# BETTER UNDERSTANDING RACE, ETHNICITY AND THE STUDENT MENTAL HEALTH CRISIS: THE DISPROPORTIONATE LONG-TERM CONSEQUENCES OF THE COVID-19 PANDEMIC

## Tracy Reimer, Alyssa Bartos

Bethel University (USA)

#### Abstract

The study aimed to better understand elementary students' mental health and well-being before and after the Covid-19 pandemic, as well as whether there are differences in elementary students' self-reported mental health between racial groups. Minnesota Student Survey results were analysed, and the results of Bonferroni post-hoc tests found significant differences in worrying a lot and feeling sad between racial groups. Hispanic or Latino/Latina students are significantly more likely to worry a lot than all other racial/ethnic groups. Black, African or African American students are significantly less likely to feel sad than all other racial/ethnic groups, except White students. Hispanic or Latino/Latina students reported the largest increases in worrying and feeling sad between 2019 and 2022. The study findings hold implications for practice, including building educators' cultural responsiveness, increasing mental health support in the schools, and implementing social-emotional learning in elementary schools.

KEY WORDS: Covid-19, education, elementary, equity, mental health, race, student.

#### Anotacija

Atliekant tyrimą siekta geriau suprasti pradinių klasių mokinių psichinę savijautą ir sveikatą prieš COVID-19 pandemiją ir po jos, įvertinant pradinių klasių mokinių psichikos sveikatą rasinių grupių aspektu. Išanalizavus Minesotos mokyklų mokinių apklausos rezultatus, *Bonferroni post-hoc* testų rezultatai atskleidė reikšmingus su dideliu nerimu ir liūdesiu susijusius rasinių grupių tarpusavio skirtumus. Ispanų ir lotynoamerikiečių kilmės mokiniai, palyginti su visomis kitomis rasinėmis / etninėmis grupėmis, daugiausia linkę nerimauti. Tuo tarpu juodaodžiai, afrikiečiai ar afroamerikiečiai mokiniai daug rečiau linkę liūdėti, palyginti su visomis kitomis rasinėmis / etninėmis grupėmis, išskyrus baltuosius. 2019–2022 m. tyrimai atskleidė, kad ispanų ir lotynoamerikiečių kilmės mokiniai jautė nerimo ir liūdesio padidėjimą. Tyrimo rezultatai svarbūs pedagoginei praktikai, kuri apima pedagogų kultūrinio reagavimo prieigas, psichikos sveikatos palaikymą ir socialinio emocinio mokymosi pradinėse mokyklose įgyvendinimą.

PAGRINDINIAI ŽODŽIAI: COVID-19, švietimas, pradinė mokykla, nešališkumas, psichinė sveikata, rasė, mokiniai.

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#### Introduction

Disruptions related to the Covid-19 pandemic, including social isolation, school closures, job loss, financial hardships, reduced access to healthcare, and family members passing away, constituted a collective trauma in which the exposures resulted in an intensified state of social-emotional well-being for youth (Elharake et al., 2023; Jones et al., 2022). During the pandemic, 37.1% of high school students endured mental health challenges, and 19.9% contemplated suicide (Jones et al., 2022). Further, there was an estimated increase of 40% in visits to children's hospitals related to mental health (Chatterjee, 2022). Exacerbating the well-being challenges was the reality that the pandemic disproportionately affected people of colour. The ethnic and racial disparities encountered during Covid-19 may be associated with increased emotional distress and a decline in psychological well-being in non-majority populations (Thomeer et al., 2023; Wen et al., 2023).

Throughout the pandemic, encounters with ethnic and racial discrimination were more frequent among all minority groups compared to the White population (Shi et al., 2022). Latino families reported declining mental health due to elevated rates of job loss (Ormiston et al., 2023). Black, Indigenous and People of Color (BIPOC) children were more likely than White children to bear the loss of a parent or caregiver: 3.5 times higher for Native American, 2.4 times higher for Black and Hispanic, and 4.5 times higher for Asian American (Hillis et al., 2021; National Institutes of Health, 2021; Williams et al., 2022). Asian American families experienced high rates of declining mental health as youth faced increased bullying and harassment (Treglia et al., 2021). Despite the significant risks to their mental health, the impact of Covid-19 on minority students' well-being needs further investigation (Williams et al., 2022).

