AUTHENTIC CONNECTIONS

High Achieving Schools Survey: Peer Relationships During COVID

October 2021

Peer Relationships During COVID

Executive Summary

In this paper, we report on aspects of peer relationships most likely to be linked with vulnerability versus resilience in adolescents' mental health during the fall semester of 2020, five months after the mandatory pandemic-related school closures that began in late March 2020. The sample consists of **4,182 middle and high school students from 10 independent and public schools** with considerable diversity; one third of students overall were racial/ethnic minorities, and between 16-47% at each school received financial aid or tuition assistance.

Six aspects of peer relationships were assessed: *Social Media Comparisons, Envy, Negative Social Media, Victimization, Sexting,* and *Peer Sexual Harassment*. Findings showed three aspects that emerged as top predictors of student symptoms. ***Social Media Comparisons*** **were strongly linked with both *Depression* and *Anxiety*, overall and for all subgroups. *Sexting* was strongly linked with *Rule Breaking* and *Substance Use*, overall and for most subgroups.** When examined separately by grade level division, *Peer Sexual Harassment* was the top predictor of *Rule Breaking* and *Substance Use* among both high school and middle school students. Additional analyses were conducted to determine which subgroups of adolescents might be most vulnerable. Notably **higher vulnerability** was found for **gender non-binary students** on all symptoms as well as *Peer Sexual Harassment, Sexting, Negative Social Media,* and *Victimization*, **female students** on *Anxiety* and *Rule-Breaking* as well as on *Social Media Comparisons* and *Envy*, **high school students** on all symptoms as well as *Social Media Comparisons, Sexting*, and *Peer Sexual Harassment,* and **Hispanic students** on *Depression, Rule-Breaking, Social Media Comparisons*, and *Sexting*.

Overall, findings provide directions for preventive interventions as COVID-related stressors continue, with particular attention to the aspects of peer relationships noted above and the subgroups of students identified as especially vulnerable.

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PEER RELATIONSHIPS DURING COVID

This report describes findings on student mental health and peer relationships during COVID. This report is the third in a five-part series, with Part 1 introducing methods and presenting data on symptom rates in student subgroups, and with each of Parts 2-5 focusing on a specific aspect of student life with essential implications for mental health and well-being. The aspects are **Parent Relationships** (Part 2), **Peer Relationships**, **School Climate**, and **Individual Student Attributes**.

PEER RELATIONSHIPS IN ADOLESCENCE

One defining characteristic of adolescence is **the increasing importance and influence of friends** as youth strive for independence from their parents (Meuwese et al., 2017). Research shows that peer relationships can serve as both risk and protective factors in adolescent mental health and well-being; while **positive peer interactions provide crucial social and emotional support** protecting against depression and anxiety, **negative interactions can lead to poor self-concept, low self-worth, and thus increase the risk of depression and anxiety** (Lebowitz et al., 2019). A second defining characteristic of this stage is the combination of **heightened social sensitivity and emotional reactivity with underdeveloped self-regulatory skills** that makes adolescents particularly vulnerable to interpersonal stress and peer conflict (Bailen et al., 2019; Collins & Steinberg, 2006).

Difficulties with peer relationships can place adolescents at increased risk for poor mental health. Achenbach (1966) distinguished between two types of symptoms common among adolescents: **internalizing symptoms** include anxiety, depression, withdrawal, and somatic complaints, while **externalizing symptoms** include substance use and other forms of delinquent or aggressive behavior. Research in developmental science has shed light on the amplifying role that close friendships can have on adolescents' pre-existing tendencies toward internalizing and externalizing symptoms: Costello and colleagues (2020) found that adolescents' internalizing symptoms were predicted by a process, first described by Rose (2002), called **co-rumination**– where friends **excessively and non-productively discuss and rehash problems** and their associated negative feelings– while

externalizing symptoms were predicted by **deviancy-training**– a process in which peers **mutually encourage and reinforce ("egg on") problem behavior**. However, for students with lower levels of baseline symptoms and higher levels of well-being, **close friendships had a protective effect against poor mental health** (Costello et al., 2020). These findings underscore the importance of promoting healthy friendships among adolescents while working to identify and aid those most at risk for harmful relationships.

PEER RELATIONSHIPS AND WELL-BEING DURING COVID

The many changes and restrictions brought on by the COVID-19 pandemic have been particularly hard on adolescent relationships. The shift to remote learning, the disruption to extracurricular activities, and the enactment of social distancing rules have **led to reduced face-to-face contact with friends**. Prior research has shown that **low quality friendships, social isolation, loneliness, and peer victimization are associated with higher levels of depression in teens** (Hankin et al., 2015; Loades et al., 2020). Moreover, the lack of peer interactions may heighten adolescents' **anxiety about close friendships, social status, and peer belonging** (Ellis et al., 2020). In a survey of 248 adolescents assessed during COVID, researchers found that **teens with lower levels of social connectedness during lockdowns reported higher levels of depression and anxiety and lower levels of life satisfaction**; additionally, among the top issues most distressing for respondents were **not being able to see their friends and not being able to participate in extracurricular activities or attend social events** (Magson et al., 2021).

