

Hinsdale Central Parent Teacher Organization (HCPTO)
Wanzenberg & Associates
November 18, 2020

OVERVIEW OF TODAY'S PRESENTATION

- Overview of Executive Skills/Functioning (EF), and underpinnings that are relevant to parents, students, and staff that support student independence; note that interventions and strategies will be broadly referenced and later somewhat specific to challenges faced during COVID 19 (March, 2020 to present)
- Review and discussion of parent questions relating to EF
- Emphasis on useable, real-life examples, and practical information for families
- **For starters, an important request and disclosure: preserving confidentiality of questions**
- For those who want to extend the conversation, we offer parents a free consultation to review services we offer, including for Executive Skills/Functioning (EF) Coaching
- All resources are available online at www.iepguardians.org under *Presentations*

EXECUTIVE SKILLS DURING COVID19: REPAIRING “THE CALUSA NET”



For the Calusa people in early Florida, the *seine* (pr. SAYN) net was made of palm fiber and required constant maintenance for their culture to adequately function. The nets were adapted to the types of fish they sought, as well as the rapidly changing landscape and conditions on the Florida Barrier Islands. Anthropologists believe they spent as much time working on the adaptation and repair of this tool as they did actually fishing!

Like the Calusa, our students’ “nets” (the system or schema to assist them in catching, interpreting, and ultimately utilizing their catch) need constant monitoring, repair, and adaptation to the changing learning environment. Teachers and parents invested in the success of students seek to strengthen and constantly repair their schema to adapt to the radical changes in instruction during COVID19.

DOMAINS OF EXECUTIVE FUNCTIONING

Executive Functioning Domains (in order of skill/brain development)

- **Inhibition**: the ability to stop a target behavior at the appropriate time
- **Working Memory**: the capacity to hold info in suspension for the purpose of completing a task
- **Emotional Control**: modulation of emotional responses by bringing rational thought and coping strategies to the situation
- **Shift**: moving from one activity to another and adapting to various classroom demands in a reasonable time
- **Self-monitoring**: self-examination and active monitoring of student's own progress
- **Initiation**: the ability to begin a task independently; generating ideas, responses, problem solving strategies
- **Planning/Organization**: the ability to manage current and future demands
- **Organization of Materials**: imposing order on school materials and storage spaces
- **Self-Awareness**: assisting a student with an accurate and functional picture of her strengths and needs as a student with a disability

EXECUTIVE SKILLS: OVERVIEW

- Many parts of the brain impacted by executive functioning, but primarily involves frontal lobe (prefrontal cortex) functions that facilitate/impact “novel problem solving”
- Process or integrated processes that link present and past actions
- The prefrontal cortex is the brain’s “CEO” which makes judgements and delegates action
- EF is rarely “broken”, but inefficiencies exist for many individuals
- Qualitative/rating scales assessments across several settings/reporter is critical (Conners, CPT, Tower of London, Rey-Ostreich WCST, TOVA, TMT, BRIEF)
- Understanding a student’s relative strengths and weaknesses is critical to any plan

EXECUTIVE SKILLS: OVERVIEW

Students with EF difficulties demonstrate the following difficulties in school, home, workplace, and/or community:

- Planning activities
- Effectively managing time: knowing when to start and when to stop
- Monitoring multiple tasks simultaneously
- Application of previously mastered knowledge
- Changing pace, focus, or subject
- Accurately assessing when help is needed
- Holding back on impulses
- Accurately estimating how much time would be required for a task
- Memorizing and retrieving information
- Developing a plan of action or response to a conflict or problem

ACADEMIC DIFFICULTIES: FUNCTIONAL PERFORMANCE

Problems resulting from inefficient executive skills

- Procrastination and inefficient use of planning opportunities
- Difficulty in adhesion of disparate concepts in writing
- Easily diverted from task by stimuli
- Slow completion of tasks
- Poor modulation of emotional responses
- Impairments with social judgement
- Ineffective model of self-monitoring
- Difficulties in moving from one task to another



OUTCOMES IN EXECUTIVE FUNCTIONING: HOW WE DEFINE SUCCESS



- The diminishing frequency and intensity of parent, school, or third-party based interventions
- The increased application of self-advocacy skills and self-directed behaviors, in a variety of settings
- The extent to which current supports the student benefits from receives in current setting are available/accessible in the next setting
- Is it meaningful to the student?
- Is it sustainable?

SOME OBSERVATIONS ON EXECUTIVE FUNCTIONING



- Research shows that, neurotypically, EF skills take 25 years to fully develop, with biggest gap around middle school years
- Verbal ability strongly linked to typical EF development
- Brain development: from back to front
- Skill development tends to be progressive, with the last and most complex skill development time management and metacognition (learning how to learn)
- EF skill development predicated on fading external cues, and teaching internal, self-directed cues & strategies
- Vast divide between our (adult's) expectations and capability of children and executive skills difficulties
- Two basic approaches: impose instruction or teach the child compensatory strategies
- WE MUST INTERVENE WHERE CHILD IS, DEVELOPMENTALLY, NOT WHERE WE DESIRE THEM TO BE

SOME OBSERVATIONS ON EXECUTIVE FUNCTIONING

- Developmentally appropriate need to distance support and reliance on parents: middle school years see a point of diminishing returns for parent based intervention
- EF coaching ultimately informs an understanding of a student's ideal level of independence
- Strengthened ability to anticipate the next environment, and effectively generalize the skill to that environment
- EF coaching must be **HIGHLY INDIVIDUALIZED**
- Force maximizing EF instruction through partnership with parents, teachers, and therapists
- Logistics and scheduling



SOME OBSERVATIONS ON EXECUTIVE FUNCTIONING



- The process “requires wrinkles, but hopefully reveals no tears...”
- Assessment and reliance on self-report
- Students who protect coping strategies (efficient and inefficient alike) that have sustained them in the past
- Avoiding superimposing schemas that work for us on kids
- Understanding that EF needs globally impact functioning, not just academics
- Post secondary success: “the least destructive assumption”
- Our Mantra: PLAN-EXECUTE-REPAIR
- Identifying the gray areas, and willingness to delve in and clarify

EF Coaching: How Does Our Model Work?

- Highly relationship-based
- Executive Function Intervention Plan (EFIP): Development of at least three goals (ie, parent, student, coach)
- Exercises vs. Strategies
- Min: Weekly, 1 hour sessions for minimum of 3 months
- Instructional component as needed (ex: SIM, Learning Strategies, rehabilitative exercises)
- Summer: great for skill instruction, but less to organize (best to teach while demands are authentic and support is meaningful)
- Data driven
- Ideally addresses both skill development and management of workload
- Maintenance: case management

A TYPICAL W&A EF LESSON

[Client Name]
[Date]
Executive Functioning Skills
Coaching Session

<i>Evaluate</i>	● Evaluate goals from the week.
<i>Forecast</i>	● Examine needs, routines, or tasks that need to be addressed (e.g. list from assignment notebook).
<i>Prioritize</i>	● Prioritize current initiatives to meet goals (e.g. prioritize that list by placing a number of importance next to each).
<i>Budget</i>	● By order of importance, input assignments or tasks on calendar or planner, with the allotted time budgeted/estimated for each task. (Have client also track actual time.)
<i>Initiate</i>	● Summarize action items; have client verbally review steps.
<i>Evaluate</i>	● Looking ahead, discuss how will assess successful achievement of the next week's goals.