## Statement of the problem

At the onset of the pandemic, an emergency in child and adolescent mental health was declared by the American Academy of Pediatrics, the Children's Hospital Association, the American Academy of Child & Adolescent Psychiatry, and the US Surgeon General (2021). Educators, pediatricians and mental health care professionals in the United States observed an increase in mental health challenges in K-12 students, as levels of stress, depression, anxiety and behavioural issues in students escalated, which placed additional pressures on the education and healthcare systems (Chatterjee, 2022; Leeb et al., 2020).

Compounding the burden of society's increased mental health distress during Covid-19 was intensified interpersonal racism, such as law enforcement brutality reported by Black individuals and racial assaults against Asian Americans, with

added adverse health effects for BIPOC individuals (Shi et al., 2022). Scholars have found that racial discrimination increases distress, symptoms of depression, and behavioural concerns, resulting in decreased self-esteem and mental health disorders (Chao & Green, 2011; Gomez, 2015; Jackson et al., 2012; McGee & Stovall, 2015). Barnes (2019) revealed that families who are of colour and have a lower socio-economic status have a higher risk of mental health disorders, conduct issues, and complex trauma. Furthermore, in comparison with White families, Latino and Black families have lower rates of access to mental health services. Untreated mental health disorders can have detrimental outcomes, such as low academic performance, suicidal behaviour and unemployment (Kataoka et al., 2002; Powers et al., 2014).

The American education system has embodied racism by 'maintaining White dominance' (Kohli, 2008, 179). While schools must report disciplinary data disaggregated by racial group (Report to Commissioner of Education, 2023), and academic achievement data is required to be disaggregated by racial groups (Every Student Succeeds Act, 2015), there are no state or federal mandates to report or measure disaggregated students' mental health data. Given the limited research focused on elementary students' well-being, there is a need for a study to be conducted to examine the post-Covid mental health and well-being as self-reported by elementary-age students. There is an explicit need to discern the mental health of students from racial and ethnic minority populations, such as Black, African or African American, Hispanic or Latino/Latina, Asian or Native Hawaiian Pacific Islander, and American Indian or Alaskan Native, in their early years of education following the Covid pandemic.

# Purpose of the study

The purpose of this quantitative study was to examine whether experienced and perceived racial discrimination during the pandemic was associated with mental health outcomes. The study aimed to better understand elementary students' mental health and well-being before and after the pandemic. Elementary students' emotional well-being and distress in 2019 was compared to elementary students' emotional well-being and distress in 2022. A specific focus was aimed at describing the differences in mental health within racial/ethnic groups prior to the pandemic (2019) and post-pandemic (2022). In addition, data was analysed to determine whether there were differences in elementary students' self-reported mental health on the 2022 Minnesota Student Survey between racial groups.

## 1.2. Methodology

This study employed a quantitative research design utilising secondary data analysis of the Minnesota Student Survey (Minnesota Department of Education, n.d.-b). The Minnesota Student Survey is administered every three years in public school districts (Minnesota Department of Education, n.d.-b). The survey is administered to students in Grades 5, 8, 9 and 11. The deidentified data from the Minnesota Student Survey are available for public download through the Minnesota Department of Education.

This study focused on Grade 5 students' self-reported data in the areas of emotional well-being/distress and mental health. The survey results were disaggregated by racial groups, including White, Black/African/African American, American Indian or Alaskan Native, and Hispanic and Latino/Latina students. Differences between racial groups were calculated using an analysis of variance (ANOVA) and Bonferroni post-hoc test.

## Theoretical framework

Critical Race Theory (CRT) prompts scholars to investigate the role of race in creating inequitable practices and outcomes within educational settings (Howard & Navarro, 2016; McGee & Stovall, 2015), positing that racism is both institutional and systemic (Sleeter, 2017). CRT scrutinises the power structures that sustain racial inequalities, and seeks to address these disparities by fostering transformative approaches (Gomez, 2015; Pulliam, 2017). This study incorporated self-reported data on emotional well-being and distress from racial minority students, highlighting the importance of marginalised voices. It explored how CRT may affect the mental health of elementary-age students.