Social Media

Social media use among adolescents was high even before COVID. National surveys show that **over 90% of teens aged 13-17 have used social media, and 51% visit a social media site at least once a day** (AACAP, 2018). Of course, there are benefits to social media use: in a survey of 1,513 young adults ages 14-22, 53% said that social media was very important for **staying connected to family and friends** during COVID, 34% said it was very important for **being informed about current events**, and 31% said it was very important for **learning to protect themselves against COVID** (Rideout et al., 2021).

While social media may have served as a social lifeline during COVID, there are risks involved. In a survey of 1,054 adolescents, researchers found that **more time spent on social media was linked to higher depression** (Ellis et al., 2020). Rideout and colleagues (2021) report that over **25% of teens said they *often* encounter hate speech on social**

media, including body shaming (29%), racist comments (27%), sexist comments (26%), and homophobic comments (23%); they also found that **teens in marginalized groups were more likely to encounter targeted hate speech**, with youth of color more likely to encounter racism, young women more likely to face sexism, and LGBTQIA+ youth more likely to face discrimination. In a survey of 2,909 parents conducted by researchers at the Lurie Children's Hospital of Chicago (2020), parents expressed concern about **social media preventing their child from getting enough sleep** (58%) or **enough physical activity** (57%), and **creating an unhealthy desire for attention and approval** (51%). Other evidence from developmental science has linked adolescent social media use to **upward social comparisons, envy, lower body satisfaction, and fear of missing out** (Fabris et al., 2020; Jarman et al., 2021; Radovic et al., 2017).

Social Comparisons and Peer Envy

In recently-published research examining the relationship of achievement pressures to mental health among youth in high-achieving schools, we found that **social media comparisons were consistently and powerfully linked to internalizing symptoms** in all student subgroups (Luthar et al., 2020b). This finding– that social media comparisons are linked to increased anxiety and depression in youth– is especially important given that **social media platforms inherently incite comparisons among users**. Researchers have referred to social media as a "comparison trap" that encourages users to base their judgements of self-worth on the numbers of followers, likes, and shares garnered by their online activity (Webber, 2017). Research has also shown that **comparisons of the quality of their lives to those of others based on social media postings impact users' self-esteem**, and that **upward comparisons– i.e., comparisons with others perceived to be superior– are most strongly linked with poor well-being** (Fardouly & Vartanian, 2015; Vogel et al., 2014). The potential for ill-effects of social media comparisons is intensified among youth in high-achieving schools, where personal achievement is both highly valued and exceedingly common (Fang et al., 2018).

Closely related to social comparisons is **envy**, which refers to "an unpleasant and often painful blend of feelings characterized by feelings of inferiority, hostility, and resentment" (Smith & Kim, 2007, p. 47). Research has shown that **youth in high-achieving schools report high levels of envy towards peers who surpass them in areas such as popularity, attractiveness, and athletics**; additionally, high levels of envy were linked with higher levels of externalizing problems (substance use, delinquency, aggression) and lower relatedness, especially among females (Lyman & Luthar, 2014).

Negative Interactions With Peers

Another important aspect of peer relationships involves **negative interactions such as meanness, bullying, and victimization**. In competitive environments like high-achieving schools, there are **risks for heightened envy and antipathy as students strive to be the "best of the best"** (Lyman & Luthar, 2014). Research has shown that envy involves feelings of inferiority, hostility, and resentment that, when taken out on others, can lead to distress in those victimized (Vogel et al., 2014). Moreover, studies on adolescent development have shown relationships between relational victimization (e.g., being gossiped about or being left out) and high levels of distress (Murray-Close et al., 2017). In this paper, we report on two forms of negative peer interactions occurring online as well as in-person: the frequency and source of **negative interactions on social media** ("How often are mean things said to or about you on social media by…?"), and the experience of **relational peer victimization**, including teasing, bullying, humiliation, gossip, and being excluded.

Sexting and Sexual Harassment

Closely related to social media use is the rise of ***sexting***, which involves the sending, receiving, or forwarding of text, images, or videos of a sexual nature via technological devices. A study of over 110,000 youth found that **15% of adolescents have sent sexts while 27% have received them** (Madigan et al., 2018). Evidence suggests that sexting becomes more common with age; one study reported that rates of **sexting increased from 3% at age 12 to 32% at age 18** (Dake et al., 2012). Evidence also shows differences by gender, with **females more likely to send or feel pressured to send sexts and males more likely to receive sexts** (Klettke et al., 2014). Females are also more likely to report negative experiences with sexting and facing harsh social judgment for sexting (Buren & Lunde, 2018). While sexting, like other sexually explorative behaviors, may be a part of normative and healthy adolescent development, there is evidence to suggest that concern is warranted. A study of 41,723 adolescents found that **youth who sexted were four times more likely to have sexual intercourse, five times more likely to have multiple sexual partners, and only half as likely to practice safe sex** than youth who did not sext (Mori et al., 2019). Adolescent sexting has also been **linked to negative adjustment outcomes such as substance use and depression** (Medrano et al., 2018; Mori et al., 2019).

