NatPAT COVID-19 2023 Survey Parent - Codebook

Section 0: Twin Registry Information

schoolgradecovidsurvey2023_0/schoolgradecovidsurvey2023_1 (parent reported child-level grade)

ageCOVIDsurvey2023_0/ageCOVIDsurvey2023_1(age of twin, calculated by date of birth subtracted from date of consent)

twinsex_0/twinsex_1 (parent reported child-level sex)
1 = male
0 = female

zygosity_0/zygosity_1 (calculated zygosity from questionnaire)
1 = MZ twins
2 = DZ twins

pair_sex_0/pair_sex_1 (parent reported twin sex at pair level)
0 = female-female pair
1 = male-male pair
2 = male-female pair

*** **All the following variables are the core variable names. In the final datasets, the core variable names have "_0" or "_1" at the end.**

*** **For any of the following scored scales, sum scores are only calculated if no more than 10% of the item level data was missing.**

*** **A red asterisk** * **indicates that the item needs to be reverse coded.**

*** **Race, ethnicity and any open ended responses have been removed from shared data to help preserve privacy. These are potentially available to researchers by request.**

Section 1: About you and your family

Questions refer to caregiver relationship to twins, health insurance plans, distress and resilience.

Section 1
About you and your family

1.1 The person completing this questionnaire is (check one): questionnaire

1	☐	Biological mother
2	☐	Biological father
3	☐	Step mother
4	☐	Step father
5	☐	Other relative (e.g., grandmother, aunt, etc.) Please specify:_____
6	☐	Adoptive or foster parent
7	☐	Other, specify: _____

1.2 Do you currently have health insurance or a health care plan? healthinsurance

1 ☐ I **DO NOT** have health insurance   2 ☐ I **HAVE** some kind of health insurance

1.3 On a scale of 1 to 10, where 1 is the worst health care plan possible and 10 is the best health care plan possible, what number would you use to rate your health care plan? healthcareplan

1	2	3	4	5	6	7	8	9	10	-99
1	2	3	4	5	6	7	8	9	10	Not applicable

1.4 Please select the option below that best describes your political views (check one): political

1	☐	Extremely Liberal
2	☐	Liberal
3	☐	Slightly Liberal
4	☐	Moderate
5	☐	Slightly Conservative
6	☐	Conservative
7	☐	Extremely Conservative

1.5 Please indicate how much you would be willing to complete a NatPAT survey **online** in the future.

onlinesurvey

0 ☐ Not at all   1 ☐ A little   2 ☐ Somewhat   3 ☐ Mostly   4 ☐ Definitely

1.6 Please indicate the extent to which you agree with each of the following statements by using the following scale: strongly disagree, disagree, neutral, agree, strongly agree. Please circle only one number per row.   brs#

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1 I tend to bounce back quickly after hard times	1	2	3	4	5
2 * I have a hard time making it through stressful events	1	2	3	4	5
3 It does not take me long to recover from a stressful event	1	2	3	4	5
4 * It is hard for me to snap back when something bad happens	1	2	3	4	5
5 I usually come through difficult times with little trouble	1	2	3	4	5
6 * I tend to take a long time to get over set-backs in my life	1	2	3	4	5

1.7 Please indicate your level of agreement using the rating scale to the right of each item.   reading interest#

	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1 I like reading	1	2	3	4	5
2 I am interested in reading	1	2	3	4	5
3 In general, I find reading to be interesting	1	2	3	4	5
4 I enjoy reading	1	2	3	4	5

1.8 During the last 30 days, about how often did...   distress#

	1 None of the time	2 A little of the time	3 Some of the time	4 Most of the time	5 All the time
1 ... you feel depressed?	1	2	3	4	5
2 ... you feel so depressed that nothing could cheer you up?	1	2	3	4	5
3 ... you feel hopeless?	1	2	3	4	5
4 ... you feel restless or fidgety?	1	2	3	4	5
5 ... you feel so restless that you could not sit still?	1	2	3	4	5
6 ... you feel tired out for no good reason?	1	2	3	4	5
7 ... you feel that everything was an effort?	1	2	3	4	5
8 ... you feel worthless?	1	2	3	4	5
9_fe ... you feel nervous?	1	2	3	4	5
10 ... you feel so nervous that nothing could calm you down?	1	2	3	4	5

#1.1-#1.5

Items are created by the research team.

#1.6 Brief Resilience Scale (BRS)

Items are from: Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine, 15*, 194-200.

```
parent$brs2_r <-6- parent$brs2
parent$brs4_r<-6- parent$brs4
parent$brs6_r<-6- parent$brs6
BRS_Np <-rowSums(is.na(parent[,c("brs1", "brs2_r", "brs3", "brs4_r", "brs5",
"brs6_r")]))/6*100
for(i in 1:nrow(parent))
{if(BRS_Np[i]<10)
{parent$brs_avg[i] <- rowMeans(parent[i, c("brs1", "brs2_r", "brs3", "brs4_r",
"brs5", "brs6_r")], na.rm = TRUE)}
  else {parent$brs_avg[i] <-NA}}
#drop reverse coded item scores
parent <- parent%>%select(-brs2_r, -brs4_r, -brs6_r)
```

#1.7 Reading Interest

Adapted from surveys on math interest and math confidence from:
Ganley, C. M., & Lubienski, S. T. (2016). Mathematics confidence, interest, and performance: Examining gender patterns and reciprocal relations. *Learning and Individual Differences, 47*, 182-193.

*Note. Items are modified from the math confidence and math interest measure. Scale scores created here are not validated in the original publication.

```
parent$RIaverage_score <- rowMeans(parent[,c("reading1", "reading2",
"reading3", "reading4")], na.rm = TRUE)
#missing on one or more item would be >10% missing, so we can skip the
loop function
```

1.8 Distress Scale - Kessler 10

Items are from: Andrews, G., & Slade, T. (2001). Interpreting scores on the Kessler psychological distress scale (K10). Australian and New Zealand journal of public health, 25(6), 494-497.

```
#renamed a misnamed column
colnames(parent)[colnames(parent) == "distress9_fe"] <- "distress9"
Kessler_Np <-rowSums(is.na(parent[,c("distress1", "distress2",
"distress3", "distress4",  "distress5", "distress6", "distress7",
"distress8", "distress9", "distress10")]))/10*100
for(i in 1:nrow(parent))
{if(Kessler_Np[i]<10)
{parent$Kessler_sum[i] <- rowSums(parent[i, c("distress1", "distress2",
"distress3", "distress4", "distress5", "distress6", "distress7",
"distress8", "distress9", "distress10")], na.rm = TRUE)}
  else {parent$Kessler_sum[i] <-NA}}
```

Section 2: How COVID Impacted Your Family

Questions refer to parent report on how COVID-19 impacted their involvement in children's education, digital access, job support, and their family overall.

Section 2
How COVID-19 has affected you and your family

2.1 If your twins were home-schooled in the 2022-2023 school year check here □ ^0/1^ homeschool

If you checked home-schooled please skip questions 2.2 to 2.11 about your twins' school life.

2.2 During the 2022-2023 school year, did you feel **comfortable** interacting with or communicating with your twins' teachers? comfort2022

1 □ Not comfortable   2 □ Somewhat comfortable   3 □ Neutral   4 □ Comfortable   5 □ Very comfortable

2.3 During 2022-2023 school year, how **effective** did you feel in dealing with concerns raised by your twins' teachers? effective2022

1 □ Not effective   2 □ Somewhat effective   3 □ Neutral   4 □ Effective   5 □ Very effective

2.4 During the 2022-2023 school year, how **satisfied** did you feel after interacting with your twins' teachers? satisfied2022

1 □ Not satisfied   2 □ Somewhat satisfied   3 □ Neutral   4 □ Satisfied   5 □ Very satisfied

2.5 During the 2022-2023 school year, did you feel **qualified** or like an authority in terms of your twins' school achievement? qualified2022

1 □ Not qualified   2 □ Somewhat qualified   3 □ Neutral   4 □ Qualified   5 □ Very qualified

2.6 During the 2022-2023 school year, how **likely** were you to question a teacher's practices or school curriculum? question2022

1 □ Not likely   2 □ Somewhat likely   3 □ Neutral   4 □ Likely   5 □ Very likely

2.7 During the 2022-2023 school year, did you help your twins with schoolwork? help2022

1 □ Not at all   2 □ Rarely   3 □ Sometimes   4 □ Often   5 □ Very often

2.8 During the 2022-2023 school year, did you feel it was your job to help your twins with schoolwork? job2022

1 □ Not at all   2 □ Rarely   3 □ Sometimes   4 □ Often   5 □ Very often

2.9 Other than their teacher, who else helped the twins with their schoolwork during the 2022-2023 school year? (select all that apply)

		1 Yes	0 No
biomom2022	Biological mother	☐	☐
biodad2022	Biological father	☐	☐
stepmom2022	Step mother	☐	☐
stepdad2022	Step father	☐	☐
grandparent2022	Grandparent	☐	☐
sibling2022	Sibling	☐	☐
otherfamily2022	Other family member (e.g., cousin, aunt, etc.)	☐	☐
adoptive2022	Adoptive or foster parent	☐	☐
helpsother2022	Other, specify: __helpsotherresponse2022__	☐	☐

2.10 Did your twins' school or school district provide you any of the following to use at home to support your twins' learning during the 2022-2023 school year?

		1 Yes	0 No
schcomp	Laptop or desktop computer	☐	☐
schphone	Mobile phone	☐	☐
schinternet	Internet access (i.e., 4G dongle)	☐	☐
schtablet	Tablet	☐	☐
schhead	Headphones or earbuds	☐	☐
schwebcam	Webcam (for video communication)	☐	☐
schapps	Learning apps, software, or other online programs	☐	☐
schprinter	Printer	☐	☐

2.11 Did you have to purchase any of the following to use at home to support your twins' learning during the 2022-2023 school year?

		1 Yes	0 No
famcomp	Laptop or desktop computer	☐	☐
famphone	Mobile phone	☐	☐
faminternet	Internet access (i.e., 4G dongle)	☐	☐
famtablet	Tablet	☐	☐
famhead	Headphones or earbuds	☐	☐
famwebcam	Webcam (for video communication)	☐	☐
famapps	Learning apps, software, or other online programs	☐	☐
famprinter	Printer	☐	☐

2.12 During the 2022-2023 school year, how reliable was your internet at home? (circle one)

reliableinternet

No problems with connection				Frequent connection problems
1	2	3	4	5
1	2	3	4	5

2.13 During the 2022-2023 school year, what type(s) of internet did you have at home? (select all that apply)

wifi	☐ Dedicated household internet or wifi	0/1
hotspot	☐ Dedicated cellular hotspot	0/1
mobile	☐ Hotspot through someone's mobile phone	0/1
nointernet	☐ No Internet at home	0/1
internetother	☐ Use public internet sources (e.g., library, restaurants, etc.)	0/1
	☐ Other (please describe): __internetotherresponse__	

#2.1 - #2.9 are created by Sara Hart and team.

#2.10 - #2.11 are adapted from:

Becker, S. P., Quach, E. T., Dvorsky, M. R., Breaux, R., Melvin, G. A., & Sciberras, E. (2020). Home adjustment to COVID-19 scale (HACS). Cincinnati, OH: Authors.

#2.12 - #2.13 are created by Callie Little.

2.14 During the past 12 months, were any of the following true in your household? covidimpacts#

		1 Not true	2 Some-what true	3 Very true
1	Significant decrease (over 10%) in household income	1	2	3
2	Gone into financial debt	1	2	3
3	Job disruption or loss (myself or other caregiver)	1	2	3
4	Could not access essential supplies (e.g., sanitizer, soap, toilet paper) even when they were available	1	2	3
5	Overwhelmed by the amount of COVID-19 news coverage	1	2	3
6	Applied for employment insurance or government assistance	1	2	3
7	Experienced significant delays in receiving employment insurance or government assistance (leave blank if did not apply)	1	2	3
8	Became concerned about providing for my family	1	2	3
9	Became stressed by crowded grocery stores and shopping centers	1	2	3
10	Experienced increased arguments with family members	1	2	3
11	Experienced increased emotional withdrawal from family members	1	2	3
12	Children became harder to manage	1	2	3
13	Was not able to access educational materials for children	1	2	3
14	More relationship conflicts with my partner (leave blank if not in a relationship)	1	2	3
15	Struggled emotionally with the loss of routine	1	2	3
16	Felt crowded in my living space	1	2	3
17	Significant anxiety/panic about danger to myself or loved ones	1	2	3
18	Difficulty in finding or keeping childcare	1	2	3

2.15 During the 2022-2023 school year, how did you perceive COVID-19 as a risk… covidrisk#

		1 No risk	2 Low risk	3 Moderate risk	4 High risk
1	... to your physical health?	1	2	3	4
2	... to your twins' physical health?	1	2	3	4
3	... to your mental health?	1	2	3	4
4	… to your twins' mental health?	1	2	3	4
5	… to your family's financial situation?	1	2	3	4
6	… to your twins' education?	1	2	3	4

2.16 During the 2022-2023 school year, how much do you think COVID-19 is still impacting your ability to cover your expenses and pay all of your bills? jobstatus

1 ☐ Not at all 2 ☐ A little 3 ☐ Somewhat 4 ☐ Much 5 ☐ Very much

2.17 Think of the support you receive from people close to you (such as family, friends, close co-workers, neighbors). During the 2022-2023 school year, was there an increase or decrease in the amount of support compared to 2021-2022? support#

