The novel coronavirus (COVID-19) pandemic has significantly disrupted the educational system not only in regard to teaching and learning, but also in relation to the other services and supports (mental health services, meal and nutrition programs, and so on) provided to students and families. As school closures occurred across the United States during spring 2020 in response to COVID-19, schools had to quickly and radically shift how they provided education to the more than 55 million students now at home (Golberstein, Wen, & Miller, 2020). This not only affected teaching and learning, but also disrupted the delivery of broader social services and supports that many schools provide to students and families, such as health and mental health services and meal and nutrition programs, during a time of crisis when families were at heightened vulnerability and needed these services the most (American Psychological Association [APA], 2020; Golberstein et al., 2020; Kelly, Astor, Benbenishty, Capp, & Watson, 2020; Masonbrink & Hurley, 2020; Reich et al., 2020; Turner et al., 2020; Van Lancker & Parolin, 2020). The traumatic consequences associated with this pandemic have yet to be fully realized and will have long-term impacts on young people and families of an entire generation, particularly among people of color who are being disproportionately affected during this pandemic by ongoing, systemic structural racism and discrimination (Golberstein et al., 2020; Kelly, McCoy, & Ochocki, 2020; Masonbrink & Hurley, 2020; Quirk, 2020; Van Lancker & Parolin, 2020).

As these shifts in the educational system occurred, technology and information access were key components of school districts’ crisis response strategies, particularly as COVID-19 further illuminated the digital divide in the United States (Golberstein et al., 2020; Pew Research Center, 2020; Reich et al., 2020). School district Web sites, in particular, are critical information dissemination tools that are written and publicly accessible to all school stakeholders (Agozzino & Kaiser, 2014; Basch, Mohlman, Hillyer, & Garcia, 2020; Gates & Anctil, 2005; Taddeo & Barnes, 2016). Communication is imperative during times of crisis and school closures (Cauchemez et al., 2014), and these Web sites serve an important role in providing families with the most up-to-date information regarding available resources, services, and supports. Studies have demonstrated the improved accuracy of information dissemination through written outlets, such as Web sites, where all information is written in one place and individuals can...
refer back to it as needed (Edworthy, Hellier, Newbold, & Titchener, 2015).

Previous research on the types of information provided on school district Web sites is limited. However, studies have demonstrated that district and school Web sites include information such as announcements, program and service information, parental resources, community resources, academic calendars, and policy manuals (Gates & Anctil, 2005; Miller, Adsit, & Miller, 2005). During COVID-19, researchers and others have suggested that, in addition to information on COVID-19 (that is, information on the virus and related prevention measures) and changes related to academic instruction, it is critical to help families and their immediate and long-term needs during this time by providing information on mental health services, Wi-Fi and technology access, meal and nutrition programs, housing, and specific student subgroup resources (such as resources for English-language learners and students with disabilities) (Golberstein et al., 2020; Kelly, Astor, et al., 2020; Masonbrink & Hurley, 2020; Reich et al., 2020; Van Lancker & Parolin, 2020). In addition, expanded theoretical models and frameworks for district and school improvement (for example, Anderson-Butcher et al., 2010) point to the importance of providing not only academic supports, but also resources and supports related to health and mental health and supporting parent and family basic needs and engagement more generally. To date, however, it is unclear whether school district Web sites are providing this type of information to help support families and promote more equitable educational outcomes for students, particularly during a time of crisis.

The purpose of this study was to examine whether school district Web sites in one southeastern state provided this type of critical information to families through a content analysis. Specifically, we sought to answer two research questions: (1) How many school district Web sites have a specific COVID-19 page? and (2) Do school district Web sites and any school district COVID-19 pages or subpages provide information on the following categories of informational resources: (a) COVID-19, (b) changes to academic instruction and grading, (c) mental health resources and services, (d) Wi-Fi, (e) technology, (f) meal and nutrition programs, (g) housing, and (h) specific student and family subgroup needs (such as needs of English-language learners, Spanish-speaking families, or students with disabilities) to students and families?

Understanding the types of information school districts share on their Web sites has critical implications for helping to address educational inequity and disparities, particularly during times of crisis, and has important relevance for school social workers, who can help contribute to strengthening these communication tools with expertise related to issues of access and educational equity, crisis response and preparedness, school–family–community partnerships, resource acquisition, and mental health (Elswick et al., 2018; School Social Work Association of America, 2020).

METHOD

Procedures

A list of all 80 school districts in South Carolina (SC) was obtained from the SC State Department of Education (DOE) Web site between June 22 and July 8, 2020. In 2019, SC had 778,047 students and 52,733 teachers, with approximately 62 percent of students living in poverty (SC DOE, 2020). In terms of racial or ethnic background, a majority of students identified as White (51 percent), followed by Black (34 percent), Hispanic (9.5 percent), and two or more races (4 percent) (Nation’s Report Card, 2020). Approximately 6 percent of students were in limited-English proficiency programs (Nation’s Report Card, 2020). All schools in the state were closed due to COVID-19 at the time of Web site retrieval. Although all of these data are publicly accessible, similar to Gates and Anctil (2005), we maintain the confidentiality of districts when reporting the data. A university institutional review board reviewed the study and indicated that approval was not required.