EF Coaching: How Does Our Model Work?

SMAAART GOALS (at least 3) **STUDENT-PARENT-TEACHER/COACH**

- S: Specific
- M: Measurable
- A: Achievable, but...
- AA: *Appropriately Ambitious*
- R: Realistic
- T: Timely

Professional Impressions of EF Challenges During COVID19 Instruction: Student Feedback

- Most students quite aware of the difficulty involved in adapting to different instructional models and report that they feel like they are becoming stronger and more resilient, although almost all have a course/task/subject area/instructional mode that just does not comport with hybrid or remote learning.
- Some students with social communications disorders (i.e., Autism which has a high correlation of EF needs) are actually doing remarkably well as the most complicated social factors (i.e., understanding and adapting to social nuances) seem to be minimized. Where demands are explicit, adaptable, and individualized and where communication between home and school is strong, we have found these students are doing well. BUT, challenges face the student upon return to the classroom when these social communication skills may have atrophied.
- *"I'm learning to do now what I know I'll need to learn in college which is to manage a "stop and go" schedule as well as increased connection and updates with my teachers."*
- *"I'm really struggling with the meaning of all of this. I was a very high powered student before March, and now I constantly ask myself, "what's the point" with many assignments."*
- *"When I can get my list of school things done [low interest], I have found I have more time to do the things that I enjoy more [high interest]."*
- *"There's more stress at home over school stuff mostly because my parents are comparing their high school experience with mine."*
- *"I'm willing to suck it up for a while, but I need to keep focused on a return to school and the things about it I enjoy like sports and friends."*

Professional Impressions of EF Challenges During COVID19 Instruction: Coach Feedback

- All domains impacted by COVID19 Instructional Changes, with particular concern noted on SHIFT, INITIATION, INHIBITION, EMOTIONAL CONTROL, and SELF-MONITORING.
- Lack of uniformity in instructional models as well as “adaptive pauses” in district models create a big challenge for us as we support students and families in managing instructional demands of COVID19.
- We feel naturally drawn to in person instruction (and somewhat limited in our power to teach virtually), but have capitalized on these “fixed sums” as challenges that are indeed opportunities to build resilient and adaptable learners.
- COVID19 learning has required us to increase touchpoints (whether direct or indirect like texts) for some learners, and adapt how and when we interact with them.
- We see a growing number of EF clients with no pre-COVID19 support plans, diagnoses, or history of academic struggles
- Frequent and dynamic home to school/school to home communication has NEVER been more important in my career
- Technically, the introduction of multiple platforms compounds technical issues (i.e., final execution/turn in of assignments, snags during online assessment, integrating “what needs to be done”) definitely takes more time and attention with students.

Professional Impressions of EF Challenges During COVID19 Instruction: Coach Feedback

- Initiation: We often use google docs to create daily routines broken down into half hour increments with specific activities for each time slot. This supports sending reminders by using Gmail's "schedule email" feature. This allows us to have a conversation with the student about which items they may need prompting or reminders for and then draft a reminder to be sent at a specific day and time.
- Maintenance: This usually involves the utilization of the routines documents we create with students. We encourage our kids to use a timer or stopwatch to keep track of "work time" and also when to take breaks. Home environments present unique distractions (many that cannot be avoided): supporting student in their intentions and drawing meaning where we can into the tedious task of maintenance is critical!
- Organization of Materials: Sorting, archiving, prioritizing digital documents like emails and study guides is critical during COVID! Sometimes we support students in creating browser links or other macros of frequently accessed sites. Creating a system to wrangle in these can be very important in organizing their "virtual schema."

Professional Impressions of EF Challenges During COVID19 Instruction: Parent Feedback

- Maintenance, structure, and support for independent work at home is uniformly the biggest parent concern I hear.
- Challenges now that most students are fully or in part at “Family Academy” and that they don’t have the tools to fully support the specialized needs of students with disabilities: *“We don’t know what we don’t know!”*
- *“I just don’t feel like I have the training or skills to give my child what they need.”*
- Challenges and demands of increased communication with school staff.
- Generally, a satisfactory response to the school’s adaptations to accommodations and modifications through the MTSS, 504, or IEP process.
- Lags in updates on online grading, including lack of uniformity across many instructional platforms extremely challenging and confusing for our parents.
- Broader concerns over what parents see as cosmetic improvements in grades/achievement, but whether these gains are truly preparing students for life and instruction beyond COVID19.
- Concerns for the mental health, specifically withdrawal, of their children during COVID19 are ongoing.
- Concerns expressed about increased “screen time”

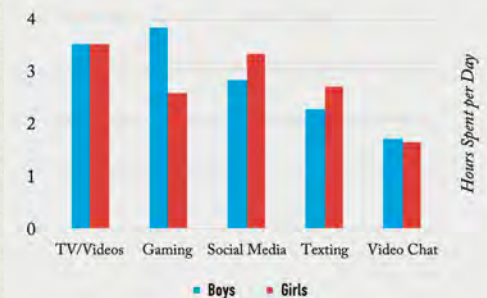
Professional Impressions of EF Challenges During COVID19 Instruction: Some Surprising Data

Teens in Quarantine: Mental Health, Screen Time, and Family Connection

(<https://ifstudies.org/ifs-admin/resources/final-teenquarantine2020.pdf>):

- May 2020 to July 2020 of 1500+ teens
- Most types of digital media (except TV and video chats) including social media and gaming accessed by teens actually DOWN during school year since 2018
- *Teens were also sleeping more and spending more time with siblings and parents (including playing family games, going outside more with family, and eating family dinners), which may have displaced some of the time teens would have spent using media.*
- 53 percent of teens said they have become stronger and more resilient during the pandemic. 69 percent said they feel closer to their families.
- *Although teens were worried about health, economic stressors, and the protests, these challenges were seemingly offset by increases in sleep time and family time. Nevertheless, depression, loneliness, and unhappiness are still at unacceptably high levels among American teens.*
- *Although the pandemic did not appear to worsen these trends, mental health among teens was suffering before the pandemic, with depression hitting all-time highs.*

Figure 7. Teen Media Use by Gender, 2020



Source: Teens in Quarantine

Institute for Family Studies/Wheatley Institution

Figure 6. Hours Spent on Media Activities per day, 2018 vs. 2020 school in session



Source: Monitoring the Future: Teens in Quarantine

Institute for Family Studies/Wheatley Institution

Professional Impressions of EF Challenges During COVID19 Instruction: Some Surprising Data

American Academy of Child and Adolescent Psychiatry: Media Habits During COVID19: Children and Teens on Screens in Quarantine (https://www.aacap.org/App_Themes/AACAP/Docs/resource_libraries/covid-19/Screen-Time-During-COVID.pdf):

“When carefully considered, some extra screen time may help us through this forced isolation. Parental guilt about a modest increase in screen time may be counterproductive and displace more immediate concerns. “

“Children and teens, with limited ability to make appropriate media choices, have unprecedented access to games, programs, videos, and social media containing potentially damaging content such as: violence, sex, drug use, profanity, and bullying. To safeguard their health and well-being, parents should set a structured daily routine for children and teens, which limits screen entertainment and includes adequate time devoted to those essential behaviors.”

