JOURNAL OF
ADOLESCENT
HEALTH

Original article

"I Hate This": A Qualitative Analysis of Adolescents' Self-Reported Challenges During the COVID-19 Pandemic

Samantha R. Scott [a,*], Kenia M. Rivera [a], Ella Rushing [a], Erika M. Manczak, Ph.D. [a], Christopher S. Rozek, Ph.D. [b], and Jenalee R. Doom, Ph.D. [a]

[a] Department of Psychology, University of Denver, Denver, Colorado
[b] Department of Education, Washington University in St. Louis, St. Louis, Missouri

A B S T R A C T

Purpose: The COVID-19 pandemic presents unique challenges for adolescents because of disruptions in school and social life. We compiled a diverse group (36.8% nonwhite or multiracial) of high schoolers' open-ended responses to the question: "What are your three biggest challenges right now?" (N = 719 adolescents).

Methods: Using open and axial coding, we identified N = 1,902 thematic units (M = 2.64, SD = .701) and 14 thematic categories, including mental health, physical health, family, friends, social connection and community, academics, missing important events, socioeconomic issues, routine, COVID rules and adjustment, contraction/exposure to COVID, technology, and future plans.

Results: Adolescents most commonly reported challenges related to academics (23.7%) but also cited high numbers of challenges in mental (14.8%) and physical (13.2%) health and friend (11.4%) domains.

Conclusions: Efforts should focus on helping adolescents cultivate academic skills needed during school closures, providing mental/physical health resources and helping them navigate peer relationships—especially given ongoing remote education and social distancing due to the pandemic.
© 2020 Society for Adolescent Health and Medicine. All rights reserved.

IMPLICATIONS AND CONTRIBUTION

During the COVID-19 pandemic, adolescents are experiencing developmentally salient challenges, including lack of in-person schooling and peer interactions. Adolescents in high school reported academics/work habits and physical and mental health as their biggest challenges during school shutdowns.

The severe acute respiratory syndrome coronavirus (COVID-19) pandemic has caused enormous challenges. The economy is in a global recession [1], schools are closed or operating with major modifications, millions of people have become infected in the United States [2], and social-distancing measures have had an unprecedented effect on human social behaviors [3–5]. This pandemic, while substantially impacting all age groups, presents unique challenges for adolescents due to disruptions in school and social behaviors.

Adolescents highly value peer connection and approval and are more likely to experience the onset of psychological disorders than during childhood [6]. The COVID-19 virus itself does not disproportionately infect this age group [7]. However, virus containment policies, such as restrictions on in-person interactions, likely pose serious public health threats for adolescents—particularly given the importance of peer relationships and increased risk for psychological disorders during this developmental period [8]. Understanding how the COVID-19 pandemic has affected adolescents may help reduce poor outcomes in this group. The literature currently identifies school closures, social distancing, and the economic recession as negative for adolescents [9,10]—we do not yet know what adolescents *themselves* report as their biggest challenges during this global pandemic.

Recent theoretical work suggests online learning poses significant barriers for adolescents [9,11], although there are little data examining the effect of losing in-person schooling due to the COVID-19 pandemic [9]. Importantly, schools serve as places to achieve developmentally salient tasks for adolescents, such as establishing peer relationships [6,12]. Concepts of social identity, theory of mind, and reciprocity—essential components of healthy relationships—develop in adolescent peer connections [6,13–15]. Although technology enables the continuity of relationship tasks, whether technology can address all of adolescents' social needs is unclear [8]. This lack of social opportunity may have negative impacts on social skills and relationships persisting into adulthood.

Not only are social-life consequences pertinent to healthy relationship development, adolescent mental health is also sensitive to isolation and loneliness [16]. The risk of developing depression increases threefold for adolescents experiencing social isolation, and experiencing loneliness during this period is associated with poor mental health up to nine years later [16]. Scientists have warned that COVID-19 will have unprecedented effects on mental health [10,17], which will increase demand for mental health–care services. This prediction is supported by data suggesting mental health consequences of disasters outlast and cost more than the physical health effects [18]. Already, roughly 80% of adolescents with pre-existing mental health conditions reported worsening symptomology [19].

Public officials and communities often overlook the health-care schools crucially provide to adolescents. For instance, in 2014, 35% of all adolescent students who received mental health care received those services at school [20]. Subsidized meal programs, vaccination clinics, and school nurses are also crucial resources for youth health care, which are now severely limited or unavailable [9,11]. Moreover, students from racial and ethnic minority backgrounds, or students living in poverty or receiving public health services such as Medicaid, were more likely to receive these services exclusively at school [9,20]. Although all students quickly adapted to e-learning platforms, remote learning also disproportionately affects students from low-resourced households. Remote learning requires socioeconomic resources such as computers, a safe nondisruptive home, and internet service [9]. In addition, the disruption in schedule and routine for adolescents during ecological disasters may increase vulnerability for poor mental health outcomes [18]. Taken together, adolescents face serious social, educational, and mental health risks from school closures and social distancing—these effects may not be experienced equally across students.

