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Adolescent Academic Worries Amid COVID-19 and Perspectives on Pandemic-Related Changes in Teacher and Peer Relations

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Despite recognition of the potential impact of the COVID-19 pandemic on secondary schooling experiences, little empirical evidence has captured adolescents' perspectives on the extent of academic and social disruption resulting from the pandemic. The present study examined adolescents' academic worries amid the COVID-19 pandemic and their perspectives on pandemic-related changes in teacher and peer relations. Participants were 452 adolescents (55% female) between the ages of 11 and 17, who completed online surveys asking them about their worries about their schoolwork and educational futures, perceived support from teachers, and perceptions of electronic (cyber) bullying during the pandemic. Results indicated that COVID-related academic worries pertaining to motivation to focus on and complete schoolwork were most frequent. High school students and female students reported heightened academic worries compared to middle school students and male students. In addition, the majority of adolescents indicated decreased support from teachers during the COVID-19 pandemic, including more than two-thirds (69%) who reported reduced communication with teachers. Adolescents perceived relative consistency in electronic (cyber) bullying throughout the pandemic, and a third of students indicated that cyberbullying has become more of a problem and increased in frequency during this time period. Perceived changes in cyberbullying were consistent across grade level and gender. Findings emphasize the psychosocial implications of the COVID-19 pandemic on adolescents' secondary schooling experiences and underscore the importance of bolstering social resources to minimize the short- and long-term impact of the pandemic on students' academic functioning.

Impact and Implications Statement

The study results suggest heightened worries related to compromised academic motivation among adolescents amid the COVID-19 pandemic. In addition, although the majority of adolescents reported decreased support from teachers, cyberbullying remained relatively consistent during the pandemic.

Keywords: COVID-19 pandemic, adolescents, academic worries, teacher support, cyberbullying

Change is a hallmark of adolescence. Yet, unlike normative and predictable sociodevelopmental change, the COVID-19 pandemic has incited unprecedented disruption in the lives of adolescents across multiple domains. Despite being relatively protected from the health-related consequences of COVID-19, physical distancing protocols enacted to limit disease spread present numerous challenges for adolescents' academic and social functioning. For the majority of youth, daily in-person school routines have been replaced with remote education. Indeed, over 65% of U.S. households with children report the use of distance learning during the

pandemic (U.S. Census Bureau, 2020). Even for youth who have continued in-person instruction, physical distancing constraints have considerably altered school social dynamics, including significant changes in classroom configurations and lunch gatherings, as well as the cancellation or modification of school sports, music and arts, clubs, and numerous in-school activities and events. Such novel schooling experiences, characterized by disruption and isolation, can be expected to generate educational uncertainty and heighten adolescents' school-related worries, while also placing undue strain on adolescents' relationships with their teachers and peers. Yet, despite recognition of the potential of COVID-19 to yield significant educational and social disruption in adolescents' lives (e.g., Benner & Mistry, 2020), relatively little empirical evidence has captured this impact. By examining the perspectives of adolescents, the present study aimed to shed light on adolescents' academic worries amid the COVID-19 pandemic, as well as pandemic-related changes in teacher and peer relations.

Relative to other domains, school-related challenges are of highest concern to adolescents based on initial data collected during the COVID-19 pandemic. For example, qualitative evidence among a diverse U.S. sample found that adolescents most commonly endorsed

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challenges related to academic and work habits (e.g., school motivation, time management) when asked about the biggest challenges facing them during COVID-19 (Scott et al., 2021). Relatedly, among a sample of Canadian high school students, 72% reported that they were “very much” worried about how COVID-19 would impact their school year (Ellis et al., 2020). Although such school-related worries may include a range of “extracurricular” topics (e.g., spending time with friends, playing sports), disrupted learning and long-term educational implications of the pandemic also seem to be particularly salient. Indeed, among a diverse sample in South Florida, over a third (37%) of adolescents indicated feeling that they were learning worse than before the pandemic (Cohen et al., 2020); perceptions of educational disruption, such as compromised communication with teachers and difficulty concentrating, can in turn contribute to elevated adolescent anxiety (Li et al., 2021). With mounting academic demands and increasing salience of graduation and matriculation options, academic-related worries are likely to be heightened among high school-aged youth. For example, qualitative findings suggest that concerns about one’s future (e.g., uncertainty related to the college transition) are more common among older adolescents (Scott et al., 2021). Academic worries may also vary as a function of gender, based on scholarly views of education-related gender disparities during COVID-19 (Burzynska & Contreras, 2020) and given emerging evidence of elevated pandemic stress among female (vs. male) adolescents (Ellis et al., 2020; Nocentini et al., 2021).

