



Returning to School: Teachers' Occupational and COVID-19-Related Stress and Their Perceptions of School Climate

Georgette M. Metrailler¹ · Kelly N. Clark¹

Accepted: 8 September 2022

© The Author(s), under exclusive licence to California Association of School Psychologists 2022

Abstract

Minimizing teacher stress is an essential aspect of effective teaching and supporting a healthy school climate. Previous research has indicated that teachers who experience elevated levels of occupational stress may have a negative perception of their school's climate, poor mental/physical health, poor relationships with their students, and are less likely to stay within their occupations. In addition, recent research has shown that Americans have experienced an increase in stress levels since the beginning of 2020 due to COVID-19-related stressors. This study sought to expand on previous research that investigated how teacher occupational stress is associated with teachers' perceptions of school climate. This study also examined how COVID-19-related stressors are associated with teachers' perceptions of school climate. Data from 111 elementary, middle, and high school teachers in the Southeastern United States were collected using self-report surveys on school climate, teacher occupational stress, and COVID-19-related stress. Linear regression analysis revealed that teacher occupational stress was not significantly associated with teachers' perceptions of school climate; however, a negative association between teachers' COVID-19-related stress and their perceptions of school climate was observed. This finding suggests that as teachers' COVID-19-related stress increased, their perceptions of school climate tended to decrease. The findings of this study provide insight into how to better support teachers' well-being so they can effectively perform their jobs and contribute to positive outcomes for students.

Keywords COVID-19 · Education · School climate · Stress

Introduction

The stressors teachers experience within their occupations have become a topic of concern among researchers (Dicke et al., 2020; Koth et al., 2008; Mitchell et al., 2010; Smith, 2020; Thapa et al., 2013). According to the National Foundation for Educational Research (2019), teachers experience greater occupational stress in comparison to other professions, with at least 20% of teachers feeling stressed most or nearly all the time. Other scholars have estimated even more prevalent stress, with one out of three teachers reporting feeling stressed or extremely stressed (Gevig, 2007). It has also been found that the more stress teachers experience, the more likely they are to view their

school's climate in a negative light (Dicke et al., 2020; National Foundation for Educational Research, 2019).

This is important because recent studies have found that Americans have experienced an increase in stress-levels within all aspects of their lives throughout the COVID-19 pandemic (Galea et al., 2020; Park et al., 2020; Salari et al., 2020). The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2; COVID-19) produced a global pandemic that resulted in widespread lockdowns and restrictions across the USA and around the world, causing unprecedented stressors to permeate the education system and putting teachers on the frontline of supporting students during the pandemic (Brailovskaia & Margraf, 2020; Herman et al., 2021; Park et al., 2020; Pressley et al., 2021). Since teaching has been regarded as a highly stressful occupation even "under the best of circumstances" (Herman et al., 2021, p. 483), adding on the stressors brought about by the pandemic raises the question of how effectively teachers were able to cope while still maintaining their highly stressful jobs and how teachers perceived their schools' climate during the pandemic.

✉ Kelly N. Clark
kellyclark@lsu.edu

¹ Department of Psychology, Louisiana State University, 236 Audubon Hall, Baton Rouge, LA 70803, USA

Additionally, better understanding of teachers' stress during the pandemic might give school psychologists greater insight into how to support teachers as schools continue to face the long-term challenges brought about by the COVID-19 pandemic.

This study expands on existing research showing that teachers' occupational stress is associated with their perceptions of school climate. This study also examines how COVID-19-related stress may also be associated with teachers' perceptions of school climate during the unique historical time this study was conducted. More specifically, with the prolonged effects that the COVID-19 pandemic has had on education, it is important to note that understanding teacher's occupational stress and COVID-19-related stress can help to identify which teachers are stressed, why they are stressed, and how to support them in order to promote students getting back on track. Therefore, a basic understanding of their stress and perceptions of their school's climate is important as it may provide insight to school psychologists as they work with schools to create a prosperous environment for educators and students throughout this current transitional time brought about by COVID-19.

Teacher Occupational Stress

Teacher occupational stress is defined as "the experience by a teacher of unpleasant emotions, such as anger, anxiety, tension, frustration, or depression, resulting from some aspect of their work as a teacher" (Kyriacou, 2001, p. 28). The four main sources of teacher occupational stress are *school organization* (e.g., lack of administrative support, poor school climate), *high job demands* (e.g., excessive paperwork, insufficient time), *work-related resources* (e.g., limited decision-making power), and *social and emotional competence* (e.g., lack of collegial interactions; Haydon et al., 2018). Furthermore, Travers (2017) suggests that teachers become stressed when there is an imbalance in work demands and teachers' ability to cope and respond adequately to such demands. Studies prior to the beginning of the pandemic have shown that 20 to 30% of teachers report experiencing high levels of stress due to their occupations (Borg & Riding, 1991; Geving, 2007; Kyriacou & Sutcliffe, 1979; National Foundation for Educational Research, 2019; Thomas et al., 2003).

Occupational stress has been associated with poor mental and physical health, poor teacher-student relationships, and decreased retention in the field (Hagermoser Sanetti et al., 2020; Haydon et al., 2018). Notably, high occupational stress is noted as one of the main reasons why 25 to 50% of teachers leave the profession within their first 5 years of teaching (Algozzine et al., 2011). Not only do teachers' high levels of occupational stress impact teachers individually

(Hagermoser Sanetti et al., 2020), but it also affects the quality of the school's climate and the students within their classrooms (Dicke et al., 2020). For example, findings from Madigan and Kim (2021) suggest that teacher stress is associated with worse academic achievement and lower quality student motivation. Additionally, it has been found that teachers who experience high levels of stress are less likely to implement evidence-based interventions, which leads to poor outcomes for students, and subsequently more teacher stress and a dysregulated school climate (Hagermoser Sanetti et al., 2021).

Since teachers already experience a high level of occupational stress, it is important to consider the different stressors that they may have experienced as a result of COVID-19, such as social isolation, fear of contracting COVID-19, fear of a close family member or friend contracting COVID-19, or potential job or financial loss. The addition of COVID-19-related stressors could have made it even harder for them to cope with the changes within their jobs during the pandemic, potentially exacerbating stress among an already stressed workforce of educators (Herman et al., 2021; Pressley et al., 2021). In fact, multiple articles published since the beginning of the pandemic have found that teachers have experienced a significant increase in their levels of stress, anxiety, and depression (Baker et al., 2021; Carver-Thomas et al., 2021; Herman et al., 2021; Santamaría et al., 2021). This is significant because before the pandemic, teachers were already at a 6% higher risk for mental health disorders as compared to other occupations, and the increasing of this risk because of the pandemic could lead to more physical consequences of stress for teachers (Hagermoser Sanetti et al., 2021).