Disruption in school resources and social distancing already impose hardship. The economic crisis further potentiates negative downstream effects on youth through parent unemployment, parent mental health, and household dysfunction [21]. Indeed, during this pandemic, increasing rates of domestic violence have been reported globally [22]. In addition, the recession likely worsens already existent challenges from school and community-resource closures. Historically, during economic recessions, the use of special education services for emotional and behavioral challenges has increased while child and adolescent mental health worsens [21].

School closures, social-distancing procedures, and the economic fallout—all key features of this pandemic—present unique problems for adolescents, especially when compounded.

Researchers have called for incorporating and understanding youth perspectives of COVID-19 public health regulations when considering policy changes and understanding the pandemic's effects [9,10]. Using qualitative methods may improve the understanding of challenges experienced by adolescents from their own perspective, one that has *not* yet been discussed in the literature. Understanding adolescents' unique perspectives on their challenges is important to further inform public policy and communities as the pandemic unfolds.

Therefore, this analysis aimed to determine what adolescents reported as their biggest challenges faced during the COVID-19 school closures and social-distancing policies, both for the entire group (aim 1) and for subgroups within the sample (e.g., gender) (aim 2). The present study used qualitative data methodology, which is helpful for centering adolescents' experiences during continued disruption and uncertainty [23].

Methods

Participants

School administrators from three high schools invited their students to take a survey related to their mental health, physical health, social relationships, academic motivation, and home life in early May 2020 during the COVID-19 pandemic [24]. Of $N = 1,125$ who started the survey, $N = 719$ students completed at least one question about their demographic information and the qualitative portion of the study ($M = 16.28$ years old; range:14–19 years). We surveyed students from three U.S. urban high schools between May 1 and 18 while teaching and school-related activities were remote. One participating school (public) was located in a midwestern U.S. city, and the other two schools (one private and one public) were located in a western U.S. city. In two schools, there was a stay-at-home order in effect through May 8 and a safer-at-home order (less restrictive than stay-at-home) from May 9 through the end of the survey period. For the third school, a stay-at-home order was in place throughout the survey period. See Table 1 for demographic information.

Survey

A 30-minute online survey was sent to students between May 1 and 18, 2020. Before participating, students were informed the survey was optional, results would be deidentified, they could skip questions without penalty, and only aggregate data would be shared with school administrators. Students assented to participate after reading through an online assent form. We sent parents e-mails outlining the topics covered in the student survey and gave the option to opt out their child's data from research. After completing the questionnaire, students could enter into a gift card raffle. The authors' respective institutional review boards approved all procedures. The present study focuses on one question in the survey: "What are your three biggest challenges right now?" The 30-minute survey consisted of validated or adapted instruments that asked questions about students' physical and mental health symptoms and experiences during the COVID pandemic. Before this specific question, students were asked about sleep, changes in diet, demographic information, and broad changes to mental health. Students could reply in an open-ended manner or skip the question.

Table 1
Demographic characteristics

Demographic factor	N (%)
Race/ethnicity	
White	445 (61.9)
Hispanic/latinx	66 (9.2)
Black or African-American	68 (9.5)
Asian	24 (3.3)
White latinx	34 (4.7)
Black and white	13 (1.8)
White and Asian	15 (2.1)
Nonwhite multiracial Latinx	21 (2.9)
Nonwhite multiracial non-Latinx	24 (3.3)
Prefer not to answer	7 (1.0)
Missing	2 (.3)
Year in high school	
First year	178 (24.8)
Second year	194 (27.0)
Third year	180 (25.0)
Fourth year	167 (23.2)
Gender	
Gender minority	16 (2.2)
Male	228 (31.7)
Female	471 (65.5)
Missing	4 (.6)

Data analysis

Content analysis. We compiled open-ended responses to the following question: "What are your three biggest challenges right now?" We used content analytic methods as outlined by Neuendorf (2002). First, to familiarize ourselves with the data, three coders (S.R.S., K.M.R., and E.R.) read through responses three times. Next, coders unitized the data to ensure each unit contained one unique idea. This is referred to as a *thematic unit*, as it captures one theme or category of a response that can be assigned a code. For example, one participant's response "being away from my friends and extended family" contains two thematic units, as one related to being away from friends and the other related to being away from extended family. This methodology in qualitative analyses is recommended when analyzing open-ended text ranging in length [25,26].