		1 Big decrease	2 Decrease	3 No change	4 Increase	5 Big increase
1	Financial help	1	2	3	4	5
2	Childcare	1	2	3	4	5
3	House chores/yard work	1	2	3	4	5
4	Transportation (e.g., giving rides)	1	2	3	4	5
5	Shared resources (e.g., food, toiletries)	1	2	3	4	5
6	Social support (e.g., listening, giving advice)	1	2	3	4	5

2.18 Did your job provide support for any of the following categories due to the initial COVID-19 outbreak on March 13, 2020? jobsupport#

		1 Yes	0 No
1	Financial help (e.g., bonuses)	☐	☐
2	Childcare at work/childcare voucher	☐	☐
3	Flexible hours/additional time off	☐	☐
4	Therapy services/vouchers	☐	☐

2.19 If your job provided support for any of the following categories due to the initial COVID-19 outbreak on March 13, 2020, how has that support changed over the past 12 months? jobsupportchange#

		0 No support	1 Big decrease	2 Decrease	3 No change	4 Increase	5 Big increase
1	Financial help (e.g., bonuses)	0	1	2	3	4	5
2	Childcare at work/childcare voucher	0	1	2	3	4	5
3	Flexible hours/additional time off	0	1	2	3	4	5
4	Therapy services/vouchers	0	1	2	3	4	5

2.20 During 2022-2023, to what extent has COVID-19 had a negative effect on the mental health of ...

	1 Not at all	2 A little	3 Somewhat	4 Much	5 Very much
You mentalyou	1	2	3	4	5
Your spouse/partner mentalspouse	1	2	3	4	5
Check here if not in a relationship ☐ 1/NA nospouse					

2.21 On a scale of 0 (not at all) to 10 (very much), how much have you been concerned about the following due to the COVID-19 pandemic in 2022-2023? concerned#

		0	1	2	3	4	5	6	7	8	9	10
1	Your family's health concerns	0	1	2	3	4	5	6	7	8	9	10
2	Your family's financial concerns	0	1	2	3	4	5	6	7	8	9	10
3	Impact on your work	0	1	2	3	4	5	6	7	8	9	10
4	Impact on your child	0	1	2	3	4	5	6	7	8	9	10
5	Impact on your community	0	1	2	3	4	5	6	7	8	9	10
6	Impact on your family members	0	1	2	3	4	5	6	7	8	9	10
7	Your access to food	0	1	2	3	4	5	6	7	8	9	10
8	Your access to baby supplies (e.g., formula, diapers, wipes)	0	1	2	3	4	5	6	7	8	9	10
9	Your access to personal care products or household supplies	0	1	2	3	4	5	6	7	8	9	10
10	Your access to medical care, including mental health care	0	1	2	3	4	5	6	7	8	9	10
11	Having to social distance or be quarantined	0	1	2	3	4	5	6	7	8	9	10

2.22 Tell us in your own words about how COVID-19 has changed things for you and your life. For example, what are some things that you miss or things that have been different because of the pandemic? How do you feel about these changes? covidimpact

_____

_____

_____

_____

_____

_____

#2.14 COVID-19 Family Stressor Scale

Items 1- 6 and items 8-17 are from: Prime, H., Wade, M., May, S. S., Jenkins, J. M., & Browne, D. T. (2021). The COVID-19 Family Stressor Scale: Validation and measurement invariance in female and male caregivers. Frontiers in Psychiatry, 12, 669106.

Items 7and 18 are created by the research team.

#2.15 is investigator created by Jeffrey Shero.

#2.16 is created by the research team.

#2.17 is investigator created by Willa van Dijk.

#2.18-#2.19 are created by the research team.

#2.20 Investigator created,

based slightly from Drouin, M., McDaniel, B. T., Pater, J., & Toscos,T. (2020). How parents and their children used social media and technology at the beginning of the COVID-19 pandemic and associations with anxiety. Cyberpsychology, Behavior, and Social Networking, 23(11), 727-736.

#2.21 ECHO COVID-19 Questionnaire - Adult Primary Version

Item is modified from: Environmental Influences on Child Health Outcomes (ECHO) COVID-19 Questionnaire – Adult Primary Version. ECHO-wide Cohort Version 01.30. April 9, 2020.
link:https://www.phenxtoolkit.org/protocols/view/960201?origin=search

2.22 is created by the research team.

Section 3: All about your child

Questions refer to the individual twin's school experience, school supports or services, after school activities, peer interactions, and COVID-19 impacts.

For the following,
think **ONLY** of...

_____

3.1 Please check the boxes to indicate whether or not your child attended summer school each year since the COVID-19 pandemic began in March of 2020?

	1 Yes	0 No

Summer after the 2019-2020 school year   summerschool19_20   ☐ ☐
If yes, why?__summerschoolbranch1_____

Summer after the 2020-2021 school year   summerschool20_21   ☐ ☐
If yes, why?__summerschoolbranch2_____

Summer after the 2021-2022 school year   summerschool21_22   ☐ ☐
If yes, why?__summerschoolbranch3_____

Summer after the 2022-2023 school year summerschool22_23   ☐ ☐
If yes, why?__summerschoolbranch4_____

3.2 Rate how much you believe your child's reading ability has been negatively impacted due to how the COVID pandemic affected schools? readingimpact

1	2	3	4	5
☐ Not at all	☐ A little	☐ Somewhat	☐ Much	☐ Very much

3.3 Rate how much you believe your child's reading ability has been negatively impacted due to how the COVID pandemic affected schools compared to his/her/their peers? readingstruggle

1	2	3	4	5
☐ Struggled much less	☐ Struggled less	☐ Similar	☐ Struggled more	☐ Struggled much more

3.4 Since the start of the COVID-19 pandemic in March of 2020 does/did your child struggle with learning math, compared to his/her/their peers? mathstruggle

1	2	3	4	5
☐ Struggled much less	☐ Struggled less	☐ Similar	☐ Struggled more	☐ Struggled much more

3.5 In the 2020-2021 school year how well did your child perform on the mandated reading tests at school (e.g., NWEA MAP Growth, FAIR, FSA, F.A.S.T)? stdreadtest1

5	4	3	2	1	-99
☐ Excellent	☐ Good	☐ Average	☐ Fair	☐ Poor	☐ Not applicable

3.6 In the 2021-2022 school year how well did your child perform on the mandated reading tests at school (e.g., NWEA MAP Growth, FAIR, FSA, F.A.S.T)? stdreadtest2

5	4	3	2	1	-99
☐ Excellent	☐ Good	☐ Average	☐ Fair	☐ Poor	☐ Not applicable

3.7 In the 2022-2023 school year how well did your child perform on the mandated reading tests at school (e.g., NWEA MAP Growth, FAIR, FSA, F.A.S.T)? stdreadtest3

5	4	3	2	1	-99
☐ Excellent	☐ Good	☐ Average	☐ Fair	☐ Poor	☐ Not applicable

#3.1 Summer School Attendance Since COVID

Item created by research team.

#3.2 - #3.7 Parent report on child reading and math skills since COVID

These items are investigator created in collaboration with Elsje van Bergen.

Items are adapted from:
Hart, S. A., Ganley, C. M., & Purpura, D. J. (2016). Understanding the home math environment and its role in predicting parent report of children's math skills. *PloS one, 11*(12), e0168227.

3.8 Did your child regularly receive any of the following supports or services at school during the 2022-2023 school year?

	1 Yes	0 No
School counseling or therapy therapy2022	☐	☐
Tutoring/help with schoolwork or homework tutor2022	☐	☐
Extended time to complete work extended2022	☐	☐
Modified assignments or tests modified2022	☐	☐
Physical or occupational therapy phytherapy2022	☐	☐
Speech or language therapy speech2022	☐	☐
Meals provided by school meals2022	☐	☐

3.9 Did your child require any special services at school during the 2022-2023 school year? Check all that apply:

	1 Yes	0 No
sped2022 Special Education	☐	☐
iep2022 504 Plan/IEP	☐	☐
rti2022 RTI	☐	☐
gifted2022 Gifted/Enriched Programming	☐	☐

schother2022 Other (please describe): schotherresponse _____

3.10 Did your child have (or receive services for) any of the following during the 2022-2023 school year? Please check all that apply: disability

		1 Yes	0 No
intdis	Intellectual Disabilities	☐	☐
hear	Hearing Impairments	☐	☐
deaf	Deafness	☐	☐
sli	Speech or Language Impairment (SLI/DLD)	☐	☐
blind	Visual Impairment including Blindness	☐	☐
emodist	Emotional Disturbance	☐	☐
ortho	Orthopedic Impairment	☐	☐
adhd	Other Health Impairment (e.g., ADHD)	☐	☐
sld	Specific Learning Disability (SLD)	☐	☐
tbi	Traumatic Brain Injury	☐	☐
asd	Autism Spectrum Disorder	☐	☐
devdelay	Developmental Delay	☐	☐

3.11 If your child required special services at school, how satisfied are you with the services provided during the 2022-2023 school year? schservice2022

1	2	3	4	5	0
☐ Not Satisfied	☐ Somewhat Satisfied	☐ Neutral	☐ Satisfied	☐ Very Satisfied	☐ Not applicable

3.12 During the 2022-2023 school year, please indicate how often your child participated in the following activities after school (e.g., after 3pm). (circle one)

activities2022_#

		0 Never	1 Once a week	2 Twice a week	3 Three times a week	4 Four times a week	5 Five times a week or more
1	Educational lessons or activities, such as Spanish club	0	1	2	3	4	5
2	Art or music lessons, such as piano	0	1	2	3	4	5
3	Youth organizations, such as Boy Scouts	0	1	2	3	4	5
4	Individual sports with a coach or instructor, such as tennis	0	1	2	3	4	5
5	Team sports with a coach or instructor, such as baseball	0	1	2	3	4	5
6	Sports and/or exercise for fun	0	1	2	3	4	5
7	Homework	0	1	2	3	4	5
8	Watch TV	0	1	2	3	4	5
9	Video or computer games	0	1	2	3	4	5
10	Instant messaging	0	1	2	3	4	5
11	Read for fun	0	1	2	3	4	5
12	Household chores	0	1	2	3	4	5
13	Practice a musical instrument	0	1	2	3	4	5
14	Arts & crafts	0	1	2	3	4	5
15	Hang out with friends	0	1	2	3	4	5

3.13 In your opinion, how different has it been for your child to do the following during the 2022-2023 school year compared to before COVID-19? diffchild#

		5 Much easier	4 Easier	3 About the same	2 Harder	1 Much harder
1	Get their schoolwork done because of other responsibilities at home (taking care of children, family)?	1	2	3	4	5
2	Get their schoolwork done because of the home environment (internet, computers, tension, space)?	1	2	3	4	5
3	Focus on their schoolwork	1	2	3	4	5
4	Finish their schoolwork	1	2	3	4	5
5	Find motivation to start or complete schoolwork	1	2	3	4	5
6	Manage frustration about their schoolwork	1	2	3	4	5
7	Work on their schoolwork on their own	1	2	3	4	5
8	Stay interested in their schoolwork	1	2	3	4	5

3.14 How did your child's peer interactions change from the 2021-2022 school year to the 2022-2023 school year?

	1 Decreased dramatically	2 Decreased a bit	3 Stayed the same	4 Increased a bit	5 Increased dramatically
Face-to-face contact face2face2022	1	2	3	4	5
Contact through social media socialmedia2022	1	2	3	4	5
Number of friends numfriends2022	1	2	3	4	5
Conflict with friends conflictfriends2022	1	2	3	4	5

3.15 To what extent has COVID-19 had a negative effect on the mental health of your child during the 2022-2023 school year? covidmentalhealthchild

1 ☐ Not at all   2 ☐ A little   3 ☐ Somewhat   4 ☐ Much   5 ☐ Very much

#3.8 School-Based Practices and Services

Items are adapted from: Becker, S. P., Quach, E. T., Dvorsky, M. R., Breaux, R., Melvin, G. A., & Sciberras, E. (2020). *Home adjustment to COVID-19 scale (HACS)*. Cincinnati, OH: Authors.

#3.9 & #3.11 are created by Sara Hart and Stephanie Al Otaiba for a different data collection (Project KIDS). They were adapted for COVID here.

#3.10 This item were recoded binarily in the shared data set to protect privacy.

A value of 1 means a "Yes" was selected for at least one of the items listed. A value of 0 means "No" was selected for all of the items listed. Data on each disability type are potentially available to researchers by request.

#3.12 After School Activities

Items 1-6 are from MDI: Middle Years Development Instrument found in: Schonert-Reichl, K.A., Guhn, M., Gadermann, A.M. et al. Development and Validation of the Middle Years Development Instrument (MDI): Assessing Children's Well-Being and Assets across Multiple Contexts. *Soc Indic Res 114*, 345–369 (2013). https://doi.org/10.1007/s11205-012-0149-y

Items 7-15 are investigator added to the published scale by Sara Hart and team.

#3.13 School Difficulties Due to Covid

Items 1 and 2 are adapted from NIH Phenxtoolkit, Protocol - COVID-19 Experiences (COVEX). Retrieved from: https://www.phenxtoolkit.org/protocols/view/980201?origin=search

Fisher, P.W., Desai, P., Klotz, J., Turner, J.B., Reyes-Portillo, J.A., Ghisolfi, I., Canino, G., and Duarte, C.S. (2020) COVID-19 Experiences (COVEX).

Items 3-8 are adapted from: Becker, S. P., Quach, E. T., Dvorsky, M. R., Breaux, R., Melvin, G. A., & Sciberras, E. (2020). H*ome adjustment to COVID-19 scale (HACS)*. Cincinnati, OH: Authors

#3.14 Peer Connection

Items are investigator created for this data collection by LaTasha Holden.

