

Responding to the Needs of the Whole Child: Principals' Reports of Non-Instructional Investments During COVID-19

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Abstract

From extensive school closings and abrupt transitions to distance learning in spring 2020 to varied levels of face-to-face, hybrid, and virtual learning in school year (SY) 2020–2021, the coronavirus disease (COVID-19) has disrupted education across the world. While several studies have examined academic changes that have occurred over the past year, fewer studies have documented changes in non-instructional investments during COVID-19 or centered principals' perspectives. Yet, non-instructional investments that address students' physical and socio-emotional needs are critical to a Whole Child approach to learning, and principals are essential for school change. Accordingly, this quantitative study examined principals' reports of changes in non-instructional investments from SY 2019–2020 to SY 2020–2021 using data from a national sample of U.S. pre-kindergarten through 12th grade schools. We discuss implications of the study's findings for expanded implementation of Whole Child reform principles post-COVID-19 and opportunities for principals to serve as change leaders.

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In spring 2020, nearly 93% of students in the United States transitioned from face-to-face instruction to some form of distance learning due to coronavirus disease (COVID-19; [Mcelrath, 2020](#)). Approximately 80% of households with school-aged children engaged in online learning, and 20% used paper materials sent home from schools. Wealthier families, defined as those with incomes of \$100,000 or more, reported significantly higher rates of online learning and lower rates of using paper materials at home than families making less than \$50,000. These disparities highlight inequities in computer and Internet availability, access, and proficiency that have placed lower-income families, who are disproportionately of Color, at greater risk of negative academic outcomes during COVID-19 ([Black et al., 2021](#); [Dorn et al., 2020](#)). The COVID-19 pandemic also placed students across socio-economic backgrounds, ages, and grade-levels at greater risk for negative physical and socioemotional outcomes including anxiety, social isolation, and depression ([World Bank Group, 2020](#)).

To successfully ameliorate the effects of the pandemic and improve student outcomes, schools have had to make changes not only in the delivery of instructional supports ([Ferdig et al., 2020](#)), but also the non-instructional resources and services provided to students and families. To explore the latter, we analyzed principals' reports of changes in non-instructional investments between school year (SY) 2019–2020 and SY 2020–2021 using data from a national sample of prekindergarten through 12th grade (pre-K-12) schools. The aims of this paper are to better understand the types of non-instructional investments principals reported providing during the initial phases of the COVID-19 response and the school-level characteristics influencing these investments.

The Imperative for School Change During COVID-19

When schools began to close in response to COVID-19 in spring of 2020, it was impossible to predict how long they would be shuttered and the short- and long-term impact on children, families, and communities. What was clear, however, was that schools would have to change in order to meet the instructional and non-instructional needs of students. The importance of an adaptive response was clear in urban, suburban, and rural schools across grade levels and across borders ([World Bank Group, 2020](#)). In its report issued in May 2020, the World Bank Group noted that as of April 2020, 180 countries and 85% of students worldwide were out of school, constituting the “largest simultaneous shock to all education systems in our lifetimes” (p. 5). The report called for education systems to develop and enact policies to address the educational inequities that were likely to worsen during COVID-19. Specifically, the report

highlighted the need for school changes to address learning loss, school dropout, physical and socio-emotional health, safety concerns, and other crises.

The World Bank Group was not alone in its prognostications about the impact of school closures (see, for example, [Dorn et al., 2020](#); [Harris & Jones, 2020](#); [Herrenkohl et al., 2021](#)), nor in its urgent call for education policies and leaders to address the three phases of responding to the pandemic: *coping*, *managing continuity*, and *improving and accelerating* ([World Bank Group, 2020](#)). Coping policies and actions are defined as those that mitigate the educational, social, and physical costs of school closures, including provision of (a) information and outreach to families; (b) learning materials and opportunities to students; and (c) services to promote student, family, and community health and safety. During the managing continuity phase, education policy makers and leaders must work to reopen schools, address learning loss and the effects of possible trauma experienced during school closures, rebuild ties with families and communities, and ensure the health and safety of returning students and staff. Finally, the improving and accelerating phase requires policies and actions that build on strategies proven successful during the coping and managing continuity phases and that promote more equitable and effective education systems and schools globally. The enactment of such policies and practices will require leaders adept at managing change at all levels of the education system, but most urgently and visibly at the school level.