Next, during the open coding stage, the coders read through all responses again and labeled key topics, aiming to individually capture responses with fewer than 20 categories. After individually open coding without consulting each other, the coders together collapsed categories that contained similar meaning, such as assigning loneliness to the mental health category, and developed a codebook containing 14 categories. For one theme that emerged, contraction/exposure to COVID, we kept separate and did not collapse into a larger category. Given the context for this review is the COVID-19 pandemic, we wanted to capture any concern of the actual virus, or lack thereof. We tested the codebook with 80% of the units to ensure the codebook captured all responses. We discussed units that did not fall neatly into categories with the entire authorship team and made minor changes to finalize the codebook. During the axial-coding stage, coders assigned each unit a category. During the codebook testing and axial coding stage, we were blinded to our original codes generated during the open-coding process.

Coding. The first three authors unitized and coded the entire data set and were blinded to the participants' race/ethnicity,

gender, and age. Disagreements for the axial-coding stage were reconciled between the three coders. Inter-rater reliability was strong (Kappa = .905).

Data analysis plan. We ran descriptive statistics to determine the frequency of categories endorsed for the entire sample and within sociodemographic groups using the 'cross tabs' function in SPSS (v.27). We organized data using Excel (2016). We did not run any formal statistical tests as we were underpowered and wanted to minimize the risk of type 1 error due to multiple comparisons, and the analysis was exploratory in nature.

Results

In response to the open-ended question "what are your three biggest challenges right now", $N = 719$ participants wrote $N = 1,902$ thematic units (M = 2.64 units per participant, SD = .701, range: 1-5). We were unable to code a small number of units (1.1%; e.g., "I suck at frisbee golf"). See Figure 1.

Aim 1: self-reported challenges faced by adolescents

We first aimed to describe challenges faced by adolescents for the entire sample. Using content analysis, we generated a codebook with 14 categories, each described in the following text. See Figure 1.

Academics and work habits. Responses in this category reflected challenges with online learning, preparing for standardized tests, focus, work ethic, and productivity. Adolescents reported challenges around issues of "too much homework" (participant 1,833), "trying to stay motivated with school" (participant 2011), and "time management" (participant 1,241). This category was most commonly endorsed by adolescents (23.7%).

Mental health. This category referred to challenges related to mental health, including depression, loneliness, stress, and anxiety. This category was dimensional, ranging from mild symptoms of mental health disorders (e.g., boredom) to severe symptoms (e.g., can't get out of bed). A total of 14.8% of the units were assigned to this category. Adolescents reflected challenges of "feeling lonely" (participant 1,801), "I'm anxious" (participant 1,662), and "dealing with my mental health and the self-consciousness, anger, worry, and disappointment" (participant 1,199). Participants also stated mental health as a challenge broadly, such as "mental health is worse" (participant 1,304).

Physical health. The physical health category included themes such as diet, exercise, somatic symptoms (e.g., headaches), and sleep. Challenges fell into this category 13.4% of the time. These challenges included comments such as "I'm also trying to eat healthy as much as possible." (participant 1,899), "not doing my normal exercise (horseback riding)" (participant 1,681), and "getting good night's rest" (participant 1,035). Adolescents also reported challenges related to their health more broadly, such as "keeping my…physical health good" (participant 1,452) and "staying healthy" (participant 1,297).

Friends. The friend category (11.4% of units) includes friend conflict, missing friends, and not seeing friends. These units included responses such as "dealing with friends" (participant
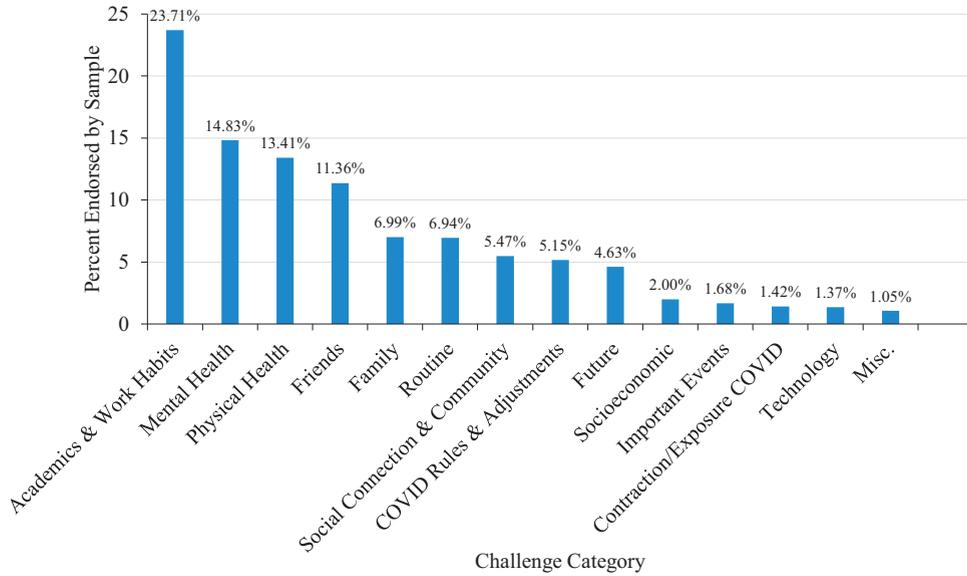
Figure 1. Challenges endorsed by the entire sample (N = 719).