Data Analysis

All district Web pages, including district COVID-19 pages and subsections when available, were downloaded using the MaxQDA Web Collector tool or saved as screenshots and imported into MaxQDA. A content analysis of all Web pages was then conducted by two researchers, adapting procedures used by Gates and Anctil (2005). First, we both reviewed all of the Web sites and developed an initial codebook based on the nine predetermined codes guided by the primary research questions in this study. The lead author then went through and applied these codes to the data to determine the presence or absence of each code, and the second author went through and reviewed all
of the coding. Through this process, we identified some additional coding categories and several places where our codebook definitions needed to be refined. For example, three codes emerged related to changes in academic instruction, including e-learning, worksheet packets, and changes to grades and accountability assessments. We also identified the need for a telemental health/health code in addition to a mental health resources and services code. We then finalized the codebook, and both authors reviewed all of the Web sites again to ensure consistent application of codes and identify any areas where there was disagreement on the presence or absence of a code. Where there were discrepancies, we documented these in a coding memo and then discussed each area and came to a final consensus. Our final codes and code definitions are presented in Table 1. Once we had coded all the Web pages, we grouped the districts into four categories: (1) no information, (2) information on COVID-19 only (that is, information only on the virus and related prevention measures), (3) information on resources only (that is, information only on resources related to school closure due to COVID-19 provided but no information related to the disease itself), and (4) information on both COVID-19 and resources. We then created a total information score for each district by assigning a 1 for the presence of a code and then calculating the sum across all 11 categories. This total information score could range from 0 to 11, with one point assigned for each category.

RESULTS

Overall, out of the 80 school district Web sites, 53 percent \((n = 42)\) provided information on both COVID-19 and resources, 31 percent \((n = 25)\) provided no information on COVID-19 or resources, 15 percent \((n = 12)\) provided information on resources only, and 1 percent \((n = 1)\) only provided COVID-19 information. Of the 80 school district Web pages, 60 percent \((n = 48)\) had COVID-19-specific Web pages.

For the 54 district Web sites coded as information on resources only or information on both COVID-19 and resources, Table 1 provides the percentage of district Web sites that provided any information related to each specific informational resource category. For the 11 categories, no school district Web site had information on all 11 types of informational resources. School district Web sites ranged in providing information on between one and 10 categories of informational resources. On average, school district Web sites had information on five categories of informational resources \((M = 5.30, SD = 2.51)\). Examples of the types of information provided in each category are also provided in Table 1.

A majority of districts (83 percent) provided resources for English-language learners and translation services for Spanish-speaking families, along with information about meals and nutrition (72 percent) and e-learning (70 percent). Fewer districts (30 percent) provided information for students with disabilities. No district provided information related to housing on their Web sites.

DISCUSSION

This study examined school district Web sites in one southeastern state to understand the types of information being provided to families during school closures in response to COVID-19. Overall, our findings demonstrate that more than two-thirds of the school district Web sites are providing important information to support families during this vulnerable time, ranging from information on COVID-19 to informational resources for English-language learners and Spanish-speaking families, as well as information on meal and nutrition programs, e-learning, and Wi-Fi. This is an encouraging finding, particularly as access to the Internet and online education, along with access to meals, has emerged as a critical need for families during this crisis (APA, 2020; Kelly, Astor, et al., 2020; Reich et al., 2020; Rogers & Ishimoto, 2020).