Another factor to consider is consent. ***Nonconsensual sexting*** includes the sending, receiving, or forwarding of sexts without consent, and is considered a form of **non-**

contact sexual violence by the Centers for Disease Control and Prevention (Basile et al., 2014). Studies show that **12% of middle and high schoolers admit to forwarding sexts without consent, while 15% of young adults (18-29) have done so** (Madigan et al., 2018; Mori et al., 2021). Another study found that **LGBT teens were more likely to experience having their sexts forwarded without their consent** (Pampati et al., 2020). This is troubling, as nonconsensual sexting has been linked to interpersonal violence, bullying, depression, and suicide (Pampati et al., 2020, Madigan et al., 2018)– and also to serious legal consequences.

Taken together, the findings reviewed in this section highlight the salience of adolescents' relationships with peers for their mental health and well-being. Therefore, this report will present findings on student symptoms in relation to six essential aspects of peer relationships, both online and in-person: ***Social Media Comparisons***, ***Envy***, ***Negative Social Media***, ***Victimization***, ***Sexting***, and ***Peer Sexual Harassment***. We will seek to answer two key questions: **1) Which specific aspects of peer relationships truly matter for students' mental health?** and **2) Which subgroups are most at-risk in terms of peer relationships?**

THE FALL 2020 HIGH ACHIEVING SCHOOLS SURVEY

During the Fall semester of the 2020-2021 school year, **AC** partnered with independent and public schools across the United States to administer the **High Achieving Students Survey (HASS)** to 4,182 middle and high school students (for more details about the sample, see Authentic Connections, June 2021). The **HASS** is a comprehensive mixed-methods survey with both quantitative and open-ended questions, and is designed to be completed online by students in a single class period (approximately 30-45 minutes). At the time of assessment, participating schools were in either full in-person learning mode or in a hybrid format including both in-person and remote learning.

MEASURES

Student Symptoms

The **HASS** measured four components of student mental health and well-being: ***Depression***, ***Anxiety***, ***Rule Breaking*** (i.e., behaviors such as cheating and stealing), and ***Substance Use***. For each component, five questions asked students to report how

frequently they experienced the symptom in question on a 5-point scale (0 = never, 4 = very often). The items were taken from the **Well-Being Index**, a psychometrically-validated measure of adolescent mental health symptoms (Luthar et al., 2020a).

Peer Predictors

The **HASS** assessed six constructs related to peer relationships: ***Social Media Comparisons***, ***Envy***, ***Negative Social Media***, ***Victimization***, ***Sexting***, and ***Peer Sexual Harassment***. Table 1 presents examples of items for each construct (all were rated on a 5-point scale: 1 = strongly disagree/not at all, 5 = strongly agree/very much).

Construct	Number of Items	Sample Item
Social Media Comparisons	3	After viewing other people's social media, how often do you feel your life is not as exciting or interesting as others'?
Envy	3	How much would it bother you, or make you feel jealous, if your friends got better grades than you?
Negative Social Media	3	How often are mean things said to you on social media by good friends?
Victimization	5	Students at my school tease or pick on me.
Sexting	3	How often have you sent a photo or video of yourself in underwear or lingerie?
Peer Sexual Harassment	6	In the past six months, how often has someone made an unwelcome sexual comment, joke, or gesture to or about you?

Table 1. Peer Relationship Constructs and Items

KEY FINDINGS

Descriptive Data on Daily Time Use

The **HASS** asked students to estimate the number of hours spent on each of the following on a typical day: 1) **screens** (e.g., computers, tablets, phones), 2) **social media** (e.g., Snapchat, TikTok, Instagram, Twitter, YouTube, Reddit), 3) **homework**, and 4) **sleep**. Figure 1 illustrates daily time spent on each of these 4 areas.