1,037), "missing my friends" (participant 1,129), and "not seeing friends" (participant 1,131). Adolescents also reported challenges such as "fear of losing touch with friends" (participant 1,707).

Family. Responses in this category included challenges related to family conflict, stressed family members, and family members being unsupportive. A total of 7.0% of challenges reported fell in this category. Responses included challenges such as "arguing with my parents" (participant 1,344), "dealing with frustrating siblings" (participant 1,123), and "not being able to see other family" (participant 2,077).

Routine. Adolescents cited several challenges related to routine (6.9% of units), including loss of routine and activities they used to do, chores, finding entertainment, and adjustment to fewer scheduled activities. These codes involved challenges such as "missing lacrosse" (participant 1,509), "finding things to do"

(participant 1,055), and "putting a pause on extracurriculars (hockey, internship, research, etc.)" (participant 1,340).

Social connection and community. The social connection and community category related to general social interaction, missing people who are not indicated to be family or friends, and needing time to self. The total responses in the social connection and community category were 5.5%. Responses coded in the social connection and community category were comments such as "social interactions" (participant 1,910), "not able to see anyone" (participant 1,704), and "finding…alone time" (participant 1,685). There were also comments on feeling alone, such as "Isolation" (participant 1,215).

COVID rules and adjustment. The COVID rules and adjustment category referred to comments regarding the pandemic, including quarantine rules, shutdown of public places, maintaining six feet
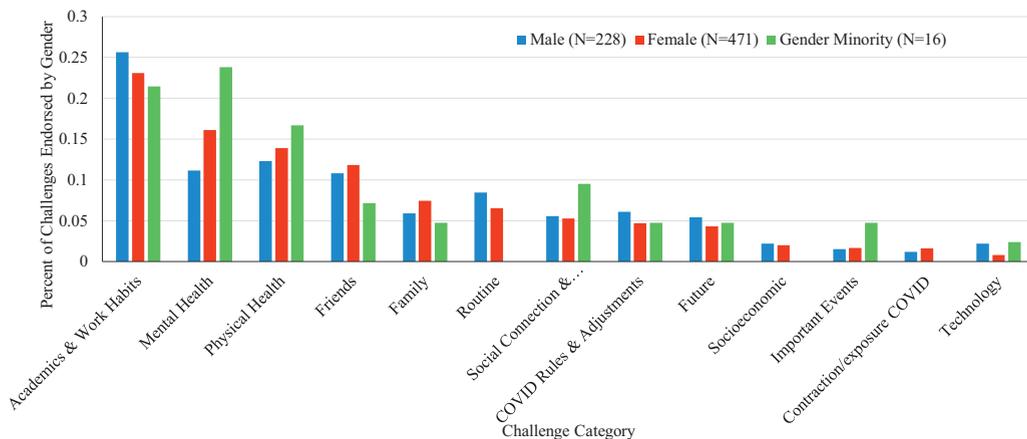
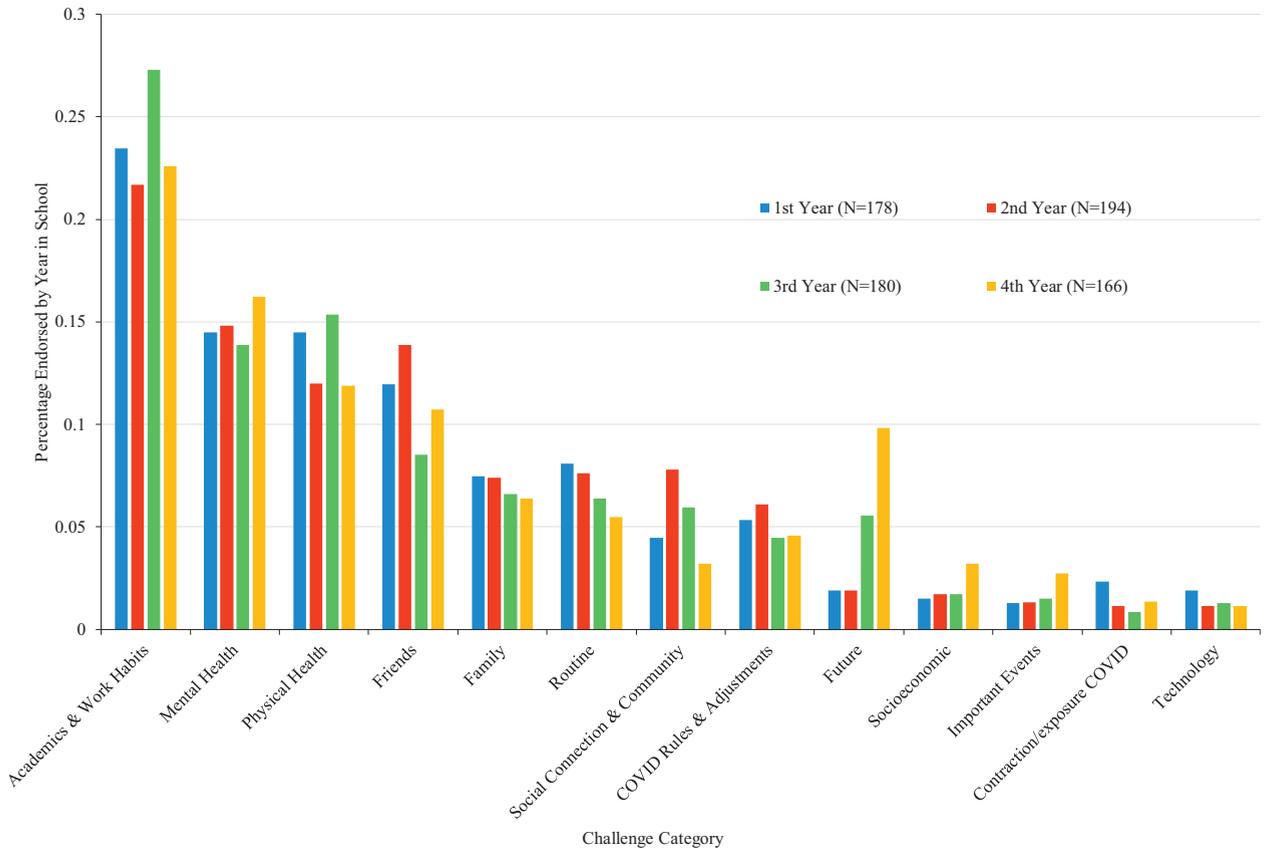