One of the main contributions to teacher occupational stress during the pandemic has been an increase in teacher workload (Carver-Thomas et al., 2021). School district leaders within the state of California have estimated that the workload of teachers has doubled due to the pandemic because of the transition to online/hybrid learning models and having to support students' social/emotional needs more often (Carver-Thomas et al., 2021; Sokal et al., 2020). Teachers were also tasked with training students and their parents or guardians to engage with online learning or to maintain student learning in families without access to technology. A study conducted early in the pandemic found that increasing job demands were associated with declines in mental health among teachers, who reported greater difficulty coping with stress and adequately performing their jobs (Baker et al., 2021).

Baker and colleagues (Baker et al., 2021) also found that about half of the participating teachers considered a lack of connection to students and colleagues as their most difficult challenge when teaching during the pandemic. The shift to distance learning forced teachers to remodel in-class lessons

and materials to an online format that students were expected to complete without the resources of a standard classroom (Baker et al., 2021). Again, this shift potentially exacerbated their workloads and caused their stress levels to increase (Carver-Thomas et al., 2021). In the Carver-Thomas and colleagues' study (Carver-Thomas et al., 2021), one school district leader described the impact of distance learning on teachers as, "They're having to completely re-shift the in-person learning into a blank screen of students, little voices, or no voices sometimes at all.... I think the whole spirit, the drive, the impact that they would be able to get every single day is gone for them. You're not seeing any light bulbs going off. It's just [a] blank screen in front of you" (p. 13).

Teacher motivation may have significantly decreased due to a lack in personally being able to see their teaching have a positive impact on their students; thus, potentially making their work lives more stressful and less rewarding during the pandemic (Carver-Thomas et al., 2021). Understanding the recent stressful experiences of teachers may enable school psychologists develop consultative methods that will help teachers celebrate their successes and cope with stressors, even if they are unable to see the positive impact they have on their students in-person.

The Coronavirus Pandemic

At the end of 2019, the world began battling COVID-19 which rapidly spread across the world in a matter of months. According to the World Health Organization (2021), there have been almost 400 million confirmed cases and almost 6 million total deaths across the world with about 20% of those cases arising from the USA. Not only has COVID-19 brought about serious health concerns due to its rapid rate of infection and fatalities, but it has also created immense and ongoing social, economic, and political problems around the world.

The increased need for "social distancing" which reduces physical contact among people was crucial in slowing the spread of COVID-19 within the USA. (Greenstone & Nigam, 2020). The extent of social distancing varies across each state of the USA., but mainly includes governmental measures such as temporary closure of schools, universities, and non-essential businesses, bans on public gathering and travel, increased home-office, virtual schooling, wearing face masks, and maintaining distance from others as much as possible. From national lockdowns to economic crises, COVID-19 has not only taken the lives of nearly 6 million people thus far, but it has also attacked societies at their core with every aspect of daily life being altered. Even though, as stated by the World Health Organization (2021), social distancing and the development of COVID-19 vaccinations have become critical tools in battling COVID-19, the many

other problems the virus has brought will continue to affect us, one of those being its effect on the education system.

COVID-19 and Education

While school closures were recommended by public health professionals and government leaders to slow the spread of the virus, the consequences of these closures were unclear at the time. As Dorn and colleagues (Dorn et al., 2020) suggest, the US education system was not designed to withstand extended periods of shutdowns like those imposed by the COVID-19 pandemic. Many professionals turned to other historical events (e.g., SARS-CoV-2, natural disasters) to predict the potential outcomes of the school closures caused by COVID-19. For example, the natural disaster of Hurricane Katrina in 2005 resulted in 1.5 million people from the Gulf Coast being displaced from their homes, including about 163,000 children and likely causing significant disruption to their access to education (Redlener et al., 2010). Long-term school closures, inaccessibility to school, and ongoing familial struggles contributed to 14–20% of Louisiana and Mississippian students never returning to school following Hurricane Katrina (Redlener et al., 2010).

Despite tremendous efforts of teachers, administrators, and parents to keep education going, it is expected that school closures and remote learning will have resulted in significant learning loss of students that will likely present problems in the next few years (Santamaría et al., 2021). In a systematic review of learning loss and dropout rates during the COVID-19 pandemic, learning loss was exacerbated by school closures and distance/hybrid learning approaches used during the high of COVID-19; moreover, learning loss was consistently higher among students with lower socioeconomic status (Moscoviz & Evans, 2022). On top of this, dropout rates ranged from 1 to 35% across the world, suggesting that school closures and other COVID-19-related stressors may have cut short many students' educational careers (Moscoviz & Evans, 2022).

Due to the unexpected changes in daily life resulting from national lockdowns, some students did not have the ability to attend school online regularly or even at all due to their home environments. Early within the pandemic, it was reported that only 60% of low-income students were regularly logging into online instruction (Geoghegan, 2021). Additionally, in 28 states in the USA, K-12 distance learning was not mandated in 2020, and even when provided, online learning may not be as effective as in-class instruction specifically for K-12 students (Dorn et al., 2020). Because of this, it is estimated that COVID-19 has resulted in 55.3 million students experiencing dramatic learning loss and about 648,000 high school students have dropped out (Dorn et al., 2020). Significant increases in mental health issues among youth are also expected (Gruber et al., 2021; Kuhfield & Tarasawa, 2020). There was an 81%

increase in referrals for children to receive mental health services in 2021 compared to 2019 (Lacobucci, 2022).

As students return to more traditional in-person learning formats, teachers encounter students who are performing below grade-level expectations (Dorn et al., 2020). In turn, this presents challenges for educators and exacerbate their already high levels of occupational stress as they create lesson plans for students in the same grade but are on vastly different educational levels depending on the amount of instruction received during the pandemic. This produces a greater need for school psychologists to not only support students' academic and social-emotional functioning, but also to support teachers' increased stress during the transition back into traditional education. Thus, a systemic approach to fostering resilience and support within the broader school climate may be the focus of intervention for school psychologists.

COVID-19-Related Stress

The measures taken to inhibit the spread of the COVID-19 virus within the USA dramatically altered the daily lives of Americans and are likely to have caused a substantial impact on their physical, mental, social, and financial well-being (Park et al., 2020). Nationwide, Americans had to navigate school closures or transition to online learning, worry about employment insecurity and financial ramifications, all while also being concerned for the health and safety of their families. Individuals within the USA reported experiencing an increase in stress in all areas of their lives due to the COVID-19 pandemic outbreak, and these stressors could have created various psychological problems (Galea et al., 2020; Park et al., 2020; Salari et al., 2020). The most frequently experienced stressors were learning about the severity and rapid spread of COVID-19, uncertainty about the length of social distancing requirements, changes to social and daily life, and rated the most stressful—financial/job security (Park et al., 2020). It was also found that individuals who had higher stress levels 6 months prior to the start of the pandemic experienced a higher burden due to the pandemic than people with lower stress levels (Brailovskaia & Margraf, 2020). Since teaching has been regarded as a highly stressful occupation (Johnson et al., 2005), adding on these personal stressors brought about by the pandemic raises the question of how effectively teachers were able to cope while still maintaining their highly stressful jobs.

