The Trauma of COVID-19–Fueled Discrimination: Posttraumatic Stress in Asian American Adolescents

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Abstract

With the emergence of COVID-19 in China, East and Southeast Asian American (ESEAA) students have reported increased incidents of COVID-19–fueled discrimination in online and offline (in-person) settings. Given the recency of this situation, there is a scarcity of research investigating the impact of COVID-19–related discrimination on ESEAA adolescents’ mental health, especially posttraumatic stress disorder (PTSD). In the current study, therefore, we provide evidence regarding the relations of COVID-19–fueled online and offline discrimination to PTSD symptoms in a sample of ESEAA high school students. We discuss study limitations; future recommendations; and implications for school leaders, school counselors, and other educators.

Keywords

COVID-19–fueled discrimination, posttraumatic stress disorder, Asian American adolescents

The 2019 novel coronavirus disease (COVID-19) has been spreading at an exponential rate across the globe since its outbreak in December 2019. As of May 1, 2021, more than 150,000,000 cases of COVID-19 had been confirmed in more than 150 countries, resulting in more than 3,000,000 deaths around the world. With the widespread fear and anxiety surrounding the COVID-19 disease, the climate of xenophobia against people of Asian descent has also soared in the United States since the emergence of the virus in China. Within one month, approximately 1500 racist incidents were reported targeting Asian American communities, with incidents ranging from being yelled at to spit on and physically attacked (Liu & Modir, 2020). The anti-Asian sentiments in larger society most likely manifest in educational settings as bullying, harassment, and discrimination, which may adversely impact the mental health and psychological well-being of Asian American students (Akiba, 2020). Although empirical research has not extensively addressed such outcomes given the recency of the situation, Cheah et al. (2020) reported disturbing findings based on their survey of 543 Chinese American parents and their teenage children (N = 230). The preliminary results of the present study have suggested that experiences of COVID-19–related discrimination are predictive of poor psychological health for Asian American children. These findings highlight the critical importance of further addressing COVID-19–fueled discrimination against Asian American youth given the prevalence of racist incidents targeting this population and the potential adverse mental health outcomes.

Notably absent from the mental health outcomes explored in the extant research on the impact of COVID-19–fueled discriminatory experiences on Asian American students’ mental health is posttraumatic stress disorder (PTSD). Discrimination related to one’s minority status has been found to predict more severe PTSD symptoms among a variety of minoritized samples (e.g., Flores et al., 2010; Lowe et al., 2019; Pieterse et al., 2010; Sibrava et al., 2019). For example, Tynes et al. (2019) found that frequent experiences of discriminatory events online were associated with higher levels of PTSD symptoms in a sample of African American and Latinx adolescents (N = 302) aged 11–19 years. Similarly, Brabeck et al. (2021) reported increased PTSD symptoms among Latinx youth (N = 306) with higher levels of perceived peer, educational, and institutional discrimination based on their race or ethnicity. However, to date, we identified no empirical research systematically investigating the relationship between perceived discrimination following the COVID-19 outbreak and PTSD symptoms among Asian American youth, more specifically East and Southeast Asian American (ESEAA) high school students in the United States.

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due to either being identified with Chinese descent or having Chinese appearance (Litam, 2020). Therefore, we sought to address the literature gap by exploring the association of COVID-19–related discrimination in online and offline (in-person) settings with the PTSD symptoms in a sample of ESEAA students. In this study, East Asian Americans refer to individuals of Chinese, Japanese, Korean, Taiwanese, or Tibetan descent; Southeast Asian Americans include individuals with Bruniean, Myanmarese, Cambodian, Filipino, Hmong, Indonesian, Laotian, Malaysian, Mien, Singaporean, Timorese, Thai, or Vietnamese descent (Asian Pacific Institute, n.d.).

**COVID-19–Fueled Discrimination Against Asian Americans**

Racial discourse in the United States is often polarized and the focus on Black and White has resulted in ignorance of racism encountered by other racially minoritized groups, including Asian Americans. Further, the “model minority” myth—portrayal of Asian Americans as a hardworking, perseverant, accommodating, polite, and law-abiding group—might be another key contributing factor that explains Asian Americans being underrepresented in the racism literature (Kiang & Bhattacharjee, 2016; Suzuki, 2002). During the civil rights and Black power movements in the 1960s, Asian Americans were portrayed as a homogeneous group and compared to Black Americans as the model minority (Anand & Hsu, 2020; Suzuki, 2002). This myth has been used as a political instrument of White supremacy to divide racially minoritized groups by pitting Asians and other minorities against each other, to denigrate other racial minorities as “problem” minorities, to dismiss the claims of systemic racism targeting non-Asian American people of color, and to advance the deficit orientation placing the blame on communities of color for inequalities (Anand & Hsu, 2020; Ho, 2021; Li & Nicholson, 2021). Although the model minority trope portrays Asian Americans as being immune to racism and discrimination due to their cultural values of hard work and education (Lee, 2009), which could result in the marginalization of Asian ethnic groups and negligence of their negative experiences linked to their racial and ethnic identities (Li & Nicholson, 2021), Asian Americans share a long and well-documented history of discrimination and have been frequent targets of both interpersonal and structural persecution (Chen et al., 2020). Institutions in the United States are designed to preserve the power and privileges of whiteness via systems embedded in laws and policies that discriminate against and oppress all non-White individuals, including Asian Americans (Anand & Hsu, 2020; Atkin et al., 2019). For example, early Asian immigrants in the United States faced discrimination and legal prohibitions against citizenship and land ownership, segregation, and racial ideology that degraded and dehumanized Asians (Lee, 2015). The stereotypical view of Asians rooted in White supremacy has recognized them as Chinese laborers in the 1850s, the fifth column spies of World War II, and the model minority of the civil rights era (Lee, 2015). This portrayal of Asian Americans has been used to justify anti-Asian xenophobia—a fear of Asians as foreigners and immigrants—and discrimination against them, especially the Chinese Exclusion Act of 1882 and the Japanese incarceration (Atkin et al., 2019). Anti-Asian xenophobia in the United States dates back to the 19th century, when the Page Act and Chinese Exclusion Act excluded would-be Asian Americans from entering the country, and peaked during World War II with the forced incarceration of Japanese Americans (Abrams, 2021). To this day, Asians in the United States encounter discrimination rooted in this racist history, including the “perpetual foreigner” stereotype, which stigmatizes them as outsiders who will never be truly American (Armenta et al., 2013).