Figure 2. Challenges endorsed by the gender.

Figure 3. Challenges endorsed by the year in high school.

of distance from others, and being unable to go places (5.2%). Adolescents stated they were experiencing challenges around "social distance" (participant 1,948), "staying home" (participant 1,927), and "the lack of information" (participant 1,833).

Future. Challenges related to the future (4.6% of all units) included responses such as feeling uncertain about the future, the college transition, and summer plans. Examples include "preparing for the future and college applications" (participant 1,155),
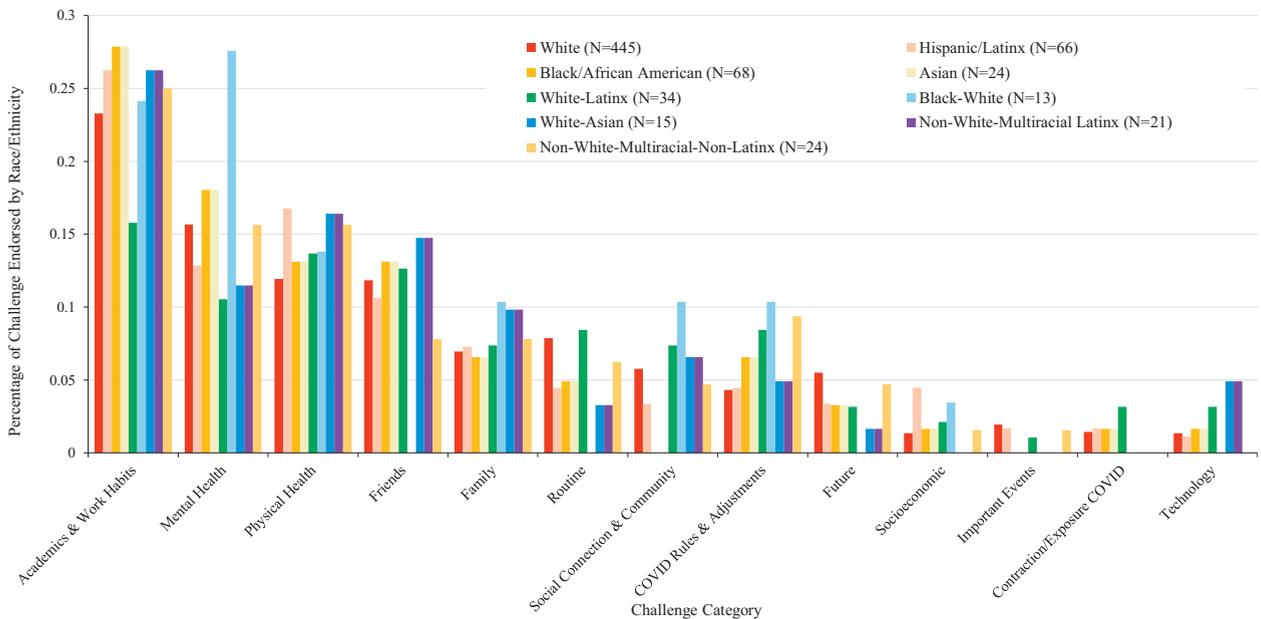

Figure 4. Challenges reported by racial/ethnic groups.