School Climate

Previous research has shown that a positive school climate is linked to the academic success and psychological well-being of students (Thapa et al., 2013). School climate encapsulates

an overall evaluation of the school and all the elements influencing it (Cohen, 2006). More specifically, school climate reflects the perceptions of the social, emotional, and academic experiences of school life by students, administrators, teachers, parents, staff, and the community (Smith, 2020). School climate can either be negative or positive, disinviting or inviting. The National School Climate Council states that positive school climates foster “youth development and learning necessary for a productive, contributive, and satisfying life in a democratic society” (Cohen et al., 2009, p. 182). To do so, students, families, and teachers must work together to nurture and provide an educational environment that benefits learning and development.

Teacher Occupational Stress and School Climate

Stress has been hypothesized as one of the most significant teacher barriers (Hagermoser Sanetti & Luh, 2020). When teachers are stressed, they tend to view school climate negatively (Thapa et al., 2013). School climate is linked to the social interactions and quality of relationships among students and teachers while also being linked to the academic achievement of students (Koth et al., 2008; Mitchell et al., 2010; Thapa et al., 2013). Thus, when teachers are stressed, their relationships with students may be inhibited, and students may be more likely to feel as if their needs are not being met (Hagermoser Sanetti & Luh, 2020; Koth et al., 2008; Thapa et al., 2013). Positive student–teacher relationships are positively associated with students' academic engagement and mental health (Ye et al., 2022). On top of this, positive student–teacher relationships have been found to moderate difficulties with online learning, which is significant in terms of the online/hybrid education approach most schools have taken during the COVID-19 pandemic (Ye et al., 2022). Based on the evidence that occupational stress in teachers has been associated with their perceptions of school climate, it is possible that COVID-19-related stress in teachers may demonstrate a similar association with school climate.

The Impact on Students

Many families were able to adapt to create effective routines and educational environments for their children; however, others were unable to cope effectively, and their children's education suffered (Dorn et al., 2020; Pelaez & Novak, 2020). For example, Harris and colleagues (Harris et al., 2020) found that children who live in poverty or who identify as racial minority group members were less likely to be able to engage in high-quality remote learning. Regardless of if students were able to attend school online, it is suggested that the elements of school climate are complex and are unable to be met through

online education (Dorn et al., 2020; Thapa et al., 2013). Some individuals may have perceived the pandemic as highly stressful and since high levels of stress have been associated with poorer perceptions of school climate, students and teachers may have had similar perceptions. In addition, students' physiological stress regulation (i.e., cortisol) has been linked to teacher occupational stress, meaning students in classrooms of stressed teachers overall tend to experience heightened stress (Oberle & Schonert-Reichl, 2016). Since teachers' perceptions of school climate have been linked to how students perceive the environment (Mitchell et al., 2010), the disruption of the school climate during the pandemic and the potentially increased stress among teachers due to COVID-19 may be ultimately associated with poorer outcomes for students.

The Current Study

It has been well established that teachers' occupational stress has been associated with negative perceptions of school climate (Hagermoser Sanetti & Luh, 2020). The goal of this study is to expand on existing research showing that teachers' occupational stress is associated with their perceptions of school climate, and to assess if COVID-19-related stress may also be associated with teachers' perceptions of school climate. The current study's research questions are as follows: (1) What are the typical levels of teachers' occupational stress and COVID-19-related stress? (2) How is teachers' occupational stress associated with teachers' perception of school climate?, and (3) How is teachers' COVID-19-related stress associated with teachers' perceptions of school climate, after controlling for occupational stress. It was hypothesized that teachers will have a high level of occupational stress (Borg & Riding, 1991; Geving, 2007; Kyriacou & Sutcliffe, 1979; National Foundation for Educational Research, 2019; Thomas et al., 2003). Additionally, it was hypothesized that there will be an inverse correlation between occupational stress and teachers' perceptions of school climate, with higher occupational stress associated with a negative perception of school climate (Hagermoser Sanetti & Luh, 2020; Koth et al., 2008; Thapa et al., 2013). Finally, this study is one of the first to examine a relationship between teachers' COVID-19-related stress and perceptions of school climate. Since occupational stress has already been associated with teachers' perceived school climate, it was hypothesized that COVID-19-related stress may exhibit a similar relationship with perceived school climate.

Method

Procedure and Participants

This study surveyed K-12 teachers regarding perceived school climate, occupational stress, and COVID-19-related

stress in the fall of 2021. Surveys were completed electronically through Qualtrics software. Approval from the university IRB was obtained, and all participants provided informed consent. Participants included 111 teachers with a majority of the sample including white women. It is also important to note that a majority of the sample taught in-person during the 2021–2022 school year and used a hybrid/in-person format during the 2020–2021 school year. Additional demographic characteristics of the sample are provided in Table 1.

Measures

Occupational stress

The Teacher Stress Inventory-Short survey (TSI-S) was used to measure distinct stress factors related to the teaching occupation (Fimian, 1984, 1987). This measure yields a total stress score and 5-factor scale scores regarding sources of teachers' stress: time management (4 items), work-related stressors (3 items), professional distress (3 items), student discipline and motivation (3 items), and professional investment (2 items). Intensity of stress is rated on a 5-point Likert scale (1 = no strength, not noticeable; 5 = major strength, extremely noticeable). In this study, occupational stress was an average of all TSI-S items, with higher scores indicating more frequent or intensive occupational stress. Initial factorial and content validity examinations were conducted with the full-length TSI, which found each scale contributed reliably and meaningfully to the measure (Fimian, 1984). The TSI-S has demonstrated adequate internal consistency reliability (alphas ranging from 0.76 to 0.90) in past research with teachers (Fimian, 1987). In the current study, Cronbach's alpha was 0.70.