#3.15 is investigator created by Sara Hart and team.

3.16 During the 2022-2023 school year, how stressful were your parenting experiences with your child?   covidparentingstress

1 ☐ Not at all	2 ☐ A little	3 ☐ Somewhat	4 ☐ Much	5 ☐ Very much

3.17 For each item, please circle the number for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you are not absolutely certain or the item seems odd! Please give your answers on the basis of how your child has been over the last six months.

sdq

		0 Not true	1 Somewhat true	2 Certainly true
1	Considerate of other people's feelings	1	2	3
2	Restless, overactive, cannot stay still for long	1	2	3
3	Often complains of headaches, stomach-aches or sickness	1	2	3
4	Shares readily with others (food, games, pens, etc.)	1	2	3
5	Often has temper tantrums or hot temper	1	2	3
6	Rather solitary, tends to play alone	1	2	3
7 *	Generally obedient, usually does what adults request	1	2	3
8	Many worries, often seems worried	1	2	3
9	Helpful if someone is hurt, upset or feeling ill	1	2	3
10	Constantly fidgeting or squirming	1	2	3
11*	Has at least one good friend	1	2	3
12	Often fights with other children or bullies them	1	2	3
13	Often unhappy, down-hearted or tearful	1	2	3
14*	Generally liked by other children	1	2	3
15	Easily distracted, concentration wanders	1	2	3
16	Nervous or clingy in new situations; easily loses confidence	1	2	3
17	Kind to younger children	1	2	3
18	Often lies or cheats	1	2	3
19	Picked on or bullied by other children	1	2	3
20	Often volunteers to help others (parents, teachers, children)	1	2	3
21*	Thinks things out before acting	1	2	3
22	Steals from home, school or elsewhere	1	2	3
23	Gets on better with adults than with other children	1	2	3
24	Many fears, easily scared	1	2	3
25*	Sees tasks through to the end, good attention span	1	2	3

3.18 In the past month...   pss#

		0 Never	1 Almost never	2 Some-times	3 Fairly often	4 Very often
1*	How often did your child seem able to control life's emotions?	1	2	3	4	5
2*	How often did it seem that life was going well for your child?	1	2	3	4	5
3	How often did your child appear angered by things that happened outside of his/her/their control?	1	2	3	4	5
4	How often did difficulties pile up so high that your child did not seem able to overcome them?	1	2	3	4	5
5	How often was your child upset because of something that happened unexpectedly?	1	2	3	4	5

#3.16 Parenting Experience

Item is adapted from parenting stress question from: Prime, H., Wade, M., May, S. S., Jenkins, J. M., & Browne, D. T. (2021). The COVID-19 Family Stressor Scale: Validation and measurement invariance in female and male caregivers. Frontiers in Psychiatry, 716.

#3.17 Strengths and Difficulties Questionnaire (SDQ)

Scale details are here https://www.sdqinfo.org/a0.html Goodman R, Meltzer H, Bailey V. The Strengths and Difficulties Questionnaire: a pilot study on the validity of the self-report version. Eur Child Adolesc Psychiatry. 1998 Sep;7(3):125-30. doi: 10.1007/s007870050057. PMID: 9826298

```r
#### reverse code items 7, 21, 25, 11, 14
pt$sdq7_r <- 2- pt$sdq7
pt$sdq21_r <- 2- pt$sdq21
pt$sdq25_r <- 2- pt$sdq25
pt$sdq11_r <- 2- pt$sdq11
pt$sdq14_r <- 2- pt$sdq14

##### Subscale - Emotion
#count the percent missing for emotion - name: SDQ_EmoNp
SDQ_EmoNp <- rowSums(is.na(pt[, c("sdq3", "sdq8", "sdq13", "sdq16",
"sdq24")]))/5*100
# calculate Emotion score: SDQ_emot_sum
for (i in 1:nrow(pt)) {
  if (SDQ_EmoNp [i] < 10)
  {pt$SDQ_emot_sum [i] <- rowSums(pt[i, c("sdq3", "sdq8", "sdq13", "sdq16",
"sdq24")],  na.rm = TRUE)}
  else {pt$SDQ_emot_sum[i] <- NA}}

##### Subscale - Conduct
SDQ_CondNp <- rowSums(is.na(pt[, c("sdq5", "sdq7_r", "sdq12", "sdq18",
"sdq22")]))/5*100
for (i in 1:nrow(pt)) {
  if (SDQ_CondNp [i] < 10)
  {pt$SDQ_cond_sum [i] <- rowSums(pt[i, c("sdq5", "sdq7_r", "sdq12", "sdq18",
"sdq22")],  na.rm = TRUE)}
  else{pt$SDQ_cond_sum[i] <- NA}}

##### Subscale - hyperactivity
SDQ_HypNp <- rowSums(is.na(pt[, c("sdq2", "sdq10", "sdq15", "sdq21_r",
"sdq25_r")]))/5*100
for (i in 1:nrow(pt)) {
  if (SDQ_HypNp [i] < 10)
  {pt$SDQ_hype_sum [i] <- rowSums(pt[i, c("sdq2", "sdq10", "sdq15", "sdq21_r",
"sdq25_r")],  na.rm = TRUE)}
  else{pt$SDQ_hype_sum[i] <- NA}}
```

```r
##### Subscale - peer
SDQ_PeerNp <- rowSums(is.na(pt[, c("sdq6", "sdq11_r",  "sdq14_r", "sdq19",
"sdq23")]))/5*100
for (i in 1:nrow(pt)) {
  if (SDQ_PeerNp [i] < 10)
   {pt$SDQ_peer_sum [i] <- rowSums(pt[i, c("sdq6", "sdq11_r",  "sdq14_r",
"sdq19", "sdq23")],  na.rm = TRUE)}
    else
   {pt$SDQ_peer_sum[i] <- NA}}


##### Subscale - prosocial
SDQ_ProNp <- rowSums(is.na(pt[, c("sdq1", "sdq4", "sdq9","sdq17",
"sdq20")]))/5*100
for (i in 1:nrow(pt)) {
  if (SDQ_ProNp [i] < 10)
   {pt$SDQ_pros_sum [i] <- rowSums(pt[i, c("sdq1", "sdq4", "sdq9","sdq17",
"sdq20")],  na.rm = TRUE)}
    else{pt$SDQ_pros_sum[i] <- NA}}


## TotalDifficulty (because missing on one of the scale would be >10% missing,
so no need to do the loop)
pt$SDQ_difficulties_sum <- rowSums(pt[, c("SDQ_emot_sum","SDQ_cond_sum",
"SDQ_hype_sum", "SDQ_peer_sum")])
pt$SDQ_externalizing_sum <- rowSums(pt[, c("SDQ_cond_sum", "SDQ_hype_sum")])
pt$SDQ_internalizing_sum <- rowSums(pt[, c("SDQ_emot_sum", "SDQ_peer_sum")])

#drop newly created items.
pt <- pt%>%select (-sdq7_r, -sdq21_r, -sdq25_r, -sdq11_r, -sdq14_r)
```

3.18 In the past month... pss#

	0 Never	1 Almost never	2 Some-times	3 Fairly often	4 Very often
1* How often did your child seem able to control life's emotions?	1	2	3	4	5
2* How often did it seem that life was going well for your child?	1	2	3	4	5
3 How often did your child appear angered by things that happened outside of his/her/their control?	1	2	3	4	5
4 How often did difficulties pile up so high that your child did not seem able to overcome them?	1	2	3	4	5
5 How often was your child upset because of something that happened unexpectedly?	1	2	3	4	5

3.18 continued

		Never	Almost never	Some-times	Fairly often	Very often
6	How often did your child appear frustrated by being unable to control or do something?	1	2	3	4	5
7	How often did your child appear nervous and stressed?	1	2	3	4	5
8*	How often did your child appear confident about his/her/their ability to handle personal problems?	1	2	3	4	5
9*	How often did your child seem to feel things were going well?	1	2	3	4	5
10	How often did your child seem unable to cope with all the things that had to be done?	1	2	3	4	5

3.19 Below is a list of statements that describe children. We would like to know if your child has had problems with these behaviors over the past 6 months. Please answer all the items the best that you can. Please DO NOT SKIP ANY ITEMS. Think about your child as you read each statement and circle your response.   brief#

		1 Never	2 Sometimes	3 Often
1	Overreacts to small problems	N	S	O
2	When given three things to do, only remembers the first or last	N	S	O
3	Is not a self-starter	N	S	O
4	Leaves playroom a mess	N	S	O
5	Resists or has trouble accepting a different way to solve a problem with schoolwork, friends, chores, etc.	N	S	O
6	Becomes upset with new situations	N	S	O
7	Has explosive, angry outburst	N	S	O
8	Tries the same approach to a problem over and over even when it does not work	N	S	O
9	Has a short attention span	N	S	O
10	Needs to be told to begin a task even when willing	N	S	O
11	Does not bring home homework, assignment sheets, materials, etc.	N	S	O
12	Acts upset by a change in plans	N	S	O
13	Is disturbed by change of teacher or class	N	S	O
14	Does not check work for mistakes	N	S	O
15	Has good ideas but cannot get them on paper	N	S	O
16	Has trouble coming up with ideas for what to do in play or free time	N	S	O
17	Has trouble concentrating on chores, schoolwork, etc.	N	S	O
18	Does not connect doing tonight's homework with grades	N	S	O
19	Is easily distracted by noises, activity, sights, etc.	N	S	O
20	Becomes tearful easily	N	S	O
21	Makes careless errors	N	S	O
22	Forgets to hand in homework, even when completed	N	S	O
23	Resists change of routine, foods, places, etc.	N	S	O
24	Has trouble with chores or tasks that have more than one step	N	S	O
25	Has outbursts for little reason	N	S	O
26	Mood changes frequently	N	S	O
27	Needs help from an adult to stay on task	N	S	O
28	Gets caught up in details and misses the big picture	N	S	O
29	Keeps room messy	N	S	O
30	Has trouble getting used to new situations (classes, groups, friends)	N	S	O

3.19 Continued

		Never	Sometimes	Often
31	Has poor handwriting	N	S	O
32	Forgets what he/she/they was/were doing	N	S	O
33	When sent to get something, forgets what he/she/they is/are supposed to get	N	S	O
34	Is unaware of how his/her/their behavior affects or bothers others	N	S	O
35	Has good ideas but does not get job done (lacks follow-through)	N	S	O
36	Becomes overwhelmed by large assignments	N	S	O
37	Has trouble finishing tasks (chores, homework)	N	S	O
38	Acts wilder or sillier than others in groups (birthday parties, recess)	N	S	O
39	Thinks too much about the same topic	N	S	O
40	Underestimates time needed to finish tasks	N	S	O
41	Interrupts others	N	S	O
42	Does not notice when his/her/their behavior causes negative reactions	N	S	O
43	Gets out of seat at the wrong times	N	S	O
44	Gets out of control more than friends	N	S	O
45	Reacts more strongly to situations than other children	N	S	O
46	Starts assignments or chores at the last minute	N	S	O
47	Has trouble getting started on homework or chores	N	S	O
48	Has trouble organizing activities with friends	N	S	O
49	Blurts things out	N	S	O
50	Mood is easily influenced by the situation	N	S	O
51	Does not plan ahead for school assignments	N	S	O
52	Has poor understanding of own strengths and weaknesses	N	S	O
53	Written work is poorly organized	N	S	O
54	Acts too wild or "out of control"	N	S	O
55	Has trouble putting the brakes on his/her/their actions	N	S	O
56	Gets in trouble if not supervised by an adult	N	S	O
57	Has trouble remembering things, even for a few minutes	N	S	O
58	Has trouble carrying out the actions needed to reach goals (saving money for special item, studying to get a good grade)	N	S	O
59	Becomes too silly	N	S	O
60	Work is sloppy	N	S	O
61	Does not take initiative	N	S	O
62	Angry or tearful outbursts are intense but end suddenly	N	S	O
63	Does not realize that certain actions bother others	N	S	O
64	Small events trigger big reactions	N	S	O
65	Talks at the wrong time	N	S	O
66	Complains there is nothing to do	N	S	O
67	Cannot find things in room or school desk	N	S	O
68	Leaves a trail of belongings wherever he/she/they goes	N	S	O
69	Leaves messes that others have to clean up	N	S	O
70	Becomes upset too easily	N	S	O
71	Lies around the house a lot ("couch potato")	N	S	O
72	Has a messy closet	N	S	O
73	Has trouble waiting for turn	N	S	O

3.19 Continued

#		Never	Sometimes	Often
74	Loses lunch box, lunch money, permission slips, homework, etc.	N	S	O
75	Cannot find clothes, glasses, shoes, toys, books, pencils, etc.	N	S	O
76	Tests poorly even when knows correct answers	N	S	O
77	Does not finish long-term projects	N	S	O
78	Has to be closely supervised	N	S	O
79	Does not think before doing	N	S	O
80	Has trouble moving from one activity to another	N	S	O
81	Is fidgety	N	S	O
82	Is impulsive	N	S	O
83	Cannot stay on the same topic when talking	N	S	O
84	Gets stuck on one topic or activity	N	S	O
85	Says the same things over and over	N	S	O
86	Has trouble getting through morning routine in getting ready for school	N	S	O

3.20 Children differ in their ability to focus attention, control activity and inhibit impulses. **For each item listed below, how does your child compare to other children of the same age?** Please select the best rating based on your observations <u>over the past month</u>.

adhd#	1 Far below	2 Below	3 Slightly below	4 Average	5 Slightly above	6 Above	7 Far above
1 Gives close attention to detail and avoids careless mistakes	1	2	3	4	5	6	7
2 Sustains attention on tasks or play activities	1	2	3	4	5	6	7
3 Listens when spoken to directly	1	2	3	4	5	6	7
4 Follows through on instructions and finishes school work/chores	1	2	3	4	5	6	7
5 Organizes tasks and activities	1	2	3	4	5	6	7
6 Engages in tasks that require sustained mental effort	1	2	3	4	5	6	7
7 Keeps track of things necessary for activities	1	2	3	4	5	6	7
8 Ignores extraneous stimili (ignores distractions)	1	2	3	4	5	6	7
9 Remembers daily activities	1	2	3	4	5	6	7
10 Sits still (controls movement of hands/feet or controls squirming)	1	2	3	4	5	6	7
11 Stays seated (when required by class rules/social conventions)	1	2	3	4	5	6	7
12 Modulates motor activity (inhibits inappropriate running/climbing)	1	2	3	4	5	6	7
13 Plays quietly (keeps noise level reasonable)	1	2	3	4	5	6	7
14 Settles down and rests (controls constant activity)	1	2	3	4	5	6	7
15 Modulates verbal activity (controls excess talking)	1	2	3	4	5	6	7
16 Reflects on questions (controls blurting out answers)	1	2	3	4	5	6	7
17 Awaits turn (stands in line and takes turns)	1	2	3	4	5	6	7
18 Enters into conversations and games (controls interrupting/intruding)	1	2	3	4	5	6	7

#3.18 Perceived Stress Scale (PSS-10) Parent report of child.

