Angry: 1= not at all, 2= a little, 3=somewhat, 4=very much Afraid: 1= not at all, 2= a little, 3=somewhat, 4=very much Inspired: 1= not at all, 2= a little, 3=somewhat, 4=very much Hopeful: 1= not at all, 2= a little, 3=somewhat, 4=very much

[If >0 to 4a, then ask:]

4c1. When you attended the in-person demonstrations for Black Lives Matter, did you see…	police helping or protecting a demonstrator	demonstrator helping or protecting a demonstrator	force by police (pushing, shoving or use of tear gas)	violence by demonstrators (throwing rocks, bottles at police, destroying property)
	Yes No	Yes No	Yes No	Yes No

Description of the multiracial/other group

The "multiracial/other" group included adolescents who identified as multiple races or selected "other" as an indication that the provided groups did not apply to them (1). Of the 524 adolescents that were included in the category: 436 (83.2%) selected that they were, in part, White, 194 (37.0%) Black, 220 (42.0%) Asian, 100 (19.1%) American Indian or Alaskan Native, 31 (5.9%) Native Hawaiian and Pacific Islander, and 53 (10.1%) other. The majority (79.8%) of adolescents in the other category selected 2 racial groups. Following previous research that highlights differences in experiences of Black adolescents, we examined the number of adolescents in the multiracial/other category who endorsed being Black and another race. Of the 524 adolescents who were in the multiracial/other category, 231 (44.0%) endorsed being Black along with another race: Black-White=172 (32.8%); Black-Asian=22 (4.2%); Black-American Indian or Alaskan Native=24 (4.6%); Black-Native Hawaiian and Pacific Islander=2 (0.4%); and, Black-other=11 (2.1%). Results including the multiracial-Black adolescents as a separate racial/ethnic group are available upon request or can be found at https://modlab.yale.edu/sites/default/files/files/ABCDBLM_SupportingResults.pdf.

Survey weights

A subset (40%) of youth in the full ABCD sample completed the survey section pertaining to BLM. Compared to the full sample, survey completers were less likely to be Black (9.8% vs. 15%) or Hispanic (17% vs. 20%); their parents were more likely to be married (67% vs. 58%), hold a bachelor's degree (67% vs. 56%), or both be in the labor force (54% vs. 49%). We used inverse probability of completion weighting to address these systematic differences and ensure survey completers were representative of the full ABCD sample at study entry (2). The following variables were used to generate the weights: (a) youth sex, (b) youth racial/ethnic identification, (c) parent marital status, education, and labor force participation, (d) household income, and (e) U.S. Census region of the United States (3). Using data from the full sample at study entry, we fit a binary logistic regression model regressing an indicator of survey completion on main effects for each variable (multi-valued variables were converted

to dummy variables). For survey completers, each observation's weight was equal to the inverse of the predicted probability of survey completion in this regression. Inspection of the weight distribution did not reveal any extreme weights that might require truncation. After weighting, survey completers were similar to the full ABCD sample, being within 0.4 percentage points on all the target variables.

References

1.	D. M. Barch *et al.*, Demographic, physical and mental health assessments in the adolescent brain and cognitive development study: Rationale and description. *Developmental cognitive neuroscience* **32**, 55-66 (2018).
2.	S. R. Seaman, I. R. White, Review of inverse probability weighting for dealing with missing data. *Statistical methods in medical research* **22**, 278-295 (2013).
3.	S. G. Heeringa, P. A. Berglund, A guide for population-based analysis of the Adolescent Brain Cognitive Development (ABCD) Study baseline data. *BioRxiv* (2020).