Particularly during times of change and heightened stress, social support represents a fundamental academic resource for adolescents (Wang & Eccles, 2012). Notably, when youth perceive high levels of support (e.g., instrumental and emotional aid) from teachers, they report more positive social–emotional well-being (Bru et al., 2010), as well as greater academic engagement and motivation (e.g., Wentzel et al., 2010). Moreover, for adolescents experiencing major uncontrollable life events (e.g., death of a family member), supportive ties with school personnel can function as a distress-buffering resource (DuBois et al., 1992). Yet, despite the potential for youth to rely on teachers, their support may be compromised amid the COVID-19 pandemic, as teachers are simultaneously navigating and coping with the challenges and effects of the pandemic themselves. Although initial qualitative evidence from parents of children across a wide age range (i.e., pre-K–college) indicates satisfaction with the amount of support their child’s school provided during COVID-19 school closure (Garbe et al., 2020), little is known about adolescents’ perceptions of teacher support, including their frequency of communication, as well as instrumental and emotional aid. Insofar as students report reduced support from teachers during times of school transition (Barber & Olsen, 2004), it is possible that uncertainty and flux associated with schooling during COVID-19 (e.g., transitions to remote learning) has contributed to a reduction in teacher support.

Like teachers, peers similarly represent a unique source of social support to help adolescents cope with stress and change. Students accepted by their peers have access to a variety of social, emotional, and academic resources important for school success (Juvonen et al., 2012). Although little is known about the implications of COVID-19 on peer relations, initial evidence suggests relative stability in adolescents’ relationships with their friends. Specifically, Cohen et al. (2020) found that the majority of adolescents in their diverse U.S. sample indicated that relationships with friends were unchanged as a result of the pandemic; nevertheless, nearly 1-in-4

youth (24%) reported worsening friend relationships (Cohen et al., 2020), aligning with other recent evidence that adolescents perceive less friend support during COVID-19 (Rogers et al., 2021). Although waning friend support may reflect constrained contact and communication due to social distancing mandates, the environmental turbulence and uncertainty of the pandemic also has the potential to promote social dominance motives, including bullying behavior (Juvonen & Graham, 2014).

Whereas positive peer experiences can support academic success, bullying is recognized to impair adolescents’ school performance, including that of victims (Juvonen et al., 2011) and those exposed to such negative peer mistreatment (Strøm et al., 2013). Thus, it is important to understand whether and how bullying experiences, including prevalence and frequency, have been altered by the pandemic. As bullying commonly occurs within the school setting (Juvonen & Graham, 2014), it has been hypothesized that limited in-person contact with peers at school may curtail bullying (e.g., Fegert et al., 2020). Yet, at the same time, given increases in social media usage during the COVID-19 pandemic (Ellis et al., 2020), and that social media use increases the risk of cyberbullying victimization and perpetration (Craig et al., 2020), it is possible that cyberbullying, in particular, has increased during the pandemic. However, aside from commentaries hypothesizing about pandemic-induced changes in cyberbullying (e.g., Imran et al., 2020), no studies to our knowledge have empirically investigated relative changes in cyberbullying due to COVID-19.

The Present Study

The present investigation is designed to shed light on adolescents’ schooling experiences during the novel COVID-19 pandemic. First, we examine the degree to which adolescents worry about their schoolwork and educational futures amid the pandemic. Focusing on adolescent-reported academic worries, we consider grade level and gender differences in the frequency of concerns surrounding schoolwork and educational trajectories. Given rising academic demands and uncertainty about higher education options across secondary school, academic worries regarding the impact of COVID-19 are expected to be heightened among high school students relative to their middle school counterparts. Investigation into gender differences is exploratory, but critical given postulation that the pandemic may exacerbate educational gender gaps (Burzynska & Contreras, 2020). Second, we examine adolescents’ perceptions of changes in teacher and peer relations since the COVID-19 pandemic began by focusing specifically on communication and support (academic and emotional) from teachers, as well as electronic peer-based teasing and bullying. In light of the added demands and stressors on educators during the pandemic, we hypothesized that adolescents would perceive reduced support from teachers during this time period. In addition, given increased amounts of time on social media (Ellis et al., 2020), it was expected that adolescents would report an increased frequency and significance of electronic (cyber) bullying during the pandemic. Understanding the impact of the COVID-19 pandemic on adolescents’ academic and social well-being is important to ensure adolescents are equipped with the support resources for schooling success both during and following the COVID-19 pandemic.

Method

Participants

Participants in the present study were adolescents between the ages of 11 and 17, residing predominantly in the Northeast region of the United States. Among eligible adolescents (i.e., within the 11–17 age range) who received parental consent to participate in the study, there was an 80% participation rate, resulting in a final sample of 452 adolescents ($M_{\text{age}} = 14.9$, $SD_{\text{age}} = 2.1$). Fifty-five percent of the sample identified as female, and the ethnic breakdown of the sample was as follows: 69.9% White, 8.2% Black/African American, 8.0% Latino/a, 6.6% multiethnic, 5.5% Asian or Pacific Islander, and 1.8% other ethnicity. Sixty-four percent of participants were in high school (i.e., Grades 9–12). Most (72%) of adolescents' parents had at least a college degree. A large majority (87%) of adolescents reported at least some degree of remote schooling (i.e., not “entirely in-person”) during fall 2020.