Items are adapted from NIH Common Data elements.

Cite for original measure: Cohen, S., Kamarck, T., & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*(4), 385–396.

*Note. Original measure is adult self-report.

```
## reverse code 1, 2, 8, 9
pt$pss1_r <- 4 - pt$pss1
pt$pss2_r <- 4 - pt$pss2
pt$pss8_r <- 4 - pt$pss8
pt$pss9_r <- 4 - pt$pss9

PSS_Np <- rowSums(is.na(pt[, c("pss1_r", "pss2_r", "pss3","pss4", "pss5",
                    "pss6", "pss7", "pss8_r", "pss9_r", "pss10")]))/10*100
for (i in 1:nrow(pt)) {
  if (PSS_Np [i] < 10)
  {pt$PSS_sum [i] <- rowSums(pt[i, c("pss1_r", "pss2_r", "pss3","pss4", "pss5",
                  "pss6", "pss7", "pss8_r", "pss9_r", "pss10")],  na.rm = TRUE)}
  else{pt$PSS_sum[i] <- NA}}

#drop newly created items
pt <- pt %>% select (-pss1_r, -pss2_r, -pss8_r, -pss9_r)
```

#3.19 Behavior Rating Inventory of Executive Function (BRIEF)

Items are from: Gioia, G. A., Isquith, P. K., Guy, S. C., & Kenworthy, L. (2000). Test Review: Behavior Rating Inventory of Executive Function. *Child Neuropsychology, 6,* 235-238.

If more than 14 items are missing, then the BRIEF cannot be scored.

If more than 2 items are missing from a scale, then the scale cannot be scored.

The followings are variable names for each scale:
P_BRIEF_Inhib: Inhibition
P_BRIEF_Shift: Shift
P_BRIEF_Emo: Emotional Control
P_BRIEF_Initiate: Initiate
P_BRIEF_Wm: Working Memory
P_BRIEF_Plan: Plan/Organize
P_BRIEF_Organize: Organization of Materials
P_BRIEF_Monitor: Monitor
P_BRIEF_Behreg: Behavioral Regulation
P_BRIEF_Meta: Metacognition
P_BRIEF_GlobalComposite: Global Executive Composite

The followings are variable names for t-scores of each scale:
P_BRIEF_Inhib_t; P_BRIEF_Shift_t; P_BRIEF_Emo_t; P_BRIEF_Initiate_t; P_BRIEF_Wm_t
P_BRIEF_Plan_t; P_BRIEF_Organize_t; P_BRIEF_Monitor_t; P_BRIEF_Behreg_t
P_BRIEF_Meta_t; P_BRIEF_GlobalComposite_t

```
# Calculate total count of non-missing values for all variables from
brief_1 to brief_72
pt$BRTotalN <- rowSums(!is.na(pt[, paste0("brief", 1:72)]))
```

```
###### INHIBIT
# Initialize the P_BRIEF_Inhib column with NA values
pt$P_BRIEF_Inhib <- rep(NA, nrow(pt))
# Initialize the BRIHN column with NA values
pt$BRIHN <- rep(NA, nrow(pt))
# Reiterate
for (i in 1:nrow(pt)) {
  # Check if BRTotalN for the current row is greater than or equal to 58
  if (pt$BRTotalN[i] >= 58) {
    # Count the number of non-missing values for specific variables
    pt$BRIHN[i] <- sum(!is.na(pt[i, c("brief38", "brief41", "brief43",
"brief44", "brief49", "brief54", "brief55", "brief56", "brief59", "brief65")]))
    # Check the value of BRIHN for the current row
    if (pt$BRIHN[i] == 10) {
      # Calculate P_BRIEF_Inhib as the sum of the listed variables
      pt$P_BRIEF_Inhib[i] <- sum(pt[i, c("brief38", "brief41", "brief43",
"brief44", "brief49", "brief54", "brief55", "brief56", "brief59", "brief65")],
na.rm = TRUE)
    } else if (pt$BRIHN[i] == 9) {
      # Calculate P_BRIEF_Inhib as the sum of the listed variables plus 1
      pt$P_BRIEF_Inhib[i] <- sum(pt[i, c("brief38", "brief41", "brief43",
"brief44", "brief49", "brief54", "brief55", "brief56", "brief59", "brief65")],
na.rm = TRUE) + 1
    } else if (pt$BRIHN[i] == 8) {
      # Calculate P_BRIEF_Inhib as the sum of the listed variables plus 2
      pt$P_BRIEF_Inhib[i] <- sum(pt[i, c("brief38", "brief41", "brief43",
"brief44", "brief49", "brief54", "brief55", "brief56", "brief59", "brief65")],
na.rm = TRUE) + 2
    } else {
      # Set P_BRIEF_Inhib to NA if BRIHN is neither 10, 9, nor 8
      pt$P_BRIEF_Inhib[i] <- NA
    }
  } else {
    # Set P_BRIEF_Inhib to NA if BRTotalN is less than 58
    pt$P_BRIEF_Inhib[i] <- NA
  }
}
pt$P_BRIEF_Inhib

###### SHIFT:
# Initialize
pt$P_BRIEF_Shift <- rep(NA, nrow(pt))
pt$BRSHN <- rep(NA, nrow(pt))
# Reiterate
for (i in 1:nrow(pt)) {
  if (pt$BRTotalN[i] >= 58) {
    pt$BRSHN[i] <- sum(!is.na(pt[i, c("brief5", "brief6", "brief8", "brief12",
"brief13", "brief23", "brief30", "brief39")]))
    if (pt$BRSHN[i] == 8) {
      pt$P_BRIEF_Shift[i] <- sum(pt[i, c("brief5", "brief6", "brief8",
"brief12", "brief13", "brief23", "brief30", "brief39")], na.rm = TRUE)
    } else if (pt$BRSHN[i] == 7) {
      pt$P_BRIEF_Shift[i] <- sum(pt[i, c("brief5", "brief6", "brief8",
"brief12", "brief13", "brief23", "brief30", "brief39")], na.rm = TRUE) + 1
    } else if (pt$BRSHN[i] == 6) {
      pt$P_BRIEF_Shift[i] <- sum(pt[i, c("brief5", "brief6", "brief8",
"brief12", "brief13", "brief23", "brief30", "brief39")], na.rm = TRUE) + 2
    } else {
      pt$P_BRIEF_Shift[i] <- NA
    }
  } else {
    pt$P_BRIEF_Shift[i] <- NA
  }
}
pt$P_BRIEF_Shift
```

```r
##########Emotional Control
# Initialize
pt$P_BRIEF_Emo <- rep(NA, nrow(pt))
pt$BRECN <- rep(NA, nrow(pt))
# Iterate
for (i in 1:nrow(pt)) {
  if (pt$BRTotalN[i] >= 58) {
    pt$BRECN[i] <- sum(!is.na(pt[i, c("brief1", "brief7", "brief20",
"brief25", "brief26", "brief45", "brief50", "brief62", "brief64",
"brief70")]))
    if (pt$BRECN[i] == 10) {
      pt$P_BRIEF_Emo[i] <- sum(pt[i, c("brief1", "brief7", "brief20",
"brief25", "brief26", "brief45", "brief50", "brief62", "brief64", "brief70")],
na.rm = TRUE)
    } else if (pt$BRECN[i] == 9) {
      pt$P_BRIEF_Emo[i] <- sum(pt[i, c("brief1", "brief7", "brief20",
"brief25", "brief26", "brief45", "brief50", "brief62", "brief64", "brief70")],
na.rm = TRUE) + 1
    } else if (pt$BRECN[i] == 8) {
      pt$P_BRIEF_Emo[i] <- sum(pt[i, c("brief1", "brief7", "brief20",
"brief25", "brief26", "brief45", "brief50", "brief62", "brief64", "brief70")],
na.rm = TRUE) + 2
    } else {
      pt$P_BRIEF_Emo[i] <- NA
    }
  } else {
    pt$P_BRIEF_Emo[i] <- NA
  }
}

pt$P_BRIEF_Emo

########## Initiate
# Initialize
pt$P_BRIEF_Initiate <- rep(NA, nrow(pt))
pt$BRINN <- rep(NA, nrow(pt))
# Iterate over each row
for (i in 1:nrow(pt)) {
  pt$BRINN[i] <- sum(!is.na(pt[i, c("brief3", "brief10", "brief16", "brief47",
"brief48", "brief61", "brief66", "brief71")]))
  if (pt$BRTotalN[i] >= 58) {
    if (pt$BRINN[i] == 8) {
      pt$P_BRIEF_Initiate[i] <- sum(pt[i, c("brief3", "brief10", "brief16",
"brief47", "brief48", "brief61", "brief66", "brief71")], na.rm = TRUE)
    } else if (pt$BRINN[i] == 7) {
      pt$P_BRIEF_Initiate[i] <- sum(pt[i, c("brief3", "brief10", "brief16",
"brief47", "brief48", "brief61", "brief66", "brief71")], na.rm = TRUE) + 1
    } else if (pt$BRINN[i] == 6) {
      pt$P_BRIEF_Initiate[i] <- sum(pt[i, c("brief3", "brief10", "brief16",
"brief47", "brief48", "brief61", "brief66", "brief71")], na.rm = TRUE) + 2
    } else {
      pt$P_BRIEF_Initiate[i] <- NA
    }
  } else {
    pt$P_BRIEF_Initiate[i] <- NA
  }
}

# View the P_BRIEF_Initiate column
pt$P_BRIEF_Initiate
```

```r
############Working Memory
# Initialize t
pt$P_BRIEF_Wm <- rep(NA, nrow(pt))
pt$BRWMN <- rep(NA, nrow(pt))
# Iterate over each row
for (i in 1:nrow(pt)) {
  pt$BRWMN[i] <- sum(!is.na(pt[i, c("brief2", "brief9", "brief17", "brief19",
"brief24", "brief27", "brief32", "brief33", "brief37", "brief57")]))

  if (pt$BRTotalN[i] >= 58) {
    if (pt$BRWMN[i] == 10) {
      pt$P_BRIEF_Wm[i] <- sum(pt[i, c("brief2", "brief9", "brief17", "brief19",
"brief24", "brief27", "brief32", "brief33", "brief37", "brief57")], na.rm =
TRUE)
    } else if (pt$BRWMN[i] == 9) {
      pt$P_BRIEF_Wm[i] <- sum(pt[i, c("brief2", "brief9", "brief17", "brief19",
"brief24", "brief27", "brief32", "brief33", "brief37", "brief57")], na.rm =
TRUE) + 1
    } else if (pt$BRWMN[i] == 8) {
      pt$P_BRIEF_Wm[i] <- sum(pt[i, c("brief2", "brief9", "brief17", "brief19",
"brief24", "brief27", "brief32", "brief33", "brief37", "brief57")], na.rm =
TRUE) + 2
    } else {
      pt$P_BRIEF_Wm[i] <- NA
    }
  } else {
    pt$P_BRIEF_Wm[i] <- NA
  }
}

pt$P_BRIEF_Wm

##############Plan/Organize
# Initialize
pt$P_BRIEF_Plan <- rep(NA, nrow(pt))
pt$BRPlanN <- rep(NA, nrow(pt))
# Iterate
for (i in 1:nrow(pt)) {
  pt$BRPlanN[i] <- sum(!is.na(pt[i, c("brief11", "brief15", "brief18",
"brief22", "brief28", "brief35", "brief36", "brief40", "brief46", "brief51",
"brief53", "brief58")]))
  if (pt$BRTotalN[i] >= 58) {
    if (pt$BRPlanN[i] == 12) {
      pt$P_BRIEF_Plan[i] <- sum(pt[i, c("brief11", "brief15", "brief18",
"brief22", "brief28", "brief35", "brief36", "brief40", "brief46", "brief51",
"brief53", "brief58")], na.rm = TRUE)
    } else if (pt$BRPlanN[i] == 11) {
      pt$P_BRIEF_Plan[i] <- sum(pt[i, c("brief11", "brief15", "brief18",
"brief22", "brief28", "brief35", "brief36", "brief40", "brief46", "brief51",
"brief53", "brief58")], na.rm = TRUE) + 1
    } else if (pt$BRPlanN[i] == 10) {
      pt$P_BRIEF_Plan[i] <- sum(pt[i, c("brief11", "brief15", "brief18",
"brief22", "brief28", "brief35", "brief36", "brief40", "brief46", "brief51",
"brief53", "brief58")], na.rm = TRUE) + 2
    } else {
      pt$P_BRIEF_Plan[i] <- NA
    }
  } else {
    pt$P_BRIEF_Plan[i] <- NA
  }
}

pt$P_BRIEF_Plan
```