“If anything, this crisis should foster important family cohesion, including important discussions about healthy balanced media habits, our interconnected world, and our responsibilities to our health and community. These messages have always been critical, but have never born the emotional valence and practical significance they do now.”

Successful Adaptations and Support for Learners with EF Challenges during COVID19

- **Development, monitoring, and elasticity of a shared weekly schedule that interacts with the demands of the school day**
 - Developing time for rewards in “spurts” and CRITICAL movement and (60-90 minutes outside per day)
 - Mindfulness activities (see <https://www.gonoodle.com>)
 - Prioritization
 - Integration of activities of daily living, family recreation, and most importantly high interest activities to look forward to!
 - Integrating “under hand pitches” into the schedule to provide for success
 - Deliberate and thoughtful efforts to create real boundaries between school and home

Successful Adaptations and Support for Learners with EF Challenges during COVID19

- **Modeling and supporting communication with teachers**

- This is a very understated and complex task.
- There are enormous demands on students to clarify the “gray areas in learning”.
- Its awkward for everyone (teacher, student, parent) in the early stages, but it is a beautiful thing in its ultimate evolution.
- Working with teachers to clarify demands and make them as explicit as possible: clear outcomes for successful achievement, ongoing feedback, error analysis and timely correction, problem solving technical issues, discussing creative alternatives to challenging assignments, and coordination of 1:1 time with content area specialists
- Communicating the importance of camera and microphone usage (both teachers and students)

Successful Adaptations and Support for Learners with EF Challenges during COVID19

Supporting Independent Work at Home

- **Backwards Planning:** work with student to visualize what the task looks like completed from completion to initiation (*“what does it look like to a fly on the wall when its done and you did a good job on it?”*)
- **Modeling and interaction with the student:** What are the components, rubrics, qualities, metrics of a “B or better” assignment? What are the steps required to get to that? We then work backward estimating time involved in specific steps (using past performance to gut-check those estimates!).
- Using timers to support self-monitoring
- **Continually and positively reinforce with specific feedback:** As critical when “things go right” and what went into the independent work to get to that point in the past! (But, be careful not to go “Hallmark Card Mode” on this one: high school students can smell a disingenuous compliment a mile away!) Continually reinforce with specific and positive praise. This creates some credibility when you have to be constructively critical or acknowledge a standard was not met and why.
- **Examples:** The student and parent reviewing an upcoming assignment earlier in the day and doing a small portion of it together before it is officially assigned later and the student is expected to work on the project on his own; The parent or student chunking up an assignment into smaller components and just doing every other question or problem; The parent modeling a few of the questions at the top, then the student finishing the rest of the assignment; The student working for two minutes, then taking a break; The student working on five problems, then taking a break.

Successful Adaptations and Support for Learners with EF Challenges during COVID19

- **Knowing when to seek adaptation or differentiation**
- D86 staff (from general education teachers to highly specialized teachers, for all students we share) have been exceptional in their willingness to consider (particularly when driven by the student) meaningful and appropriate “tweaks” to their remote learning for our shared students.
- For students with 504 and IEPs, there is a process in place to discuss, develop, implement, and evaluate the effectiveness of these kind of changes.
- Work with your children’s teachers to develop a system to create support, but also keep in mind to eventually “de-scaffold” and fade external support to the greatest extent possible.
- Collect info and improve along the way: PLAN/EXECUTE/REPAIR!

Successful Adaptations and Support for Learners with EF Challenges during COVID19: Final Thoughts

- In all approaches with high school students with EF needs, **try to emulate the anticipated Post Secondary setting demands** (comparing and contrasting with high school) as much as possible:
 - Plan in front of and enforce long term due dates
 - Emphasize visualization in goal setting
 - Encourage ambitious but clear/measurable and ATTAINABLE goals for the student!
 - Role play when it is clear the student may not know what you are talking about!
 - Model good self-advocacy behaviors
 - Support for an awareness and articulation of disability and/or learning profile to get what the student needs

YOUR QUESTIONS



EF Resources

- www.iepguardians.org

- www.iepguardians.org/STUFF/W&A%20Brochure_EF%20v3.0.pdf
- www.smartbutscatteredkids.com
- www.efinthe classroom.net
- www.efs2therescue.ca
- www.developingchild.harvard.edu/science/key-concepts/executive-function/
- www.learningworksforkids.com
- <http://www.gvlibraries.org/common-core-learning-standards/7-m4a-your-brain-plugged>
- www.toolsofthemind.com
- www.gonoodle.com
- www.brainfacts.org
- www.pbs.org/wgbh/pages/frontline/shows/teenbrain/



IN CLOSING...

FORM 5.9**Organizing Notebooks/Homework****A. Setting Up a Notebook/Homework Management System**

System element	What will you use?	Got it (✓)
Place for unfinished homework		
Place for completed assignments		
Place to keep materials for later filing		
Notebooks or binder(s) for each subject		
Other things you might need: 1. 2. 3. 4.		

B. Maintaining a Notebook/Homework Management System

Task	Monday	Tuesday	Wednesday	Thursday	Weekend
Clean out "to be filed" folder					
Go through notebooks and books for other loose papers and file them					
Place all assignments (both finished and unfinished) in appropriate places					

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Environmental Modifications and Teaching Strategies for Specific Executive Skills

Executive Skill	Environmental Modification	Teaching Strategy
Response Inhibition	• Increase external controls • Restrict access • Post home or classroom rules and review regularly	• Prompt the child (external to internal) • Teach wait/stop • Teach delayed gratification (apps: Token Board) • Discourage “multi-tasking”—e.g., build in technology breaks rather than having kids combine homework with technology use
Working Memory	Principle of “off-loading” • Agenda books/calendars • To do lists (paper, white board to post prominently) • Electronic devices & apps (Wunderlist, Nudge, BugMe!)	• Directions/Past experience (prompt them to access it) • Generate options for reminders and have them choose (or elicit options from student) • Mentally rehearse association between cue and working memory
Emotional Control	• Reduce or eliminate triggers • Give child a script to follow • Remove child from problem situation	• Teach kids to recognize situations or early signs • Graded exposure/guided mastery • Teach coping strategy • Rehearse the strategy repeatedly until it is internalized • Use Hard Times Board • Teach mindfulness meditation (http://thehawnfoundation.org/mindup/)
Flexibility	General rule: Limit flexibility demand • Reduce novelty • Highlight similarities • Provide a template • Put in place a default strategy • Turn open-ended tasks into closed-ended tasks • Make steps more explicit • “Normalize” errors	Increase support • Present expectations • Walk them through the task • Give plans or rules for managing situations • Think aloud Teach error factor Change tolerance by gradual exposure • Introduce change (lightning bolt-preferred to non-preferred) • Introduce new situations