Because COVID-19 was presumed to originate in China, Asian communities have faced a marked escalation in discrimination as a direct outcome of the virus’s spread and been scapegoated as the source of the outbreak in the United States. Although stigma and hostility have specifically targeted Chinese people considering the emergence of the virus in China, the victims included anyone who appeared Asian (Litam, 2020). Increasing reports in the news media of racist COVID-19–related attacks on Asian Americans have mirrored political leaders’ terminology that seemed to promote anti-Asian sentiments and exclusion. Public figures and political leaders continuously used the terms “Chinese virus,” “Wuhan virus,” “Kung flu,” or “yellow alert” for COVID-19 throughout March and early April 2020, and publicly blamed China for the virus spread; as a response, racist attacks targeting Asian Americans quickly surged (Cabanatuan, 2020). Factors accounting for the rise in anti-Asian racism also include the historical stereotypical view of Asian Americans as “perpetual foreigners” (Cheah et al., 2020) and “yellow peril” (i.e., dirty, ill, sinister, and sexually depraved; Chen et al., 2020; Wei et al., 2012). These stereotypes date back to the 19th century, during the Western imperialist expansion in East and Southeast Asia (Tchen & Yeats, 2014) and exploitation of Asian immigrants as cheap labor by American capitalists for work in railroad, farming, and gold mining industries (Kim, 1999). Taken together, as Chen et al. (2020) stated: “In the midst of the COVID-19 pandemic we see not only a rise in anti-Asian sentiment but also a recapitulation of history” (p. 556).

Following the COVID-19 outbreak, historical stereotypes about Asian Americans have been exacerbated via biased and misleading media coverage and misinformation spread through social media (Litam, 2020). With this stereotypical view rooted in racism, rates of discrimination, violence, and xenophobic attitudes against Americans of Chinese descent and other individuals of Asian origin have increased dramatically across the United States (Litam, 2020). Racially targeted content disseminated in the media has involved hate speech toward Asian Americans, harassment, discriminatory language, and conspiracy theories (Schild et al., 2020). For example, a data analysis of popular social media platforms (e.g., Twitter) from November 2019 to March 2020 revealed a substantial increase in xenophobic slurs, including “Ching Chong” and “Chink” (Schild et al., 2020). In their recent statement, advocacy group
Stop AAPI Hate (2021) revealed 2808 reported incidents of racism and discrimination targeting Asian Americans across the country. Attacks included physical assaults (8.7%), coughing or spitting on a person (6.4%), verbal harassment (70.9%), and discrimination against businesses (38.1%), with race being cited as the primary source of discrimination in 90.3% of incidents. Reportedly, victims experienced being coughed upon, blocked from public transportation, discriminated against in workplaces, shunned, beaten, stabbed, and insulted as transmitters of the coronavirus (Stop AAPI Hate, 2021). The most often targeted ethnic group was Chinese (40.7% of incidents), but other Asian Americans have also faced COVID-19 discrimination, including Koreans (15.1%), Vietnamese (8.2%), and Filipinos (7.2%).

The COVID-19 pandemic is linked to a spike in overt stigma and discrimination against Chinese and other Asians, which is likely to have an adverse impact on their mental health. Lee and Waters (2021) surveyed 410 Asian American adults and found that nearly 30% reported an increase in experiences of discrimination during the pandemic, with more than 40% expressing elevated symptoms of anxiety, depression, and sleep difficulties associated with COVID-19-related discriminatory experiences. Similarly, Woo and Jun (2021; N = 245) and Litam (2020; N = 187) discovered that Asian American adults with more frequent exposure to racial discrimination during the pandemic reported higher levels of depressive symptoms. Much of the scholarship documenting detrimental impacts of this racial discrimination on Asian Americans has centered on adults except the study by Cheah et al. (2020), who surveyed Chinese American parents and their children (age range = 10–18; N = 230). Cheah et al. found that a significant number of Chinese American youth reported being a victim of COVID-19-related discrimination online (45.7%) and in person (50.2%), with higher proportions (91.9% of the children) having witnessed online or in-person discrimination. The preliminary findings of this study have indicated the deleterious effects of such discrimination on the psychological health of Chinese American youth, linking discriminatory experiences to elevated anxiety and depression. Although scholars have explored the impact of racial discrimination on PTSD symptoms of Asian Americans (e.g., Wei et al., 2012) and COVID-19-related discrimination on anxiety and depression among Chinese American youth (Cheah et al., 2020), the literature lacks studies investigating the relationship between COVID-19-related discrimination and PTSD symptoms in Asian American youth. Moreover, most research has focused solely on Chinese Americans’ mental health following the outbreak although other Asian Americans with Chinese appearance have also experienced this discrimination (Stop AAPI Hate, 2021). Therefore, further research is needed to understand the mechanism of the path by which COVID-19-related discrimination impacts ESEAA adolescents’ mental health, specifically PTSD symptoms. Moreover, research should identify the sources of this discrimination, whether racial discrimination is directed at the individual or same-race peers online or in a physical setting.