"uncertainty about future" (participant 1,379), and "planning for the next year (college and moving out)" (participant 1,025).

Socioeconomic category. The socioeconomic category involved challenges (2.0% of all units) related to income, occupation, and housing. These responses in this category included comments such as "financial situation" (participant 1,029), "finding a job" (participant 1,325), and "worrying about money" (participant 1,887). Responses also related to socioeconomic issues, such as "money" (participant 1,087).

Important events. This category referred to challenges related to birthdays, graduation, senior year in general or specific events related to senior year, and missing opportunities. There were 1.7% of the responses coded in this category. This category included statements such as "not having a birthday celebration" (participant 1,726) and "not having graduation, prom, senior signing day" (participant 2,043). Responses in this category focused on graduation or senior year but also included events such as "I had basketball tournaments canceled" (participant 1,391). Although challenges related to regular sports seasons were assigned to 'routine,' important events such as basketball tournaments were assigned to this category.

Contraction/exposure to COVID. This category reflected adolescents' challenges related to exposure or contraction of COVID-19 for themselves or their family members, including essential worker family members and family members who died from the infection. Examples in this category include "constantly worrying about older family members" (participant 2,049), "my dad is an essential worker and he is really stressed all the time" (participant 1,441), and "scared of getting the virus" (participant 1,558). Only 1.4% of units fell in this category.

Technology. The technology category (1.4% of all units) included responses involving screen time, internet connections, and a transition to everything online. Adolescents reflected challenges around "too much screens" (participant 1,058), "having all activities online" (participant 2,087), and "getting a decent Wi-Fi connection" (participant 1,346).

Aim 2: challenge categories by sociodemographic group

To explore variability in responses by different sociodemographic groups, we separated responses by the class year, gender, and race/ethnicity. See Figures 2-4. See Supplementary Material for counts and frequencies.

Class year. When examining challenges by the class year, first, second, third, and fourth year students generally reflected the responses of the entire sample. Observationally, friends were more of a challenge for the first and second year students and third year students reported the most challenges related to academics and work habits. Future concerns were endorsed more by third and fourth year students, but especially for fourth year students.

Gender. We observed challenges separately for female, male, and gender minority (e.g., transgender, nonbinary) students. Gender minority students reported the most challenges with mental and physical health, and social connection and community. However, this group reported the least challenges with family and friends.

Students identifying as male had the most challenges around academics and work habits and the future. Female students reported the most challenges with friends and family.

Race/ethnicity. Participants reported 44 unique racial/ethnic identities. We collapsed racial/ethnic identities into nine categories, with at least 10 students in each category to balance the priorities of addressing the unique challenges of students of many racial/ethnic backgrounds while practicing caution drawing conclusions based on groups with a small number of students. See Table 1 for demographic information. Students who identified as black/African-American and Asian indicated the most challenges with academics and work habits. Black-white students had the highest challenges in mental health, family, social connection and community, and COVID rules and adjustments, and students who were Hispanic/Latinx identified the most challenges related to physical health. Nonwhite-multiracial-Latinx students reported the highest challenges in friends and technology. White-Latinx students described the most challenges related to routine and contraction/exposure to COVID-19. White-Asian students reported the most challenges in the socioeconomic category, and white students indicated the most challenges related to the future.

Other analyses. Of note, we explored whether response categories differed by the location of school and by perceived socioeconomic status [27]. Response categories were largely similar between the geographic location of school and socioeconomic status. See Supplementary Material.

Discussion

This analysis aimed to identify what adolescents cited as their biggest challenges faced during the COVID-19 remote education and social-distancing policies, both for the entire group (aim 1) and for subgroups within the sample (aim 2). Scientists have pointed to the potential consequences and challenges of the pandemic for adolescents specifically using a developmental lens [8–10]. However, we do not yet understand what adolescents themselves report, which is particularly important for informing policy and resource allocation, not just currently given the ongoing school closures but also for addressing long-term effects of the pandemic [9,10]. We found that for the entire group, adolescents' most commonly cited challenge was academics and work habits. Mental and physical health challenges also reflected a high proportion of the responses, and friendship challenges were the fourth most common challenge described.

We organized responses by sociodemographic groups to explore what distinct communities reported. Gender minority students reported the highest mental and physical health concerns and the lowest challenges related to friends and family. Female students reported the most challenges related to friends, and male students reported the highest concerns related to academics and work habits and the future. Students in their first and second year reported the most friend challenges, which reflects developmentally normal trajectories as friendships become more stable and reliable in older adolescence [6]. The percentage of challenges related to routine decreased from first to fourth year students. Third year students reported the most academics/work habits—consistent with the high demands of college applications, future plans, and a rigorous academic curriculum in the third year of high school. White-Asian students

reported the most challenges with physical health and fear of COVID contraction or exposure. Black/African-American and Asian students indicated the most academic and work habit challenges. Black-white students had the most challenges in mental health, family, social connection and community, and COVID rules and adjustments. Hispanic/Latinx students identified the most challenges related to physical health. Our results suggest that although academics and work habits challenges are most prevalent overall, the top-reported challenges differ by the group—sociodemographic factors matter for how adolescents experience COVID-19.