# Research questions

- RQ1) Are there statistically significant differences in elementary students' emotional well-being and distress between racial/ethnic subgroups as reported in the 2022 Minnesota Student Survey?
- RQ1A) Are there statistically significant differences in elementary students' worrying between racial/ethnic subgroups as reported in the 2022 Minnesota Student Survey?
- RQ1B) Are there statistically significant differences in elementary students' feeling sad without knowing why between racial/ethnic subgroups as reported in the 2022 Minnesota Student Survey?
- RQ2) What are the descriptive differences in elementary students' emotional well-being and distress, as a whole and disaggregated by race/ethnicity, between 2019 and 2022, as reported in the Minnesota Student Survey?

RQ2A) What are the descriptive differences in elementary students' worrying, as a whole and disaggregated by race/ethnicity, between 2019 and 2022 as reported in the Minnesota Student Survey?

RQ2B) What are the descriptive differences in elementary students' feeling sad without knowing why, as a whole and disaggregated by race/ethnicity, between 2019 and 2022 as reported in the Minnesota Student Survey?

# Sample

The survey sample was determined based on school districts that administered the Minnesota Student Survey. According to the 2022 report from the Minnesota Department of Education, 70% of Minnesota school districts chose to participate in the survey, compared to 81% in 2019 (Minnesota Department of Education, n.d.-b). The survey was administered to students in Grades 5, 8, 9 and 11, attending public, non-public, charter, and tribal schools in Minnesota in 2022.

## Respondents

In 2022, 56% of Grade 5 students participated in the survey, compared to 66% in 2019. In 2022, over 34,000 elementary Grade 5 students participated, compared to 44,753 Grade 5 students in 2019 (Minnesota Department of Education, n.d.-b). Parents or guardians retained the right to opt their child out of the survey, and students were free to discontinue participation at any point before completion.

#### Instrument

Since 1989, the Minnesota Department of Education, Minnesota Department of Health, Minnesota Department of Human Services and Minnesota Department of Public Safety have jointly determined the survey content, overseen data quality, conducted data analysis, and reported results for the Minnesota Student Survey (Minnesota Department of Education, n.d.-b). Every three years, the Minnesota Student Survey (MSS) research team assesses survey items and considers stakeholder feedback to identify trends and evaluate the relevance of questions. The survey is deemed valid and is recognised as the primary source for comprehensive data on youth in Minnesota (Minnesota Department of Education, n.d.-b). The MSS is specifically valued for providing exclusive and consistent data on racial and ethnic groups concerning the health, well-being and academic success of youth in Minnesota. This data can be used to discern disparities among residents, thereby influencing state, federal, community, and school funding decisions (Minnesota Department of Education, n.d.-b).

The Minnesota Student Survey is designed to adhere to both federal and state accessibility standards and provides a text-to-speech option (Minnesota Depar-

tment of Education, n.d.-b). Elementary students engage in a 133-question survey by responding to questions including demographics, activities, family and relationships, health and safety, mental health, school, and substance use. This particular study focuses on analysing questions within the mental health section of the Minnesota Student Survey (Table 1). Both the 2019 and 2022 Minnesota Student Surveys were conducted online within a school setting, with school staff responsible for administering the survey (Minnesota Department of Education, n.d.-b).

#### Variables

The independent variable in the study was the students' race or ethnicity. Students chose their race and ethnicity from the provided options, which included: Black, African or African American; Hispanic or Latino/Latina; Asian or Native Hawaiian Pacific Islander; American Indian or Alaskan Native; and White. The dependent variables for this analysis were self-reported feelings of worry and sadness without apparent cause. The response scales ranged from strongly agree, agree, neither agree nor disagree, disagree, to strongly disagree.

Table 1. Minnesota Student Survey mental health questions: emotional well-being and distress

Grade	Category	Report	Question	Response
Five	Mental Health	Emotional	Thinking back the	Strongly agree,
		Well-Being and	last 30 days, how	agree, neither
		Distress	much do you agree or	agree nor disagree,
			disagree with the fol-	disagree, strongly
			lowing statements:	disagree
			I worry a lot.	
			Thinking back the	
			last 30 days, how	
			much do you agree or	
			disagree with the fol-	
			lowing statements:	
			I sometimes feel sad	
			without knowing	
			why.	

Note. Adapted from the Minnesota Student Survey of the Minnesota Department of Education, n.d.-b (https://education.mn.gov/mde/dse/health/mss/).