**Posttraumatic Stress Disorder in Asian American Adolescents**

Posttraumatic stress disorder involves enduring reactions to traumatic events, which debilitate the individual’s functioning in their daily life (Moorhead & Zoldan, 2019). According to the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; *DSM-5*; American Psychiatric Association [APA], 2013), people who experienced or witnessed traumatic incidents can suffer from PTSD, displaying intrusion symptoms (e.g., distressing dreams and involuntary memories) associated with traumatic events and negative changes in cognitions or mood (e.g., detached from others and feelings of numbing), actively avoid stimuli surrounding the traumatic experiences (e.g., avoiding intrusive thoughts and unpleasant feelings), and experience enhanced arousal or reactivity (e.g., anger bursts and hypervigilance). Although PTSD is estimated to impact 5% of adolescents in the United States (Merikangas et al., 2010), its prevalence among Asian American youth is difficult to predict due to underreporting by adolescents and/or their caregivers (Moorhead & Zoldan, 2019). The *DSM-5* (APA, 2013) notes several cultural risk factors for the disorder, including low socioeconomic status, childhood adversity, and minoritized racial or ethnic status. People of marginalized groups tend to have more exposure to trauma caused by individual, group, and systemic levels of oppression and persecution experiences (e.g., victim of racial attacks, living in a neighborhood of high crime rates, complicated grief after a mass killing, etc.), which put them at a higher risk to develop PTSD symptoms. However, ethnic and racial minoritized groups reported the lowest prevalence rate of PTSD (APA, 2013); this discrepancy is potentially due to the lower help-seeking motivation and behavior among minoritized individuals and the long-standing mental illness stigma in their culture (Sue et al., 2019).

To investigate this discrepancy, scholars have started to research the connection between race-based discrimination and PTSD symptoms among racial and ethically minoritized groups. A few studies provided empirical evidence for the positive correlation between discrimination and trauma symptoms. For instance, Flores et al. (2010) concluded that after controlling for demographic variables (i.e., sex, age, socioeconomic status, acculturation), perceived racial discrimination was positively related to PTSD symptoms among Mexican American adolescents. Similarly, in a 5-year longitudinal study, Sibrava et al. (2019) found the frequency of discrimination experiences significantly predicted PTSD diagnosis among African American and Latinx adult participants. Several researchers have focused on the relationship between discrimination with PTSD among Asian heritage populations. Pieterse et al. (2010) discovered that racial discrimination positively predicted PTSD symptoms after controlling for general stress among Asian American college students. Correspondingly, Wei et al. (2012) revealed that Chinese international students who reported more racial discrimination also indicated greater PTSD symptoms even after controlling for perceived general stress. Scholars have attempted
to provide rationale behind the correlations of discrimination and PTSD symptoms. Some asserted that race-based discrimination was a type of trauma injury beyond general life stress and generated PTSD symptoms among racial and ethnic marginalized groups (e.g., Carter, 2007; Wei et al., 2012). Others posited that individuals of minoritized groups who reported more PTSD symptoms exhibited more exposure to trauma instead of increased vulnerability to trauma (Hamblen & Barnett, 2014).

Asian Americans have been viewed as the model minority and exempt from racial discrimination because they were perseverant, accommodating, and successful (Suzuki, 2002), whereas in reality, Asian Americans have a long history of discrimination and oppression (Chen et al., 2020) that are traumatic and can cause PTSD symptoms. Amid the COVID-19 pandemic, Asian Americans have experienced and witnessed discriminatory actions and hate crimes in public settings across the country because of the belief that the virus was directly related to and caused by China (Cabanatuan, 2020; Litam, 2020). In schools, Asian American youths may also experience COVID-19–fueled discrimination as victims and witnesses. These experiences can be perceived as traumatic in nature by ESEAA adolescents and serve as a risk factor for PTSD.

**Purpose of the Study**

Given the paucity of research on discrimination against ESEAA adolescents and their mental health, especially PTSD, during the COVID-19 pandemic, we aimed to investigate the relations of COVID-19–fueled direct and vicarious racial discrimination in online settings (COVID online discrimination) and COVID-19–related racial discrimination by peers, adults at school, and adults outside of school (COVID offline discrimination) to the symptoms of PTSD. First, we sought to explore the predictive relations of COVID online and offline discrimination to PTSD symptoms linked to a broad range of stressful events as defined in the DSM-5 (APA, 2013; DSM-PTSD) while controlling for the effects of DSM traumatic events and lifetime exposure to racial discrimination (lifetime discrimination). Second, we aimed to assess PTSD symptoms in reference to COVID online and offline discrimination (COVID discrimination-PTSD). Third, we examined whether COVID discrimination-PTSD and DSM-PTSD symptoms differ in their severity. Finally, we tested the difference between Chinese and non-Chinese ESEAA high school students by their COVID discrimination-PTSD symptoms. The following research questions guided the study: (a) How much variance of DSM-PTSD symptoms is accounted for by students’ COVID online and offline discrimination after controlling for the constructs of DSM traumatic events and lifetime exposure to racial discrimination? (b) To what extent can the variance in COVID discrimination-PTSD symptoms be accounted for by ESEAA high school students’ COVID online and offline discrimination after controlling for the effects of DSM traumatic events and lifetime discrimination? (c) Does the severity of PTSD symptoms significantly vary among participants reporting both DSM traumatic events and COVID online and offline discriminatory experiences? (d) Do high school students identified with Chinese descent report higher levels of COVID discrimination-PTSD symptoms than non-Chinese ESEAA students?