Principals as Change Leaders

COVID-19 has not only highlighted the inequities that characterize too many education systems worldwide, including here in the United States ([Mcelrath, 2020](#); [World Bank Group, 2020](#)), but also the importance of adaptive leadership and leaders who can function during “disruptive times” (Harris and Jones, p. 246). According to [Harris and Jones \(2020\)](#):

Leading in disruptive times means being able to navigate a different course, to create new pathways through the disruption. School leaders on this journey are defined by their determination, their hope, and their unshakable belief that whatever happens, whatever the costs, whatever the scale of the challenge, they will continue to do everything in their power to safeguard the learning of all young people. (p. 246)

This quote captures the essence of what scholars in the field of education leadership refer to as *change leaders*; that is, individuals who have the knowledge, skills, and dispositions to change school practices so that they respond to the needs of students and families ([Finnigan & Stewart, 2009](#)). Recognizing their significance before, during, and after disruptive times, [Fullan \(2002\)](#) further defined change leaders as those who can “foster the conditions necessary for sustained education reform in a complex, rapidly changing society” (p. 20). The conditions for sustained school change have been well documented (e.g., [Hargreaves & Fink, 2003](#); [Hollingworth et al., 2018](#)). They include: (a) committed, disciplined, competent teachers and staff; (b) a clear and inspiring

vision; (c) family and community engagement; and finally, (d) relational trust, which serves as the “connective tissue that binds individuals together to advance the education and welfare of students” (Bryk & Schneider, 2003, p. 45). Change leaders understand the change process and how these conditions must be nurtured and managed.

When describing the characteristics of principals who are change leaders, Fullan (2003) focused on the moral purpose that guides them to prioritize the needs of students, teachers, and families. Fullan (2002) defined moral purpose as the “social responsibility to others and the environment” (p. 17). Moral purpose directs change leaders to pay attention to learning challenges experienced by students, obstacles to family and community engagement, and factors influencing teachers’ working environment and effectiveness. It inspires actions to close educational opportunity gaps and address the “debt” owed to historically underserved students (Ladson-Billings, 2006) at the school and system levels. Moral purpose allows change leaders to overcome structural and cultural challenges to achieve the highest purpose of schools, where “all students learn, the gap between high and low performance becomes greatly reduced, and what people learn enables them to be successful citizens and workers in a morally based knowledge society” (Fullan, 2003, p. 29). In sum, principals who are change leaders understand the social contexts in which their schools operate and work within an equity framework to meet the needs of the whole child.

The Whole Child Approach and Non-Instructional Investments in Students’ Learning

The Whole Child Approach (WCA) is a foundational framework for many holistic reforms in education (Association for Supervision and Curriculum Development, 2007; Griffith & Slade, 2018; Slade & Griffith, 2013). It focuses on the multiple and integrated dimensions of students’ learning and development that must be addressed to improve their educational outcomes. That is, the WCA not only emphasizes the importance of students’ intellectual development but also their social, emotional, and physical wellness. Within the WCA framework, each dimension is essential for student success and effective schools take a comprehensive approach to students’ learning and development (Murray et al., 2015).

The WCA defines students’ social and emotional development in terms of their self-awareness, self-management, social awareness, relationship skills, and responsible decision making (Sibley et al., 2017). It also recognizes the wide range of adverse experiences that can pose serious threats to students’ socioemotional health and well-being, such as domestic or community violence, systemic discrimination, extreme poverty, and natural disasters and pandemics, and the need to respond with appropriate strategies that do not retraumatize impacted students (Temkin et al., 2020). Such strategies are most effective when implemented in schools with supportive climates that are characterized by respectful, trusting, caring relationships, and restorative rather than punitive disciplinary practices (Payne & Welch, 2015; Roffey, 2016). Schools with such climates report more positive outcomes for students including higher grades,

attendance, and graduation rates, and lower rates of suspension across grade levels (Wang & Degol, 2016).

Similarly, the WCA highlights the importance of students' physical well-being for their social, emotional, and cognitive development, and for their ability to thrive in educational settings. Various described in terms of nutrition, health, activity level, and safety, the physical well-being of school-aged students is positively associated with their social skills, interpersonal relationships, self-concepts, mental health, attention, and cognition (Edwards & Cheeley, 2016; Taras, 2005). It is imperative that education reforms that seek to reduce inequities include efforts to promote students' health and safety. For example, Basch (2011) identified seven health problems that should serve as strategic priorities in such reforms: (1) vision, (2) asthma, (3) teen pregnancy, (4) aggression and violence, (5) physical activity, (6) food access and nutrition, and (7) inattention and hyperactivity.