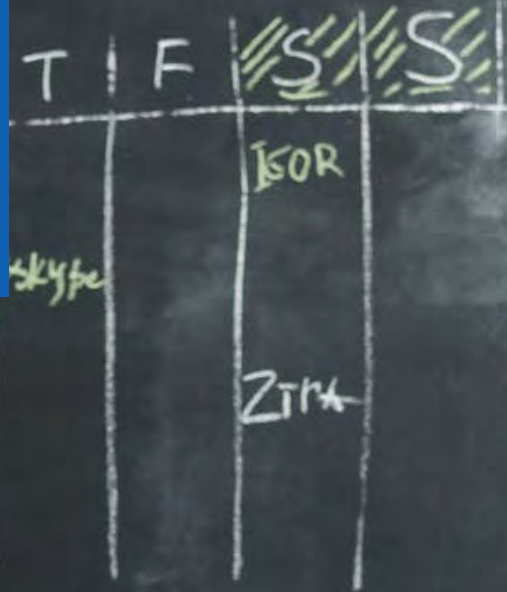
Executive Skill	Environmental Modification	Teaching Strategy
Task Initiation	• Provide cues/prompts • Reduce perceived effort/task demand • Walk through first step—build behavioral momentum • Make help readily available • Establish set time to do non-preferred tasks • Apps: Lickety Split, Good Habit Maker, FTVS (First Then Visual Schedule), Chore Pad HD, ChoreMonster	• Have the child select cueing system • Help the child limit initial demand • Help the child select reinforcer • Help the child make a plan for doing the task and include the start time
Sustained Attention	• Reduce distractions (seating arrangements, white noise) • Prompt to attend (look, listen, respond) • Modify/limit task length or demand (end in sight) • Build in variety/choice • Choose best time of day • Immediately reinforce (pay attention to them <i>while they're paying attention</i>) • Use sand timers and/or fidget toys such as stress balls (www.officeplayground.com) • App: Lickety Split, Chore Monster, iRewardChart, Motivaider, Chore Pad HD, Forest	• Teach self-monitoring/peer coaching • Have the child identify something to look forward to • Teach mindfulness meditation
Planning/Prioritization	• Demonstrate what a plan is • Help child design a plan/template • Provide planning tools (calendar, agenda book, apps – e.g., Choiceworks, CanPlan)	• Walk through the planning process (use a template) • Have them apply plan to a simple task and gradually prompt to do more of the planning themselves • Ask questions to get child to prioritize (What do you need? What should you do first?)

Executive Skill	Environmental Modification	Teaching Strategy
Organization	• Demonstrate principle of off-loading with example from their lives • Work with them to create scheme, template or picture/photograph • Show organizational tools and have them try them out (e.g., Inspiration) • Structure the environment to promote organization	• Help them walk through the process. Have them motorically practice it (a long-term process, requiring that they put a system in place that's monitored, initially on a daily basis). • Give them choices of organizational systems and have them choose/modify the one they like best. • Ask students to evaluate current systems and challenge them to improve them.
Time Management	• Make schedules and time limits explicit • Work with kids to make a schedule to follow and prompt each step of the way ○ Picture schedules ○ Clocks, alarms ○ Tablet/phone apps (Choiceworks, Pomodoro) ○ Timers (app: Sand Timer; www.timetimer.com)	• Show them ways to mark time and let them practice. • Practice estimating how long it takes to do something. • Help them to follow schedules (daily events to homework plans).
Goal-Directed Persistence	• Establish goals with kids • Reward kids for persistence (sticking with difficult tasks)—use verbal reinforcers as much as possible • Make sure the goal or benchmark is in sight • Apps: Token Board	• Point out to kids how they already set goals but they may not know what they are. Define goals as something that people want to get better at or to change. • Ask kids to set small, achievable goals, or a goal for something they want to do outside of school, or set class goals.
Metacognition	• Specify what is to be evaluated and how (goal or objective) • Evaluate performance for the student • Provide sample to match or error-monitoring checklist • Embed metacognitive questions into instruction/conversations	• Help child decide on how performance will be evaluated • Have the child evaluate her performance • Compare evaluations • Teach students to ask questions ○ What's my problem? ○ What's my plan? ○ Am I following I my plan? ○ How did I do?

Teens in Quarantine:

*Mental Health, Screen Time,
and Family Connection*

2020



A chalkboard with a calendar grid. The grid has columns for days of the week and rows for weeks. The first row shows 'T' for Tuesday and 'F' for Friday. The second row shows 'S' for Saturday and 'S' for Sunday, both with diagonal lines through them. Below the grid, the word 'skype' is written on the left, 'Test' in the middle, and 'Zika' on the right. The word 'ISOR' is written in the second row, between the 'S' and 'S' columns.

T	F	S	S
		ISOR	

skype Test Zika

By: Jean M. Twenge
Sarah M. Coyne
Jason S. Carroll
W. Bradford Wilcox

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Introduction

In March 2020, life changed very suddenly for Americans. As the COVID-19 pandemic took hold, work and school moved online, restaurants closed, and unemployment soared. The effects on mental health were immediate: U.S. adults in spring 2020 were three times more likely to experience mental distress, anxiety, or depression than adults in 2018 or 2019.^{1,2}

As spring turned to summer, the arrest of George Floyd by Minneapolis police officers resulted in his death. Soon afterward, racial tensions hit a boiling point and protests gripped the country. According to data collected by the Census Bureau, anxiety and depression rose even further among American adults in June and July 2020.³

How American *teenagers* have fared during this time is more of a mystery. With teens no longer going to school and often not able to see friends, many people worried about how teens would adapt. However, teens' experiences of these events may differ from adult perceptions. Just as children, adolescents, and adults responded differently to the disruptions of the Great Depression in the 1930s,⁴ teens have faced a different set of challenges and opportunities during the months of the pandemic and protests than have adults.

To better understand the experiences of teenagers during this unique time, we fielded our *Teens in Quarantine* survey of 1,523 U.S. teens during May–July 2020, asking about their mental health, family time, sleep, technology use, and views on the race-related protests and the police. We then compared our 2020 teens' responses to responses to identical questions from the 2018 administration of the national Monitoring the Future survey.⁵ Responses from 2018, before COVID-19 existed, served as a useful control for investigating the effects of quarantine on teens. Like Monitoring the Future, our survey gathered responses from 8th, 10th, and 12th graders. (See more about our methods in the appendix.)

To our surprise, we found that teens fared relatively well during quarantine. Depression and loneliness were actually lower among teens in 2020 than in 2018, and unhappiness and dissatisfaction with life were only slightly higher. Trends in teens' time use revealed two possible reasons for the unexpectedly positive outcomes: Teens were sleeping more and spending more time with their families.

Despite worries that they would spend even more time on digital media than before the pandemic, teens in 2020—at least during the school year—spent less time on social media and gaming than had teens in 2018. However, they did increase their consumption of TV and videos.

1. McGinty, E. E., Presskreischer, R., Han, H., & Barry, C. L. (2020). Psychological distress and loneliness reported by U.S. adults in 2018 and April 2020. *Journal of the American Medical Association*, E1–E2.