**Method**

**Participants and Procedure**

After the institutional review board approval, we recruited participants in January through April of 2021 from Asian American community email lists, Asian American high school student organizations, postings on Asian American Facebook groups and Instagram pages, and via researchers’ personal social media accounts. The inclusion criteria for the study were individuals who (a) self-identified as East or Southeast Asian American (identifying with such countries as China, Brunei, Cambodia, Hong Kong, Indonesia, Japan, Laos, Macau, Malaysia, Mongolia, Myanmar/Burma, North Korea, Philippines, Singapore, South Korea, Taiwan, Thailand, Timor-Leste, and Vietnam), (b) were enrolled in public high schools in the United States, and (c) were currently taking in-person and/or hybrid classes. A total of 131 individuals recruited via email and social media posts consented to participate in the study. The research survey did not include the question to differentiate between these two sources of respondents. Fifteen participants were excluded from the analysis because they did not satisfy the study criteria or completed less than 80% of the survey items, resulting in a final sample of 116 participants, with a mean age of 16.46 (SD = 1.75) years. Sample participants (N = 116) included 60 males (51.7%), 55 females (47.4%), and 1 transgender student (0.9%). The largest portion of participants self-identified as Chinese American (n = 61, 52.6%), followed by Japanese American (n = 28, 24.1%), Korean American (n = 11, 9.5%), Vietnamese American (n = 8, 6.9%), Thai American (n = 4, 3.4%), Filipino American (n = 3, 2.6%), and Laotian American (n = 1, 0.9%). In this study, 45.7% of youth reported being a victim of COVID-19–related stigma and racial discrimination online and 50.2% experienced offline discrimination. Using the G*Power analysis (Faul et al., 2007), we determined a minimum number of 92 participants to be necessary to detect a moderate effect size, given the probability parameters (α = .05, β = .80). Based on this finding, the sample of 116 participants used in the current study is sufficient to explain relationships between predictor and criterion variables.

**Measures**

**Lifetime Exposure to Racial Discrimination (Lifetime Discrimination).** We used a dichotomous statement to screen for lifetime exposure to racial discrimination. This single-item assessment has been used by researchers in previous studies, such as Lowe et al. (2019). Participants reported (Yes/No) whether they had experienced discrimination in their lifetime due to their Asian American identity. Participants who selected
“yes” were considered to have lifetime exposure to racial discrimination for further data analysis.

**COVID-19–Related Online Discrimination (COVID Online Discrimination).** We used an adapted version of the Online Victimization Scale (Tynes et al., 2010) to assess students’ experiences with COVID-19–related discrimination in online settings. The four-item Individual Online Racial Discrimination (IORD) subscale and the three-item Vicarious Online Racial Discrimination (VORD) subscale respectively capture online racial discrimination directed at the respondent and at same-race and cross-race peers witnessed online by the respondent. Participants were asked to identify the frequency of experiencing and witnessing COVID online discrimination from 0 (Never) to 5 (Almost every day). Sample items include “People said mean or rude things to me online because of my race or ethnic group” and “People have said things online that were untrue about people in my race or ethnic group.” Both subscales have established satisfactory reliability (αIORD = .71, αVORD = .83) among minority students (Tynes et al., 2010). Participant scores in the current study demonstrated adequate internal consistency (α = .93).

**COVID-19–Fueled Discrimination by Peers and Adults (COVID Offline Discrimination).** We revised and adopted the Perceived Discrimination by Adults/Peers Scale (Rosenbloom & Way, 2004) to evaluate perceived COVID-19–related discrimination in a physical setting. In the current study, participants were asked to rate on a 5-point Likert-type scale (0 = Never to 4 = All the time) and indicate how often other individuals (i.e., peers in school, adults in school, and adults outside of school) have taken the following discrimination actions toward them due to their race: “make fun of you,” “pick on you,” call you names,” “insult you,” “harass you,” and “uncomfortable around you.” Researchers have reported good test–retest reliability (α = .89–.93; Greene et al., 2006) and internal consistency (α = .91; Seaton et al., 2013) among students of different ethnic groups (e.g., African American, Latino/a, Asian American). In the present study, participant scores demonstrated satisfactory internal consistency reliability (α = .98).

**COVID-19 Discrimination Checklist.** We adapted the COVID-19 Discrimination Checklist (Cheah et al., 2020) developed to screen experiences of discrimination fueled by COVID-19. This screening tool involved three yes/no questions: “Since the COVID-19 outbreak, have you ever experienced COVID-19–related racism or discrimination in online or offline settings?”, “Since the COVID-19 outbreak, have you ever witnessed COVID-19–related racism or discrimination?”, and “Since the COVID-19 outbreak, have you ever witnessed anti-Asian sentiments associated with the pandemic?”

**DSM-5 Lifetime Traumatic Events (DSM Traumatic Events).** The self-report version of the Child PTSD Symptom Scale for DSM-5 (CPSS-5; Foa et al., 2018) measures PTSD symptoms in the past month in children aged 8–18. The CPSS-5 contains two sections: Trauma Screen Checklist (TSC) and PTSD symptom evaluation. For the present study, we used the 15-item TSC to detect participants’ exposure to stressful and traumatic life events that are classified as traumatic experiences in Criterion A for PTSD in DSM-5 (e.g., “Being robbed by threat, force, or weapon” and “Being around a war”). Researchers reported good test–retest reliability (r = .80) and strong internal consistency for overall severity (α = .92) among a community sample of youth experiencing diverse types of traumas (Foa et al., 2018). Participant scores in the present study demonstrated strong internal consistency reliability (α = .89).