Procedure

Study procedures were approved by the authors' Institutional Review Board. Initial recruitment was conducted via the UConn Kids in Developmental Science research database, which recruits families to their participant pool via local community events (e.g., fairs, libraries) and social media. Parents within the research database with adolescents between the ages of 11 and 17 were contacted about study participation, followed by subsequent word of mouth advertisement (e.g., via local teen organizations, and schools). Parents completed consent electronically and provided an email address for their adolescent to receive the survey weblink. The online survey (hosted by Qualtrics.com) was advertised to adolescents as a study on teen experiences at school that included questions about teasing and bullying. Adolescents were reminded that participation was voluntary and provided informed assent prior to completing the questionnaire. Data collection was conducted across a 4-month period during the fall of 2020 (late August–December), and adolescents received a \$10 e-gift card for participating in the survey which took about 30 min to complete.

Measures

COVID-Related Academic Worries

Participants reported on the degree to which they worry about their schoolwork and education when thinking about how the COVID-19 pandemic has disrupted their life. Informed by measures developed to assess adolescent experiences during the COVID-19 pandemic (e.g., Becker et al., 2020; Ladouceur, 2020), adolescents were asked how much they worry about “falling behind with schoolwork,” “not being able to focus on schoolwork,” “not being able to motivate yourself to do schoolwork,” and their “educational future.” Responses were rated on a 5-point scale ranging from 1 (*Not at all*) to 5 (*Most of the time*). Despite high internal consistency (Cronbach's $\alpha = 0.87$), we examine each item independently to capture a more nuanced understanding of adolescents' academic worries during the pandemic.

Teacher Support During COVID-19

Three items were designed to capture perceptions of teacher instrumental and emotional support, as well as communication

frequency. Specifically, adolescents were asked to indicate how each of the following have changed for them since the COVID-19 pandemic began, “communicating with your teachers,” “getting academic support from your teachers (e.g., homework help),” and “getting emotional support from your teachers (e.g., listening carefully to my worries and concerns).” Response options to these 3 items were as follows: “decreased a lot,” “decreased slightly,” “no change,” “increased slightly,” and “increased a lot.”

Perceptions of Cyberbullying During COVID-19

Four items developed for the purposes of the present study were used to assess adolescents' perceptions of changes in cyberbullying during the COVID-19 pandemic. Prior to responding to the questions, participants were provided with a detailed definition of bullying consistent with previous studies of bullying behavior (Lessard et al., 2021). Adolescents then reported on the relative frequency (five response options ranging from “decreased a lot” to “increased a lot”) and significance (five response options ranging from “a lot less of a problem” to “a lot more of a problem”) of electronic (cyber) teasing and bullying since the COVID-19 pandemic began. Given our interest in overall decrease or increase relative to no changes, the two “decrease” categories (i.e., “decreased a lot” and “decreased slightly”; “a lot less of a problem” and “slightly less of a problem”) and the two “increase” categories (i.e., “increased a lot” and “increased slightly”; “a lot more of a problem” and “slightly more of a problem”) were combined, resulting in a three-category distinction (see Table 1).

In addition, after being prompted to think about their peers who are getting teased and bullied electronically (i.e., bully victims) as well as their peers who are teasing and bullying electronically (i.e., bullies), adolescents reported on the relative prevalence of bully victims and bullies since the COVID-19 pandemic began, using five response options (ranging from “a lot fewer” to “a lot more”). To assess overall decrease or increase, relative to no change in the prevalence of perpetrators and victims, the response options were collapsed as follows: fewer, about the same, and more (see Table 1).

Demographics

Participants reported on their grade level, ranging from fifth to twelfth grade. For grade-level comparisons, students in high school (Grades 9–12; $n = 289$) were distinguished from those in middle school (Grades 5–8; $n = 162$). Due to low prevalence, fifth grade students ($n = 4$) were collapsed into the middle school group (one case of grade-level missingness was present). In addition, adolescents selected their gender identity from the following options: male; female; transgender; do not identify myself as male, female, or transgender. Gender differences were examined between students identifying as male versus female, excluding those identifying as transgender ($n = 7$) or another gender identity ($n = 6$) due to low prevalence.

Analytic Plan

Data were analyzed in SPSS, version 27. Descriptive information regarding adolescents' COVID-related academic worries are provided first, followed by relative changes in teacher support, and perceptions of cyberbullying. Differences in the frequency of academic worries (assessed continuously) as function of grade level (i.e., middle vs. high school) and gender identity (i.e., male vs. female) are examined using independent samples t tests. Chi-square tests were conducted to

Table 1*Adolescent Perceptions of Relative Changes in Electronic (Cyber) Bullying Since the COVID-19 Pandemic Began*