COVID-19 stress

The Pandemic Stress Index (PSI; Harkness, 2020) was used to measure stressors related to the COVID-19 pandemic. The PSI is a measure consisting of questions emphasizing what the participant did and experienced during the COVID-19 pandemic, with items measured both dichotomously and continuously. Harkness (2020) recommends adding items customized to the population of interest, so additional items were added for the purpose of this study (see Supplementary Materials). In the current study, there were 11 items measuring COVID-19 Behavioral Stress (e.g., "practicing social distancing," "following media coverage related to COVID-19"), 20 items measuring COVID-19 emotional stress (e.g., "fear of getting COVID-19," "fear of giving COVID-19 to someone else"), and one item measuring overall COVID-19 Impact

Table 1 Demographic characteristics of participating teachers

Demographic	Sample	
	<i>N</i>	%
Total	111	100
Gender		
Boy/man	27	24.3
Girl/woman	84	75.7
Race/ethnicity		
Latinx or Hispanic	3	2.7
Asian or Asian American	5	4.5
African American or Black	14	12.6
White	89	80.2
Age		
20–30	12	10.8
30–40	25	22.5
40–50	44	39.6
50–60	18	16.2
Older than 60	12	10.8
Level of education		
Some college	2	1.8
Bachelor's degree	51	45.9
Graduate degree	58	52.3
Grade level		
Elementary	30	27
Middle	48	43.2
High	23	20.7
Elementary and middle	3	2.7
Middle and high	7	6.3
Subject taught		
Core academics	78	70.3
Electives	33	29.7
Years of teaching experience		
0–2	7	6.3
3–5	10	9
6–10	19	17.1
11–20	40	36
21 or more	35	31.5
Years at current school		
0–2	22	19.8
3–5	40	36
6–10	17	15.3
11–20	22	19.8
21 or more	10	9
Teaching format 2021–22		
In-person	108	97.3
Hybrid (in-person and online)	3	2.7
Teaching format 2020–21		
In-person	35	31.5
Online/remote	5	4.5
Hybrid	68	61.3
I did not teach this year	3	2.7

(i.e., “How much did COVID-19 (coronavirus) impact your day-to-day life?”). COVID-19 behavioral stress and COVID-19 emotional stress items were measured dichotomously, coded as 0 = no (not experienced) and 1 = yes (experienced) and summed; the maximum scores were 11 for COVID-19 behavioral stress and 20 for COVID-19 emotional stress. The overall COVID-19 impact item was measured on a 5-point Likert scale from 1 (Not at all) to 5 (extremely).

School Climate

The Delaware School Climate Scale–Teacher/Staff (DSCS-T/S) survey was used to measure perceived school climate (Bear et al., 2019). The DSCS-T/S is a 39-item measure of six aspects of school climate: Teacher–Student Relations, Student–Student Relations, Student Engagement School-Wide, Clarity of Expectations, Fairness of Rules, School Safety, Bullying Schoolwide (reverse-scored), Teacher–Home Communications, and Staff Relations (Bear et al., 2019). Participants were asked to respond on a scale from 1 (*disagree a lot*) to 4 (*agree a lot*). A sum score of all items was calculated, with higher scores indicating more positively perceived school climate. As examined by Bear and colleagues (Bear et al., 2014), this survey demonstrated strong internal consistency across grade-level, position, gender, and race/ethnicity groups (range 0.92 to 0.95, with overall alpha of 0.94 for all teachers/staff combined) and evidence of strong concurrent validity in a sample of 5086 teacher/staff respondents. In the current study, the internal consistency as measured by Cronbach's alpha was 0.95.

Demographic Questionnaire

All participating teachers were asked to provide demographic information such as age, race/ethnic identity, gender identity, and level of education at the end of the survey. Participants also indicated their years of teaching experience, grade level they are currently teaching, if they are a first-year teacher (starting in August 2021), and if they taught full time during the previous two school years (i.e., 2019–2020, 2020–2021).

Analysis

IBM SPSS Statistics (Version 27) was used to conduct all data analyses. To examine Research Question 1, descriptive statistics (*M*, *SD*, range [minimum and maximum scores]) were obtained for occupational stress and COVID-19 stress. Research Question 2 was investigated using linear regression analysis. The dependent variable was teachers' perception of school climate; the independent variable was the teachers'

perceived occupational stress. Additionally, a univariate analysis of variance (ANOVA) was conducted to examine whether there are significant differences in school climate perceptions across various groups (e.g., race and ethnicity, level of education, years of teaching experience). Variables demonstrating significant differences in school climate would be included as covariates in the regression analysis. Hierarchical regression analysis was used to investigate Research Question 3. In step 1, occupational stress was entered as a predictor of school climate; in step 2, COVID-19 stress was also entered as a predictor. As described above, relevant demographic variables were intended to be included as covariates in step 1; however, as is soon described, there were no significant demographic variables.

Results

Descriptive Statistics

Bivariate correlations and descriptive statistics (M , SD) were calculated for all study variables (see Table 2). Teachers' average score on occupational stress was 3.24. Given that occupational stress was measured on a 5-point scale ranging from 1 to 5, this suggests that the typical levels of teachers' occupational stress for the sample were moderately high. Additionally, the teachers' average scores for COVID-19-related stress were as follows: $M = 6.99$ for behavioral COVID-19-related stress; $M = 8.82$ for emotional COVID-19-related stress; and $M = 3.15$ for overall COVID-19 impact. Given that the maximum score for behavioral COVID-19 stress was 11, this suggests that teachers' average level behavioral COVID-19-related stress was relatively high ($M = 6.99$). On the other hand, typical levels of emotional stress were low to moderate ($M = 8.82$), given that the maximum score for emotional COVID-19 stress was 20. Additionally, the overall COVID-19 impact score was high for the sample ($M = 3.15$), given that it was measured on a 5-point Likert scale ranging from 0 to 4 (i.e., maximum score possible = 4). The bivariate correlations showed that occupational stress was not significantly associated with school climate, COVID-19 behavioral stress, and overall

COVID-19 impact. However, occupational stress was significantly inversely associated with COVID-19 emotional stress ($r = -.21$, $p = .042$). Additionally, school climate was significantly associated with COVID-19 behavioral stress ($r = -.23$, $p = .025$) and COVID-19 impact ($r = -.34$, $p = .001$), and school climate was marginally associated with COVID-19 emotional stress ($r = -.21$, $p = .050$). As shown in Table 2, all three COVID-19 variables were significantly associated with each other at $p < .001$.

Linear Regression

Research Question 2 was investigated using linear regression analysis. Teachers' perception of school climate was entered as the dependent variable; the independent variable was teachers' perceived occupational stress. Prior to conducting the regression analysis, a univariate analysis of variance (ANOVA) was conducted to examine whether there are significant differences in teachers' school climate perceptions across various demographic groups (e.g., gender, age, race and ethnicity, level of education, building-level, and years of teaching experience). Any variables that demonstrated significant differences in school climate would then be included as covariates. The univariate ANOVA revealed no statistically significant differences in teachers' perceptions of school climate based on the demographic characteristics they reported. Specifically, the omnibus effect of gender in predicting perceived school climate was not statistically significant, $F(1) = 0.19$, $p = .67$. Additionally, the omnibus effect for race, $F(3) = 0.36$, $p = .78$; age, $F(4) = 0.34$, $p = .85$; building-level, $F(4) = 0.79$, $p = .55$; years of experience, $F(4) = 0.09$, $p = .99$; and level of education, $F(2) = 0.76$, $p = .48$ were not statistically significant. Because no demographic groups demonstrated statistically significantly different perceptions of school climate, no follow-up analyses (i.e., post-hoc tests of significance) were conducted, and no demographic variables were entered as covariates.