#####Organization of Materials
```
# Initialize
pt$P_BRIEF_Organize <- rep(NA, nrow(pt))
pt$BROrganizeN <- rep(NA, nrow(pt))
# Iterate
for (i in 1:nrow(pt)) {
  pt$BROrganizeN[i] <- sum(!is.na(pt[i, c("brief4", "brief29", "brief67",
"brief68", "brief69", "brief72")])))
  if (pt$BRTotalN[i] >= 58) {
    if (pt$BROrganizeN[i] == 6) {
      pt$P_BRIEF_Organize[i] <- sum(pt[i, c("brief4", "brief29", "brief67",
"brief68", "brief69", "brief72")], na.rm = TRUE)
    } else if (pt$BROrganizeN[i] == 5) {
      pt$P_BRIEF_Organize[i] <- sum(pt[i, c("brief4", "brief29", "brief67",
"brief68", "brief69", "brief72")], na.rm = TRUE) + 1
    } else if (pt$BROrganizeN[i] == 4) {
      pt$P_BRIEF_Organize[i] <- sum(pt[i, c("brief4", "brief29", "brief67",
"brief68", "brief69", "brief72")], na.rm = TRUE) + 2
    } else {
      pt$P_BRIEF_Organize[i] <- NA
    }
  } else {
    pt$P_BRIEF_Organize[i] <- NA
  }
}
```

pt$P_BRIEF_Organize

##############Monitor
```
# Initialize
pt$P_BRIEF_Monitor <- rep(NA, nrow(pt))
pt$BRMonitorN <- rep(NA, nrow(pt))
# Iterate over each row
for (i in 1:nrow(pt)) {
  pt$BRMonitorN[i] <- sum(!is.na(pt[i, c("brief14", "brief21", "brief31",
"brief34", "brief42", "brief52", "brief60", "brief63")])))
  if (pt$BRTotalN[i] >= 58) {
    if (pt$BRMonitorN[i] == 8) {
      pt$P_BRIEF_Monitor[i] <- sum(pt[i, c("brief14", "brief21", "brief31",
"brief34", "brief42", "brief52", "brief60", "brief63")], na.rm = TRUE)
    } else if (pt$BRMonitorN[i] == 7) {
      pt$P_BRIEF_Monitor[i] <- sum(pt[i, c("brief14", "brief21", "brief31",
"brief34", "brief42", "brief52", "brief60", "brief63")], na.rm = TRUE) + 1
    } else if (pt$BRMonitorN[i] == 6) {
      pt$P_BRIEF_Monitor[i] <- sum(pt[i, c("brief14", "brief21", "brief31",
"brief34", "brief42", "brief52", "brief60", "brief63")], na.rm = TRUE) + 2
    } else {
      pt$P_BRIEF_Monitor[i] <- NA
    }
  } else {
    pt$P_BRIEF_Monitor[i] <- NA
  }
}
```

pt$P_BRIEF_Monitor

```r
########## Subscales and global composite
pt$P_BRIEF_Behreg  <- rowSums(pt[, c("P_BRIEF_Inhib", "P_BRIEF_Shift",
"P_BRIEF_Emo")])
pt$P_BRIEF_Meta <- rowSums(pt[,c("P_BRIEF_Initiate", "P_BRIEF_Wm",
"P_BRIEF_Plan", "P_BRIEF_Organize", "P_BRIEF_Monitor")])
pt$P_BRIEF_GlobalComposite <- rowSums(pt[, c("P_BRIEF_Behreg",
"P_BRIEF_Meta" )])

####################Negativity Scale
# Initialize
pt$P_BRIEF_Negativity <- 0
# Iterate over each row
for (i in 1:nrow(pt)) {
  # Check each variable and increment P_BRIEF_Negativity if the condition is met
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief8[i] ==
3, 1, 0)
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief13[i]
== 3, 1, 0)
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief23[i]
== 3, 1, 0)
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief30[i]
== 3, 1, 0)
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief62[i]
== 3, 1, 0)
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief71[i]
== 3, 1, 0)
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief80[i]
== 3, 1, 0)
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief83[i]
== 3, 1, 0)
  pt$P_BRIEF_Negativity[i] <- pt$P_BRIEF_Negativity[i] + ifelse(pt$brief85[i]
== 3, 1, 0)
}
pt$P_BRIEF_Negativity

###########Inconsistency
# Initialize
pt$P_BRIEF_Inconsistency <- NA
# Iterate over each row
for (i in 1:nrow(pt)) {
  # Compute absolute differences between pairs of variables
  pt$BR725[i] <- abs(pt$brief7[i] - pt$brief25[i])
  pt$BR1122[i] <- abs(pt$brief11[i] - pt$brief22[i])
  pt$BR2717[i] <- abs(pt$brief27[i] - pt$brief17[i])
  pt$BR3332[i] <- abs(pt$brief33[i] - pt$brief32[i])
  pt$BR3859[i] <- abs(pt$brief38[i] - pt$brief59[i])
  pt$BR4165[i] <- abs(pt$brief41[i] - pt$brief65[i])
  pt$BR4263[i] <- abs(pt$brief42[i] - pt$brief63[i])
  pt$BR4454[i] <- abs(pt$brief44[i] - pt$brief54[i])
  pt$BR5360[i] <- abs(pt$brief53[i] - pt$brief60[i])
  pt$BR5544[i] <- abs(pt$brief55[i] - pt$brief44[i])
  # Sum the absolute differences, removing missing values
  pt$P_BRIEF_Inconsistency[i] <- sum(pt$BR725[i], pt$BR1122[i], pt$BR2717[i],
pt$BR3332[i], pt$BR3859[i], pt$BR4165[i], pt$BR4263[i], pt$BR4454[i], pt
$BR5360[i], pt$BR5544[i], na.rm = TRUE)
}
pt$P_BRIEF_Inconsistency

###########################drop variables #######################
pt <- pt %>%
  select(-c(BR725, BR1122, BR2717,BR3332, BR3859, BR4165, BR4263, BR4454,
BR4454, BR5360,BR5544, BRTotalN,BRMonitorN, BROrganizeN, BRPlanN, BRWMN, BRINN,
BRECN, BRSHN, BRIHN ))
```

#3.20: ADHD - SWAN, from:

Swanson, J. M., Schuck, S., Porter, M. M., Carlson, C., Hartman, C. A., Sergeant, J. A., ... & Wigal, T. (2012). Categorical and dimensional definitions and evaluations of symptoms of ADHD: history of the SNAP and the SWAN rating scales. *The International journal of educational and psychological assessment,* 10(1), 51.

```
### Inattention
SWAN_inat_Np <- rowSums(is.na(pt[, c("adhd1", "adhd2", "adhd3", "adhd4", "adhd5",
                                    "adhd6", "adhd7", "adhd8", "adhd9")]))/9*100
for (i in 1:nrow(pt)) {
  if (SWAN_inat_Np [i] < 10)
  {pt$pkidSWAN_inattention_avg [i] <- rowMeans(pt[i, c("adhd1", "adhd2", "adhd3",
"adhd4", "adhd5", "adhd6", "adhd7", "adhd8", "adhd9")],  na.rm = TRUE)}
  else {pt$pkidSWAN_inattention_avg[i] <- NA}}

### Impulsivity
SWAN_imp_Np <- rowSums(is.na(pt[, c("adhd10",  "adhd11", "adhd12", "adhd13", "adhd14",
                                   "adhd15", "adhd16", "adhd17", "adhd18")]))/9*100
for (i in 1:nrow(pt)) {
  if (SWAN_imp_Np [i] < 10)
  {pt$pkidSWAN_impulsivity_avg [i] <- rowMeans(pt[i, c("adhd10",  "adhd11", "adhd12",
"adhd13", "adhd14", "adhd15", "adhd16", "adhd17", "adhd18")],  na.rm = TRUE)}
  else {pt$pkidSWAN_impulsivity_avg[i] <- NA} }

### Full scale
SWAN_Np <- rowSums(is.na(pt[, c("adhd1", "adhd2", "adhd3", "adhd4", "adhd5",
                               "adhd6", "adhd7", "adhd8", "adhd9",
                               "adhd10",  "adhd11", "adhd12", "adhd13", "adhd14",
                               "adhd15", "adhd16", "adhd17", "adhd18")]))/18*100
for (i in 1:nrow(pt)) {
  if (SWAN_Np [i] < 10)
  {pt$pkidSWAN_avg [i] <- rowMeans(pt[i, c("adhd1", "adhd2", "adhd3", "adhd4",
"adhd5", "adhd6", "adhd7", "adhd8", "adhd9","adhd10",  "adhd11", "adhd12", "adhd13",
"adhd14", "adhd15", "adhd16", "adhd17", "adhd18")],  na.rm = TRUE)}
  else{pt$pkidSWAN_avg[i] <- NA}}
```

NatPAT COVID-19 2023 Survey Twin

Section 1: All about you

Questions refer to children's resources for resilience, perceived stress, ability to bounce back, anxiety, comfortable level with technology, and frequency of technology use.

Section 1
All about you

1.1 Here are some statements that may or may not describe what you are like. Circle the number that shows how much you agree or disagree that it describes you. For example, do you agree that you have people you want to be like? Circle a 3 if you agree, a 2 if you think it describes you some of the time, and a 1 if you do not agree. Ask if you don't know what a word means!

	cyrm#	1 Do not agree	2 Some-times agree	3 Agree
1	Do you have people you want to be like?	1	2	3
2	Do you share with people around you?	1	2	3
3	Is doing well in school important to you?	1	2	3
4	Do you know how to behave / act in different situations (such as school, home, and church or mosque)?	1	2	3
5	Do you feel that your parent(s)/ caregiver(s) know where you are and what you are doing all of the time?	1	2	3
6	Do you feel that your parent(s) / caregiver(s) know a lot about you (for example, what makes you happy, what makes you scared)?	1	2	3
7	Is there enough to eat in your home when you are hungry?	1	2	3
8	Do you try to finish activities that you start?	1	2	3
9	Do you know where your family comes from or know your family's history?	1	2	3
10	Do other children like to play with you?	1	2	3
11	Do you talk to your family about how you feel (for example, when you are hurt or feeling scared)?	1	2	3
12	When things don't go your way, can you fix it without hurting yourself or other people (for example, without hitting others or saying nasty things)?	1	2	3
13	Do you have friends that care about you?	1	2	3
14	Do you know where to go to get help?	1	2	3
15	Do you feel you fit in with other children?	1	2	3
16	Do you think your family cares about you when times are hard (for example, if you are sick or have done something wrong)?	1	2	3
17	Do you think your friends care about you when times are hard (for example, if you are sick or have done something wrong)?	1	2	3
18	Are you treated fairly?	1	2	3
19	Do you have chances to show others that you are growing up and can do things by yourself?	1	2	3
20	Do you know what you are good at?	1	2	3
21	Do you participate in religious activities (such as church, mosque)?	1	2	3
22	Do you think it is important to help out in your community?	1	2	3
23	Do you feel safe when you are with your family?	1	2	3
24	Do you have chances to learn things that will be useful when you are older (like cooking, working, and helping others)?	1	2	3
25	Do you like the way your family celebrates things (like holidays or learning about your culture)?	1	2	3
26	Do you like the way your community celebrates things (like holidays, festivals)?	1	2	3

#1.1 Child Youth Resilience Measure (CYRM)

Items are from The Child and Youth Resilience Measure (CYRM) Child Version (Retrieved from: https://www.phenxtoolkit.org/protocols/view/301001).

Original measure: Ungar, M., & Liebenberg, L. (2011). Assessing Resilience Across Cultures Using Mixed Methods: Construction of the Child and Youth Resilience Measure. *Journal of Mixed Methods Research, 5*(2), 126–149.