Variable	Overall (%)	Grade level		Gender	
		Middle school (%)	High school (%)	Male (%)	Female (%)
Since the COVID-19 pandemic began, electronic (cyber) teasing and bullying has ...					
Decreased	16.5	20.3	14.6	16.3	17.2
Stayed the same	50.9	49.7	51.7	53.5	47.6
Increased	32.6	30.1	33.7	30.2	35.2
Since the COVID-19 pandemic began, electronic (cyber) teasing and bullying is ...					
Less of a problem	16.5	21.1	14.2	15.8	18.0
About the same	48.7	41.5	52.6	53.8	43.4
More of a problem	34.8	37.3	33.2	30.4	38.6
Since the COVID-19 pandemic began, there are ...					
Fewer victims of bullying	25.6	31.4	22.7	28.2	24.6
About the same number of bully victims	50.0	46.4	51.7	50.0	49.1
More victims of bullying	24.4	22.1	25.7	21.8	26.3
Since the COVID-19 pandemic began, there are ...					
Fewer bullies	24.5	30.3	21.6	25.6	24.6
About the same number of bullies	53.4	47.9	56.1	55.2	50.9
More bullies	22.1	21.8	22.3	19.2	24.6

Note. Due to rounding, percentages do not always add up to 100.

investigate grade level and gender differences in adolescents' reports of relative changes in teacher support and cyberbullying since the COVID-19 pandemic began (assessed categorically).

Results

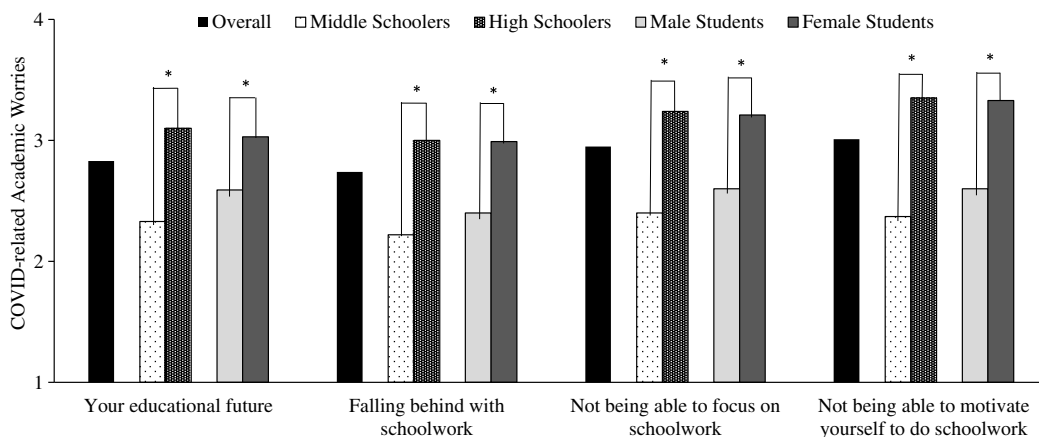
Adolescents' Worries About Their Schoolwork and Educational Futures

Adolescents' COVID-related academic worries are shown in Figure 1. Overall, worries related to academic motivation (i.e., "not being able to motivate yourself to do schoolwork," followed by "not being able to focus on schoolwork") were reported to be most frequent. Differences in the frequency of each of the academic worries emerged as a function of grade level and gender.

Specifically, when thinking about the disruption caused by the COVID-19 pandemic, compared to those in middle school, students in high school reported worrying more frequently about their educational future, $t(414) = -6.04, p < .001$, falling behind with schoolwork, $t(414) = -5.94, p < .001$, not being able to focus on schoolwork, $t(413) = -6.29, p < .001$, and not being able to motivate themselves to do schoolwork, $t(413) = -6.92, p < .001$. Within the high school grades (i.e., among those in Grades 9–12), increasing grade level was also associated with more frequent academic motivation concerns (focus on schoolwork: $r = .23, p < .001$; schoolwork motivation: $r = .14, p = .024$; falling behind on schoolwork: $r = .12, p = .050$) and worry about one's educational future ($r = .33, p < .001$). Finally, when examining differences based on gender across the full sample, compared to male students, female students reported worrying more frequently about their educational future,

Figure 1

Frequency of COVID-Related Academic Worries as a Function of Grade Level and Gender



When you think about how the COVID-19 pandemic has disrupted your life, how much do you worry about...

* $p \leq .001$.

$t(403) = -3.50, p = .001$, falling behind with schoolwork, $t(355.60) = -4.54, p < .001$, not being able to focus on schoolwork, $t(348.52) = -4.53, p < .001$, and not being able to motivate themselves to do schoolwork, $t(402) = -5.22, p < .001$.

Adolescents’ Perceptions of Changes in Support From Teachers

Adolescents’ perceptions of relative changes in teacher support since the COVID-19 pandemic are shown in Table 2. Overall, more than two-thirds of the sample (69%) reported a decrease in communication with teachers since the COVID-19 pandemic. This decrease in communication was especially pronounced among middle school students, 76% of whom reported decreased teacher communication, relative to 64% of high school students. In addition, a majority of the sample (61%) reported that academic support (e.g., homework help) from teachers has decreased since the COVID-19 pandemic. Relative changes in perceived teacher academic support during COVID-19 were consistent across male and female students, $\chi^2(4) = 1.71, p = .789$, as well as middle and high school students, $\chi^2(4) = 5.95, p = .203$. Finally, decreased emotional support from teachers was reported by nearly half of the sample (48%). Although reported changes in teacher emotional support were similar between middle and high school students [$\chi^2(4) = 4.01, p = .404$], gender differences emerged, $\chi^2(4) = 14.99, p = .005$; notably, female students (28%) were more likely than male students (16%) to report that emotional support from teachers has “decreased a lot” since the COVID-19 pandemic began.