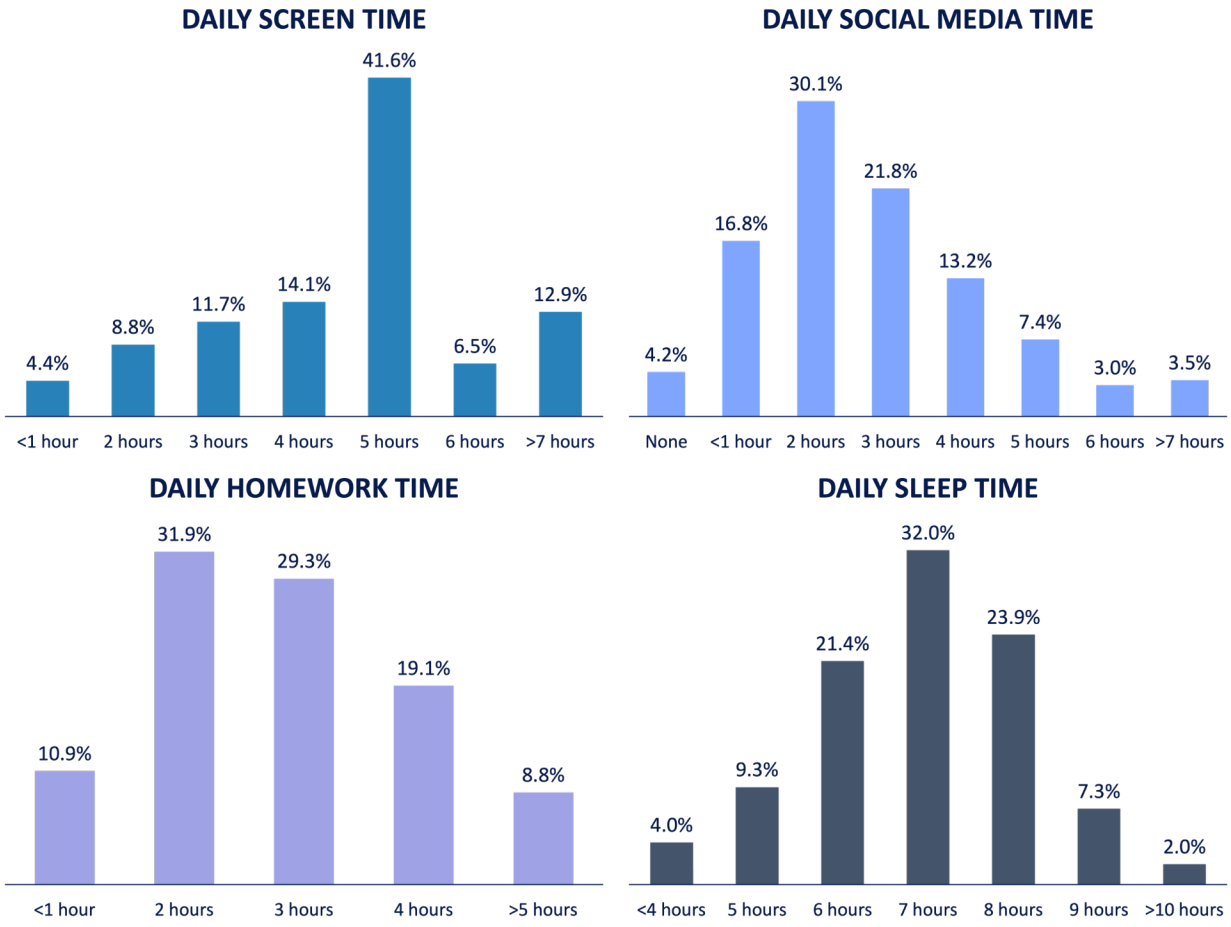

Figure 1. Typical Daily Time on Screens, Social Media, Homework, and Sleep

As shown in Figure 1, most students reported spending 5 hours per day on screens, and 2 hours per day on social media. Most students spent 2-3 hours per day on homework, and 7 hours per day on sleep.

Top Peer Predictors of Student Symptoms

We conducted multiple regression analyses to identify which of the peer constructs examined were most strongly linked to student symptoms. Figure 2 presents the top peer predictor of each student symptom, both overall and within each subgroup.

	Depression	Anxiety	Rule Breaking	Substance Use
OVERALL	**Social Media Comparisons**	**Social Media Comparisons**	**Sexting**	**Sexting**
Male	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Female	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Non-Binary	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
White	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Black	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Asian	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Hispanic	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Other Ethnicities	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Middle School	Social Media Comparisons	Social Media Comparisons	Peer Sexual Harassment	Peer Sexual Harassment
High School	Social Media Comparisons	Social Media Comparisons	Peer Sexual Harassment	Peer Sexual Harassment
In-Person Learning	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Hybrid Learning	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Remote Learning	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Day Student	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Boarding Student	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
International Student	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Domestic Student	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
Receives Financial Aid	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting
No Financial Aid	Social Media Comparisons	Social Media Comparisons	Sexting	Sexting

Figure 2. Top Peer Predictor of Each Student Symptom [1]

As shown in Figure 2, a high level of ***Social Media Comparisons*** **was the strongest predictor of *Depression* and *Anxiety*** in the overall sample of students and for all demographic subgroups examined, showing that students' feelings of personal inadequacy upon viewing peers' social media posts were linked to higher levels of internalizing symptoms. ***Sexting*** **was the top predictor of *Rule Breaking* and *Substance Use***, overall and for 17 of 19 subgroups, suggesting that students who sexted more often also engaged in more externalizing behaviors. However, **when examined by grade level division, *Peer Sexual Harassment* was the top predictor of *Rule Breaking* and *Substance Use* for both high school and middle school students**.