Thus, the WCA is an integrated framework from which to understand and address the independent and overlapping factors that are essential to students' learning and development. The WCA calls for a "whole school, whole community" (Temkin et al., 2020) orientation to education that requires instructional and non-instructional investments in students and families. Such investments have proven especially critical during COVID-19. Yet, research to date suggests that schools have responded to the needs of students and families at varying levels during the pandemic, depending, in part, on the degree of support and guidance from state jurisdictions (McLoughlin et al., 2020). Research further suggests that pre-COVID-19 education policies emphasizing standardized test results over non-academic outcomes may prevent the sustained implementation of WCA strategies, and that student demographics (e.g., race, ethnicity, socioeconomic background) may influence principals' goals and the changes they champion (Lee & Lee, 2020).

To explore school responses to students and families during the pandemic, we draw on the WCA and the concept of change leadership to examine prekindergarten through 12th grade (pre-K-12) principals' reports of non-instructional investments during the coping and managing continuity phases of the COVID-19 response.

Research Questions

This study draws on a national sample of pre-K-12 schools to analyze principals' reports of non-instructional investments that holistically address students' and families' needs and minimize the impact of COVID-19 disruptions. Specifically, we explored the following research questions:

1. What frequency do pre-K-12 principals report providing non-instructional investments to students and families during initial COVID-19 school closures?
2. Do principals' initial COVID-19 reports of providing non-instructional investments vary by school-level characteristics (i.e., school type, urbanicity, target status)?

3. How do principal reports of providing non-instructional investments to students and families change over time between initial COVID-19 school closures (i.e., coping phase) and the start of the 2020–2021 school year (i.e., managing continuity phase)?

Method

The American School Leader Panel

We used data from the spring 2020 and fall 2020 American School Leader Panel (ASLP) coronavirus disease 2019 (COVID-19) surveys, which are part of the RAND Corporation American Educator Panels. The ASLP is a nationally representative survey panel of pre-K–12 public school principals that employs a probability sampling design within each state that includes weights to reflect the population of all principals in the United States. In addition, the ASLP includes oversamples of schools that serve large percentages of students of Color and students affected by poverty (Hamilton, Grant, et al., 2020). The COVID-19 surveys used in this study were designed to capture how principals whose schools experienced spring 2020 closures due to COVID-19 reported navigating potential challenges. In March 2020, principals responded to a 10-minute survey on a variety of topics (e.g., schools' operational status, distance learning, supports for families) on the spring 2020 COVID-19 survey. Principals were surveyed a second time in October 2020 and responded to additional items—some of which overlapped with the spring 2020 survey—such as the schools' instructional models (e.g., in-person, remote) for the 2020–2021 academic year; changes to staff, courses, or services; and contact with students and families.

Analytic sample. To form the subpanels for this study, we used the principal responses that ASLP received on the spring 2020 ($N = 957$) and fall 2020 ($N = 1,147$) COVID-19 surveys. Thirty of the principals who completed the spring 2020 survey were missing either non-instructional investments data ($n = 20$) and/or urbanicity data ($n = 14$), leaving us with a spring 2020 sample of 927 principals. A subset of principals ($n = 416$) responded to both the spring 2020 and fall 2020 surveys, and 405 of these principals were not missing data on the variables of interest (i.e., non-instructional investments, urbanicity). The final study sample included 927 schools with spring 2020 data and 405 schools with spring 2020 and fall 2020 data (see Tables 1 and 2 for descriptive information for spring 2020 and fall 2020 samples).

Measures

Non-instructional investments. We measured non-instructional investments using items from the spring 2020 and fall 2020 surveys that asked principals to indicate resources typically provided by their schools (e.g., subsidized meals for students, school medical professionals, supports specifically intended for students with disabilities) that were

Table 1. Non-Instructional School Investments During Initial COVID-19 Pandemic Closings (Spring 2020).