**Posttraumatic Stress Disorder Symptoms.** The UCLA PTSD Reaction Index for DSM-5 Brief Screening Form (UCLA-RI-5; Rolon-Arroyo et al., 2020) is an 11-item instrument that evaluates the severity of trauma symptoms for school-age children and adolescents. Respondents report the frequency of PTSD symptoms experienced on a 5-point scale from 0 (None) to 4 (Most). Kaplow et al. (2020) have validated the UCLA-RI-5 and reported adequate criterion-referenced validity (r = 0.68), high sensitivity (100%) and specificity (86%), and excellent internal consistency (α = .94). Sample items include “I try to stay away from people, places, or things that remind me about what happened” and “I get upset easily or get into arguments or physical fights.” Our objective in using a standard PTSD symptom assessment, rather than implementing an instrument constructed specifically to assess the consequences of racial discrimination, such as the Race-Based Traumatic Stress Symptom Scale (RBTSSS; Carter & Muchow, 2017), was to explore whether psychological outcomes of discrimination are similar in their nature, severity, and correlate to those linked to the events defined as traumatic in the DSM. For the present study, participants completed UCLA-RI-5 in two contexts. First, after completing the Trauma Screen Checklist of the CPSS-5 to identify DSM lifetime traumatic events, participants were asked to identify from the DSM checklist a scary or upsetting experience that bothered them the most, and complete the UCLA-RI-5. The purpose of this assessment was to measure participants’ levels of PTSD symptoms in response to their worst traumatic experience as identified in the DSM. Therefore, we conceptualized this measurement as DSM-PTSD. Second, participants with experiences of COVID-19–related discrimination identified one discriminatory event that bothered them the most and completed the UCLA-RI-5 considering this event. The objective of this measurement was to assess participants’ PTSD scores in response to their worst COVID discriminatory experience. Thus, we conceptualized this assessment as COVID discrimination-PTSD. In these two measurements, the UCLA-RI-5 items remained the same; only the instructions were modified to address different sources of trauma. Participant scores in the current study demonstrated strong reliability for internal consistency (αCOVID discrimination = .96, αDSM = .94).
Research Design and Data Analysis

Using a nonexperimental, correlational survey design, we investigated the relationship between the predictor variables of DSM traumatic events, lifetime discrimination, COVID online and offline discrimination, and the criterion variables of DSM-PTSD and COVID discrimination-PTSD symptoms. To fulfill the study aims, we conducted statistical analyses using SPSS (version 25.0) in four stages. Stage 1 involved assessing whether perceived COVID online and offline discrimination were associated with DSM-PTSD symptoms using a two-step, hierarchical multiple regression (HMR) analysis. First, we entered the predictor variables of DSM traumatic events and lifetime discrimination into the HMR model. Then we entered the predictor variables of COVID online discrimination and offline discrimination. In this model, DSM-PTSD symptoms served as the criterion variable. Stage 2 involved another two-step HMR analysis to predict the relationship between perceived COVID online and offline discrimination and COVID discrimination-PTSD symptoms among participants. First, we entered the predictor variables of DSM traumatic events and lifetime discrimination to determine the unique contributions of COVID online and offline discrimination. Next, we entered the predictor variables of COVID online discrimination and offline discrimination. In this model, the criterion variable was COVID discrimination-PTSD symptoms. In Stage 3, we conducted a paired-samples t test to compare DSM-PTSD scores and COVID discrimination-PTSD scores in their severity among participants who reported both DSM traumatic events and COVID online and offline discriminatory experiences. In Stage 4, we compared Chinese and non-Chinese ESEAA students by their self-reported COVID discrimination-PTSD scores utilizing an independent-sample t test. We also computed descriptive statistics and alpha coefficients for each scale used in the study.

Results

Preliminary Analyses

We screened data for missing values and outliers. First, we applied available item analysis (Parent, 2013) to manage missing data. In the initial dataset, 131 participants completed some portion of the survey. We removed 13 respondents who missed at least 20% of items and two others who failed to meet the inclusion criteria of ethnicity. Of the remaining 116 cases, 112 had complete data, and missing values represented less than 1% of the total dataset. The Little’s MCAR test suggested the pattern of missing completely at random for the sample, \( p = .949 \). Next, we tested statistical assumptions for primary analyses. Standardized residual plots indicated the assumptions of linearity and homoscedasticity to be warranted. Q-Q plots and skewness and kurtosis estimates suggested normal distribution of data. The Durbin–Watson test yielded a value of 1.67, indicating independence of residuals (Field, 2013). To test multicollinearity, we examined variance inflation factors (VIFs) as a diagnostic tool and found moderate VIF values ranging between 1 and 5 (Table 1), representing a medium level of collinearity (Field, 2013). The correlations between COVID online and offline discrimination (\( r = .86 \)) also suggested a moderate level of collinearity, suggesting these two variables as separate predictors (Tabachnick & Fidell, 2019). In conclusion, the results of these preliminary analyses provided no evidence suggesting a violation of any model assumptions had occurred. We deemed that the data was appropriate for multiple linear regression analyses.

Primary Analyses

Most of the participants reported exposure to one or more lifetime DSM traumatic events (\( n = 98, 84.5\% \)), COVID-19-related discriminatory experiences (\( n = 95, 81.9\% \)), and both DSM traumatic events and COVID-related discrimination (\( n = 94, 81\% \)). Out of 116 participants, 59 (50.9%) reported experiences of discrimination due to their racial or ethnic identities in their lifetime (lifetime discrimination). Eighty-five participants (73.3%; 53 males, 31 females, 1 transgender; \( M_{\text{age}} = 17.16 \)) reported that they experienced COVID-19-related racism or discrimination in online or offline settings. According to the survey results, 95 participants (81.9%; 52 males, 42 females, 1 transgender; \( M_{\text{age}} = 16.43 \)) witnessed COVID-19-related racism or discrimination, and 97 participants (83.6%; 52 males, 44 females, 1 transgender; \( M_{\text{age}} = 16.16 \)) witnessed anti-Asian sentiments associated with the pandemic.