Table 2 presents regression beta coefficients showing the strength of the effect of each predictor on each outcome. In psychological research, a beta coefficient larger than ±0.20 is generally considered "meaningful" or "noteworthy". As shown, large

beta coefficients were observed for ***Social Media Comparisons*** with ***Depression*** (0.47) and ***Anxiety*** (0.39), and for ***Sexting*** with ***Rule Breaking*** (0.25) and ***Substance Use*** (0.30). These values show the clear, strong salience of ***Social Media Comparisons*** and ***Sexting*** for adolescent mental health symptoms.

	Social Media Comparisons	Peer Sexual Harassment	Sexting
Depression	**0.47**	0.05	0.05
Anxiety	**0.39**	0.06	-
Rule Breaking	0.08	0.09	**0.25**
Substance Use	-	0.10	**0.30**

Table 2. Regression Beta Coefficients

The next section of this report presents clinically significant levels of the top three aspects of peer relationships most powerfully linked to students' mental health, in the overall sample: ***Social Media Comparisons***, ***Sexting***, and ***Peer Sexual Harassment***.

Overall Levels of Top Peer Predictors

Figure 3 presents the percentage of students overall with clinically significant levels of the top three peer predictors– that is, students who responded ***sometimes***, ***often***, or ***very often*** when asked how frequently they engaged in ***Social Media Comparisons*** or were subject to ***Peer Sexual Harassment***, and also those who responded ***monthly***, ***weekly***, or ***daily*** when asked how often they engaged in ***Sexting***.

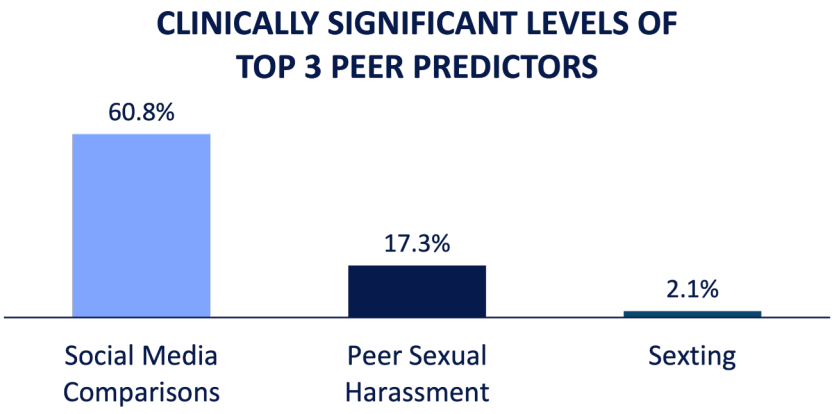

Figure 3. Top Peer Predictors in the Overall Sample

As shown in Figure 3, **61% of students surveyed have experienced harmful *Social Media Comparisons*** and **17% of students reported having been subject to *Peer Sexual Harassment*.**

The most frequently experienced forms of sexual harassment were having a peer make unwelcome sexual comments, jokes, or gestures (27%) and being shown or sent unwelcome sexual pictures (16%). Only 2.1% of students surveyed reported engaging in sexting on a regular (i.e., monthly, weekly, or daily) basis. Of the students who have engaged in sexting, most reported doing so only ever once or twice.

In order to detect key differences that may not be visible in the overall sample of all students, the next section of this report will examine clinically significant rates of the top 3 peer predictors of student mental health– ***Social Media Comparisons***, ***Sexting***, and ***Peer Sexual Harassment***– separately by gender, ethnicity/race, and grade level division. Additional analyses are presented in the Appendix.

Rates of Peer Predictors in Student Subgroups

Part 1 of this report introduced the underlying theory and methods and presented data on symptom rates within different student subgroups. To reiterate the findings on symptom rates, we found that three particular subgroups stood out. First, **gender non-binary students had higher levels of all symptoms** assessed than males and females. Second, **high school students had higher levels of all symptoms assessed** than middle school students. Third, considered by ethnicity/race, **White students were most likely to report serious rates of *Substance Use***.

Figures 4-12 in this section show the percentage of students reporting frequent ***Social Media Comparisons***, ***Sexting***, and ***Peer Sexual Harassment*** separately by gender identity, race/ethnicity, and grade level division; the black bar shows the sample average (i.e., for all 4,182 students across the 10 schools).

Rates of Social Media Comparisons

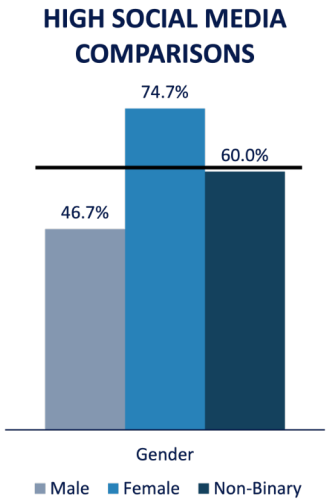

Figure 4.
Social Media Comparisons by Gender Identity

As shown in Figure 4 [2], the percentage of students reporting high levels of ***Social Media Comparisons*** was highest among females (74.7%) and gender non-binary students (60.0%) and lowest among males (46.7%).