School Characteristic	Non-Instructional Investment						
	Subsidized Meals for Students, %	Subsidized Meals for Families, %	Mental Health Supports, %	Guidance Counselors, %	School Medical Professionals, %	Speech or Occupational Therapists, %	
All schools (N = 927)	96	38	84	85	48	85	
School level							
Primary (n = 483)	97	39	83	77	47	89	
Middle (n = 184)	97	36	82	92	54	83	
High (n = 185)	95	37	86	98	47	77	
Other (n = 75)	93	37	85	91	47	84	
Urbanicity							
City (n = 225)	97	52	91	83	46	84	
Suburban (n = 313)	96	39	89	83	49	90	
Rural/Town (n = 389)	96	28	75	87	50	83	
Target status							
Target (n = 477)	97	41	80	83	46	82	
Non-target (n = 450)	95	35	88	88	52	90	

Note. Urbanicity data were missing for 2% (n = 20) of schools, and school resource data were missing for 1.5% (n = 14) of schools. All other data were non-missing. Target schools are those that included large percentages of students from oversampled target populations (i.e., 50% or more students who identified as Black, 50% or more students who identified as Hispanic, or 50% or more students who were eligible for free or reduced-price lunch) in the American School Leader Panel.

Table 2. Non-Instructional School Investments Between Initial COVID-19 Pandemic Closings and the Beginning of the 2020–2021 School Year.

School Characteristic	Non-Instructional Investment											
	Subsidized Meals for Students		Subsidized Meals for Families		Mental Health Supports		Guidance Counselors		School Medical Professionals		Speech or Occupational Therapists	
	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2	T1	T2
All schools (N = 405)	.96	.98*	.41	.43	.85	.89~	.82	.85~	.48	.85***	.85	.96***
School level												
Primary (n = 212)	.98	.99	.40	.41	.86	.89	.73	.75	.46	.83***	.92	.98**
Middle (n = 81)	.96	1.00~	.47	.46	.85	.91	.93	.96	.57	.89***	.81	.98**
High (n = 79)	.92	.97*	.35	.44	.81	.89	.99	.97	.47	.84***	.75	.90**
Other (n = 33)	.91	.91	.42	.48	.91	.88	.85	.94~	.45	.94***	.79	1.00**
Urbanicity												
City (n = 105)	.95	.97	.57	.57	.91	.97~	.83	.88	.47	.76***	.79	.93**
Suburban (n = 140)	.96	1.00*	.39	.41	.89	.89	.80	.81	.53	.88***	.92	.99*
Rural/Town (n = 160)	.96	.98	.32	.36	.78	.84~	.85	.88	.45	.89***	.83	.96***
Target status												
Target (n = 230)	.96	.98	.44	.47	.81	.89**	.81	.85~	.41	.83***	.79	.96***
Non-target (n = 175)	.96	.99~	.37	.37	.91	.90	.86	.86	.58	.88***	.93	.97**

Note. Urbanicity data were missing for 5% (n = 20) of schools, and school resource data were missing for 3% (n = 14) of schools. All other data were non-missing. Target schools are those that included large percentages of students from oversampled target populations (i.e., 50% or more students who identified as Black, 50% or more students who identified as Hispanic, or 50% or more students who were eligible for free or reduced-price lunch) in the American School Leader Panel.

***p < .001. **p < .01. *p < .05. ~p < .10.

available to students and families while their school buildings were closed. In spring 2020, principals chose one of three options to indicate the resources their schools provided: “no” (the school did not provide the resource), “yes” (the school did provide the resource), or “n/a” (the school does not usually provide the resource). In fall 2020, six of the eight items were included on the principal survey and items included only yes/no responses. Given the changes to the non-instructional resources items between the first and second COVID-19 surveys, we included the six non-instructional investments to students and families that were included in both the spring and fall data collection periods: subsidized meals for students, subsidized meals for families, mental health supports, guidance counselors, school medical professionals, and speech or occupational therapists.

School-level characteristics. We used three school-level demographic characteristics in our analyses: school type, urbanicity, and school target status. School type included (a) primary schools, defined as those serving pre-K through third grade or pre-K through eighth grade students; (b) middle schools, defined as those that served fourth grade through seventh or fourth through eighth grade students; (c) high schools, defined as those that serve seventh grade through 10th grade or seventh grade through 12th grade students; and (d) other schools, which was defined as schools that used a configuration not included in the previous categories (e.g., K-12). Urbanicity included four categories—city, suburb, town, and rural. Consistent with other American Educator Panels studies (e.g., [Diliberti et al., 2020](#); [Hamilton, Kaufman, et al., 2020](#)), we combined town and rural for ease of interpretation. School target status was measured using a dichotomous indicator that represents schools with 50% or more students identified as Black, Hispanic, or eligible for free or reduced-price meals—a common indicator of socioeconomic disadvantage ([Dalane & Marcotte, 2020](#)). The indicator was coded as one when the school served target populations and zero otherwise.