## Data collection and analysis

Minnesota Student Survey data is publicly accessible on the Minnesota Department of Education website. Survey results are disaggregated by race: White students; Black, African or African American students; Hispanic or Latino/Latina students; and American Indian or Alaskan Native students.

Reverse engineering was employed by calculating the mean for each group to calculate the differences in groups using an ANOVA. A Bonferroni post-hoc test was utilised to determine if there were statistically significant differences (p < .05) between the means for each group (Muijs, 2011; Patten & Newhart, 2018). The researchers analysed the statistical differences in worrying as self-reported between elementary White students and students identified in each racial/ethnic group, as well as statistical differences in feeling sad and not knowing why as self-reported between elementary White students and students identified in each racial/ethnic group.

Descriptive statistics were utilised to determine the differences in elementary students' worrying, as a whole and disaggregated by race/ethnicity, pre- and post-pandemic. The 2019 Minnesota Student Survey results were subtracted from the 2022 Minnesota Student Survey results. A positive difference meant that there was an increase in emotional well-being and distress. A negative difference indicated that there was a decrease in distress.

## Limitations

The study's sample was robust in number yet held limitations. The Minnesota Student Survey asked a different set of questions of the same students who were in Grade 5 in 2019 and then took the Minnesota Student Survey again in Grade 8 in 2022, which did not allow for a well-aligned longitudinal study. The study compared elementary (Grade 5) students' well-being and distress in 2019 and 2022, but there were different students in the samples. Thus, only descriptive statistics were provided in the findings, limiting readers to note trends.

The breadth of topics measured in the Minnesota Student Survey was impressive. The breadth also limited the number of items measuring a specific construct. Grade 5 students were asked two questions related to Emotional Well-Being and Distress. An increase in survey questions may have resulted in more robust findings. Similarly, the Likert scale response options do not provide the rich narrative that may have been solicited via interviews or focus groups.

Minnesota Student Survey results were disaggregated by multiple categories (i.e. district, county, gender, race/ethnicity, special education programming). Each racial/ethnic subgroup encompassed multiple identities, such as Black, African or African American, with various backgrounds (e.g. multi-generation citizenship and

immigrants) which inhibits generalisations. The transferability of findings should be guided by context. District personnel must consider district and building-level demographics to determine how study findings relate to their communities.

# Findings

Differences in elementary students' emotional well-being and distress between racial/ethnic subgroups

Differences in elementary students' worrying

The results suggest there is a difference in students' level of worrying based upon their race/ethnicity, F(4, 31,916) = 39.539, p < 0.001 on the 2022 Minnesota Student Survey.

Descriptive Statistics							
Dependent Variable: Worry2							
Race2	Mean	Std. Deviation	N				
American Indian or Alaska Native	3.38	1.248	1921				
Asian or Native Hawaiian Pacific Islander	3.38	1.155	2781				
Black, African, or African American	3.23	1.274	3597				
Hispanic	3.52	1.179	2627				
White	3.24	1.200	20991				
Total	3.29	1.209	31917				

Table 2. Descriptive statistics of elementary students' worry

The results of Bonferroni post-hoc tests (Table 3) suggest that there are significant (p < .001) differences between the following groups:

- American Indian or Alaska Native students are significantly more likely to worry a lot than Black, African or African American students, and White students, but significantly less likely to worry a lot than Hispanic or Latino/ Latina students.
- Asian or Native Hawaiian Pacific Islander students are significantly more likely to worry a lot than Black, African or African American students, and White students, but significantly less likely to worry a lot than Hispanic or Latino/Latina students.
- Black, African or African American students are significantly less likely to worry a lot than American Indian or Alaska Native students, Asian or Native Hawaiian Pacific Islander students, and Hispanic or Latino/Latina students.

- Hispanic or Latino/Latina students are significantly more likely to worry a lot than all other racial groups.
- White students are significantly less likely to worry a lot than American Indian or Alaska Native students, Asian or Native Hawaiian Pacific Islander students, and Hispanic or Latino/Latina students.

Therefore, the null hypothesis was rejected in favour of the alternative hypothesis.