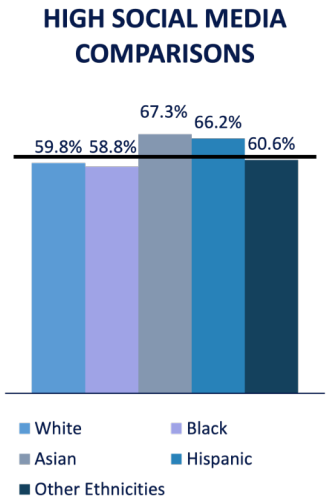

Figure 5.
Social Media Comparisons by Ethnicity/Race

Figure 5 shows the percentage of students reporting high rates of ***Social Media Comparisons*** separately by race/ethnicity. As shown, Asian and Hispanic students (67.3% and 66.2%, respectively) were most likely to report frequent ***Social Media Comparisons*** [3].

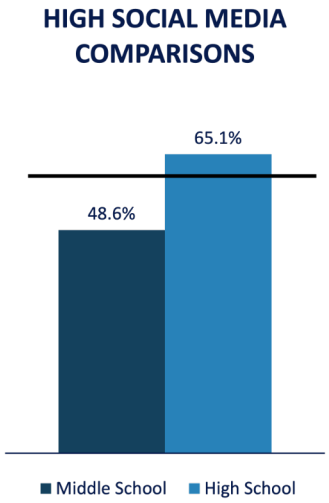

Figure 6.
Social Media Comparisons by Grade Level

Figure 6 shows the percentage of students reporting high ***Social Media Comparisons*** separately by grade level division. As shown, high school students (65.1%) were more likely than middle school students to report frequent ***Social Media Comparisons*** [4].

Rates of Sexting

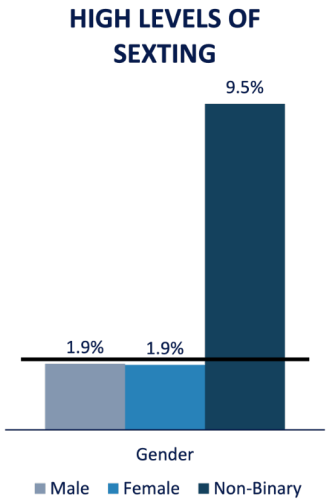

Figure 7.
Sexting by Gender Identity

Figure 7 shows the percentage of students reporting frequent ***Sexting*** (monthly, weekly, or daily) by gender identity. As shown, gender non-binary students were five times more likely than either males or females to report high levels of ***Sexting*** (9.5% vs. 1.9%) [5].

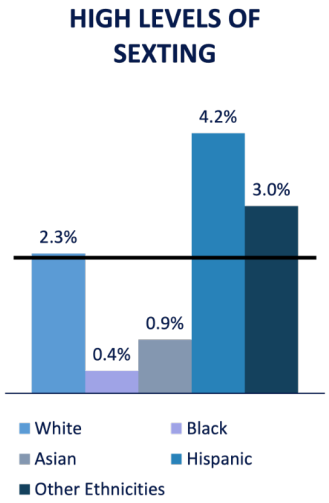

Figure 8.
Sexting by Ethnicity/Race

Figure 8 shows the percentage of students reporting frequent ***Sexting*** by race/ethnicity. As shown, rates of ***Sexting*** among Hispanic students were twice as high as those in the overall sample (4.2% vs. 2.1%); rates were also high among students in the Other Ethnicities group and among White students [6].

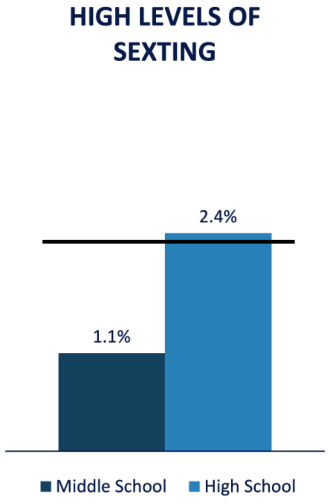

Figure 9.
Sexting by Grade Level

Figure 9 shows the percentage of students reporting frequent ***Sexting*** by division. As shown, rates of ***Sexting*** were low among both divisions but were higher among high school students (2.4%) than among middle school students [7].

Rates of Peer Sexual Harassment

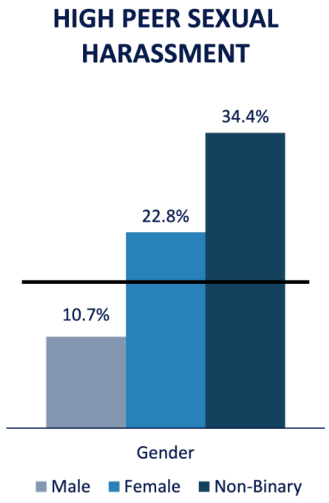

Figure 10.
Peer Sexual Harassment by Gender Identity

Figure 10 shows the percentage of students reporting frequent ***Peer Sexual Harassment*** by gender identity. As shown, rates of ***Peer Sexual Harassment*** were highest among gender non-binary students (34.4%) and females (22.8%) [8].