CYRM user manual can be found here: https://cyrm.resilienceresearch.org/files/ CYRM_&_ARMUser_Manual.pdf

```r
## Personal resilience
twin$CYRM_personal_NA <- ((rowSums(is.na(twin[, c("cyrm2", "cyrm3", "cyrm4",
"cyrm10", "cyrm13", "cyrm15", "cyrm17", "cyrm18", "cyrm19", "cyrm24")])))/10)*100
#created a variable of what percetange of the items each child is missing on
for (i in 1:nrow(twin)) { #tell it to do this for all the rows one by one
  # if a child is not missing on over 10% of the items (CYRM_personal_NA), then add
the items up, ignoring misisng values
  if (twin$CYRM_personal_NA[i] <= 10) {
    twin$CYRM_personal_sum[i] <- rowSums(twin[i, c("cyrm2", "cyrm3", "cyrm4",
"cyrm10", "cyrm13", "cyrm15", "cyrm17", "cyrm18", "cyrm19", "cyrm24")] , na.rm =
TRUE) }
  #for the kids that are missing on over 10% of the items is given NA
  else {twin$CYRM_personal_sum[i] <- NA}}


## Caregiver/relational resilience
twin$CYRM_relational_NA <- ((rowSums(is.na(twin[, c("cyrm5", "cyrm6", "cyrm7",
"cyrm11", "cyrm16","cyrm23", "cyrm25")])))/7)*100
for (i in 1:nrow(twin)) {
  if (twin$CYRM_relational_NA[i] <= 10) {
    twin$CYRM_relational_sum[i] <- rowSums(twin[i, c("cyrm5", "cyrm6", "cyrm7",
"cyrm11", "cyrm16","cyrm23", "cyrm25")] , na.rm = TRUE) }
  else {twin$CYRM_relational_sum[i] <- NA }}

## drop irrelated columns
twin <- twin %>% select (-CYRM_personal_NA, -CYRM_relational_NA)
```

1.2 These questions are about how you felt <u>during the last week</u>. Please circle the answer that best fits you.

psschild#	0 Never	1 A little	2 Some-times	3 A lot
1 How often did you feel rushed or hurried?	1	2	3	4
2* How often did you have enough time to do what you wanted?	1	2	3	4
3 How often did you feel worried about being too busy?	1	2	3	4
4 How often did you feel worried about grades or school?	1	2	3	4
5* How often did your caregiver/s make you feel better?	1	2	3	4
6* How often did your caregiver/s make you feel loved?	1	2	3	4
7 How often did you feel scared or nervous?	1	2	3	4
8 How often did you feel angry?	1	2	3	4
9* How often did you feel happy?	1	2	3	4
10* How often did you get enough sleep?	1	2	3	4
11 How often did you have fights with your friends?	1	2	3	4
12* How often did you play with your friends?	1	2	3	4
13* How often did you feel that you had enough friends?	1	2	3	4

1.3 Here are some more statements that describe what you are like. Circle the number that shows how much you agree or disagree that each statement describes you. Ask if you don't know what a word means!

brs_child#	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1 I tend to bounce back quickly after hard times	1	2	3	4	5
2 *I have a hard time making it through stressful events	1	2	3	4	5
3 It does not take me long to recover from a stressful event	1	2	3	4	5
4 *It is hard for me to bounce back when something bad happens	1	2	3	4	5
5 I usually come through difficult times with little trouble	1	2	3	4	5
6 *I tend to take a long time to get over set-backs in my life	1	2	3	4	5

1.4 Please put a circle around the answer that shows how often each of these things happen to you. There are no right or wrong answers.

scas#	0 Never	1 Some-times	2 Often	3 Always
1 I worry that I will suddenly get a scared feeling when there is nothing to be afraid of	1	2	3	4
2 I feel afraid	1	2	3	4
3 I worry about things	1	2	3	4
4 I worry about being away from my parents	1	2	3	4
5 I suddenly start to tremble or shake when there is no reason for this	1	2	3	4
6 I have trouble going to school in the mornings because I feel nervous or afraid	1	2	3	4
7 I would feel scared if I had to stay away from home overnight	1	2	3	4
8 I feel scared if I have to sleep on my own	1	2	3	4

#1.2 Perceived Stress Scale - Children (PSS-C)

Items are from White, B. P. (2014). The perceived stress scale for children: A pilot study in a sample of 153 children. International Journal of Pediatrics and Child Health, 2(2), 45-52.

```
###items 2,5,6,9,10,12,&13 need to reverse scored
twin$psschild2_usesum<- 3 - twin$psschild2
twin$psschild5_usesum <- 3 - twin$psschild5
twin$psschild6_usesum <- 3 - twin$psschild6
twin$psschild9_usesum <- 3 - twin$psschild9
twin$psschild10_usesum <- 3 - twin$psschild10
twin$psschild12_usesum <- 3 - twin$psschild12
twin$psschild13_usesum <- 3 - twin$psschild13

twin$psschild_usesum1 = twin$psschild1
twin$psschild_usesum3 = twin$psschild3
twin$psschild_usesum4 = twin$psschild4
twin$psschild_usesum7 = twin$psschild7
twin$psschild_usesum8 = twin$psschild8
twin$psschild_usesum11 = twin$psschild11

twin$pss_NA <- ((rowSums(is.na(twin[, paste0("psschild_usesum",
1:13)])))/13)*100
for (i in 1:nrow(twin)) {
  if (twin$pss_NA[i] <= 10) {
    twin$stress_sum[i] <- rowSums(twin[i, paste0("psschild_usesum", 1:13)] ,
na.rm = TRUE)}
  else {twin$stress_sum[i] <- NA}}

## drop irrelevant oclumns
twin <- twin %>% select (-starts_with("psschild_usesum"))
twin <- twin %>% select (-ends_with("_reverse"))
```

#1.3 Brief Resilience Scale (BRS)

Items are from: Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: assessing the ability to bounce back. *International journal of behavioral medicine, 15*, 194-200.

```
##reverse code brs_child 2,4,&6
twin$brs_child2_reverse = 6 - twin$brs_child2
twin$brs_child4_reverse = 6 - twin$brs_child4
twin$brs_child6_reverse = 6 - twin$brs_child
twin$BRS_resilience_NA <- ((rowSums(is.na(twin[, paste0("brs_child",
1:6)])))/6)*100
for (i in 1:nrow(twin)) {
  if (twin$BRS_resilience_NA[i] <= 10) {
    twin$BRS_resilience_avg[i] <- rowMeans(twin[i, c("brs_child1",
"brs_child2_reverse","brs_child3","brs_child4_reverse","brs_child5","brs_child6_re
verse")] , na.rm = TRUE)}
  else {twin$BRS_resilience_avg[i] <- NA}}

## drop irrelevant oclumns
twin <- twin %>% select (-ends_with("_reverse"), -ends_with("_NA"))
```

#1.4 Child Anxiety Scale

Items are from: Spence, S. H., Barrett, P. M., & Turner, C. M. (2003). Psychometric properties of the Spence Children's Anxiety Scale with young adolescents. Journal of anxiety disorders, 17(6), 605-625.

Note. The original Scale has 44 items in total.

```r
twin$scas_NA <- ((rowSums(is.na(twin[, paste0("scas", 1:8)])))/8)*100

for (i in 1:nrow(twin)) {
  if (twin$scas_NA[i] <= 10) {
    twin$anxiety_sum[i] <- rowSums(twin[i, paste0("scas", 1:8)] , na.rm = TRUE)}
  else { twin$anxiety_sum[i] <- NA}}

twin <- twin %>% select (-ends_with("_NA"))
```

1.5 These are questions about how you feel generally. Please put a circle around the answer that shows how often each of these things happens to you. There are no right or wrong answers.

distract#	1 Almost never	2 Not very often at all	3 Not very often	4 Some-what often	5 Very often	6 Almost always
1 I could be feeling a certain way and not realize it until later	1	2	3	4	5	6
2 I break or spill things because of carelessness, not paying attention, or thinking of something else	1	2	3	4	5	6
3 I find it hard to stay focused on what's happening in the present moment	1	2	3	4	5	6
4 Usually, I walk quickly to get where I'm going without paying attention to what I experience along the way	1	2	3	4	5	6
5 Usually, I do not notice if my body feels tense or uncomfortable until it gets really bad	1	2	3	4	5	6
6 I forget a person's name almost as soon as I've been told it for the first time	1	2	3	4	5	6
7 It seems that I am doing things automatically without really being aware of what I am doing	1	2	3	4	5	6
8 I rush through activities without being really attentive to them	1	2	3	4	5	6
9 I focus so much on a future goal I want to achieve that I don't pay attention to what I am doing right now to reach it	1	2	3	4	5	6
10 I do jobs, chores, or schoolwork automatically without being aware of what I'm doing	1	2	3	4	5	6
11 I find myself listening to someone with one ear, and doing something else at the same time	1	2	3	4	5	6
12 I walk into a room, and then wonder why I went there	1	2	3	4	5	6
13 I can't stop thinking about the past or the future	1	2	3	4	5	6
14 I find myself doing things without paying attention	1	2	3	4	5	6
15 I snack without being aware that I'm eating	1	2	3	4	5	6

1.6 These are questions about how comfortable you are with technology. Technology includes using computers or smart phones and tablets (for example, iPads). Technology also includes using social media, educational apps, playing video games, and using the internet. Please indicate how much you agree or disagree with the following statements about how you use technology:

technology#	1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree
1 I am comfortable using the computers/tablets in the classroom.	1	2	3	4	5
2 I am comfortable using video calling programs (e.g., Zoom, Skype).	1	2	3	4	5
3 I am comfortable using email.	1	2	3	4	5
4 I am comfortable using the Internet/searching websites (for example, Google or Safari).	1	2	3	4	5
5 I am comfortable using technology to do schoolwork/homework.	1	2	3	4	5
6 I am comfortable using the computer and the Internet to learn.	1	2	3	4	5
7 I am comfortable using technology to solve problems.	1	2	3	4	5

#1.5 Mindful Attention Awareness Scale - Children (MAAS-C)
Items are from: Lawlor, M. S., Schonert-Reichl, K. A., Gadermann, A. M., & Zumbo, B. D. (2014). A validation study of the mindful attention awareness scale adapted for children. *Mindfulness, 5*, 730-741.

```
##All the items need to be reverse coded
for (i in 1:15) {
   var_name <- paste0("distract", i)
   reverse_var_name <- paste0("reverse" , var_name)
   twin[[reverse_var_name]] <- 7 - twin[[var_name]] }

twin$distract_NA <- ((rowSums(is.na(twin[, paste0("distract",
1:15)]))))/15*100

for (i in 1:nrow(twin)) {
   if (twin$distract_NA[i] <= 10) {
      twin$mindful_avg [i] <- rowMeans(twin[i,
paste0("reversedistract", 1:15)] , na.rm = TRUE) }
   else {twin$mindful_avg[i] <- NA}}

## drop Irrelevant columns
twin <- twin %>% select (-ends_with("_NA"), -starts_with("reverse"))
```

1.6 These are questions about how comfortable you are with technology. Technology includes using computers or smart phones and tablets (for example, iPads). Technology also includes using social media, educational apps, playing video games, and using the internet. Please indicate how much you agree or disagree with the following statements about how you use technology:

technology#

		1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree
1	I am comfortable using the computers/tablets in the classroom.	1	2	3	4	5
2	I am comfortable using video calling programs (e.g., Zoom, Skype).	1	2	3	4	5
3	I am comfortable using email.	1	2	3	4	5
4	I am comfortable using the Internet/searching websites (for example, Google or Safari).	1	2	3	4	5
5	I am comfortable using technology to do schoolwork/homework.	1	2	3	4	5
6	I am comfortable using the computer and the Internet to learn.	1	2	3	4	5
7	I am comfortable using technology to solve problems.	1	2	3	4	5

1.6 Continued

		1 Strongly disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly agree
8	I am comfortable using apps (e.g., Khan Academy) on a computer or tablet to learn.	1	2	3	4	5
9	Technology helps me do class work or homework that I couldn't have done without it.	1	2	3	4	5
10	I like learning about and using technology.	1	2	3	4	5
11	I like to use computers or tablets as often as I can, even outside of school.	1	2	3	4	5
12	I like to use things like texting, and social media (e.g., Tik Tok, Snapchat) to communicate with my friends.	1	2	3	4	5
13	I like to play games on a computer or tablet.	1	2	3	4	5

1.7 These are questions about how often you use technology. Remember, technology includes using computers or smart phones and tablets (for example, iPads). Technology also includes using social media, educational apps, playing video games, and using the internet. Please circle one option for each statement about how you use technology:

usetech#

		1 None of the day	2 A little bit of the day	3 Some of the day	4 Most of the day
1	How often during the day do you usually use a computer, tablet or smart phone for homework/schoolwork activities?	1	2	3	4
2	How often during the day do you usually use a computer, tablet or smart phone to talk with friends (e.g., instant messenger, social media, etc.)?	1	2	3	4
3	How often during the day do you usually use a computer, tablet or smart phone to look at Internet sites for fun?	1	2	3	4
4	How often during the day do you usually use a computer, tablet or smart phone to play computer games?	1	2	3	4

1.8 These are questions about how you feel about reading. Please circle one option for each statement.

readingse#

		1 No	2 Not really	3 Kind of	4 Yes
1	I am good at reading.	1	2	3	4
2	I think I could learn how to read difficult books.	1	2	3	4
3	I think I will do a good job in reading this year.	1	2	3	4
4	I am good at learning something new in reading.	1	2	3	4
5	I think solving reading problems is fun.	1	2	3	4
6	I like reading	1	2	3	4
7	I like what I am learning in reading.	1	2	3	4
8	Reading is fun	1	2	3	4
9	I am better at reading than I am at other subjects in school.	1	2	3	4
10	I like reading more than I like other subjects in school.	1	2	3	4

#1.6 Child Comfortable with Technology
#1.7 Frequency of using Technology

Items are adapted from Dornisch, M. (2013). The digital divide in classrooms: Teacher technology comfort and evaluations. *Computers in the Schools, 30*(3), 210-228.