2. Twenge, J. M., & Joiner, T. E. (in press). U.S. Census Bureau—assessed prevalence of anxiety and depressive symptoms in 2019 and during the 2020 COVID-19 pandemic. *Depression and Anxiety*.

3. National Center for Health Statistics (2020). Mental health: Household Pulse Survey. <https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm>.

4. Elder, G. H. (2018). *Children of the Great Depression*. 25th edition. New York: Routledge.

5. Johnston, L. D., Bachman, J. G., O'Malley, P. M., Schulenberg, J. E., & Miech, R. A. (2019). Monitoring the Future: A continuing study of American youth (12th grade surveys; 8th- and 10th-grade surveys), 2018. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.

While the overall trends for mental health and screen time are encouraging, these patterns were not uniform across all teens. In particular, overall mental health was significantly better for teens in two-parent families, both before and during the pandemic. Teens who spent more time with their families during the pandemic and who felt their families had grown closer were less likely to be depressed. Thus, it appears that one of the primary foundations for teen resilience during the pandemic is family support and connection.

About half of the teens in our sample completed the survey after the protests spurred by the death of George Floyd had spread nationwide, giving us the opportunity to gauge their reactions. Compared to teens in 2018, teens in June/July 2020 were more likely to believe that Black-White race relations had grown worse. Most teens supported the protests, but most also felt anxiety and worry associated with these events.

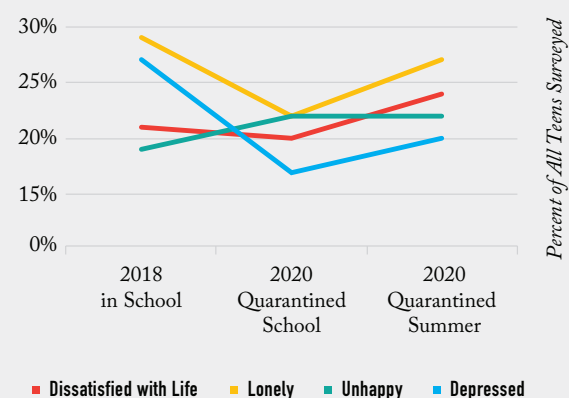
Overall, our results reveal a nuanced picture of teens during the pandemic quarantine: They were resilient yet worried, isolated yet connected to family, and well-rested yet concerned.

Quarantine's Surprising Effect on Teen Mental Health

The primary goal of our survey was to understand how teens were faring during the pandemic months of spring and summer 2020. We assessed mental well-being using four measures also included in the 2018 Monitoring the Future survey: life satisfaction, happiness, symptoms of depression, and loneliness (see the appendix for items). For both surveys, we examined how many teens said they were unhappy or dissatisfied with life and/or scored high in depression or loneliness. Because teens completed our survey any time from late May to early July, and the Monitoring the Future survey is done entirely during the school year, we examined teens who were in school and out of school for the summer separately (see appendix for details).

Surprisingly, teens' mental health did not collectively suffer during the pandemic when the two surveys are compared. The percentage of teens who were depressed or lonely was actually lower than in 2018, and the percentage who were unhappy or dissatisfied with life was only slightly higher (see Figure 1). For example, 27 percent of teens in 2018 were depressed, compared to 17 percent during 2020 with school in session, and 20 percent in 2020 with school out of session.

Figure 1. Teens' Mental Health, 2018 vs. 2020, school in session and summer break



Source: Monitoring the Future; Teens in Quarantine

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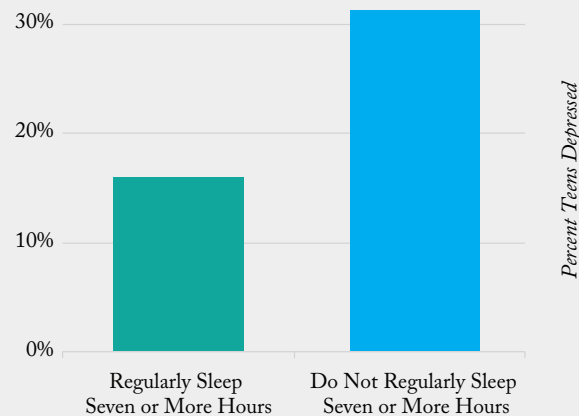
This relatively positive picture for mental health occurred despite many of the challenges faced by the teens in our survey. Nearly one out of three teens (29 percent) knew someone diagnosed with COVID-19. More than one out of four (27 percent) said a parent had lost a job, and one out of four (25 percent) were worried about their families having enough food to eat. Nearly two-thirds (63 percent) were worried about catching the virus, and two-thirds were worried about not being able to see their friends. Nevertheless, 53 percent of teens said they believed they had become a stronger and more resilient person since the beginning of the pandemic.

A New Resilience from Sleep and Family Time

So why was teen mental health stable or even better during the pandemic? Some factors may have offset the more negative influences. *First, teens have been sleeping more during the pandemic*, and teens who are sleep deprived are significantly more likely to suffer from depression.⁶ In 2018, only 55 percent of teens said they usually slept seven or more hours a night. During the pandemic, this jumped to 84 percent among those for whom school was still in session. With teens going to school online during the pandemic, they were likely able to sleep later in the morning than usual. When school is held in person, the vast majority of middle and high schools begin classes before 8:30 a.m.,⁷ and some as early as 7:00 a.m., requiring many students to get up very early to commute to school. This creates a mismatch between school schedules and the shift to a later circadian rhythm that occurs during biological puberty when teens find it difficult to fall asleep earlier.⁸ Thus, with teens able to sleep later, more were able to fulfill their sleep requirements, which may have improved

their mental health. In fact, we find that in 2020, only 16 percent of teens who regularly got at least seven hours of sleep were depressed, compared to 31 percent of teens who did not (see Figure 2). Additionally, being out of the normal school setting may have reduced stress for teens; before the pandemic, many teens reported experiencing significant stress during the school year.⁹ Our findings here suggest that high schools should consider moving their start time to 8:30 a.m. or later, as California will begin to implement in 2022.¹⁰

Figure 2. Percent of U.S. Teens Depressed during Pandemic Quarantine, by regularity of seven or more hours sleep



Source: Teens in Quarantine

Institute for Family Studies/Wheatley Institution

6. CDC (2015). Results from the School Health Policies and Practices Study 2014. U.S. Department of Health and Human Services. https://www.cdc.gov/healthyyouth/data/shpps/pdfs/shpps-508-final_101315.pdf.

7. Kuula, L., Pesonen, A., Merikanto, I., et al. (2018). Development of late circadian preference: sleep timing from childhood to late adolescence. *Journal of Pediatrics* 194, 182e9.

8. Roberts, R. E., & Duong, H. T. (2014). The prospective association between sleep deprivation and depression among adolescents. *Sleep* 37, 239–244.

9. Bethune, S. (2014, April). Teen stress rivals that of adults. *Monitor on Psychology* 45 (no. 4), 20. <https://www.apa.org/monitor/2014/04/teen-stress#>.