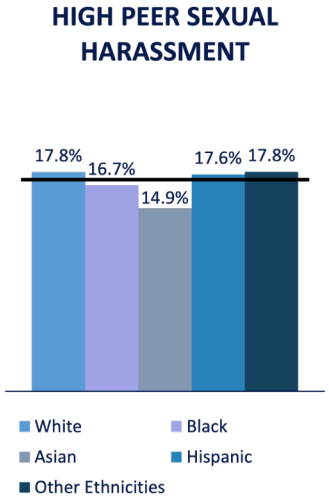

Figure 11.
Peer Sexual Harassment by Ethnicity/Race

Figure 11 shows the percentage of students reporting frequent ***Peer Sexual Harassment*** by race/ethnicity. As shown, above-average rates of ***Peer Sexual Harassment*** were reported by students in the Other Ethnicities group (17.8%), White students (17.8%), and Hispanic students (17.6%) [9].

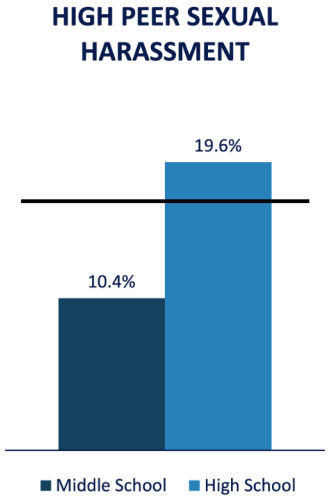

Figure 12.
Peer Sexual Harassment by Grade Level

Figure 12 shows the percentage of students reporting frequent ***Peer Sexual Harassment*** by grade level division. As shown, rates of ***Peer Sexual Harassment*** were higher among high school students (19.6%) than middle school students [10].

DISCUSSION AND RECOMMENDATIONS

Our analysis of symptom rates among 4,182 students surveyed between September and December of 2020 revealed several important patterns regarding the role of peer relationships in students' resilience during COVID. This section summarizes findings on the two major questions addressed and provides recommendations for schools.

Which specific aspects of peer relationships are most important for students' mental health?

Of the six aspects of peer relationships we examined, three emerged as top predictors of student symptoms. First, high levels of ***Social Media Comparisons*** were strongly linked with both ***Depression*** and ***Anxiety***, overall and for all subgroups. Second, high levels of ***Sexting*** were strongly linked with ***Rule Breaking*** and ***Substance Use***, overall and for most subgroups. Third, when examined separately by grade level division, having experienced ***Peer Sexual Harassment*** was most strongly predictive of ***Rule Breaking*** and ***Substance Use*** among both high school and middle school students. In general, beta coefficients of 0.20 represent associations that are "meaningful" in the real world. In our findings, large and significant beta coefficients demonstrated the salience of ***Social Media Comparisons*** (beta = 0.47 for ***Depression*** and 0.39 for ***Anxiety***) and ***Sexting*** (beta = 0.25 for ***Rule Breaking*** and 0.30 for ***Substance Use***).

On average, students spent 2-3 hours per day using social media– the same amount of time reportedly spent on homework. The sheer amount of time spent was far less important for student mental health than were the resulting self-to-peer comparisons.

Consistent with other studies estimating that between 15-27% of teens overall have sexted (e.g., Dake et al., 2012; Madigan et al., 2018), we found that between 11-21%

of students in our sample have sexted at least once and that 2% regularly sext on a daily, weekly, or monthly basis. Our analyses showed that ***Sexting*** was the top predictor of both ***Rule Breaking*** and ***Substance Use.*** Between 5-27% of students in our overall sample reported experiencing peer sexual harassment regularly. Most frequently experienced were having a peer make unwelcome sexual comments, jokes, or gestures (27%), being shown or sent unwelcome sexual pictures (16%). In analyses conducted separately within each grade level division, ***Peer Sexual Harassment*** was the top predictor of both ***Rule Breaking*** and ***Substance Use*** in both age groups. It is important to note that these associations could be bidirectional; students who are already distressed may be more likely to see themselves as lacking relative to peers, and students who generally break rules and use substances may be more likely to engage in sexting or to experience sexual harassment.

These results show that ***Social Media Comparisons*** clearly override the effects of two peer dimensions generally thought of as particularly toxic– ***Negative Social Media*** and ***Victimization***. In other words, even more so than experiencing overt meanness and bullying, online or in-person, simply feeling less interesting, happy, or attractive than one's peers was linked to ***Depression*** and ***Anxiety***.

Which subgroups are most at-risk in terms of peer relationships?