Adolescents’ Perceptions of Changes in Cyberbullying

Table 1 shows adolescents’ perspectives on relative changes in cyberbullying since the COVID-19 pandemic. Overall, a minority

of students (16.5%–25.6%) reported decreased prevalence and significance of electronic (cyber) teasing and bullying since the onset of COVID-19. Instead, about half of students indicated that cyberbullying has stayed the same, in terms of frequency (51%) and significance (49%), and that there are about the same number of bullies (53%) and victims of bullying (50%). Notably, approximately 1-in-3 students reported an increase in cyberbullying and indicated that electronic (cyber) teasing and bullying is more of a problem. Chi-square tests revealed that the perceptions of relative changes in cyberbullying were consistent across grade levels and genders.

Taken together, COVID-related academic worries were particularly heightened among students in high school and female students; in addition, whereas most students reported decreased teacher support, cyberbullying remained relatively consistent and a third of students indicated increased frequency and significance of cyberbullying since the COVID-19 pandemic began.

Discussion

The unprecedented disruption resulting from the COVID-19 pandemic has been proposed to significantly impact youth well-being (Golberstein et al., 2020), including the academic and social lives of secondary school students (Benner & Mistry, 2020). Yet, relatively little quantitative evidence from the perspectives of adolescents themselves has been produced on this topic. Our study begins to fill this gap by detailing adolescents’ academic worries related to COVID-19 disruption as well as ensuing changes in teacher and peer relations. During a period of uncertainty and change, when social resources are especially fundamental to adolescents’ school adjustment (Eccles et al., 1993), understanding prevailing academic worries and social changes provides important

Table 2

Relative Changes in Teacher Support Since the COVID-19 Pandemic Began, Stratified by Grade Level and Gender

Variable	Decreased a lot (%)	Decreased slightly (%)	No change (%)	Increased slightly (%)	Increased a lot (%)	χ^2	<i>p</i> value
Communication with teachers							
Overall	35.3	33.3	14.4	12.2	4.8		
Grade level							
Middle school	43.1	33.3	18.8	3.5	1.4	25.80	<.001
High school	31.3	33.1	12.1	16.9	6.6		
Gender							
Male	32.9	34.7	19.7	9.2	3.5	8.91	.063
Female	37.1	31.5	11.2	14.2	6.0		
Academic support from teachers							
Overall	25.5	35.1	23.6	11.8	4.1		
Grade level							
Middle school	25.0	34.0	29.2	9.7	2.1	5.95	.203
High school	25.8	35.4	20.7	12.9	5.2		
Gender							
Male	22.0	35.8	26.0	12.7	3.5	1.71	.789
Female	27.3	34.2	22.9	11.7	3.9		
Emotional support from teachers							
Overall	24.3	23.8	37.7	10.8	3.4		
Grade level							
Middle school	22.9	19.4	43.8	10.4	3.5	4.01	.404
High school	24.7	26.2	34.7	11.1	3.3		
Gender							
Male	16.2	23.1	48.0	9.2	3.5	14.99	.005
Female	28.1	25.1	30.7	12.6	3.5		

Note. Due to rounding, percentages do not always add up to 100.

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insight into the impact of COVID-19 on schooling experiences, particularly in terms of addressing long-term effects of the pandemic.

Our findings highlight adolescents' concerns of compromised academic motivation amid the pandemic and uncertainty regarding their educational futures. These academic concerns were particularly prevalent among high school students, especially those nearing the end of high school. On top of rising demands and looming salience of postsecondary planning, the uncertainty associated with COVID-19 is likely to magnify high school students' heightened academic stress, possibly in ways that compromise psychological health (Zhou et al., 2020). In our study, female students reported more frequent pandemic-related academic worries compared to male students, aligning with the evidence of gender differences in pandemic stress among adolescents (Ellis et al., 2020; Nocentini et al., 2021) and presumptions that COVID-19 may have a more adverse educational impact on female youth (Burzynska & Contreras, 2020). It is possible that our gender difference findings reflect perceptions of declining support from teachers. Indeed, although more than half of female students in our sample reported decreased teacher emotional support, just over a third of male students reported a similar decrease. Given qualitative evidence that girls place a higher value on the affective support teachers provide relative to boys (Suldo et al., 2009), it may be that reductions in emotional exchanges (possibly due to limited one-on-one time or in-person interactions) are especially salient among female students. Nevertheless, given that subjective school stress and academic performance are inversely related (e.g., Goldstein et al., 2015), future research is needed to understand approaches of alleviating students' academic worries to minimize the potential for pandemic-induced underachievement.