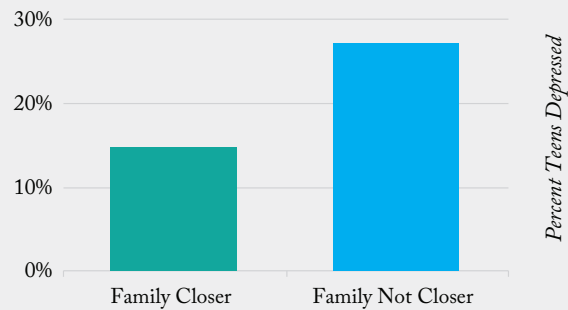
10. Cano, R. (2019, October 28). California just pushed back school start times—you weren't dreaming. Now what? *Cal Matters*. <https://calmatters.org/education/k-12-education/2019/10/how-school-start-time-law-will-work-in-california/>.

Second, teens reported spending more time with their families, and given associations between positive family relationships and mental health,¹¹ more family time may have mitigated the negative effects of the pandemic. With many parents working from home and most outside activities cancelled for both parents and teens, the majority of teens reported increased family time. Fifty-six percent of them said they were spending more time talking to their parents than they had before the pandemic, and 54 percent said their families now ate dinner together more often. Forty-six percent reported spending more time with their siblings. Perhaps most striking, 68 percent of teens said their families had become closer during the pandemic.

This increased family time was linked to positive mental-health outcomes among teens surveyed. Only 15 percent who said their families had become closer during the pandemic were depressed, compared to 27 percent of those who did not believe their families had become closer (see Figure 3). Similarly, 16 percent of teens who said they were now spending more time talking to their parents were depressed, compared to 23 percent who reported the same or less time spent talking to parents. Finally, 16 percent of teens who reported eating dinner with their family more frequently during the pandemic were depressed, compared to 22 percent who reported a stable or declining frequency of family dinners.

Both before and during the pandemic, teens from two-parent families were least likely to be depressed (see Figure 4). This is consistent with other research on child well-being and suggests that teens in two-parent families are more likely to benefit from the additional attention and financial resources that two parents can invest in adolescents.

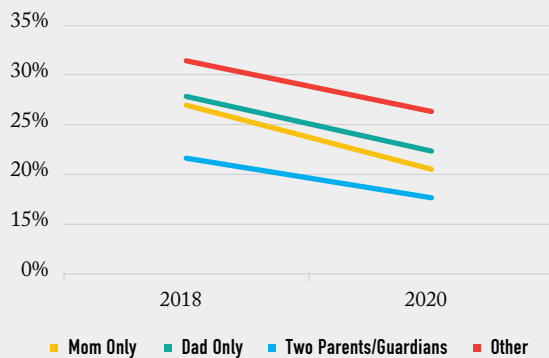
Figure 3. Percent of Teens Depressed, among those agreeing their families had become closer during the pandemic vs. those not agreeing



Source: Teens in Quarantine

Institute for Family Studies/Wheatley Institution

Figure 4. Percent of Teens Depressed, 2018 vs. 2020, by parents/guardians at home



Source: Monitoring the Future; Teens in Quarantine

Institute for Family Studies/Wheatley Institution

11. Chen, P., & Harris, K. M. (2019). Association of positive family relationships with mental health trajectories from adolescence to midlife. *JAMA Pediatrics* 173, e193336.

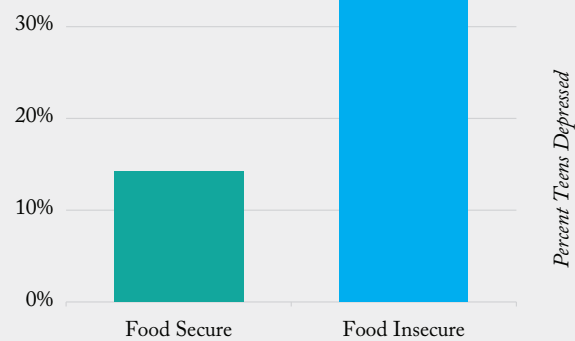
Financial Blows Felt by Teens

Although the teen mental-health outcomes during quarantine were not as bleak as we might have supposed, the financial distress caused by the pandemic still had an impact. The economic consequences for each household made a difference. Twenty-five percent of teens reporting that a parent had lost a job during the pandemic were depressed, compared to only 16 percent of those without parental job loss. Similarly, 26 percent of those worried about their families not having enough money were depressed, versus 13 percent who did not have this concern. Food insecurity was associated with the largest difference: among teens who worried that their families would not have enough to eat, 33 percent were depressed, versus 14 percent of teens who were not worried about having enough food (see Figure 5).

Teen Media Use

When the pandemic hit and quarantine began, teens were unable to spend time with friends or fellow students face-to-face. Thus, life seemingly became even more saturated with technology as electronic communication was the primary way teens could interact with people outside of their families. Given that screen time, especially time spent using social media, has been associated with mental-health issues in the past,¹² we wanted to understand how teens used technology during a global pandemic and how this may relate to their mental health. We again compared responses with the Monitoring the Future data from 2018. Questions specifically focused on media use during leisure time and did not include time spent using media or technology for school or work. As the Monitoring the Future survey is conducted during the school year, we compared only the 2020 students whose schools were still in session.

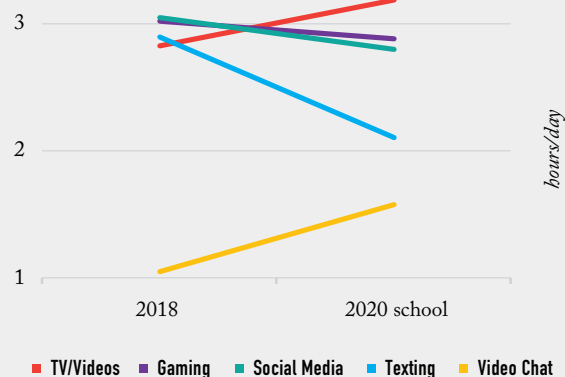
Figure 5. Percent of U.S. Teens Depressed during Quarantine, food secure vs. food insecure



Source: Teens in Quarantine

Institute for Family Studies/Wheatley Institution

Figure 6. Hours Spent on Media Activities per day, 2018 vs. 2020 school in session



Source: Monitoring the Future; Teens in Quarantine

Institute for Family Studies/Wheatley Institution

12. Boers, E., Afzali, M. H., & Newton, N. (2019). Association of screen time and depression in adolescence. *JAMA Pediatrics* 173, 853–859.

Surprisingly, teens' technology use did not appear to increase dramatically during the pandemic when compared to 2018, though certain forms of media use did. Teens in quarantine were spending more time video chatting with friends and watching TV, videos, and movies on an electronic device. But they spent less time gaming, texting, and using social media (Facebook, Instagram, Twitter, etc.) (see Figure 6).