Table 3. Comparisons of worry between racial/ethnic groups

	Mean			95% Confidence Interval		
(I) Race2	(J) Race2	Difference (I- J)	Std. Error	Sig.	Lower Bound	Upper Bound
American Indian or Alaska Native	Asian or Native Hawaiian Pacific Islander	.00	.036	1.000	10	.10
	Black, African, or African American	.15*	.034	<.001	.05	.24
	Hispanic	14*	.036	<.001	24	04
	White	.13	.029	<.001	.05	.21
Asian or Native Hawaiian Pacific Islander	American Indian or Alaska Native	.00	.036	1.000	10	.10
	Black, African, or African American	.15	.030	<.001	.07	.24
	Hispanic	14*	.033	<.001	23	05
	White	.13*	.024	<.001	.07	.20
Black, African, or African American	American Indian or Alaska Native	15	.034	<.001	24	0
	Asian or Native Hawaiian Pacific Islander	15	.030	<.001	24	0
	Hispanic	29*	.031	<.001	38	2
	White	02	.022	1.000	08	.0.
Hispanic	American Indian or Alaska Native	.14	.036	<.001	.04	.2
	Asian or Native Hawaiian Pacific Islander	.14*	.033	<.001	.05	.2:
	Black, African, or African American	.29"	.031	<.001	.20	.3
	White	.27*	.025	<.001	.20	.34
White	American Indian or Alaska Native	13	.029	<.001	21	0
	Asian or Native Hawaiian Pacific Islander	13*	.024	<.001	20	0
	Black, African, or African American	.02	.022	1.000	04	.0
	Hispanic	27*	.025	<.001	34	20

Differences in elementary students' feeling sad without knowing why The results suggest there is a difference in students' level of feeling sad and not knowing why based upon their race/ethnicity, F(4, 31,987) = 25.368, p < 0.001.

Table 4. Descriptive statistics of elementary students feeling sad

Descriptive Statistics							
Dependent Variable: Sad2							
Race2	Mean	Std. Deviation	N				
American Indian or Alaska Native	3.36	1.329	1923				
Asian or Native Hawaiian Pacific Islander	3.26	1.322	2770				
Black, African, or African American	3.16	1.407	3732				
Hispanic	3.43	1.301	2621				
White	3.20	1.328	20941				
Total	3.23	1.337	31987				

The results of Bonferroni post-hoc tests (Table 5) suggest that there are significant (p < .001) differences between the following groups:

- American Indian or Alaska Native students are significantly more likely to feel sad than Black, African or African American students, and White students.
- Asian or Native Hawaiian Pacific Islander students are significantly more likely to feel sad than Black, African or African American students, and significantly less likely to feel sad than Hispanic or Latino/Latina students.
- Black, African or African American students are significantly less likely to feel sad than American Indian or Alaska Native students, Asian or Native Hawaiian Pacific Islander students, and Hispanic or Latino/Latina students.
- Hispanic or Latino/Latina students are significantly more likely to feel sad than Asian or Native Hawaiian Pacific Islander students, Black, African or African American students, and White students.
- White students are significantly less likely to feel sad than American Indian or Alaska Native students, Asian or Native Hawaiian Pacific Islander students, and Hispanic or Latino/Latina students.

Therefore, the null hypothesis was rejected in favour of the alternative hypothesis.

*Table 5.* Comparisons of worry between racial/ethnic groups

Bonferroni						
	Mean				ence Interval	
(I) Race2	(J) Race2	Difference (I- J)	Std. Error	Sig.	Lower Bound	Upper Bound
American Indian or Alaska Native	Asian or Native Hawaiian Pacific Islander	.10	.040	.096	01	.2
	Black, African, or African American	.20*	.037	<.001	.09	.31
	Hispanic	07	.040	.791	18	.04
	White	.16*	.032	<.001	.07	.2
Asian or Native Hawaiian Pacific Islander	American Indian or Alaska Native	10	.040	.096	21	.01
	Black, African, or African American	.09"	.033	.046	.00	.19
	Hispanic	17*	.036	<.001	28	0
	White	.06	.027	.227	01	.1
Black, African, or African American	American Indian or Alaska Native	20*	.037	<.001	30	0
	Asian or Native Hawaiian Pacific Islander	09"	.033	.046	19	.01
	Hispanic	27*	.034	<.001	36	1
	White	03	.024	1.000	10	.0:
Hispanic	American Indian or Alaska Native	.07	.040	.791	04	.1
	Asian or Native Hawaiian Pacific Islander	.17*	.036	<.001	.07	.2
	Black, African, or African American	.27*	.034	<.001	.17	.3
	White	.23"	.028	<.001	.16	.3
White	American Indian or Alaska Native	16	.032	<.001	25	0
	Asian or Native Hawaiian Pacific Islander	06	.027	.227	14	.0
	Black, African, or African American	.03	.024	1.000	03	.10
	Hispanic	23	.028	<.001	31	10