To examine the first research question, whether COVID online and offline discrimination predicted DSM-PTSD symptoms among ESEAA high school students after controlling for the constructs of DSM traumatic events and lifetime discrimination, we performed a two-step HMR analysis, the results of which appear in Table 2. In the first step, the linear combination of DSM traumatic events and lifetime racial discrimination contributed significantly to the regression model, \( F(2, 108) = 53.07, p < .001; R^2 = .50; \) adjusted \( R^2 = .49 \), with a large effect size (Field, 2013). Specifically, both DSM traumatic events (\( r = .55 \)) and lifetime discrimination (\( r = .63 \)) were positively correlated with ESEAA student DSM-PTSD symptoms. In the second step, the predictor variables of COVID online and offline discrimination were entered into the model and explained an additional 12% of the variation in DSM-PTSD symptoms, indicating a significant increase in variance accounted for, \( F(4, 106) = 44.01, p < .001; R^2 = .62; \) adjusted \( R^2 = .61 \). Following Cohen’s (1992) recommendation that unique contributions to the overall variance of a model are indicated by \( \Delta R^2 \) values .02, the computed \( \Delta R^2 \) value of .12 suggests COVID online and offline discrimination as significant predictors of DSM-PTSD symptoms in ESEAA students after controlling for the effects of DSM traumatic events and lifetime discrimination.
Table 1. Descriptive Statistics, Means Correlations, and Variance Inflation Factors (VIF) for Predictor and Outcome Variables

| Variables                        | 1     | 2     | 3     | 4     | 5     | 6     | VIF |
|----------------------------------|-------|-------|-------|-------|-------|-------|-----|
| 1. DSM-PTSD                      |       |       |       |       |       |       |     |
| 2. COVID discrimination-PTSD     | .87   | .55   | .63   | .69   | .74   |       |     |
| 3. DSM traumatic events          | .55   | .54   | .44   | .61   | .67   | .67   | 1.85|
| 4. Lifetime discrimination (Y/N) | .63   | .52   | .44   | .50   | .55   | .55   | 1.46|
| 5. COVID online discrimination   | .69   | .69   | .61   | .50   | .86   |       | 3.86|
| 6. COVID offline discrimination  | .74   | .74   | .67   | .55   | .86   |       | 4.63|
| M                                | 21.19 | 20.75 | 5.90  | .51   | 15.86 | 36.27 |     |
| SD                               | 10.09 | 10.07 | 4.30  | .50   | 9.15  | 22.15 |     |
| A                                | .94   | .96   | .89   | .93   | .98   |       |     |

Note: N = 116. DSM traumatic events = Stressful life events identified in DSM that are related to PTSD symptoms; Lifetime discrimination = Lifetime exposure to racial discrimination; COVID online discrimination = COVID-19-related direct and vicarious racial discrimination in online settings; COVID offline discrimination = COVID-19-fueled discrimination by peers, adults at school, and adults outside of school; COVID Discrimination-PTSD = PTSD symptoms as a response to the worst traumatic event that bothers the respondent the most; COVID Discrimination-PTSD = PTSD symptoms as a response to a stressor associated with the COVID-19 discriminatory experiences.

Table 2. Summary of Hierarchical Regression Analysis for Variables Predicting DSM-PTSD Symptoms in East and Southeast Asian American High School Students (N = 116)

| Variables                        | B     | SE    | β     | t     | R    | R²   | ΔR² |
|----------------------------------|-------|-------|-------|-------|------|------|-----|
| Step 1                           |       |       |       |       | .50  | .49  | .49 |
| DSM traumatic events             | .77   | .17   | .34   | 4.54* |      |      |     |
| Lifetime discrimination          | 9.27  | 1.46  | .48   | 6.35* |      |      |     |
| Step 2                           |       |       |       |       | .62  | .61  | .12 |
| DSM traumatic events             | .14   | .18   | .06   | .78   |      |      |     |
| Lifetime discrimination          | 6.02  | 1.38  | .31   | 4.35* |      |      |     |
| COVID online discrimination      | .18   | .12   | .17   | 1.49  |      |      |     |
| COVID offline discrimination     | .16   | .06   | .37   | 2.88* |      |      |     |

Note: *p < .05; N = 116. DSM traumatic events = Stressful life events identified in DSM that are related to PTSD symptoms; Lifetime discrimination = Lifetime exposure to racial discrimination; COVID online discrimination = COVID-19-related direct and vicarious racial discrimination in online settings; COVID offline discrimination = COVID-19-fueled discrimination by peers, adults at school, and adults outside of school.

Next, we addressed the second research question by conducting another two-step HMR analysis to test the predictive relationship between COVID online and offline discrimination and COVID discrimination-PTSD symptoms in a sample of ESEAA adolescents (N = 116) after accounting for the impact of DSM traumatic events and lifetime discrimination. The findings of this analysis appear in Table 3. In the first step, we added DSM traumatic events and lifetime discrimination as covariates to the model simultaneously, which explained a significant portion of the variance in COVID discrimination-PTSD symptoms, $F(2, 108) = 34.86, p < .001; R^2 = .39; adjusted R^2 = .38$. Specifically, both DSM traumatic events ($r = .54$) and lifetime discrimination ($r = .52$) were positively correlated with student COVID discrimination-PTSD symptoms. At the second step, we entered COVID online discrimination and offline discrimination into the model. The inclusion of these two predictor variables accounted for an additional 18% variance in the outcome variable, $F(4, 106) = 36.35, p < .001; R^2 = .58; adjusted R^2 = .56$. Similarly, COVID online racial discrimination ($r = .74$) and COVID offline discrimination ($r = .69$) were positively correlated with COVID discrimination-PTSD symptoms.