*Note. Items in #1.6 are modified in this questionnaire. The sum score created for #1.6 is not validated in the original publication.

```
twin$technology_NA <- ((rowSums(is.na(twin[, paste0("technology", 1:13)])))/13)*100
for (i in 1:nrow(twin)) {
  if (twin$technology_NA[i] <= 10) {
    twin$technology_sum[i] <- rowSums(twin[i, paste0("technology", 1:13)] , na.rm =
TRUE) }else {twin$technology_sum[i] <- NA }}

twin$usetech_NA <- ((rowSums(is.na(twin[, paste0("usetech", 1:4)])))/4)*100
for (i in 1:nrow(twin)) {
  if (twin$usetech_NA[i] <= 10) {
 twin$usetech_sum[i] <- rowSums(twin[i, paste0("usetech", 1:4)] , na.rm = TRUE)}
  else { twin$usetech_sum[i] <- NA}}

twin <- twin %>% select (-ends_with("_NA"))
```

#1.8 Reading Interest, Reading Confidence

Adapted from surveys on math interest and math confidence from:
Ganley, C. M., & Lubienski, S. T. (2016). Mathematics confidence, interest, and performance: Examining gender patterns and reciprocal relations. *Learning and Individual Differences*, 47, 182-193.

*Note. Items are modified from the math confidence and math interest measure. Scale scores created here are not validated in the original publication.

```
## Reading confidence
twin$creadconfidence_NA <- ((rowSums(is.na(twin[,
c("readingse1","readingse2","readingse3","readingse4","readingse9" )])))/5)*100
for (i in 1:nrow(twin)) {
  if (twin$creadconfidence_NA[i] <= 10) {
    twin$creadconfidence_avg[i] <- rowMeans(twin[i,
c("readingse1","readingse2","readingse3","readingse4","readingse9")] , na.rm =
TRUE)}else {twin$creadconfidence_avg[i] <- NA}}

## Reading interest
twin$creadinterest_NA <- ((rowSums(is.na(twin[,
c("readingse5","readingse6","readingse7","readingse8","readingse10" )])))/5)*100
for (i in 1:nrow(twin)) {
  if (twin$creadinterest_NA[i] <= 10) {
    twin$creadinterest_avg[i] <- rowMeans(twin[i,
c("readingse5","readingse6","readingse7","readingse8","readingse10" )] , na.rm =
TRUE)} else {twin$creadinterest_avg[i] <- NA }}

twin <- twin %>% select (-ends_with("_NA"))
```

1.9 Below are more sentences about how you might feel about reading. Some of these sentences use the word nervous. If you are nervous, it means you are worried or scared about something.

readinganx#	1 No	2 Not really	3 Kind of	4 Yes
1 Reading in front of class makes me nervous.	1	2	3	4
2 When it is time for reading my head hurts.	1	2	3	4
3 I feel nervous if I am called on during reading time.	1	2	3	4
4 I get worried before I take a reading test.	1	2	3	4
5 I get nervous about making a mistake when reading.	1	2	3	4
6 Reading gives me a stomachache.	1	2	3	4
7 I feel nervous when I am reading.	1	2	3	4
8 When my Language Arts teacher calls on me to tell my answer to the class, I get nervous.	1	2	3	4
9 My heart starts to beat fast if I have to read out loud.	1	2	3	4
10 I am scared during reading time.	1	2	3	4
11 I get nervous when my teacher is about to teach something new in Language Arts class.	1	2	3	4
12 I get a nervous feeling in my stomach when I read.	1	2	3	4
13 I get worried when I don't understand something I am reading.	1	2	3	4
14 Raising my hand during reading time makes me nervous.	1	2	3	4

1.10 On a scale of 0 (not at all) to 10 (very much), how nervous about reading are you? (circle one)

nervousread1

0	1	2	3	4	5	6	7	8	9	10
0	1	2	3	4	5	6	7	8	9	10

1.11 Some kids do not get nervous when they read, but some kids do get nervous when they read. Which type of kid are you?

nervousread2

☐ Not nervous   ☐ Nervous
    0   1

#1.9 Reading Anxiety

Items are investigator created by modifying items in the Math Anxiety Scale for Young Children, Revised: Ganley, C. M., & McGraw, A. L. (2016). The development and validation of a revised version of the math anxiety scale for young children. *Frontiers in psychology, 7*, 1181.*Note. Subscale scores created here are based on MASYC-R. Not validated in the original publication.

```
## reading anxiety full scale
twin$readinganx_NA <- ((rowSums(is.na(twin[, paste0("readinganx",
1:14)])))/14)*100
for (i in 1:nrow(twin)) {
  if (twin$readinganx_NA[i] <= 10) {
twin$readinganx_avg[i] <- rowMeans(twin[i, paste0("readinganx", 1:14)] , na.rm =
TRUE)}
  else {twin$readinganx_avg[i] <- NA}}

## reading anxiety - subscale for reading confidence
twin$readinganx_conf_NA <- ((rowSums(is.na(twin[, c("readinganx1", "readinganx3",
"readinganx14" )])))/3)*100
for (i in 1:nrow(twin)) {
  if (twin$readinganx_conf_NA[i] <= 10) {
    twin$readinganx_conf_avg[i] <- rowMeans(twin[i, c("readinganx1",
"readinganx3", "readinganx14" )] , na.rm = TRUE) }
  else { twin$readinganx_conf_avg[i] <- NA}}

## reading anxiety - subscale for negative reactions
twin$readinganx_negreact_NA <- ((rowSums(is.na(twin[, c("readinganx2",
"readinganx6", "readinganx9","readinganx10", "readinganx12" )])))/5)*100
for (i in 1:nrow(twin)) {
  if (twin$readinganx_negreact_NA[i] <= 10) {
    twin$readinganx_negreact_avg[i] <- rowMeans(twin[i, c("readinganx2",
"readinganx6", "readinganx9","readinganx10", "readinganx12" )] , na.rm = TRUE)}
  else {twin$readinganx_negreact_avg[i] <- NA}}

## reading anxiety - subscale for reading worry
twin$readinganx_worry_NA <- ((rowSums(is.na(twin[, c("readinganx4", "readinganx5",
"readinganx7","readinganx8", "readinganx11", "readinganx13" )])))/6)*100
for (i in 1:nrow(twin)) {
  if (twin$readinganx_worry_NA[i] <= 10) {
    twin$readinganx_worry_avg[i] <- rowMeans(twin[i, c("readinganx4",
"readinganx5", "readinganx7","readinganx8", "readinganx11", "readinganx13" )] ,
na.rm = TRUE)}else {twin$readinganx_worry_avg[i] <- NA }}

twin <- twin %>% select (-ends_with("_NA"))
```

#1.10: 0 to 10 Reading Anxiety

This item is adapted from the 0 to 10 Math Anxiety Scale (#3.4). Original item can be found in: Hart, S. A., & Ganley, C. M. (2019). The nature of math anxiety in adults: Prevalence and correlates. *Journal of numerical cognition, 5*(2), 122.

#1.11 is created by Sara Hart, by modifying the binary math anxiety scale created by Sara Hart and Colleen Ganley.

Section 2: Hw COVID-19 has affected you

Questions refer to COVID-19 impacts on children's daily routines, social connection, stress, and adverse life events.

Section 2
How COVID-19 has affected you

2.1 Compared to before the COVID-19 outbreak in March, 2020, how much are you now doing the following. Please only circle one number per row. sinceoutbreak#

		1 Less	2 Same amount	3 More
1	Eating	1	2	3
2	Sleeping	1	2	3
3	Spending time outside	1	2	3
4	Spending time with friends in-person	1	2	3
5	Spending time with friends remotely (e.g., online, social media, texting)	1	2	3
6	Spending time watching TV, playing video/computer games, or using social media for educational purposes, including school work	1	2	3
7	Spending time watching TV, playing video/computer games, or using social media for non-educational purposes	1	2	3

2.2 Compared to before the COVID-19 outbreak on March 13, 2020, do you now feel … beforecovid

- 1 ☐ Much less connected to friends, family, and community (e.g., people living in your neighborhood)
- 2 ☐ Less connected to friends, family, and community (e.g., people living in your neighborhood)
- 3 ☐ No change
- 4 ☐ More connected to friends, family, and community (e.g., people living in your neighborhood)
- 5 ☐ Much more connected to friends, family, and community (e.g., people living in your neighborhood)

2.3 Please indicate how much you think the COVID-19 outbreak had either a good or bad impact on your life overall. covidimpactinitial

- 1 ☐ Bad impact
- 2 ☐ Somewhat bad impact
- 3 ☐ No impact
- 4 ☐ Somewhat good impact
- 5 ☐ Good impact

2.4 Please indicate how much you think the COVID-19 outbreak had either a good or bad impact on your life in the past year. covidimpact

- 1 ☐ Bad impact
- 2 ☐ Somewhat bad impact
- 3 ☐ No impact
- 4 ☐ Somewhat good impact
- 5 ☐ Good impact

2.5 <u>In the last year,</u> how often have you …

sinceoutbreak_child#

		1 Not at all	2 Rarely	3 Sometimes	4 Often	5 Very often
1	Had difficulty sleeping?	1	2	3	4	5
2	Been startled easily?	1	2	3	4	5
3	Had angry outbursts?	1	2	3	4	5
4	Felt a sense of time slowing down?	1	2	3	4	5
5	Felt in a daze?	1	2	3	4	5
6	Tried to avoid thoughts and feelings about COVID-19?	1	2	3	4	5
7	Tried to avoid reading or watching information about COVID-19?	1	2	3	4	5
8	Had bad dreams about COVID-19?	1	2	3	4	5
9	Been upset when you see something that reminds you of COVID-19?	1	2	3	4	5
10	Felt happy and satisfied with your life?	1	2	3	4	5

2.6 These questions are about certain things that may have happened to you **in the last 12 months.** If any of these things has happened to you, please circle the answer that matches how much you were affected by it. If any of these things has not happened to you, please check the box for "did not happen." adversecovid#

		-98 Did not happen	If this DID happen to you, rate how much you were affected by it			
			1 Not at all	2 A little	3 Some	4 A lot
1	Someone in your family died	☐	1	2	3	4
2	Family member was seriously sick or injured	☐	1	2	3	4
3	Close friend died	☐	1	2	3	4
4	Close friend was very sick	☐	1	2	3	4
5	Parent / Caregiver lost a job	☐	1	2	3	4
6	Parent / Caregiver got a new job	☐	1	2	3	4
7	Parents / Caregivers argued more than before	☐	1	2	3	4
8	One parent / caregiver was away from home more often	☐	1	2	3	4
9	Parents / Caregivers separated	☐	1	2	3	4
10	Parents / Caregivers got divorced	☐	1	2	3	4
11	School closed/switched to online	☐	1	2	3	4
12	Family moved	☐	1	2	3	4

2.7 In the past year my family has done things to help protect me from COVID-19 like wearing masks and keeping some space between ourselves and other people. famcurrentprotect

☐ Never
0
☐ Rarely
1
☐ Sometimes
2
☐ Somewhat often 3
☐ Always
4

2.8 At the beginning of the COVID-19 outbreak my family did things to help protect me from COVID-19 like wearing masks and keeping some space between ourselves and other people.
famcovidprotect

☐ Never
0
☐ Rarely
1
☐ Sometimes
2
☐ Somewhat often 3
☐ Always
4

#2.1-#2.5

Items are adapted from ECHO Impacts of COVID-19 Outbreak on Child Self-Report
(Retrieved from: https://www.phenxtoolkit.org/protocols/view/960203?origin=search)

#2.6 Adverse Life Events Scale

Items are adapted from: Tiet, Q. Q., Bird, H. R., Davies, M., Hoven, C., Cohen, P., Jensen, P. S.,
& Goodman, S. (1998). Adverse life events and resilience. *Journal of the American Academy of
Child and Adolescent Psychiatry, 37*(11), 1191-1200.
Full scale can be found here: https://www.phenxtoolkit.org/protocols/view/211501

#2.7 - # 2.8 are created by the research team.

Section 3: Your friends, school, and neighborhood

Questions refer to children's peer affiliations, school social environment, and neighborhood environment.