Given the fundamental role teachers play in fostering feelings of security and assuredness (Wang & Eccles, 2012), the overall reduction in support from teachers reported by participants in our study is notable, and likely contributes to students' COVID-related academic worries. In fact, over two-thirds of the sample indicated that communication with teachers has decreased since the pandemic began. This limited communication is consistent with evidence from the early months of the pandemic, showing that nearly a quarter of teens were connecting less than once a week with their teachers while in-person school activities were cancelled (Wronski, 2020). In addition to hampering focus on schoolwork, declines in communication with teachers may also limit opportunities for academic and emotional support from teachers, which showed similar pandemic-related decreases in our study. During a time when teachers are facing significant demands (e.g., navigating new learning modalities, technology challenges, familial obligations, and COVID-19-related health concerns), our findings emphasize the need for schools to ensure that teachers themselves have the resources they need to adequately support their students. At the same time, adolescents can be encouraged to provide support for one another, such as homework help and study assistance. Insofar as peer-to-peer learning increases school affect and engagement (Wentzel et al., 2018), to the extent possible, educators can capitalize on group learning activities and facilitate peer social connections while away from school.

Despite the potential for peers to function as sources of academic and emotional support for students, our results also

uniquely paint a picture of peer dynamics that has remained relatively consistent during the pandemic. Indeed, despite presumptions that remote learning may protect students from peer victimization (Fegert et al., 2020), our findings suggest that electronic (cyber) teasing and bullying, both in terms of prevalence and potency, has not improved during this time period. Instead, most adolescents reported that cyberbullying has remained relatively consistent, and a third of students indicated increases in the frequency of cyberbullying and noted that cyberbullying has been more of a problem during the pandemic. Adolescents' perception of how COVID-19 has impacted bullying experiences is important given that the consequences of cyberbullying extend beyond victims, also to those who witness such negative peer mistreatment (Doumas & Midgett, 2020). Given that only generalized bullying was assessed in the present study, future research is needed to investigate whether specific sociodemographic groups are disproportionately targeted. For example, in light of recent evidence documenting that nearly half (46%) of Chinese American youth have directly experienced COVID-19-related racial discrimination online (Cheah et al., 2020), additional attention is needed toward bias-based bullying in particular.

Limitations

Although the current findings provide important insights about the impact of the COVID-19 pandemic on the schooling experiences of U.S. secondary school students, several limitations should be noted. First, we cannot presume our findings generalize across diverse populations. Given concurrent attention toward systemic racism and racial injustice, students from minority racial backgrounds may feel especially depleted and distracted from schoolwork during the pandemic. In addition, students from families with less economic advantage may have fewer home resources to keep up with the demands of remote learning, possibly heightening academic stress relative to their more economically well-off peers (Masonbrink & Hurley, 2020). Furthermore, students attending underresourced schools may be more likely to experience a decline in communication and support from teachers given excessive strain on educators. As such, it is critical that ongoing studies carefully consider the unique toll COVID-19 may play on diverse underserved populations, and reduce barriers to research participation. For example, it is possible that the online nature of our questionnaire inhibited students with limited internet access from participating in the present survey.

In addition, given that our measures were developed with specific regard to the COVID-19 pandemic, it will be important to obtain further psychometric information about the present assessments (e.g., test-retest reliability). Also, future studies with more extensive measures and multi-informant methods (e.g., teacher reports) should be considered to gain a nuanced understanding of changes in support during the pandemic. For example, supportiveness may vary across teachers based on training and skill sets for delivering remote instruction, and, other interpersonal sources, such as school counselors, parents, and coaches, could function as compensatory supports for students. Finally, although our assessment of relative changes in teacher support and bullying provides unique insight into the overall disruption within students' academic and social experiences, this approach lacks insight into pre-pandemic mean

levels. Relatedly, given that the present data were collected at a single time point, subsequent longitudinal research is needed to paint a clearer picture of the impact of the COVID-19 pandemic, including assessment of changes in adolescents' pre-COVID school experiences and achievement across the entirety of the pandemic and beyond.

Conclusion and Implications

Navigating secondary school, including academic and social demands, is challenging even when there is not a global pandemic occurring. Our study results underscore the challenge of staying academically motivated amid the COVID-19 pandemic, and highlight the ongoing presence of cyberbullying during this time period, alongside considerable decreases in support and communication with teachers. To assuage academic worries, particularly those rooted in uncertainty (e.g., uncertainty surrounding learning modalities, expectations surrounding grading), schools should aim to cultivate structure and routine for students as the pandemic continues (Ren et al., 2021). In addition, at a time of heightened isolation, students' secondary schooling experiences are likely to benefit from more frequent check-ins and social connection; student support may be enhanced via whole-school approaches that engage a broad range of school community members. When teachers' unprecedented demands prevent consistent communication with students, promoting opportunities for peer-to-peer support via group activities and assignments may enhance academic affect and positive schooling experiences for adolescents.