To test the third research question that compares the severity of DSM-PTSD (PTSD symptoms related to participants’ scariest or most upsetting experience among the traumatic events listed in the DSM) and COVID discrimination-PTSD (PTSD symptoms linked to participants’ worst COVID-related discriminatory experience), we performed a paired-samples $t$ test among participants reporting both significant DSM traumatic events and COVID discriminatory experiences ($n = 94, 81\%$). Results indicated that participants reported significantly higher PTSD symptoms related to their worst COVID discrimination-related trauma ($M = 25.25, SD = 6.05$) than to DSM trauma ($M = 22.16, SD = 7.83$); $t(93) = 6.33, p < .001$. We tested the last research question with an independent-sample $t$ test to investigate if adolescents identified with Chinese descent report higher levels of COVID discrimination-PTSD symptoms than their non-Chinese ESEAA counterparts. Results suggested no statistically significant difference between self-identified Chinese
American students (n = 61, M = 21.67, SD = 10.92) and non-Chinese ESEAA students (n = 55, M = 20.65, SD = 9.15) by their COVID discrimination-PTSD scores.

**Discussion**

In the current study, we examined the degrees of COVID-19–fueled direct and vicarious online racial discrimination (COVID online discrimination), COVID-19–related discrimination by peers and adults at school and by adults outside of school (COVID offline discrimination), DSM lifetime traumatic events, lifetime exposure to racial discrimination (lifetime discrimination), DSM trauma-related PTSD symptoms (DSM-PTSD), and COVID-19 discrimination-related PTSD symptoms (COVID discrimination-PTSD) among 116 East and Southeast Asian American high school students. According to the survey results, most of the participants have experienced (73.3%) and witnessed (81.9%) COVID-19–related discrimination; more than 8 in 10 individuals witnessed anti-Asian sentiments associated with COVID-19. Although this finding is alarming, it is aligned with the results of Cheah et al. (2020), who reported that approximately half of the Chinese American youth in their study identified being targeted by COVID-19 racial discrimination online (45.7%) and offline (50.2%); most of the participants experienced COVID-19 vicarious racial discrimination online (76.5%) and in person (91.1%). In conclusion, various forms of COVID-19 discrimination are considerably prevalent among ESEAA high school students in the United States.

In line with our hypothesis, statistical analyses suggested that COVID online discrimination and COVID offline discrimination positively predicted DSM-PTSD in the sample, indicating that ESEAA students who reported more COVID-19–related online and in-person discrimination from their peers and adults also disclosed greater posttraumatic stress symptoms related to stressful life events (e.g., childhood adversity, family death, and natural disasters) and/or the pandemic. This finding supports the underlying positive correlation between race-based discrimination and PTSD symptoms among ethnic and racial minority groups, including Latinx (Sibrava et al., 2019), Mexican Americans (Flores et al., 2010), African Americans (Sibrava et al., 2019), Asian Americans (Pieterse et al., 2010), and Chinese international students (Wei et al., 2012). This result also aligns with the findings of Cheah et al. (2020) that COVID-19–related discrimination (including both online and offline) predicted lower levels of mental health (i.e., increased anxiety and internalizing problems) after controlling for demographic covariates among Asian American children. However, all the aforementioned studies, except Cheah et al. (2020), have focused on adult populations and general discrimination in person. At the time of submission, the present study may be the first investigation examining the association of COVID-19–related discrimination and PTSD symptoms among Asian American youth.

The paired-sample t test demonstrated that ESEAA participants reported significantly (p < .001) more PTSD symptoms related to their worst COVID discrimination-related trauma than to their most terrible life events. This finding implies that COVID-19–associated discrimination, a unique negative stressor, outweighs general life stress and is among the most traumatic experience for ESEAA students. Nevertheless, we should not over-pathologize psychological responses to racial discrimination (Wei et al., 2012), including COVID-19–fueled discrimination. As Carter (2007) proposed, racial trauma should be viewed as a mental injury that causes tremendous mental stress rather than mental illness; the latter promotes stigmas and misunderstandings associated with racial and ethnic groups. According to Hamblen and Barnett (2014), instead of being more susceptible to trauma, minorities were more likely to be exposed to trauma and thus reported more PTSD symptoms. Finally, we found that all ESEAA participants, regardless of whether they self-identified as Chinese American, rated similar levels of posttraumatic stress tied to COVID-19. Our finding supported Litam’s (2020) claim that victims of COVID-19 discrimination, unfortunately, included all individuals with a Chinese appearance.
**Implications for Counseling Practice**

The results from this study present several implications for current practices of school leaders, school counselors, and other educators. School and community leadership is imperative to current practices of school leaders, school counselors, and other educators.

The results from this study present several implications for counseling practice. Given the prevalence of such discrimination in online and offline settings and its relationship with PTSD symptoms among ESEAA youth, it is crucial for school and community leaders to encourage and perhaps fund local initiatives to provide evidence-based, culturally responsive mental health services (Sue et al., 2019); mental health advocacy and antistigma campaigns; and community-based outreach to Asian American youth to mitigate the impact of race-based trauma in this marginalized group following the outbreak (Anyon et al., 2014). Given this study’s findings that COVID-19 discrimination similarly impacts Chinese and non-Chinese ESEAA students’ trauma symptoms, such efforts need to target both groups.