In examining levels of peer predictors within each student subgroup, we identified some groups of students who may be particularly vulnerable. **Female students were most likely to report serious levels of *Social Media Comparisons*, the predictor most strongly linked with *Depression* and *Anxiety*.** Females were also most likely to report serious levels of *Envy*. This finding is consistent with prior research showing that females tend to have lower self-esteem as well as greater use of social media (e.g., Vogel et al., 2014; Joinson, 2008; Tufekci, 2008). **Gender non-binary students were most likely to report frequent experiences of *Peer Sexual Harassment* and *Sexting*, the top predictors of *Rule Breaking* and *Substance Use***; they were also more likely to report serious levels of *Negative Social Media* and *Victimization*, and as described in Part 1 of this report, had the highest levels of all symptoms assessed. By race/ethnicity, **serious levels of *Social Media Comparisons* were most often reported by Asian and Hispanic students**. **Hispanic students were twice as likely to report frequent *Sexting***; rates were also high among students in the Other Ethnicities group. Severe levels of *Peer Sexual Harassment* were most often reported by White students, Hispanic students, and students in the Other ethnicities group. By developmental level, **high school students fared worse than middle school students on all three top peer predictors;** they also had higher levels of all symptoms (Part 1).

Recommendations for Schools

Taken together, these findings indicate a need to support students by working to promote healthy peer relationships. On this front, **the most important issue to address is social media comparison**; students who felt worse about themselves after viewing peers' social media were more vulnerable to depression and anxiety. It is vital for schools to work to minimize social comparisons whenever possible. **Our first recommendation is for adults at school to proactively reduce the degree to which students perceive their self-worth as dependent on their academic and extracurricular accomplishments**, and instead help students to base their judgments of self-worth on feelings that they are seen and loved for who they are as individuals. Research clearly shows that feelings of unconditional acceptance from parents and adults are critical for youth to thrive in the face of adversity (Luthar & Eisenberg, 2017; NASEM, 2019), and that students with low self-esteem are especially vulnerable when they perceive themselves to be inferior to others, regardless of their actual levels of relative standing (Cramer et al., 2016).

Second, we recommend that **proactive steps are taken to reduce norms and rituals that tend to exacerbate social comparisons**, such as public announcements of class ranks and events like "sweater days," where students celebrate college acceptances by wearing branded apparel, often with the result that those who are not accepted by prestigious colleges feel less than others (Luthar & Kumar, 2018; Luthar et al., 2020).

Our third recommendation is to **include students themselves in coming up with solutions to reduce unhealthy social comparisons at school**. This can be done by **sharing with students the science showing the destructive effects of ongoing social comparisons on mental health.** Additionally, focus groups can be used to help get students' creative ideas about how this can be addressed in their own school. Luthar et al. (2019) describe, for example, how high school seniors volunteered to talk to middle schoolers about the need to watch out for unhealthy competition and comparisons, which they themselves had become prey to, but had then overcome.

Equally important issues to address are sexting and sexual harassment. Between 11-21% of students surveyed have sexted at least once, and being shown or sent unwanted sexual photos was one of the most frequently experienced forms of sexual harassment. The recommendation here is for schools to use peer leaders and well-liked adults to **make clear that the school has a zero-tolerance policy on all forms of harassment–including nonconsensual sexting** (i.e., the sending, receiving, or forwarding of sexts

without consent). It is essential to make clear what the consequences will be for such behaviors and to follow through accordingly. It also can be helpful to give students real-life examples of how sexts (that were supposed to be private) spread like wildfire, and seriously damaged careers of people in positions of importance and influence.

With regard to recommended intervention for the subgroups of students who stood out as showing substantive vulnerabilities, affinity groups bringing students together in an organized, regular way may be helpful in enhancing feelings of well-being. It is vital to have at least one supportive adult with whom each child might connect, especially when struggling.

Conclusion

In future efforts to enhance students' well-being, schools would do well to minimize two aspects of peer relationships that are highly destructive, apparently much more so than dimensions commonly "faulted" such as time spent on social media. Schools will have to work proactively to **reduce students' tendencies to constantly compare themselves** with each other (which often can result in feeling less than others). It will also be important **to communicate, and follow through on, zero-tolerance policies on all forms of sexual harassment**, including nonconsensual sexting.

NOTES

1. All regression coefficients (standardized beta weights) are statistically significant ($p < .05$).
2. Gender: $X^2(2, N = 3689) = 193.73, p < .001$.
3. Ethnicity: $X^2(4, N = 3657) = 12.50, p < .05$.
4. Grade: $X^2(1, N = 3690) = 23.23, p < .001$.
5. Gender: $X^2(2, N = 3672) = 25.85, p < .001$.
6. Ethnicity: $X^2(4, N = 3640) = 12.25, p < .05$.
7. Grade: $X^2(1, N = 3674) = 5.95, p < .05$.
8. Gender: $X^2(2, N = 3672) = 25.85, p < .001$.
9. Ethnicity: $X^2(4, N = 3502) = 10.96, p < .05$.
10. Grade: $X^2(1, N = 3534) = 0.09$, n.s.

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