The results of the regression analysis revealed that the overall model was not statistically significant, $F(1, 97) = 1.31$, $p = .256$. Specifically, the direct association between teachers' occupational stress and their perceptions of school climate ($B = -2.53$, $p = .256$) suggests that

Table 2 Bivariate correlation matrix and descriptive statistics for study variables

Variable	1	2	3	4	M (SD)
1. Occupational stress	1.00				3.24 (0.62)
2. COVID-19 behavioral stress	-.08	1.00			6.99 (2.14)
3. COVID-19 emotional stress	-.21*	.48***	1.00		8.82 (4.99)
4. COVID-19 impact	.004	.49***	.47***	1.00	3.15 (1.06)
5. School climate	-.12	-.23*	-.21	-.34**	101.62 (15.81)

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

teachers' occupational stress was not a significant predictor of their perception of school climate in the current study. This finding is contrary to the present study's hypothesis, as previous research has demonstrated a significant association between teachers' occupational stress and perceived school climate.

Hierarchical Regression

Research Question 3 was investigated using hierarchical regression analysis. In step 1, teachers' perception of school climate was entered as the dependent variable; the predictor variable was teachers' perceived occupational stress. In step 2, occupational stress was again entered as a predictor of school climate and COVID-19-related stress factors (behavioral COVID-19 stress, emotional COVID-19 stress, overall COVID-19 stress) were entered as predictors. Since there were no significant demographic variables found in the previous analyses, no demographic variables were included as covariates within the regression.

In step 1 of the hierarchical regression, about 1% of the variance in school climate was accounted for by occupational stress ($R^2 = .011$), and the overall model was not statistically significant $F(1, 90) = 1.05, p = .309$. After adding the additional variable as predictors in step 2, there was a significant increase in the proportion of variance accounted for in school climate ($\Delta R^2 = .138$), $F(3, 87) = 4.70, p = .004$. The model ran in step 2 accounted for about 15% of the variance in school climate ($R^2 = .149$) and yielded an overall regression model that was significant, $F(4, 87) = 3.82, p = .007$.

Contrary to hypotheses, teachers' occupational stress, behavioral COVID-19 stress, and emotional COVID-19 stress were not significantly associated with teachers' perceptions of their school climate. However, the overall impact of COVID-19 stress ($B = -3.72, p = .019$) was significantly inversely associated with teachers' perceived school climate. As hypothesized, as teachers' overall COVID-19 stress increased, their perception of school climate decreased (i.e., teachers viewed their climate more negatively) (Table 3).

Discussion

In the current study, the relationship between teachers' perceptions of school climate and teachers' occupational and COVID-19-related stress was investigated. Previous research has found that teachers' occupational stress has been associated with negative perceptions of school climate among teachers (Hagermoser Sanetti & Luh, 2020). The main purpose of this study was to expand on previous findings that teachers' occupational stress is related to their perceptions of school climate and to investigate if COVID-19-related stress follows a similar pattern.

Review of Findings

Descriptive statistics showed that the sample reported moderately high levels of occupational stress, high levels of COVID-19 behavioral stress, low/moderate levels of emotional COVID-19 stress, and a high COVID-19 impact score. This is congruent with previous research that teachers are likely to experience high levels of occupational stress (Borg & Riding, 1991; Geving, 2007; Kyriacou & Sutcliffe, 1979; National Foundation for Educational Research, 2019; Thomas et al., 2003). In addition, the sample's average perception of their school climate was on the higher end of the scale indicating that teachers generally had positive perceptions of school climate.

Association Between Occupational Stress and School Climate

The linear regression examining Research Question 2 showed that occupational stress was not significantly correlated with school climate. This finding was in contrast with previous research that demonstrated teachers' occupational stress was inversely associated with school climate perceptions, such that increases in occupational stress were associated with decreases in the quality of the school climate (Hagermoser Sanetti & Luh, 2020; Koth et al., 2008; Thapa et al., 2013). However, of note, the non-significant association was found in the expected direction, meaning

Table 3 Direct associations between school climate, occupational stress, and COVID-19-related stress

Variable	Model 1			Model 2		
	<i>B</i>	SE <i>B</i>	Sig	<i>B</i>	SE <i>B</i>	Sig
School climate						
Occupational stress	-2.53	2.22	.256	-3.36	2.26	.140
Behavioral COVID-19 stress				-0.81	0.85	.344
Emotional COVID-19 stress				-0.15	0.33	.658
Overall impact of COVID-19 stress				-3.72*	1.56	.019

* $p < 0.05$

as teachers' occupational stress increased, their perception of their school climate decreased, but not in a statistically significant manner. Interpretation of the sample's average occupational stress levels and perceptions of their school climate suggests that maybe a significant correlation was not found because our sample had a more positive view of their climate. Thus, even in the presence of heightened job stress, teachers in the current study may have maintained positive views about their school's climate. More research is needed to determine why teachers who are stressed might view their school climate in a positive light. It is possible that teachers could be burnt out from having to contribute even more energy to building and maintaining a positive school climate throughout the pandemic and through the transition into the "new normal" as Travers (2017) suggests in his review of the causes and prevalence of teacher stress. On the other hand, our measure might not have been a valid indicator of teachers' actual stress or maybe they experience higher stress, but another confounding variable was present but not measured in this study that would have better explained the variance in school climate perceptions (e.g., gratitude, coping skills, student–teacher relationships, staff relations).

COVID-19-Related Stress

Out of all three of the COVID-19 stress variables, overall COVID-19 impact was the only COVID-19-related stress variable that was found to be significantly inversely correlated with school climate as hypothesized. Given that teachers generally experience heightened stress compared to other professions (National Foundation for Educational Research, 2019) and the widespread and unprecedented stressors brought onto the educational system by the COVID-19 pandemic (Brailovskaia & Margraf, 2020; Park et al., 2020), combined with the strong evidence that increased stress is linked with poorer views of school climate (Dicke et al., 2020; National Foundation for Educational Research, 2019), we anticipated that stress from COVID-19 would be significantly inversely associated with teachers' perceptions of the quality of their school's climate.

It is important to understand the differences in the types of COVID-19 stress we measured in order to interpret why not all three stress variables were significant. Behavioral COVID-19-related stress includes physical behaviors that the participants changed (e.g., social distancing, self-isolation, changed travel plans, etc.). Notably, most of these behavioral changes that teachers may have experienced were likely to have occurred outside of the school setting itself, and because they are outside of school control (i.e., it is not the fault of the school setting itself that teachers may have needed to cancel travel plans), it makes sense that behavioral changes may not be directly associated with teacher's perceived school climate.