Descriptive differences in elementary students' emotional well-being and distress, as a whole and disaggregated by race/ethnicity between 2019 and 2022

Descriptive differences in elementary students' worrying between 2019 and 2022

In 2019, 35.9% of Grade 5 students agreed or strongly agreed that they worried a lot. In 2022, there was a marked increase, as 43.6% of Grade 5 students agreed or strongly agreed that they worried a lot. Between 2019 and 2022, there was an increase in reported elementary students' worrying in each racial/ethnic group. White students' self-reported worrying closely paralleled the change of all students over the three-year span with an 8% increase in agreed or strongly agreed. The smallest increase in worrying (5.5%) between 2019 and 2022 was reported by Black, African or African American elementary students. The largest increase in worrying (12.5%) was reported by Hispanic or Latino/Latina elementary students.

Race	I worry a lot.			
	2019	2022	Difference	
American Indian or Alaska Native	42%	48.8%	+6.8%	
Asian or Native Hawaiian Pacific Islander	39.9%	47.1%	+7.2%	
Black, African or African American	36.6%	42.1%	+5.5%	
Hispanic or Latino/Latina	41.9%	54.4%	+12.5%	

34.9%

35.9%

42.9%

43.6%

+8%

+7.7%

Table 6. Elementary students who agreed or strongly agreed that they worry a lot

Descriptive differences in elementary students' feeling sad between 2019 and 2022

In 2019, 40.5% of Grade 5 students agreed or strongly agreed that they sometimes feel sad without knowing why. In 2022, there was a marked increase as 47.6% of Grade 5 students agreed or strongly agreed that they sometimes feel sad without knowing why. Between 2019 and 2022, there was an increase in reported elementary students' feeling sad without knowing why in each racial/ethnic group. White students' self-reported feeling sad without knowing why paralleled the change of all students over the three-year span, with a 7.6% increase in agreed or strongly agreed. The smallest increase in worrying (4.6%) between 2019 and 2022 was reported by Black, African or African American elementary students. The largest increase in worrying (8%) was reported by Hispanic or Latino/Latina elementary students.

*Table 7.* Elementary students who agreed or strongly agreed that they sometimes feel sad and don't know why

Race	I sometimes feel sad and don't know why			
	2019	2022	Difference	
American Indian or Alaska Native	47.7%	53.6%	+5.9%	
Asian or Native Hawaiian Pacific Islander	41.2%	47.2%	+6%	
Black, African or African American	42.6%	47.2%	+4.6%	
Hispanic or Latino/Latina	46.8%	54.8%	+8%	
White	39.7%	47.3%	+7.6%	
All Students	40.5%	47.6%	+7.6%	

## Conclusion and discussion

White

All Students

This study found statistically significant differences in elementary students' emotional well-being and distress between racial/ethnic subgroups as reported in the 2022 Minnesota Student Survey. In addition, the study found increased con-

cerns in elementary students' emotional well-being, as a whole and within each racial/ethnic group, between 2019 and 2022, as reported in the Minnesota Student Survey. Overarching findings align with previous research demonstrating that racial/ethnic groups experienced the pandemic differently regarding health outcomes, sleep patterns and economic impact (Couch et al., 2020; Hisler & Twenge, 2021; Kantamneni, 2020).

A closer look at the study's findings illuminates unexpected results that contrast with previous research. In particular, despite the escalated interpersonal racism (Shi et al., 2022) and worse health outcomes from Covid-19 (Truman et al., 2023) endured by the Black, African or African American population, the demographic population of elementary students were significantly lower in worrying and sadness compared to American Indian or Alaska Native, Asian or Native Hawaiian Pacific Islander, and Hispanic or Latino/Latina students. Further, there was no significant difference in worrying or sadness between the Black, African or African American and White elementary students.