In schools, counselors play an essential role in creating a positive climate and implementing antiracist practices (American School Counselor Association [ASCA], 2021b). According to Leva et al. (2021), acknowledging structural racism in education and developing critical consciousness are at the center of antiracist practices. The Multicultural and Social Justice Counseling Competencies can also provide school counselors with a helpful framework for offering culturally competent, antiracist practices, including awareness, knowledge, skills, and action (Ratts et al., 2016). First, school counselors may further their awareness of their own biases and experiences of power and privileges and build their knowledge base about the commonness of anti-Asian bias and discrimination during the pandemic and its psychological impact on Asian American students. This can be done by engaging in self-reflection, seeking professional development opportunities, and collaborating with the AAPI organizations in the community (Grassroots Asians Rising, 2020). Worthwhile activities might include presenting workshops to teachers and parents (Okazaki et al., 2020) to educate them on this sensitive topic. School counselors also can be proactive and advocate for a comprehensive bullying prevention policy that addresses COVID-19–related discrimination (Stop AAPI Hate Youth Campaign, 2020) and deliver classroom lessons that align with the ASCA Mindsets & Behaviors (ASCA, 2021a) to educate students on identifying hate and bias and how to disrupt it (Dillard, 2020). Exploring anti-Asian rhetoric around the virus might be worthy of critical conversations in the classroom even if students are not repeating racist tropes. The class conversations may also involve digital literacy as students become more aware of hateful and biased speech online and report COVID-19 online discrimination.

By implementing a multilayered system of supports framework (Leva et al., 2021), school counselors can conduct schoolwide assessments for culturally unique risk factors to identify Asian American students with potential mental health needs related to COVID-19 discrimination and race-based trauma, using screening tools such as RBTSSS (Carter & Muchow, 2017). They can also design trauma-informed, culturally sensitive Tier 2 and Tier 3 interventions to promote ESEAA students’ resilience and coping (Litam & Oh, 2020), and facilitate referrals to mental health services that normalize help-seeking behaviors among this population (Cheah et al., 2020). Given Asian Americans’ collectivist orientation (Chopra, 2021), involving these students in social justice-oriented support groups and inviting them to share their COVID-19–fueled discriminatory experiences and related trauma narratives in a braver space (Leva et al., 2021) might be valuable, as they may have difficulty initiating this conversation (e.g., “I wonder if you would describe what your experience has been like as an Asian American following the COVID-19 outbreak”). Such invitation may communicate school counselors’ cultural sensitivity, create a sense of trust, and enhance disclosure about racial discrimination experiences among Asian American students (Chen et al., 2021). In alignment with antiracist school counseling practices, groups are considered a preferred method when working with students of color to provide the space for discussions centered on oppression, discrimination, power, and privilege (Leva et al., 2021).

Counseling can provide an important space for helping Asian American students cultivate critical consciousness by exploring how internalized racism manifests in their coping strategies, daily life experiences, and feeling empowered to take action toward social change and dismantle oppression (Chopra, 2021). In this safe space, Asian American students can develop a positive ethnic identity by engaging in conversations about the history of Asian Americans in the United States, including both the history of racism and inequities and of civil rights activists. A strong ethnic identity could serve a buffering role for Asian American adolescents’ mental health and racial discrimination experience (Chen et al., 2021). Since Asian American adolescents indicate a higher tendency to internalize the model minority trope, school counselors can incorporate mindfulness and self-compassion practices (e.g., guided imagery exercises) into Tier 2 and Tier 3 interventions as a culturally relevant approach to healing racial trauma among this population (Litam, 2020; Liu & Modir, 2020). These practices may be useful for Asian American adolescents, as many pursue self-help approaches rather than mental health services (Chopra, 2021). East and Southeast Asian American students also can benefit from creative interventions, such as play, art, drama, music, and bibliotherapy (e.g., photovoice, song-writing, trauma trivia) to help them process issues, feelings, and thoughts associated with racial discrimination (Chen et al., 2021; Handford & Marrero, 2022).

School counselors are not the only educators with responsibility to interrupt any anti-Asian xenophobic narratives—this also extends to other educators, school administrators, and staff. Addressing and responding immediately to xenophobic language inside and outside of the classroom is imperative for educators (see Teaching Tolerance, 2017), as is attending to any
students who have been injured by anti-Asian rhetoric during the COVID-19 outbreak. Educators may also consider equipping students with the historical context of racism and discrimination against Asian Americans even before the pandemic and relevant skills they can apply to respond to anti-Asian language (Teaching Tolerance, 2019).

Limitations and Future Recommendations

To our knowledge, this is the first study to investigate how COVID-19–fueled discrimination in online and offline settings relates to PTSD symptoms in a sample of ESEAA students. Despite the significant strength of our study, some limitations require interpreting the findings with caution. First, we recruited participants online via Asian American organizations and social media. Adolescents with experiences of COVID-19–related discrimination may have tended to respond to the survey more frequently, after the shooting in Atlanta in particular (Wang, 2022), thereby setting the data askew toward greater levels of perceived discrimination and PTSD symptoms. In future work, collecting data in person and sampling from school districts might contribute to a better understanding of students’ experiences with COVID-19–related discrimination. Our convenience sample likely does not represent the experiences of all ESEAA high school students, limiting the generalizability of the findings. Future researchers could benefit from recruiting more diverse ESEAA students and having a larger sample size. Second, we applied a rough measurement of lifetime discrimination using a single item that did not provide information on the frequency and severity of the discriminatory experiences. The single item assessing lifetime exposure to racial discrimination did not include the definition of the term discrimination. Future investigators could consider conducting a rigorous assessment of this construct providing a clear definition of “discrimination.” Third, our study was cross-sectional in nature; thus, the study findings may not infer causality. Future studies could draw on longitudinal data and apply cross-lagged modeling to explore those alternatives. Fourth, some of the DSM trauma, such as physical assaults, could potentially be linked to hate crimes; we did not assess whether the DSM traumatic events were related to COVID-19 racial discrimination because this would result in an overlap between two measurements. Therefore, the current study’s findings should be interpreted with caution, and future research is needed to explore whether such experiences exacerbate the psychological impact of traumatic events. Last but not least, the large effect sizes in our findings can be affected by the common method bias, which refers to the variance caused by the measurement methods (Podsakoff et al., 2003). Because we measured all constructs in the same lengthy survey with more than 100 items, participants may have experienced fatigue that decreased the accuracy of scores.

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