Analytic Approach

All analyses were conducted using Stata version 16.

Non-instructional investments and school-level characteristics. In order to address the first research question about the frequency that pre-K-12 principals reported providing non-instructional investments to students and families during initial COVID-19 school closures, we examined the average percentage of principals who indicated that they provided one or more of the six non-instructional resources on the spring 2020 survey. We calculated the percentage of all spring 2020 principals who responded affirmatively for each resource. To answer the second research question—if non-instructional resource provisions varied by school-level characteristics—we calculated the percentage of affirmative responses for each sub-category of school level, school urbanicity, and school target status.

Changes in non-instructional investments over time. To address our third research question related to changes in non-instructional investments between initial COVID-19 school closures (coping phase) and the beginning of the 2020–2021 academic year (managing continuity phase), we completed three analytic steps. First, we created an indicator of change that was set to 1 if principals reported the same rating at both time points (e.g., yes/yes) and 0 otherwise to determine if schools experienced any change in providing investments. Second, similar to our analyses for the first research question, we created an average percentage of principals who indicated that they provided one or more of the six non-instructional resources at each time point. Third, we performed the McNemar’s test across all schools and by school-level characteristics to determine whether there were statistically significant differences between principals’ spring and fall non-instructional investments.

Missing data. There was a relatively low amount of missing data across all study variables with 2% in the spring 2020 sample and ranging from 3% to 5% in the combined 2020 spring and fall sample. We found no statistically significant differences between non-instructional investments between the full sample of spring 2020 principals ($n = 957$) and our analytic sample with non-missing urbanicity data ($n = 927$), although there were small percentage differences (1–2 percentage points) for some comparisons. Similarly, there were no statistically significant differences in the full sample of principals surveyed in spring 2020/fall 2020 ($n = 416$) and spring 2020/fall 2020 principals in our analytic sample with non-missing urbanicity data ($n = 405$). Given that there were no significant differences across samples, we were confident in using the smaller samples in our analyses.

Results

COVID-19 School Context

As mentioned previously, all schools included in our study closed their buildings in spring 2020 due to the COVID-19 pandemic. Given the variability in schools’ responses to COVID-19 closures, we analyzed available data to compare schools’ communications with families during initial school closings and instructional formats at the beginning of SY 2020–2021 to contextualize the study’s findings. In general, we found some similarities across schools. For example, in spring 2020, 98% of principals reported contacting 75% or more of all students and/or their families during school building closures. In addition, almost all principals (99%) reported providing students with instructional materials or resources during this time. We found greater variability in principals’ reports of instructional delivery during fall 2020. Specifically, 35% of principals with data at both time points reported that they provided fully remote instruction at the beginning of AY 2020–2021, 46% reported using a hybrid model of in-person and remote instruction, and 19% provided fully in-person instruction.

Frequency of Non-Instructional Investments During Initial COVID-19 Closures

Of the six non-instructional investments, most school principals indicated that they provided subsidized meals for students (96%), mental health supports (84%), guidance counselors (85%), and speech or occupational therapists (85%) during initial COVID-19 school closures (see [Table 1](#)). Fewer school principals reported providing subsidized meals for families (38%) and school medical professionals (48%). These investments varied by school characteristics as described below.

Frequency of Non-Instructional Investments by School Characteristics

Overall, the frequency with which principals reported providing non-instructional investments closely resembled the frequency of all schools, with a few notable exceptions. For example, 54% of middle school principals reported providing school medical professionals (e.g., nurses) compared to principals at primary, high, and other schools whose reports were consistent with the national average (47%). With regard to school urbanicity, a greater percentage of principals in city schools reported providing subsidized meals for families (52%) than those in suburban (39%) and rural/town (28%) schools, which was well above the national average (38%).