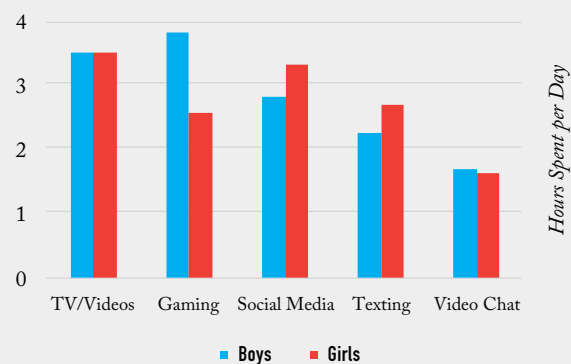
We also examined whether media use during the spring and summer of 2020 differed based on gender or race/ethnicity. Boys and girls spent about the same amount of time watching television or videos. However, boys spent more time on games than girls did; boys spent more time playing video games, in fact, than they did watching television/videos. In contrast, girls spent more time using social media and texting than boys did (see Figure 7). Thus, boys may have turned to video games as a way to connect with peers during quarantine (since many modern games can be played over the internet in real time with friends), while girls primarily used social media or texting to stay connected.

In terms of race/ethnicity, Black teens tended to use all types of media more frequently than did other teens. Asian teens used screen media the least frequently (see Figure 8).

Why the Unexpected Results?

We were surprised that social media (which is more connective) decreased from prepandemic 2018, while watching television and videos (which is more passive) increased during that same time. Teens may have primarily been using media as a form of distraction or to pass the long hours in quarantine, rather than predominantly seeking out more virtual connection with others. Streaming services (like

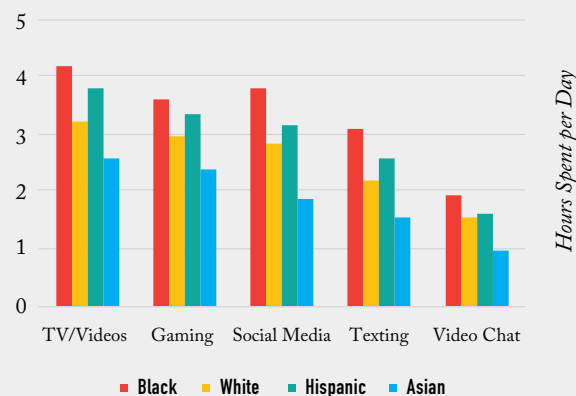
Figure 7. Teen Media Use by Gender, 2020



Source: Teens in Quarantine

Institute for Family Studies/Wheatley Institution

Figure 8. Teen Media Use by Race/Ethnicity, 2020



Source: Teens in Quarantine

Institute for Family Studies/Wheatley Institution

Hulu, Netflix, and Disney+) in particular can often be a welcome distraction from global events and allow the viewer to “zone out” from a stressful situation, binge-watching favorite shows. These trends are consistent with our findings regarding mental health, given that social media use is more strongly associated with mental-health issues than are more passive types of media such as watching television or videos.¹³

However, teens today often use YouTube, for instance, which is primarily a video-sharing site, as social media, creating and posting videos, receiving “response” videos in return, and commenting on videos in an interactive way. In fact, a rising number of social media apps integrate video into their connectivity. Snapchat, Instagram, and Facebook, for instance, were all originally photo- and message-sharing apps that now have video posting and sharing as a main component. These sites/apps are often both passively entertaining *and* connective. So teens may have been specifically using videos as a two-fold way to cope with pandemic-related anxiety.

Another possible reason for the rise in video watching and video chatting online, and the decrease in texting, is that students on school campuses usually can’t stream videos or video chat during the day, as this would be disruptive of the school environment. But they often will text throughout the school day, as this form of connection is quick and silent. In addition, teens in the classroom often don’t have access to wifi on their phones, which is necessary for the data-heavy activities of streaming and video chat. At home, where many have constant wireless connectivity to the internet, teens are able to video chat and stream videos on their devices much more readily.

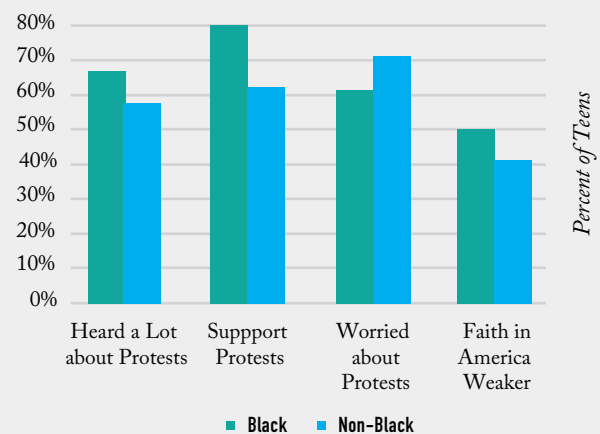
13. Twenge, J. M., & Farley, E. (2020). Not all screen time is created equal: Associations with mental health vary by activity and gender. *Social Psychiatry and Psychiatric Epidemiology*.

Views of the Police, Race Relations, and the Protests

Teens said they were well informed about the protests that swept the United States from late May to June 2020: 60 percent had heard a lot about them, and 31 percent had heard at least some. Two-thirds said they supported the protests, even though 70 percent said that the protests and violence had made them feel anxious and worried. Forty-two percent said their faith in America had weakened.

Compared to teens of other races or ethnicities, Black teens were more likely to have heard a lot about the protests, to support the protests, and to say that their faith in America had grown weaker recently. Non-Black teens (Whites, Hispanics, Asians, and those of other races) were more likely to say they felt anxious and worried about the protests.

Figure 9. Teen Views about the May–June Protests, by race/ethnicity



Source: Teens in Quarantine

Institute for Family Studies/Wheatley Institution

Because the 12th graders in the Monitoring the Future survey were asked about race relations and policing in 2018, we were able to compare older teens’ views in summer 2020 to those from two years prior. Half of 12th graders

Finally, teens often use these video-rich and other apps for *messaging*, shifting somewhat from *texting* as the communication tool of choice. Apps that allow teens to message without revealing their phone numbers are rising in popularity, including GroupMe, WhatsApp, and Facebook Messenger. Many teens surveyed might have reported a low amount of time spent texting while still using social media and messaging apps to keep in contact with friends.

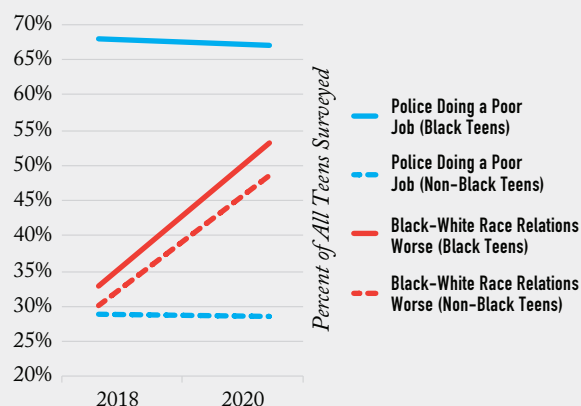
However, none of these interpretations minimizes the happy fact that teens, as we noted earlier, were also sleeping more and spending more time with siblings and parents (including playing family games, going outside more with family, and eating family dinners), which may have displaced some of the time teens would have spent using media.

Furthermore, although social media decreased on the whole, teens may have been using it in more purposeful ways during quarantine. Previous research has found that using social media in more active, connective ways can be protective for mental health. About half of teens (47 percent) in our survey said they avoided using social media in passive ways such as scrolling through posts endlessly. Most strikingly, almost 80 percent of teens agreed that social media allowed them to connect with their friends during quarantine, and nearly 60 percent said they used social media to manage their anxiety surrounding the pandemic.

surveyed in June and July 2020 thought that Black-White race relations were going downhill in the United States, compared to 30 percent who held that opinion in 2018. The percentage who believed that the police were doing a poor job was stable between 2018 and 2020.