References

- Barber, B. K., & Olsen, J. A. (2004). Assessing the transitions to middle and high school. *Journal of Adolescent Research, 19*(1), 3–30. <https://doi.org/10.1177/0743558403258113>
- Becker, S. P., Quach, J. L., Dvorsky, M. R., Breaux, R., Melvin, G. A., & Sciberras, E. (2020). *Home adjustment to COVID-19 Scale (HACS)*. <https://osf.io/mpcjs/>
- Benner, A. D., & Mistry, R. S. (2020). Child development during the COVID-19 pandemic through a life course theory lens. *Child Development Perspectives, 14*(4), 236–243. <https://doi.org/10.1111/cdep.12387>
- Bru, E., Stormes, T., Munthe, E., & Thuen, E. (2010). Students' perceptions of teacher support across the transition from primary to secondary school. *Scandinavian Journal of Educational Research, 54*(6), 519–533. <https://doi.org/10.1080/00313831.2010.522842>
- Burzynska, K., & Contreras, G. (2020). Gendered effects of school closures during the COVID-19 pandemic. *Lancet, 395*, Article e1968. [https://doi.org/10.1016/S0140-6736\(20\)31377-5](https://doi.org/10.1016/S0140-6736(20)31377-5)
- Cheah, C. S. L., Wang, C., Ren, H., Zong, X., Cho, H. S., & Xue, X. (2020). COVID-19 racism and mental health in Chinese American families. *Pediatrics, 146*(5), Article e2020021816. <https://doi.org/10.1542/peds.2020-021816>
- Cohen, C., Cadima, G., & Castellanos, D. (2020). Adolescent well-being and coping during COVID-19: A US-based survey. *Journal of Pediatrics and Neonatology, 2*(1), 15–20.
- Craig, W., Boniel-Nissim, M., King, N., Walsh, S. D., Boer, M., Donnelly, P. D., Harel-Fisch, Y., Malinowska-Cieřlik, M., Gaspar de Matos, M., Cosma, A., Van den Eijnden, R., Vieno, A., Elgar, F. J., Molcho, M., Bjereld, Y., & Pickett, W. (2020). Social media use and cyber-bullying: A cross-national analysis of young people in 42 countries. *Journal of Adolescent Health, 66*(6), S100–S108. <https://doi.org/10.1016/j.jadohea.2020.03.006>
- Doumas, D. M., & Midgett, A. (2020). Witnessing cyberbullying and internalizing symptoms among middle school students. *European Journal of Investigation in Health, Psychology and Education, 10*(4), 957–966. <https://doi.org/10.3390/ejihpe10040068>
- DuBois, D. L., Felner, R. D., Brand, S., Adan, A. M., & Evans, E. G. (1992). A prospective study of life stress, social support, and adaptation in early adolescence. *Child Development, 63*(3), 542–557. <https://doi.org/10.2307/1131345>
- Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C. M., Reuman, D., Flanagan, C., & Iver, D. M. (1993). Development during adolescence. The impact of stage-environment fit on young adolescents' experiences in schools and in families. *American Psychologist, 48*(2), 90–101. <https://doi.org/10.1037/0003-066X.48.2.90>
- Ellis, W. E., Dumas, T. M., & Forbes, L. M. (2020). Physically isolated but socially connected: Psychological adjustment and stress among adolescents during the initial COVID-19 crisis. *Canadian Journal of Behavioural Science, 52*(3), 177–187. <https://doi.org/10.1037/cbs0000215>
- Fegert, J. M., Vitiello, B., Plener, P. L., & Clemens, V. (2020). Challenges and burden of the Coronavirus 2019 (COVID-19) pandemic for child and adolescent mental health: A narrative review to highlight clinical and research needs in the acute phase and the long return to normality. *Child and Adolescent Psychiatry and Mental Health, 14*, Article 20. <https://doi.org/10.1186/s13034-020-00329-3>
- Garbe, A., Ogurlu, U., Logan, N., & Cook, P. (2020). Parents' experiences with remote education during COVID-19 school closures. *American Journal of Qualitative Research, 4*(3), 45–65. <https://doi.org/10.29333/ajqr/8471>
- Golberstein, E., Wen, H., & Miller, B. F. (2020). Coronavirus disease 2019 (COVID-19) and mental health for children and adolescents. *JAMA Pediatrics, 174*(9), 819–820. <https://doi.org/10.1001/jamapediatrics.2020.1456>
- Goldstein, S. E., Boxer, P., & Rudolph, E. (2015). Middle school transition stress: Links with academic performance, motivation, and school experiences. *Contemporary School Psychology, 19*(1), 21–29. <https://doi.org/10.1007/s40688-014-0044-4>
- Imran, N., Zeshan, M., & Pervaiz, Z. (2020). Mental health considerations for children & adolescents in COVID-19 pandemic. *Pakistan Journal of Medical Sciences, 36*(COVID19-S4), S67–S72. <https://doi.org/10.12669/pjms.36.COVID19-S4.2759>
- Juvonen, J., Espinoza, G., & Knifsend, C. (2012). The role of peer relationships in student academic and extracurricular engagement. In S. L. Christenson, A. L. Reschly, & C. Wylie (Eds.), *Handbook of research on student engagement* (pp. 387–401). Springer. https://doi.org/10.1007/978-1-4614-2018-7_18
- Juvonen, J., & Graham, S. (2014). Bullying in schools: The power of bullies and the plight of victims. *Annual Review of Psychology, 65*(1), 159–185. <https://doi.org/10.1146/annurev-psych-010213-115030>
- Juvonen, J., Wang, Y., & Espinoza, G. (2011). Bullying experiences and compromised academic performance across middle school grades. *Journal of Early Adolescence, 31*(1), 152–173. <https://doi.org/10.1177/0272431610379415>
- Ladouceur, C. D. (2020). *COVID-19 adolescent symptom & psychological experience questionnaire (CASPE)*. https://www.nlm.nih.gov/dr2/CA_SPE_AdolSelfReport_Qualtrics.pdf
- Lessard, L. M., Lawrence, S. E., & Puhl, R. M. (2021). Weight-based victimization and school performance in adolescence: Can teachers help reduce academic risks? *School Psychology, 36*(1), 69–74. <https://doi.org/10.1037/spq0000371>
- Li, W., Zhang, Y., Wang, J., Ozaki, A., Wang, Q., Chen, Y., & Jiang, Q. (2021). Association of home quarantine and mental health among teenagers in Wuhan, China, during the COVID-19 pandemic. *JAMA Pediatrics, 175*(3), 313–316. <https://doi.org/10.1001/jamapediatrics.2020.5499>
- Masonbrink, A. R., & Hurley, E. (2020). Advocating for children during the COVID-19 school closures. *Pediatrics, 146*(3), Article e20201440. <https://doi.org/10.1542/peds.2020-1440>