We found a similar trend in city schools (91%) with more principals who reported providing mental health supports to students and families than principals in suburban (89%) and rural/town schools (75%). Schools without large percentages of students of Color and students eligible for free and reduced-priced meals reported providing more mental health supports (non-target = 88%; target = 80%), school medical professionals (non-target = 52%; target = 46%), and speech or occupational therapists (non-target = 90%; target = 82%) than schools that served more students of Color and students eligible for free and reduced-price lunch.

Changes in Non-Instructional Investments From Spring to Fall 2020

Of note, most school principals (72%) reported a change in providing non-instructional investments between initial spring 2020 COVID-19 school closures and the beginning of SY 2020–2021. We examined individual changes by non-instructional resources and found the largest changes in access to school medical professionals (44% of principals reported a change), subsidized meals for families (32% of principals reported a change), and mental health supports (17% of principals reported a change). [Table 2](#) shows the proportion of schools that provided investments across the two time points by school-level characteristics. Within our longitudinal sample of schools, we found a statistically significant increase in the proportion of schools that provided subsidized meals for students, $\chi^2(1, 405) = 4.26, p = .039$; school medical professionals, $\chi^2(1, 405) = 125.00, p < .001$; and speech or occupational therapists, $\chi^2(1, 405) = 34.32, p < .001$. In addition, changes in principal reports of mental health supports, $\chi^2(1, 405) = 3.76,$

$p = .052$, and guidance counselors, $\chi^2(1, 405) = 3.27, p = .071$, between the spring and fall of 2020 approached significance for all schools.

Importantly, we found statistically significant increases in principal reports of providing school medical professionals and speech or occupational therapists across *all* school levels, urbanicity, and school target status (see Table 2). In addition, we found a statistically significant increase in the proportion of high school principals, $\chi^2(1, 79) = 4.00, p = .045$, and suburban principals, $\chi^2(1, 140) = 5.00, p = .025$, that reported providing subsidized meals for students across the two time points. Schools serving large percentages of students of Color and students eligible for free and reduced-price meals also had higher reports of providing mental health supports to students and families at the beginning of SY 2020–2021, $\chi^2(1, 231) = 7.36, p = .007$.

Discussion

While exploratory, the study's findings present a positive picture of schools' non-instructional investments during COVID-19. Specifically, principals at most schools reported investing in several initiatives that reflect the WCA's holistic focus on students' well-being (Association for Supervision and Curriculum Development, 2007). Nearly all principals reported providing subsidized meals for students and over 80% reported that their schools provided mental health, counseling, and special education services (i.e., speech and occupational therapies) for students during COVID-19. Such investments were important given the potentially traumatic effects of the pandemic on students' socioemotional well-being (World Bank Group, 2020), effects which may have been disproportionately experienced by students with disabilities (Zhang et al., 2020).

Additionally, 38% and 48% of school principals, respectively, reported providing meals to students' families and providing students access to school medical professionals. The former investment suggests that some schools' embraced a "whole child, whole community" orientation (Temkin et al., 2020) to minimize the adverse effects of the pandemic. The latter investment suggests that nearly half of schools in the sample sought to respond to the unique health challenges presented by the pandemic, connecting students to individuals who could provide expert information and assistance. Thus, most pre-K-12 principals in our national sample reported that their schools understood the imperative for change presented by COVID-19 and the necessity of non-instructional investments during the coping phase of the pandemic response (World Bank Group, 2020).

The study's findings also corroborate previous research that suggests student demographics may influence the types of changes principals initiate (Lee & Lee, 2020). For example, principals at urban schools in comparison to those in rural/town and suburban schools reported providing mental health support for students and meals for families. This finding may reflect urban principals' understanding of the inequities that surfaced during COVID-19, the food insecurity faced by families in their schools, and students' limited access to mental health services (Mcelrath, 2020). Collectively, these findings suggest a responsiveness to families and students, which is an important aspect

of change leadership (Finnigan & Stewart, 2009; Harris & Jones, 2020) and the WCA (Temkin et al., 2020).