Section 3
Your friends, school, and neighborhood

3.1 In the following set of questions, we will be asking you what your friends are like. Please circle the number that matches your answer. In answering each question please think about ALL of your friends, rather than just one or two friends.

friends#	4 All my friends are like that	3 Most of my friends are like that	2 Just a few of my friends are like that	1 None of my friends are like that
1 My friends work hard to get good grades in school.	1	2	3	4
2 My friends break the rules.	1	2	3	4
3 My friends are popular with other kids.	1	2	3	4
4 My friends drink alcohol or beer.	1	2	3	4
5 My friends are very smart.	1	2	3	4
6 My friends get into trouble with the police.	1	2	3	4
7 My friends are good at sports.	1	2	3	4
8 My friends smoke cigarettes or chew tobacco.	1	2	3	4
9 My friends do their homework and study a lot.	1	2	3	4
10 My friends steal things from others.	1	2	3	4
11 My friends get invited to all the parties.	1	2	3	4
12 My friends use drugs.	1	2	3	4
13 My friends get good grades in school.	1	2	3	4
14 My friends get into fights with other kids.	1	2	3	4
15 Other kids look up to (respect) my friends.	1	2	3	4
16 My friends know where to buy drugs.	1	2	3	4
17 My friends are liked by their teachers.	1	2	3	4
18 My friends get in trouble at school.	1	2	3	4
19 My friends attend the same school as me.	1	2	3	4
20 My friends are older than me.	1	2	3	4

3.2 Please answer these questions about your school.

aboutschool#	1 Strongly disagree	2 Disagree	3 Neither agree nor dis-agree	4 Agree	5 Strongly agree
1 Teachers understand my problems	1	2	3	4	5
2 Teachers and staff seem to take a real interest in my future	1	2	3	4	5
3 Teachers are available when I need to talk with them	1	2	3	4	5
4 It is easy to talk with teachers	1	2	3	4	5
5 Students get along well with teachers	1	2	3	4	5
6 At my school, there is a teacher or some other adult who notices when I'm not there	1	2	3	4	5
7 Teachers at my school help us children with our problems	1	2	3	4	5
8 My teachers care about me	1	2	3	4	5
9 My school/classroom does things to help protect me and my classmates, like encouraging masks and social distancing	1	2	3	4	5

3.2 Continued

		1 Strongly disagree	2 Disagree	3 Neither agree nor dis-agree	4 Agree	5 Strongly agree
10	My teacher makes me feel good about myself	1	2	3	4	5
11	My schoolwork is exciting	1	2	3	4	5
12	Students can make suggestions on courses that are offered	1	2	3	4	5
13	Students are publicly recognized for their outstanding performances in speech, drama, art, music, etc.	1	2	3	4	5
14	If this school had an extra period during the day, I would take an additional academic class	1	2	3	4	5
15	This school makes students excited about learning	1	2	3	4	5
16	Students are frequently rewarded or praised by teachers, principals and staff for following school rules	1	2	3	4	5
17	I usually understand my homework assignments	1	2	3	4	5
18	Teachers make it clear what work needs to be done to get the grade I want	1	2	3	4	5
19	I believe that teachers expect all students to learn	1	2	3	4	5
20	I feel that I can do well in this school	1	2	3	4	5
21	My teachers believe that I can do well in my schoolwork	1	2	3	4	5
22	I try hard to succeed in my classes	1	2	3	4	5
23	Classroom rules are applied equally	1	2	3	4	5
24	Problems in this school are solved by students and staff	1	2	3	4	5
25	Students get in trouble if they do not follow school rules	1	2	3	4	5
26	The rules of the school are fair	1	2	3	4	5
27	School rules are enforced consistently and fairly	1	2	3	4	5
28	My teachers make it clear to me when I have misbehaved in class	1	2	3	4	5
29	Discipline is fair	1	2	3	4	5
30	The schoolgrounds are kept clean	1	2	3	4	5
31	My school is neat and clean	1	2	3	4	5
32	My school buildings are generally pleasant and well maintained	1	2	3	4	5
33	My school is usually clean and tidy	1	2	3	4	5
34	I am happy with the kinds of students who go to my school	1	2	3	4	5
35	I am happy, in general, with the other students who go to my school	1	2	3	4	5
36	At my school, the same person always gets to help the teacher	1	2	3	4	5
37	At my school, the same kids get chosen every time to take part in after-school or special activities	1	2	3	4	5
38	The same kids always get to use things, like a computer, a ball, or a piano when we play	1	2	3	4	5
39	I am happy about the number of tests I have	1	2	3	4	5
40	I am happy about the amount of homework I have	1	2	3	4	5

#3.1 Peer Affiliation (PA)

Items are adapted from: Hicks, B. M., DiRago, A. C., Iacono, W. G., & McGue, M. (2009). Gene–environment interplay in internalizing disorders: consistent findings across six environmental risk factors. *Journal of Child Psychology and Psychiatry, 50*(10), 1309-1317.

```
###  Peer Affiliation - positive
twin$PA_positive_NA <- ((rowSums(is.na(twin[, c("friends1", "friends3",
"friends5", "friends7", "friends9", "friends11", "friends13",
"friends15", "friends17", "friends19" )])))/10)*100
for (i in 1:nrow(twin)) {
  if (twin$PA_positive_NA[i] <= 10) {
    twin$PA_positive_avg[i] <- rowMeans(twin[i, c("friends1", "friends3",
"friends5", "friends7", "friends9", "friends11", "friends13",
"friends15", "friends17", "friends19" )] , na.rm = TRUE)}
  else { twin$PA_positive_avg[i] <- NA}}
```

Type text here

```
###  Peer Affiliation - negative
twin$PA_negative_NA <- ((rowSums(is.na(twin[, c("friends2", "friends4",
"friends6", "friends8", "friends10","friends12", "friends14",
"friends16", "friends18", "friends20" )])))/10)*100
for (i in 1:nrow(twin)) {
  if (twin$PA_negative_NA[i] <= 10) {
    twin$PA_negative_avg[i] <- rowMeans(twin[i, c("friends2", "friends4",
"friends6", "friends8", "friends10","friends12", "friends14",
"friends16", "friends18", "friends20" )] , na.rm = TRUE)}
  else { twin$PA_negative_avg[i] <- NA}}

##  Peer Affiliation - Scales based on Florida Twin Project -school subscale
twin$PA_good_NA <- ((rowSums(is.na(twin[, c("friends3", "friends7",
"friends11", "friends15" )])))/4)*100
for (i in 1:nrow(twin)) {
  if (twin$PA_good_NA[i] <= 10) {
    twin$PA_good_avg[i] <- rowMeans(twin[i, c("friends3", "friends7",
"friends11", "friends15" )] , na.rm = TRUE) }
  else { twin$PA_good_avg[i] <- NA}}

###  Peer Affiliation - Scales based on Florida Twin Project -Good subscale
twin$PA_school_NA <- ((rowSums(is.na(twin[, c("friends1", "friends5", "friends9",
"friends13", "friends17" )])))/5)*100
for (i in 1:nrow(twin)) {
  if (twin$PA_school_NA[i] <= 10) {
    twin$PA_school_avg[i] <- rowMeans(twin[i, c("friends1", "friends5",
"friends9", "friends13", "friends17" )] , na.rm = TRUE)}
  else {twin$PA_school_avg[i] <- NA}}
###  Peer Affiliation - Scales based on Florida Twin Project -Bad subscale
twin$PA_bad_NA <- ((rowSums(is.na(twin[, c("friends2", "friends4", "friends6",
"friends8", "friends10","friends12", "friends14", "friends16", "friends18",
"friends20" )])))/10)*100
for (i in 1:nrow(twin)) {
  if (twin$PA_bad_NA[i] <= 10) {
    twin$PA_bad_avg[i] <- rowMeans(twin[i, c("friends2", "friends4", "friends6",
"friends8", "friends10","friends12", "friends14", "friends16", "friends18",
"friends20" )] , na.rm = TRUE) }
  else {twin$PA_bad_avg[i] <- NA}}
twin <- twin %>% select (-ends_with("_NA")
```

#3.2 School Social Environment

Items are from Zullig, K. J., Huebner, E. S., & Patton, J. M. (2011). Relationships among school climate domains and school satisfaction. Psychology in the Schools, 48(2), 133-145.
More information here: https://www.phenxtoolkit.org/protocols/view/211001?origin=search

```r
## Teacher relation
twin$SSE_teacherRelation_NA <- ((rowSums(is.na(twin[, c("aboutschool1", "aboutschool2",
"aboutschool3", "aboutschool4", "aboutschool5", "aboutschool6", "aboutschool7",
"aboutschool8", "aboutschool10")]))))/9)*100
for (i in 1:nrow(twin)) {
  if (twin$SSE_teacherRelation_NA[i] <= 10) {
    twin$SSE_teacherRelation_avg[i] <- rowMeans(twin[i, c("aboutschool1",
"aboutschool2", "aboutschool3", "aboutschool4", "aboutschool5", "aboutschool6",
"aboutschool7", "aboutschool8", "aboutschool10")] , na.rm = TRUE)}
  else {twin$SSE_teacherRelation_avg[i] <- NA }}
## Connection
twin$SSE_connect_NA <- ((rowSums(is.na(twin[, paste0("aboutschool", 11:16)]))))/6)*100
for (i in 1:nrow(twin)) {
  if (twin$SSE_connect_NA[i] <= 10) {
    twin$SSE_connect_avg[i] <- rowMeans(twin[i, paste0("aboutschool", 11:16)] , na.rm =
TRUE)} else {twin$SSE_connect_avg[i] <- NA}}
## Academic Support
twin$SSE_acadSupport_NA <- ((rowSums(is.na(twin[, paste0("aboutschool",
17:22)]))))/6)*100
for (i in 1:nrow(twin)) {
  if (twin$SSE_acadSupport_NA[i] <= 10) {
    twin$SSE_acadSupport_avg[i] <- rowMeans(twin[i, paste0("aboutschool", 17:22)] ,
na.rm = TRUE)} else {twin$SSE_acadSupport_avg[i] <- NA}}
## Descipline
twin$SSE_discipline_NA <- ((rowSums(is.na(twin[, paste0("aboutschool", 3:29)]))))/7)*100
for (i in 1:nrow(twin)) {
  if (twin$SSE_discipline_NA[i] <= 10) {
    twin$SSE_discipline_avg[i] <- rowMeans(twin[i, paste0("aboutschool", 23:29)] ,
na.rm = TRUE) }else { twin$SSE_discipline_avg[i] <- NA}}
## Physical environment
twin$SSE_physicalEnv_NA <- ((rowSums(is.na(twin[, paste0("aboutschool",
30:33)]))))/4)*100
for (i in 1:nrow(twin)) {
  if (twin$SSE_physicalEnv_NA[i] <= 10) {
    twin$SSE_physicalEnv_avg[i] <- rowMeans(twin[i, paste0("aboutschool", 30:33)] ,
na.rm = TRUE)}else { twin$SSE_physicalEnv_avg[i] <- NA}}
##Social environment
twin$SSE_socialEnv_NA <- ((rowSums(is.na(twin[, paste0("aboutschool", 34:35)]))))/2)*100
for (i in 1:nrow(twin)) {
  if (twin$SSE_socialEnv_NA[i] <= 10) {
  twin$SSE_socialEnv_avg[i] <- rowMeans(twin[i, paste0("aboutschool", 34:35)] , na.rm =
TRUE) }else {twin$SSE_socialEnv_avg[i] <- NA}}
## Exclusion
twin$SSE_exclusion_NA <- ((rowSums(is.na(twin[, paste0("aboutschool", 36:38)]))))/3)*100
for (i in 1:nrow(twin)) {
  if (twin$SSE_exclusion_NA[i] <= 10) {
    twin$SSE_exclusion_avg[i] <- rowMeans(twin[i, paste0("aboutschool", 36:38)] , na.rm
= TRUE)}  else { twin$SSE_exclusion_avg[i] <- NA}}
## Academic satisfaction
twin$SSE_acadSatisfy_NA <- ((rowSums(is.na(twin[, paste0("aboutschool",
39:40)]))))/2)*100
for (i in 1:nrow(twin)) {
  if (twin$SSE_acadSatisfy_NA[i] <= 10) {
    twin$SSE_acadSatisfy_avg[i] <- rowMeans(twin[i, paste0("aboutschool", 39:40)] ,
na.rm = TRUE)}else {twin$SSE_acadSatisfy_avg[i] <- NA}}
```

3.3 Please answer these questions about your neighborhood. Circle the number that best describes your feelings.

neighborhood#

		1 Not at all true	2 A little true	3 Sort of true	4 Very true
1*	There are plenty of safe places to walk or spend time outdoors in my neighborhood.	1	2	3	4
2	Every few weeks, some kid in my neighborhood gets beat up or mugged.	1	2	3	4
3	Every few weeks, some adult gets beat-up or mugged in my neighborhood.	1	2	3	4
4	I have seen people using or selling drugs in my neighborhood.	1	2	3	4
5	In the morning or later in the day, I often see drunk people on the street in my neighborhood.	1	2	3	4
6*	Most adults in my neighborhood respect the law.	1	2	3	4
7*	I feel safe when I walk around my neighborhood by myself during the day.	1	2	3	4
8	People who live in my neighborhood often damage or steal each other's property.	1	2	3	4
9*	I feel safe when I walk around my neighborhood by myself at night.	1	2	3	4
10	In my neighborhood, the people with the most money are the drug dealers.	1	2	3	4

3.4 Tell us in your own words about how COVID-19 has changed things for you and your life. For example, what are some things that you miss or things that have been different because of the pandemic? How do you feel about these changes? covidimpact_child

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>>>>>> **THANK YOU! THIS IS THE END OF THIS SURVEY** <<<<<<

>>>> **Please put both this survey and the signed assent form in the return envelope** <<<<

#3.3 Neighborhood Environment Scale (NES)

Items used in this questionnaire are from: Elliot, D. S., Huizinga, D., & Ageton, S. S. (1985). *Explaining delinquency and drug use.* Beverly Hills, CA: Sage Publications.

```r
##items 1,6,7,& 9 need to be reverse coded
twin$neighborhood1_reverse <- 5 - twin$neighborhood1
twin$neighborhood6_reverse <- 5 - twin$neighborhood6
twin$neighborhood7_reverse <- 5 - twin$neighborhood7
twin$neighborhood9_reverse <- 5 - twin$neighborhood9

twin$neighborhood_NA <- ((rowSums(is.na(twin[, c("neighborhood1_reverse",
"neighborhood2","neighborhood3", "neighborhood4","neighborhood5",
"neighborhood6_reverse","neighborhood7_reverse",
"neighborhood8","neighborhood9_reverse", "neighborhood10")]))))/10)*100

for (i in 1:nrow(twin)) {
  if (twin$neighborhood_NA[i] <= 10) {
    twin$neighborhood_avg[i] <- rowMeans(twin[i, c("neighborhood1_reverse",
"neighborhood2","neighborhood3", "neighborhood4","neighborhood5",
"neighborhood6_reverse","neighborhood7_reverse",
"neighborhood8","neighborhood9_reverse", "neighborhood10")] , na.rm = TRUE)
  }else {twin$neighborhood_avg[i] <- NA }}

twin <- twin %>% select (-ends_with("_NA"), -ends_with("reverse"))
```

#3.4 is created by the research team.