Emotional COVID-19-related stress includes experiences and challenges that the participants undertook during the pandemic such as being fearful, anxious, depressed, or worried. It is possible that timing played a factor in why emotional stress was not significant because at the time the data was collected in the Fall of 2021. At that point, the pandemic had been ongoing for about a year and a half, and teachers may have become accustomed to the "new normal" of the changes caused by the pandemic. In other words, the behavioral changes and emotional stressors of the pandemic may have become more habitual in nature, and thus teachers may have adjusted to these changes as normal daily occurrences, rather than as chronic stressors. In another recent study, Herman and colleagues (Herman et al., 2021) found that teachers demonstrated high levels of coping in regard to their stress during the pandemic. In some ways, this may demonstrate that teachers have learned to cope with and adapt to the life changes required by the COVID-19 pandemic in a way that did not directly correlate with how they viewed the school climate as a whole.

This could also be an indication of why the overall COVID-19 impact (i.e., how substantially teachers felt that the COVID-19 pandemic had disrupted their lives overall) was significant, as participants indicated that COVID-19 was highly impacting their lives due to the long ongoing timeline of the pandemic. This reveals that subjective evaluations of how impactful COVID-19 has been on their lives was directly correlated with how teachers viewed their school climate, similar to how subjective evaluations of occupational stress have been previously found to be associated with school climate (Dicke et al., 2020; National Foundation for Educational Research, 2019). Additionally, our results are consistent with multiple articles published since the beginning of the pandemic which have found a significant increase in teachers' levels of stress, anxiety, and depression (Baker et al., 2021; Carver-Thomas et al., 2021; Herman et al., 2021; Santamaría et al., 2021). This is one of the first studies to examine the association between teachers' COVID-19-related stress and perceived school climate; thus, our hypotheses were exploratory and based primarily on the established association between occupational stress and school climate perceptions.

Despite working in a high-stress profession and one that was particularly affected by the COVID-19 pandemic (e.g., school closures, online learning), our results suggest that teachers in the current sample were generally quite resilient when it came to the relationship between their COVID-19-related stress and their perceptions of school climate. This aligns with previous research suggesting that teachers' resilience can be amplified by high quality relationships within the school setting, social support, years of experience, self-efficacy, and personal characteristics (e.g., intrinsic motivation, sense of agency; Beltman et al., 2011).

Implications

To our knowledge, only a handful of studies have empirically examined how COVID-19-related stress is associated with teachers' school experiences and their mental well-being, and additional research is necessary to understand the potential long-term effects of the pandemic on educational stakeholders. Our findings suggest that COVID-19 has a clear association with how teachers perceive their school climates. This suggests that external factors out of the school's control contribute to teachers' perceptions of school climate. These findings further indicate that school climate is a multidimensional concept that may draw influence from a wide range of sources which might not always be easily identifiable.

In addition, our findings also imply that the relationship between teacher occupational stress and school climate is more dynamic than described in previous research. Researchers need to be aware of this because identifying the ways in which teachers view their school climate positively while also being stressed out by their occupations could provide insight into how to increase teacher retention rates. Such understanding could thus have direct implications for the current national teacher shortage (U.S. Department of Education, 2022). Furthermore, our findings suggest that teacher occupational stress and teacher perceptions of school climate may not have a linear relationship as previously thought. Instead, these two variables may exhibit a more parabolic (u-shaped) relationship suggesting that low and high levels of teacher stress are detrimental to their perceptions of school climate, but a moderate level of teacher stress may be beneficial. Such a relation would be aligned with Yerkes-Dodson Law, which indicates that some arousal (i.e., stress) can motivate action and goal-oriented behavior, while extremely low and high levels of arousal may be debilitating in terms of motivating goal-oriented behavior. Although more research is needed, it is possible that moderate levels of stress may contribute to occupational productivity among teachers (Mellifont et al., 2016). More investigation into the relationship between teacher occupational stress and school climate could provide more insight into how to better support teachers in terms of their stress levels and how to foster a more positive school climate.

Results of the current study may also help to inform school psychologists and other educators on how to identify different sources of stress for teachers and how to help them cope. It is important for school psychologists and educators to be aware of the associated outcomes of the stressors teachers may be experiencing due to the pandemic, and for administrators to regularly assess their teachers' levels of stress and to provide outlets (e.g., focus groups, training in mindfulness, or coping skills) to support them when needed. Not all stressors might be important indicators of

the health of a school's climate, but they do indicate the overall well-being of teachers and the quality of their mental health which is an important aspect in making sure they can perform their jobs effectively. Helping teachers learn how to better cope with the stressors caused by their jobs and their outside lives might be beneficial as schools around the world are transitioning back into the "new normal."

Limitations and Future Directions

There are several limitations to this study. First, this study was conducted about a year and a half after the onset of the COVID-19 pandemic. Because of this, it is hard to decipher whether COVID-19 had a significant impact on teacher stress especially since there was no comparison value from before the onset of the pandemic; further, because this was a correlational study, the directionality of significant associations or potential causality of changes in these variables cannot be claimed. Due to the timely nature of this study, the COVID-19 stress measure that was used was one of few that were available for research purposes at the time the study was administered, and also this measure lacked sufficient research support as COVID-19 research is a new and developing topic of psychological research. Additionally, despite replicating previous research methods, occupational stress and school climate were not significantly correlated with each other. This may be due to not having a big enough sample even though we had more than enough participants based on the *a priori* power analysis we conducted prior to the study.

Our sample was also lacking in racial and ethnic diversity as a majority of the participants were White women from the Southeastern United States. A larger and more diverse sample is necessary to generalize the study's findings more broadly to all teachers, as the current findings may only generalize to teachers that are similar to those who participated in the current study. The generalizability of these findings would be especially improved if a national sample of teachers was collected across all regions of the USA, and future studies may also conduct cross national studies to examine how teachers and educational systems have responded to the pandemic differentially around the world. Additionally, exploring if similar findings occur for professors and students within higher education could also be beneficial, as higher education practices were also disrupted by the pandemic.