Although early in the pandemic response, we found evidence that schools not only made critical non-instructional investments during the coping phase of COVID-19, but are also primed to continue these WCA strategies during the managing continuity phase. Specifically, all principals in our longitudinal sample reported that their schools increased student access to medical professionals between spring and fall 2020 (48% and 85%, respectively). During this same time period, middle and high schools reported increasing individualized education plan (IEP) services (i.e., speech and occupational therapies) for students, reaching levels comparable to or surpassing the consistently high levels reported by elementary schools. Moreover, a significant increase in mental health supports in urban schools and a noticeable—although not statistically significant—increase across grade levels is a promising sign that schools are aware of the pandemic as a potentially traumatizing experience for students regardless of age, especially those who have experienced loss, abuse, or social isolation during COVID-19 (Dorn et al., 2020; Harris & Jones, 2020; Herrenkohl et al., 2021). Thus, while an emphasis on standardized test scores may have limited schools' implementation of WCA strategies prior to COVID-19 (Lee & Lee, 2020), our findings suggest that the pandemic has created new opportunities for holistic educational approaches and principals to serve as change leaders.

Indeed, principals in our national sample reported substantive (although not exhaustive) non-instructional investments in spring and fall of 2020. While local and state jurisdictions may have influenced the extent to which they were able to respond to student and family needs during this time period (McLoughlin et al., 2020), theory and research suggest that principals' knowledge, skills, and dispositions to "safeguard the learning of all young people" (Harris & Jones, 2020, p. 246) were equally, if not more, important. To more fully understand the drivers of change influencing principals' reports, more in depth qualitative and mixed methods studies are needed. Such studies will be able to capture and triangulate principals' experiences within and across school sites and communities, providing more nuanced insights into how and why principals made the non-instructional investments reported and the likelihood they will be able to sustain them.

Limitations and Future Directions

While contributing new and timely knowledge about non-instructional investments during COVID-19, the study is not without limitations. Two non-instructional investments items included in the spring 2020 COVID-19 survey, one related to supports specifically intended for students with disabilities and one related to supports for English language learners, were omitted from the fall 2020 school leader survey. As a result, it is unclear how schools supported these populations of students over time, or how supports may have differed by school characteristics once schools reopened in fall 2020. Another limitation is that the study only provides principal reports of schools'

non-instructional investments. While the present study highlights whether or not school leaders offered six non-instructional investments, we were unable to determine the extent to which students and their families used one type of investment over another and the frequency of investment usage. Understanding how students and families make use of non-instructional investments provided by schools could provide insight into their specific needs during challenging times.

Because our analyses revealed that all schools invested in more speech or occupational therapists during the managing continuity phases of COVID-19, future research should consider the perspectives students and families have of alternative delivery formats and the effects of alternative formats on student outcomes and participation—especially amidst rising evidence of the challenges that school-based speech-language pathologists face when engaging students in teletherapy (Tambyraja et al., 2021). Future research might also consider exploring the roles of other educational leaders as change agents (e.g., district and state superintendents and school board members) and the extent to which their perceptions and actions align with or diverge from those of school principals. Research suggests the importance of a shared vision for leadership (Hallinger, 2011), so school leaders in districts with greater alignment may be better equipped to meet the changing needs of students and families in the wake of disruptive events. Finally, future research is needed to understand the feasibility of maintaining non-instructional supports with the reduction or elimination of federal financial support. While some states have recently proposed bills to increase the budget for special education and medical services (e.g., Colorado, Connecticut, Maryland, Mississippi, Minnesota, New Jersey, New York; Education Commission of the States, 2022), states may need to consider alternative solutions as the effects of COVID-19 persist. Examining how principals respond and adapt will deepen our knowledge about the possibilities and limitations of change leadership and sustaining WCA approaches over time.

Conclusion

Schools can change to respond more holistically to students' needs and principals can be at the forefront of such change. COVID-19 demonstrates the verity of this statement. Principals across the United States reported implementing several WCA strategies in response to COVID-19. Early data suggest that these non-instructional investments will be sustained in the managing continuity phase as schools reopen and students and teachers return to face-to-face or hybrid instruction. However, the question remains whether these investments will be sustained and refined to promote more effective schools and equitable outcomes for all students during the improving and accelerating phase of the pandemic response. The answer to this question will depend, in part, on the efforts of change leaders at the school, local, and national levels, who “foster the conditions necessary for sustained education reform in a complex, rapidly changing society” (Fullan, 2002, p. 20). That is, moving forward, principals and other education leaders can build on COVID-19 successes as change agents. This will require a

renewed commitment to WCA and the moral purpose of schools, which perhaps has become clearer in the wake of the pandemic.

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