# Implications for practice

# Build educators' cultural responsiveness

The study findings provide evidence that the pandemic was experienced differently by racial/ethnic groups. Consequently, educators are called on to build cultural responsiveness, which involves gaining an understanding of cultures, appropriately including cultural variables, and responding to the full range of dimensions of diversity that an individual brings to interactions (Hopf et al., 2021). Effective teachers are culturally competent and implement culturally responsive teaching practices (Byrd, 2020).

Educators can develop an increased awareness of students' lived experiences by engaging in cultural connections and relationships, increasing partnerships and agency, and confronting biases (Alves, 2021). Educator professional development focused on cultural responsiveness has resulted in a shift in perspective between the idea that teachers are not in control of affecting disproportionality in schools, and the idea that teachers are a part of the education system and have an impact on disproportionality in the ways they think and teach (Othman, 2018). Teachers who develop ways to use their students' social, cultural and linguistic identities create conduits that improve educational success (Hilaski, 2020). Cultural responsiveness may aid in closing the well-being and achievement gaps (Powell et al., 2016).

Increase mental health support in schools

The study findings document elementary students' elevated distress and increased demand for mental health services. A continued need for mental health support in schools is evidenced by a 24% increase for children aged five to 11, and a 31%

increase for children aged 12 to 17 in mental health emergency department visits when comparing 2019 to spring 2020 (Leeb et al., 2020). Federal, pandemic-related funding through the CARES Act and American Rescue Act supported expenses for additional school counsellors as well as social workers (Chatterjee, 2022; Minnesota Department of Education, n.d.-a). The disparate effects of the pandemic on BIPOC students will only continue to grow and worsen if mental health supports are not allocated with racial equity in mind. Grant funding may be necessary to provide school-based mental health services and train mental health services providers for employment in schools (Quirk, 2022).

Implement social-emotional learning in elementary schools

The study findings showed a marked increase in students worrying and feeling sad, highlighting the need for a systemic response to address students' needs. Research shows the intersectionality between academic performance, race, socioeconomics and social-emotional learning (SEL), especially since the onset of the pandemic (Bond, 2020). According to the Collaborative for Academic, Social, and Emotional Learning (CASEL, n.d.), social-emotional learning is defined as the 'process through which young people ... acquire and apply the knowledge, skills, and attitudes to develop healthy identities, manage emotions ... feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions' (para. 1).

During the pandemic, approximately 93% of students experienced online learning. In related findings, students who participated in online learning reported poorer mental health, increased symptoms of depression, contemplation of suicide, and a lack of social connection compared to their peers who attended school in-person (Hertz et al., 2022). This resulted in a detrimental impact on students' mental health and social interactions, thus causing a need for increased social-emotional learning (Hertz et al., 2022; Li et al., 2021). Social-emotional skills are essential for children's mental health and overall success in school, including academic performance and improved mental health (CASEL, n.d.; Stefan et al., 2022). Parents, staff and students articulated the well-being of students as their highest concern since the pandemic, further exacerbating the need for SEL in schools (Bond, 2020).

# Need for further study

This study was conducted using quantitative data. Future research could include a qualitative study that focuses on 'people's experience from their perspective' (Roberts & Hyatt, 2019, 143) such as the impact of Covid-19 and the complexities of institutional racism in the education system. By performing a qualitative study, researchers would attain a rich narrative and develop a more comprehensive

knowledge of the lived experiences of marginalised students. Specifically related to this study's findings, interviews or focus groups with Hispanic and Latino/Latina families could better explain the subgroup's significant increase in worrying and sadness through the pandemic.

An additional area for further study should include the use of more robust instruments. Although the Minnesota Student Survey is valid and reliable, a survey could be generated and administered to solely measure mental health, revealing factors that contribute to poor mental health in elementary students.

Finally, the years of administration of the Minnesota Student Survey aligned with the start of the pandemic and transition to an endemic. Future research should be conducted to determine if the increase in mental health challenges is sustained over time, the long-term effects of increased distress, and strategies and systems that successfully mediate mental health challenges.

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**Tracy Reimer** – professor, doctor of Education; Program Director for the Ed.D. Leadership in K-12 Administration, Bethel University, USA.

E-mail: t-reimer@bethel.edu