Although e-learning platforms are well accepted [28], our results indicate that challenges related to academics and work habits are of highest concern. School officials should prioritize helping students successfully navigate remote education. Teachers and school officials may consider assigning tasks requiring creative thinking [29] and supporting students with time management, productivity, and focus. To our knowledge, this is the first study to highlight adolescents are experiencing sufficient difficulty with academics and work habits—this is an area of high concern.

Mental and physical health are challenging to navigate during isolation, and our results indicate adolescents are experiencing substantial hardship. Evidence suggests that due to the pandemic, adolescents are experiencing lags in their vaccination schedules and primary care visits because of concerns of virus contraction [30]. Health-care providers, in transition to telehealth, should note potential barriers to telehealth access, particularly for adolescents, who require additional privacy precautions. Parents and school officials should ensure barriers to mental health care and ease of use are addressed. App-based psychosocial interventions may be helpful [31].

Finally, while 6.8% of challenges involved COVID (either COVID rules and adjustment or COVID contraction/exposure), only 1.4% of all challenges reported involved concerns about contraction of or exposure to the virus itself. This is important to consider as the pandemic unfolds and more shutdown orders flux. Public health experts may consider educating adolescents with accurate information about how COVID-19 can affect them. This finding preliminarily suggests adolescents more broadly are less concerned with virus contraction; however, future research is needed to determine how adolescents' concern about the virus influences their social-distancing and virus-containment behaviors.

Although our results warrant consideration and future research, this analysis has several limitations. We intentionally chose to maintain a higher number of race/ethnicity categories instead of collapsing categories more narrowly to preserve individual variation in experiences and respect the identities our participants named. In doing so, we may have missed major group differences that would have been more noticeable had we collapsed categories further. In addition, the small cell sizes of categories (e.g., black-white category had 13 students) made drawing robust conclusions about groups challenging. We aimed to provide preliminary data so future research can further identify what barriers exist in particular communities. Our data are representative of high schoolers' experiences in two cities in the Midwest and Western United States—our findings may not be applicable to adolescents residing in other cities or regions. Similarly, our data may be less relevant to adolescents at current given recent social and political movement. Data collection began before the murders of George Floyd, Breonna Taylor, and Ahmaud Arbery. These events are likely stressors and challenges to minoritized students. Future research should follow up with adolescents to determine if any challenges during the pandemic shift to political issues and social justice. Finally, with qualitative research, we recognize the potential for researcher bias in interpretation [32]. We made efforts to minimize bias, including the removal of any demographic information from the data file we used to code. However, our coding may be a partial reflection of our biases and experiences.

Despite these limitations, our study consisted of a diverse sample of students in U.S. cities during a period of uncertainty and social challenge, making our conclusions more applicable for students who may be experiencing continued disruptions this school year. Previous literature has identified mental and physical health as difficulties for children and adolescents during the pandemic [9–11,19]—our results confirmed this is a challenge faced by adolescents. Our findings also suggest there are categories of challenge related to the pandemic in adolescents not previously identified. For instance, important events (e.g., graduation) were challenging to miss for adolescents. School officials and community members moving forward may consider socially distanced, safe celebrations or virtual celebrations. In addition, uncertainty about the future (e.g., finding a job) is another area of concern. Adolescents may benefit from increased job training and guidance on how to navigate the job market during a recession. Our findings inform policy makers, school officials, and researchers with adolescents' experiences from *their* perspective, potentially different than previously hypothesized. Finally, we indicated sociodemographic groups matter for the challenges adolescents are facing. Future research and policy work should carefully consider these differences.

Funding Sources

Supplementary Data

Supplementary data related to this article can be found at https://doi.org/10.1016/j.jadohealth.2020.11.010.

References

[1] Global economic Prospects, June 2020. Washington, DC: World Bank; 2020.
[2] Coronavirus in the U.S.: Latest Map and Case Count. New York Times; 2020. New York, NY.
[3] Galea S, Merchant RM, Lurie N. The mental health consequences of COVID-19 and physical istancing. JAMA Intern Med 2020;180:817.
[4] Carel H, Ratcliffe M, Froese T. The art of medicine: Reflecting on experiences of social distancing. Lancet 2020;6736:9–10.
[5] Riblet NB, Stevens SP, Watts BV, et al. A pandemic of Body, Mind, and Spirit: The burden of "Social Distancing" in rural communities during an era of heightened suicide risk. J Rural Health 2020;00:1–4.
[6] Steinberg L, Morris A. Adolescent development. Annu Rev Psychol 2001; 133:556–7.
[7] Castagnoli R, Votto M, Licari A, et al. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in children and adolescents: A Systematic Review. JAMA Pediatr 2020;174:882–9.
[8] Orben A, Tomova L, Blakemore S-JJ. The effects of social deprivation on adolescent development and mental health. Preprint 2020;4642:1–7.