In both time periods, the views of Black and Non-Black teens about the police were very different, with twice as many Black teens believing that the police were doing a poor job. Both Black and Non-Black teens were more likely to believe that race relations were getting worse in 2020 compared to 2018; by 2020, the majority of Black teens and nearly half of non-Black teens believed that Black-White race relations were deteriorating.

Figure 10. Views of Black-White Race Relations and the Police, 2018 12th graders vs. June–July 2020 12th graders, by race/ethnicity



Source: Monitoring the Future; Teens in Quarantine

Institute for Family Studies/Wheatley Institution

Thus, although most teens supported the protests, they also expressed anxiety about them and concerns about the state of Black-White race relations in general.

Conclusions

American teens had surprisingly good outcomes during the pandemic, with decreases in depression and loneliness and only small increases in unhappiness and dissatisfaction with life. Indeed, 53 percent of teens said they have become stronger and more resilient during the pandemic. Although teens were worried about health, economic stressors, and the protests, these challenges were seemingly offset by increases in sleep time and family time. Nevertheless, depression, loneliness, and unhappiness are still at unacceptably high levels among American teens. Although the pandemic did not appear to worsen these trends, mental health among teens was suffering before the pandemic, with depression hitting all-time highs.^{14,15} Many teens are still in need of mental-health services, and the pandemic has not changed that reality. These results suggest that once the pandemic has lifted, later school start times and more family time may be helpful in mitigating teen depression.

Surprisingly, teens' use of social media and electronic gaming during their leisure time did not increase. However, they did spend more time watching TV and videos, which in modern life often serve as social connection as well as passive entertainment. Girls spent more time than boys did using social media; for boys, it was gaming they preferred more than girls did.

Although teens are concerned about the current state of race relations in the country, most support the protests around racial justice. Overall, teens during the pandemic appear to have managed the challenges of 2020 with resilience, taking comfort in their families and the slower pace of life.

14. Keyes, K. M., Gary, D., O'Malley, P. M., Hamilton, A., & Schulenberg, J. (2019). Recent increases in depressive symptoms among U.S. adolescents: Trends from 1991 to 2018. *Social Psychiatry and Psychiatric Epidemiology* 54, 987–996.

15. Twenge, J. M., Cooper, A. B., Joiner, T. E., Duffy, M. E., & Binau, S. G. (2019). Age, period, and cohort trends in mood disorder indicators and suicide-related outcomes in a nationally representative dataset, 2005–2017. *Journal of Abnormal Psychology* 128, 185–199.

Appendix: Methods

Sample Selection and Weighting

We partnered with international survey sample provider Ipsos, which collected a sample of 1,523 teens between May 29, 2020 and July 3, 2020. Data collection was paused between June 2 and June 8 as the protests around the death of George Floyd reached their peak. The items about the protests and related issues were asked between June 8 and July 3 of 863 respondents.

The sampling strategy aimed to match the demographic profile of the 2018 Monitoring the Future survey. First, screening questions restricted participation to teens enrolled in 8th, 10th, or 12th grade (the grades included in Monitoring the Future) as of March 1, 2020. Second, sampling aimed to fill quotas for gender, race/ethnicity, urban/rural location, and region of the country, based on the composition of the 2018 Monitoring the Future respondents. The final data were weighted to make the 2020 sample demographically representative of the 2018 Monitoring the Future sample.

Parents gave consent for their minor children to participate. The study was reviewed and approved by the Institutional Review Board of Brigham Young University.

Comparison with Monitoring the Future

The Monitoring the Future survey has been conducted annually since 1975 by the University of Michigan and is funded by the National Institute on Drug Abuse, a division of the National Institutes of Health. It has grown to survey over 40,000 students each year from around the country, through both public and private schools. Though the survey's principal focus is on drug use among 8th, 10th, and 12th graders, questions are also asked about life satisfaction, loneliness, and depression, as well as family structure, media use, race relations, and police effectiveness. Many of the questions on our 2020 survey were identical to those asked in the Monitoring the Future 2018 survey, allowing for effective comparisons.

Coding of School Session vs. Summer

As data collection spanned from late May to early July, some students were in school during data collection, and some were on summer break. As we had not anticipated that data collection would last until July, we did not include a question about whether school was currently in session. However, we recognized that being in school, compared to being on summer break, might influence both mood and time use. Therefore, trained research assistants used the real-estate website Zillow.com to obtain the name of the school district for each respondent (based on the student's zip code) and then determined whether school had been in session on the date the respondent completed the survey. As most surveys were completed in the evening, surveys completed on the day school ended were coded as summer break.

Cutoffs for High Depression and High Loneliness

The measures of depressive symptoms and loneliness both used a scale of five answers from “disagree” to “agree,” which were then coded from 1 to 5.

Responses indicating more negative emotions were coded as 4 or 5; responses describing positive affect were coded as 1 or 2. “Neither” was coded as 3.

For loneliness and depression, an average score of 3 or above was considered a high score, as 3 is the midpoint of the scale and, for both measures, is approximately one standard deviation above the mean, a common cutoff for mental-health screening measures.

Possible Answers

- A. Disagree
- B. Mostly disagree
- C. Neither
- D. Mostly agree
- E. Agree

Survey Items Measuring Depression and Loneliness¹⁶

Items to Measure Teen Depression

- 16. I enjoy life as much as anyone.
- 17. Life often seems meaningless.
- 18. It feels good to be alive.
- 19. The future often seems hopeless.

Items to Measure Teen Loneliness

- 10. A lot of times I feel lonely.
- 11. There is always someone I can turn to if I need help.
- 12. I often feel left out of things.
- 13. There is usually someone I can talk to, if I need to.
- 14. I often wish I had more good friends.
- 15. I usually have a few friends around that I can get together with.

16. Full questionnaire is available upon request.

About the Authors

Jean M. Twenge (Ph.D., University of Michigan) is a professor of psychology at San Diego State University and the author of more than 140 scientific publications and books, including *iGen: Why Today's Super-Connected Kids Are Growing Up Less Rebellious, More Tolerant, Less Happy—and Completely Unprepared for Adulthood*.

Sarah M. Coyne (Ph.D., University of Central Lancashire, England) is a professor of human development at Brigham Young University, where her latest project, M.E.D.I.A. (Media Effects on Development from Infancy to Adulthood) follows 510 families with children who are “digital natives,” tracing how media usage influences attitudes and behavior.

Jason S. Carroll (Ph.D., University of Minnesota) is a senior fellow at the Institute for Family Studies, a professor in the School of Family Life at BYU, and the associate director of the Wheatley Institution; he has published widely on marriage readiness among young adults and modern threats to marriage.

W. Bradford Wilcox (Ph.D., Princeton University) is a senior fellow at the Institute for Family Studies, a visiting scholar at the American Enterprise Institute, and the director of the National Marriage Project at the University of Virginia.

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