- Nocentini, A., Palladino, B. E., & Menesini, E. (2021). Adolescents' stress reactions in response to COVID-19 pandemic at the peak of the outbreak in Italy. *Clinical Psychological Science, 9*(3), 507–514. <https://doi.org/10.1177/2167702621995761>
- Ren, H., He, X., Bian, X., Shang, X., & Liu, J. (2021). The protective roles of exercise and maintenance of daily living routines for Chinese adolescents during the COVID-19 quarantine period. *Journal of Adolescent Health, 68*(1), 35–42. <https://doi.org/10.1016/j.jadohealth.2020.09.026>
- Rogers, A. A., Ha, T., & Ockey, S. (2021). Adolescents' perceived socio-emotional impact of COVID-19 and implications for mental health: Results from a U.S.-based mixed-methods study. *Journal of Adolescent Health, 68*(1), 43–52. <https://doi.org/10.1016/j.jadohealth.2020.09.039>
- Scott, S. R., Rivera, K. M., Rushing, E., Manczak, E. M., Rozek, C. S., & Doom, J. R. (2021). "I Hate This": A qualitative analysis of adolescents' self-reported challenges during the COVID-19 pandemic. *Journal of Adolescent Health, 68*(2), 262–269. <https://doi.org/10.1016/j.jadohealth.2020.11.010>
- Strøm, I. F., Thoresen, S., Wentzel-Larsen, T., & Dyb, G. (2013). Violence, bullying and academic achievement: A study of 15-year-old adolescents and their school environment. *Child Abuse & Neglect, 37*(4), 243–251. <https://doi.org/10.1016/j.chiabu.2012.10.010>
- Suldo, S. M., Friedrich, A. A., White, T., Farmer, J., Minch, D., & Michalowski, J. (2009). Teacher support and adolescents' subjective well-being: A mixed-methods investigation. *School Psychology Review, 38*(1), 67–85. <https://doi.org/10.1080/02796015.2009.12087850>
- U.S. Census Bureau. (2020). *Household pulse survey*. <https://usafacts.org/articles/65-of-childrens-education-has-moved-online-during-covid-19/>
- Wang, M.-T., & Eccles, J. S. (2012). Social support matters: Longitudinal effects of social support on three dimensions of school engagement from middle to high school. *Child Development, 83*(3), 877–895. <https://doi.org/10.1111/j.1467-8624.2012.01745.x>
- Wentzel, K. R., Battle, A., Russell, S. L., & Looney, L. B. (2010). Social supports from teachers and peers as predictors of academic and social motivation. *Contemporary Educational Psychology, 35*(3), 193–202. <https://doi.org/10.1016/j.cedpsych.2010.03.002>
- Wentzel, K. R., Jablansky, S., & Scalise, N. R. (2018). Do friendships afford academic benefits? A meta-analytic study. *Educational Psychology Review, 30*, 1241–1267. <https://doi.org/10.1007/s10648-018-9447-5>
- Wronski, L. (2020). *Common Sense Media|SurveyMonkey poll: Coronavirus and teenagers*. <https://www.surveymonkey.com/curiosity/common-sense-media-coronavirus/>
- Zhou, S.-J., Zhang, L.-G., Wang, L.-L., Guo, Z.-C., Wang, J.-Q., Chen, J.-C., Liu, M., Chen, X., & Chen, J.-X. (2020). Prevalence and socio-demographic correlates of psychological health problems in Chinese adolescents during the outbreak of COVID-19. *European Child & Adolescent Psychiatry, 29*(6), 749–758. <https://doi.org/10.1007/s00787-020-01541-4>

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