[9] Armitage R, Nellums LB. Considering inequalities in the school closure response to COVID-19. Lancet Glob Health 2020;8:e644.

[10] Holmes EA, O'Connor RC, Perry VH, et al. Multidisciplinary research priorities for the COVID-19 pandemic: A call for action for mental health science. Lancet Psychiatry 2020;7:547–60.

[11] Lee J. Mental health effects of school closures during COVID-19. Lancet Child Adolesc Health 2020;4:421.

[12] Brown BB, Larson J. Peer relationships in adolescence. In: Handb. Adolesc. Psychol, 1. Hoboken, NJ, USA: John Wiley & Sons, Inc.; 2009:74–103.

[13] Burnett Heyes S, Jih YR, Block P, et al. Relationship reciprocation modulates resource allocation in adolescent social networks: Developmental effects. Child Dev 2015;86:1489–506.

[14] Mills KL, Lalonde F, Clasen LS, et al. Developmental changes in the structure of the social brain in late childhood and adolescence. Soc Cogn Affect Neurosci 2014;9:123–31.

[15] van der Aar LPE, Peters S, Crone EA. The development of self-views across adolescence: Investigating self-descriptions with and without social comparison using a novel experimental paradigm. Cogn Dev 2018;48: 256–70.

[16] Loades ME, Chatburn E, Higson-Sweeney N, et al. Rapid systematic review: The impact of social isolation and loneliness on the mental health of children and adolescents in the context of COVID-19. J Am Acad Child Adolesc Psychiatry 2020;59:1218–1239.e3.

[17] Gunnell D, Appleby L, Arensman E, et al. Suicide risk and prevention during the COVID-19 pandemic. Lancet Psychiatry 2020;7:468–71.

[18] Morganstein JC, Ursano RJ. Ecological disasters and mental Health: Causes, consequences, and interventions. Front Psychiatry 2020;11:1–15.

[19] Chen F, Zheng D, Liu J, et al. Depression and anxiety among adolescents during COVID-19: A cross-sectional study. Brain Behav Immun 2020;88: 36–8.

[20] Lipari R, Hedden S, Blau G, et al. The CBHSQ Report: Adolescent mental health service use and reasons for using services in specialty, educational, and general medical settings. Substance Abuse and Mental Health Services Administration; 2016. Rockville, MD.

[21] Golberstein E, Gonzales G, Meara E. How do economic downturns affect the mental health of children? Evidence from the National health Interview survey. Heal Econ (United Kingdom) 2019;28:955–70.

[22] Bradbury-Jones C, Isham L. The pandemic paradox: The consequences of COVID-19 on domestic violence. J Clin Nurs 2020;29:2047–9.

[23] Rich M, Ginsburg KR. The reason and rhyme of qualitative research: Why, when, and how to use qualitative methods in the study of adolescent health. J Adolesc Health 1999;25:371–8.

[24] Rozek CS, Doom JR. Feeling lonely and depressed: High school during COVID-19. Manuscript in preparation. 2020.

[25] Krippendorff K. Reliability in content analysis: Some common misconceptions and recommendations. Hum Commun Res 2004;30:411–33.

[26] Neuendorf KA. Defining content analysis. Content anal. Guideb. Los Angeles: SAGE Publications, Inc; 2020:1–35.

[27] Goodman E, Adler NE, Kawachi I, et al. Adolescents' perceptions of social status: Development and evaluation of a new indicator. Pediatrics 2001; 108:e31.

[28] Radha R, Mahalakshmi K, Kumar VS, et al. E-Learning during lockdown of covid-19 pandemic. A Glob perspective 2020;13:1088–99.

[29] Glenn Dutcher E. The effects of telecommuting on productivity: An experimental examination. The role of dull and creative tasks. J Econ Behav Organ 2012;84:355–63.

[30] Santoli JM, Lindley MC, DeSilva MB, et al. Effects of the COVID-19 pandemic on routine Pediatric vaccine ordering and administration — United States, 2020. MMWR Morb Mortal Wkly Rep 2020;69:591–3.

[31] Lau N, O'Daffer A, Colt S, et al. Android and iPhone mobile apps for psychosocial wellness and stress management: Systematic search in app stores and literature review. JMIR MHealth UHealth 2020;8:e17798.

[32] Galdas P. Revisiting bias in qualitative research: Reflections on its relationship with funding and impact. Int J Qual Methods 2017;16:1–2.