Another limitation of the current study is that teachers completed self-report questionnaires, as participants may have exaggerated symptoms to make their situation seem worse, or they may have under-reported the severity of their issues to minimize their problems. Additionally, participants could have misremembered their past experiences or misinterpreted the questions asked within the survey. This

is a potential issue in the current study because the survey was conducted about a year and a half after the onset of the pandemic, potentially causing participants to misremember the experiences or the extent of the experiences they had throughout the pandemic. Additionally, this study's use of a frequency COVID-19 stress measure may not be a strong measure of stress as experiences encapsulated within the measure (e.g., fear of getting COVID-19 versus being hospitalized for COVID-19) may have various levels of intensity in the amount of stress they caused to the participant; however, they were scored equally (i.e., each indicated item counted for 1 point on the summed score). Future directions could include longitudinal studies following teachers' COVID-19-related stress as the pandemic diminishes and mandates and restrictions are lifted. Interviews that document teachers' experiences throughout the entire pandemic could also be a helpful tool if there is an instance in the future where isolation and online education are needed again.

Evaluating how other variables such as teacher coping skills, teacher resources, and student–teacher relationships affect levels of teacher stress and teachers' perceptions of school climate might give educators more information into how to better support teachers' well-being. Measuring student stress as well as their perceptions of school climate could also be a helpful tool in deciphering the differences between teacher and student perceptions of school climate, differences in stress, where the differences occur, and how to use this information to better promote and foster a healthy, positive climate within schools.

Conclusion

The COVID-19 pandemic greatly impacted ways of life within the USA and around the world. With the necessary lockdowns, restrictions, and mandates in order to decrease the spread of the virus, it greatly disrupted the education system causing significant barriers and challenges teachers had to face. Research has already shown that teaching is regarded as a high-stress profession, and the significant additional stress they were/are experiencing due to the pandemic is of great concern. In addition, school climate is an important aspect of child development and student success. Understanding what contributes to a positive school climate is essential to promoting students getting back on track. Due to this, it is important that we understand how to pinpoint and better understand how to regulate teacher stress so there is more retention within the field, teachers are more willing to support their students, and teachers are more likely to view their school climates in a positive light. As Bill Gates once said, "Students deserve great teachers. And teachers deserve the support they need to become great."

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s40688-022-00428-2>.

Declarations

Ethics Approval This study involved research on human participants; therefore, approval from the Institutional Review Board at the authors' institution was granted before the study was conducted.

Consent to Participate Informed consent was obtained from all participants in this study.

Consent for Publication As part of the informed consent procedure, participants were informed that data collected may be analyzed and published via a peer-review process.

Competing Interests The authors declare no competing interests.

References

- Algozzine, B., Wang, C., & Violette, A. S. (2011). Reexamining the relationship between academic achievement and social behavior. *Journal of Positive Behavior Interventions, 13*(1), 3–16.
- Baker, C. N., Peele, H., Daniels, M., Saybe, M., Whalen, K., Overstreet, S., The New Orleans, T. I. S. L. C. (2021). The experience of COVID-19 and its impact on teachers' mental health, coping, and teaching. *School Psychology Review, 50*(4), 491–504.
- Bear, G. G., Yang, C., Pell, M., & Gaskins, C. (2014). Validation of a brief measure of teachers' perceptions of school climate: Relations to student achievement and suspensions. *Learning Environments Research, 17*(3), 339–354.
- Bear, G., Yang, C., Harris, A., Mantz, L., Hearn, S., & Boyer, D. (2019). *Technical manual for the Delaware School Survey: Scales of school climate; bullying victimization; student engagement; positive, punitive, and social emotional learning techniques; and social and emotional competencies*. Center for Disabilities Studies.
- Beltman, S., Mansfield, C., & Price, A. (2011). Thriving not just surviving: A review of research on teacher resilience. *Educational Research Review, 6*(3), 185–207.
- Borg, M. G., & Riding, R. J. (1991). Occupational stress and satisfaction in teaching. *British Educational Research Journal, 17*(3), 263–281.
- Brailovskaia, J., & Margraf, J. (2020). Predicting adaptive and maladaptive responses to the Coronavirus (COVID-19) outbreak: A prospective longitudinal study. *International Journal of Clinical and Health Psychology, 20*(3), 183–191.
- Carver-Thomas, D., Leung, M., & Burns, D. (2021). *California Teachers and COVID-19: How the pandemic is impacting the teacher workforce*. Learning Policy Institute.
- Cohen, J., McCabe, L., Michelli, N. M., & Pickeral, T. (2009). School climate: Research, policy, practice, and teacher education. *Teachers College Record, 111*(1), 180–213.
- Cohen, J. (2006). Social, emotional, ethical, and academic education: Creating a climate for learning, participation in democracy, and well-being. *Harvard Educational Review, 76*(2), 201–237.
- Dicke, T., Marsh, H. W., Parker, P. D., Guo, J., Riley, P., & Waldeyer, J. (2020). Job satisfaction of teachers and their principals in relation to climate and student achievement. *Journal of Educational Psychology, 112*(5), 1061.

- Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2020). *COVID-19 and student learning in the United States: The hurt could last a lifetime*. McKinsey & Company.
- Fimian, M. J. (1987). Alternate-forms and alpha reliability of the Teacher Stress Inventory. *Psychology in the Schools, 24*(3), 234–236.
- Fimian, M. J. (1984). The development of an instrument to measure occupational stress in teachers: The Teacher Stress Inventory. *Journal of Occupational Psychology, 57*, 277–293. <https://doi.org/10.1111/j.2044-8325.1984.tb00169.x>
- Galea, S., Merchant, R. M., & Lurie, N. (2020). The mental health consequences of COVID-19 and physical distancing: The need for prevention and early intervention. *JAMA Internal Medicine, 180*(6), 817–818.
- Geoghegan, T. (2021). *Childhood in the time of Covid* (pp. 1–28, Rep.). Save the Children.
- Geving, A. M. (2007). Identifying the types of student and teacher behaviors associated with teacher stress. *Teaching and Teacher Education, 23*(5), 624–640.
- Greenstone, M., & Nigam, V. (2020). Does social distancing matter? *University of Chicago, Becker Friedman Institute for Economics Working Paper, (2020–26)*.
- Gruber, J., Prinstein, M. J., Clark, L. A., Rottenberg, J., Abramowitz, J. S., Albano, A. M., ... & Weinstock, L. M. (2021). Mental health and clinical psychological science in the time of COVID-19: Challenges, opportunities, and a call to action. *American Psychologist, 76*(3), 409–426. <https://doi.org/10.1037/amp0000707>
- Hagermoser Sanetti, L. M., Boyle, A. M., Magrath, E., Cascio, A., & Moore, E. (2021). Intervening to decrease teacher stress: A review of current research and new directions. *Contemporary School Psychology, 25*(4), 416–425.
- Hagermoser Sanetti, L. M., & Luh, H. J. (2020). Treatment fidelity in school-based intervention. In *Student Engagement* (pp. 77–87). Springer.
- Harkness, A. (2020). *The Pandemic Stress Index*. University of Miami.
- Harris, L., Dargusch, J., Ames, K., & Bloomfield, C. (2020). Catering for 'very different kids': Distance education teachers' understandings of and strategies for student engagement. *International Journal of Inclusive Education, 26*(8), 848–864. <https://doi.org/10.1080/13603116.2020.1735543>
- Haydon, T., Leko, M. M., & Stevens, D. (2018). Teacher stress: Sources, effects, and protective factors. *Journal of Special Education Leadership, 31*(2), 99–107.
- Herman, K. C., Sebastian, J., Reinke, W. M., & Huang, F. L. (2021). Individual and school predictors of teacher stress, coping, and wellness during the COVID-19 pandemic. *School Psychology, 36*(6), 483–493. <https://doi.org/10.1037/spq0000456>
- Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research, 79*(1), 491–525.
- Johnson, S., Cooper, C., Cartwright, S., Donald, I., Taylor, P., & Millet, C. (2005). The experience of work-related stress across occupations. *Journal of Managerial Psychology, 20*(2), 178–187.
- Koth, C. W., Bradshaw, C. P., & Leaf, P. J. (2008). A multilevel study of predictors of student perceptions of school climate: The effect of classroom-level factors. *Journal of Educational Psychology, 100*(1), 96.
- Kuhfield, M., & Tarasawa, B. (2020). The COVID-19 Slide: What summer learning loss can tell us about the potential impact of school closures on student academic achievement. Brief. NWEA.
- Kyriacou, C., & Sutcliffe, J. (1979). Teacher stress and satisfaction. *Educational Research, 21*(2), 89–96.
- Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review, 53*(1), 27–35.
- Lacobucci, G. (2022). Covid-19: Pandemic has disproportionately harmed children's mental health, report finds. Retrieved September 1, 2022 from <https://www.bmj.com/content/376/bmj.o430.short>
- Madigan, D. J., & Kim, L. E. (2021). Does teacher burnout affect students? A systematic review of its association with academic achievement and student-reported outcomes. *International Journal of Educational Research, 105*, 101714.
- Mellifont, D., Smith-Merry, J., & Scanlan, J. N. (2016). Pitching a Yerkes-Dodson curve ball?: A study exploring enhanced workplace performance for individuals with anxiety disorders. *Journal of Workplace Behavioral Health, 31*(2), 71–86.
- Mitchell, M. M., Bradshaw, C. P., & Leaf, P. J. (2010). Student and teacher perceptions of school climate: A multilevel exploration of patterns of discrepancy. *Journal of School Health, 80*(6), 271–279.
- Moscoviz, L., & Evans, D. K. (2022). Learning loss and student dropouts during the Covid-19 pandemic: A review of the evidence two years after schools shut down. CGD Working Paper 609.
- National Foundation for Educational Research (2019). More teachers feel 'tense' or 'worried' about their job than those in comparable professions. Retrieved April 22, 2021 from <https://www.nfer.ac.uk/news-events/press-releases/more-teachers-feel-tense-or-worried-about-their-job-than-those-in-comparable-professions/>
- Oberle, E., & Schonert-Reichl, K. A. (2016). Stress contagion in the classroom? The link between classroom teacher burnout and morning cortisol in elementary school students. *Social Science & Medicine, 159*, 30–37.
- Pelaez, M., & Novak, G. (2020). Returning to school: Separation problems and anxiety in the age of pandemics. *Behavior Analysis in Practice, 13*(3), 521–526.
- Park, C. L., Russell, B. S., Fendrich, M., Finkelstein-Fox, L., Hutchison, M., & Becker, J. (2020). Americans' COVID-19 stress, coping, and adherence to CDC guidelines. *Journal of General Internal Medicine, 35*(8), 2296–2303.
- Pressley, T., Ha, C., & Learn, E. (2021). Teacher stress and anxiety during COVID-19: An empirical study. *School Psychology, 36*(5), 367–376. <https://doi.org/10.1037/spq0000468>
- Redlener, I. E., DeRosa, C., & Parisi, K. (2010). Legacy of Katrina: The impact of a flawed recovery on vulnerable children of the Gulf Coast. In *IOM Workshop on Human Health Effects of Gulf Oil Spill from the National Center for Disaster Preparedness and Columbia University Mailman School of Public Health*.
- Salari, N., Hosseini-Far, A., Jalali, R., Vaisi-Raygani, A., Rasoulpoor, S., Mohammadi, M., ... & Khaledi-Paveh, B. (2020). Prevalence of stress, anxiety, depression among the general population during the COVID-19 pandemic: A systematic review and meta-analysis. *Globalization and Health, 16*(1), 1–11.
- Santamaría, M. D., Mondragon, N. I., Santxo, N. B., & Ozamiz-Etxebarria, N. (2021). Teacher stress, anxiety and depression at the beginning of the academic year during the COVID-19 pandemic. *Global Mental Health, 8*(14). <https://doi.org/10.1017/gmh.2021.14>
- Smith, K. H. (2020). Perceptions of school climate: Views of teachers, students, and parents. *Journal of Invitational Theory & Practice, 26*, 5–20. <https://doi.org/10.26522/jitp.v26i.3460>
- Sokal, L. J., Eblie Trudel, L. G., & Babb, J. C. (2020). Supporting teachers in times of change: The job demands-resources model and teacher burnout during the COVID-19 pandemic. *International Journal of Contemporary Education, 3*(2). <https://doi.org/10.11114/ijce.v3i2.4931>
- Thapa, A., Cohen, J., Guffey, S., & Higgins-D'Alessandro, A. (2013). A review of school climate research. *Review of Educational Research, 83*(3), 357–385.

- Thomas, N., Clarke, V., & Lavery, J. (2003). Self-reported work and family stress of female primary teachers. *Australian Journal of Education, 47*(1), 73–87.
- Travers, C. (2017). Current knowledge on the nature, prevalence, sources and potential impact of teacher stress. *Educator Stress, 23*–54. https://doi.org/10.1007/978-3-319-53053-6_2
- U.S. Department of Education. (2022). Teacher shortage areas. Retrieved September 1, 2022 from <https://tsa.ed.gov/#/home/>.
- World Health Organization (2021). WHO (World Health Organization) coronavirus (COVID-19) Dashboard. (n.d.). Retrieved March 28, 2021 from <https://covid19.who.int/>.
- Ye, Y., Wang, C., Zhu, Q., He, M., Havawala, M., Bai, X., & Wang, T. (2022). Parenting and teacher-student relationship as protective factors for Chinese adolescent adjustment during COVID-19. *School Psychology Review, 51*(2), 187–205. <https://doi.org/10.1080/2372966X.2021.1897478>

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.

Ms. Metrailler is a 2022 graduate of the Louisiana State University Ogden Honors College.

Dr. Clark is an Assistant Professor in the School Psychology Program at Louisiana State University. She is a Nationally Certified School Psychologist.