Our findings also demonstrate that there is more limited information being provided on a range of other resources that also have been identified as critical during this time. For example, only 18 school district Web sites in this state provided any information on mental health or telehealth/telemental health. This is concerning, particularly as emerging research on COVID-19 is identifying the significant mental health impact of this pandemic due to fear, physical distancing, school closures, and continued stress and isolation (Kelly, Astor, et al., 2020; Rogers & Ishimoto, 2020). Similarly, only 16 school district Web sites in this state provided information specifically for students with disabilities. For these families, information on how to access services and what happens with Individualized Education Plans is critical as concerns surface around how these
| Information Resource Category                        | Definition                                                                                                                                                                                                 | District Web Sites Providing Information* | Examples of Types of Information Provided                                                                 |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------|
| ELL/translation for Spanish-speaking families        | Information related to COVID-19 or resources provided because of school closure due to COVID-19 provided in Spanish, or resources provided specifically for Spanish-speaking families, including Google Translate buttons that apply to entire Web pages | 45 (83)                                  | Google Translate buttons; contact information for ELL Assistance Letters for parents translated into Spanish; updates provided in English and Spanish |
| Meal and nutrition program                           | Information provided about meal and nutrition programs offered in response to school closure due to COVID-19                                                                                                                                                       | 39 (72)                                  | Bus stop meal delivery information; school meal pickup information and changes in meal schedule due to weather |
| E-learning                                           | Information about e-learning or information on learning with technology (tablet, computer, phone) or through some platform (such as Google Classroom) provided by the school because of school closure due to COVID-19 | 38 (70)                                  | E-learning schedules; how to access e-learning; e-learning information by grade levels; recommended times for e-learning by grade level |
| Wi-Fi/Internet                                       | Information on how to access free Wi-Fi and Internet, about Wi-Fi hot spots, and any surveys designed to understand families’ Internet needs                                                                                                                                 | 34 (63)                                  | List of locations for Wi-Fi-enabled school buses; hyperlinks to free Wi-Fi/Internet                      |
| Computers/technology                                 | Information related to getting or providing technology devices (computers, iPad, and so on) to students, about support to fix district-issued technology, directions on how to use technology, or pickup/drop-off locations for technology in relation to school closure due to COVID-19 | 31 (57)                                  | Information technology support phone numbers and hotlines; Chromebook support information; device pickup/drop-off times and locations |
| Worksheet packets                                    | Information on worksheet packets for students or how to access worksheet packets for students                                                                                                                                                                         | 30 (56)                                  | Worksheet packet information by grade level; packet pickup/drop-off information                          |
| Mental health                                        | Information on how to access mental health services and supports, resources provided related to mental or emotional health or specific disorders (for example, anxiety), or information on coping with stress or dealing with feelings in general | 18 (33)                                  | Information on helping children cope with COVID-19; links to mental health resources; mental wellness workbook; crisis hotline contact information |
| Telehealth/telemental health                          | Information on telehealth or telemental health services for students’ and families’ health and mental health needs                                                                                                                                                       | 18 (33)                                  | Links to schedule virtual visits; contact information for telecounseling appointments; links to telehealth information |
| Grade and accountability assessment                  | Information on grade changes or changes in accountability assessments due to school closure in response to COVID-19                                                                                                                                                        | 17 (31)                                  | Suspension of state testing; distance learning grading; final grading guidance                           |
| Students with disabilities                           | Information on resources identified specifically for students with disabilities                                                                                                                                                                                        | 16 (30)                                  | Individualized Education Plan information during school closure; service access information; links to resources and question-and-answer sites |
| Housing                                              | Information on housing resources or supports                                                                                                                                                                                                                           | 0 (0)                                    | NA                                                                                                     |

Notes: ELL = English-language learner. NA = not applicable.
*Percentage out of the 54 school district Web sites that were coded as either “both COVID-19 and resources” or “resources only.”
services are being provided, given the shift to online learning environments (APA, 2020; Rogers & Ishimoto, 2020; Warner-Richter & Lloyd, 2020). In addition, housing has been identified as an important issue for families during this time (Kelly, Astor, et al., 2020; Rogers & Ishimoto, 2020). Yet, in this study, no South Carolina school district Web sites provided any information related to housing for families. Together, these findings signal important areas in which school district Web sites need to be strengthened. As educational inequity persists in schools, advocating for these resources to be available and included on these Web sites are specific and important ways that school social workers can demonstrate leadership and help ensure student learning and families’ basic needs are met during this time (APA, 2020; Elswick et al., 2018; Quirk, 2020; Turner et al., 2020).

An unexpected finding of this study was that one-third of the school districts in South Carolina did not provide any information on either COVID-19 or additional resources. Given that school district Web sites are central communication tools to provide information directly to families (Agozzino & Kaiser, 2014; Basch, Mohlman, Hillyer, & Garcia 2020; Gates & Anctil, 2005; Taddeo & Barnes, 2016), it is concerning that no information on these topics was provided. Of course, school districts are under immense pressure, so this finding could be the result of school districts responding to this crisis and having to dedicate important and limited resources in other areas to support families. In addition, school districts may be communicating this information to their families in other ways (social media posts, e-mails, and so on) that were not examined in this study. Nonetheless, this is a finding of concern and signals an important area of crisis response in which school social workers can contribute important expertise.

LIMITATIONS
Several limitations are important to note. First, this is a case study of school district Web sites from one state and therefore findings are limited in terms of generalizability. We also only examined information provided on school district Web sites and not through other dissemination outlets. It could be the case that information was disseminated through school-specific Web sites or through district or school social media outlets or through e-mail. Also, we only examined the district home page and any specific district COVID-19 page or subsections of a district COVID-19 page. There is the possibility that information could have been included in other areas of district Web sites. Also, similar to other studies (see, for example, Basch et al., 2020), we chose to download these Web sites during a specific period in time; however, we know Web sites can be updated often and perhaps we missed content that was included earlier and removed due to new updates. Another limitation is that we only examined these Web sites for predetermined content and did not assess for other types of information that may be provided or the quality, structure, or readability and accessibility of the information. This is an important next step for future research in this area, as others have found that information related to COVID-19 is written at a higher reading level than recommended for accessibility purposes (sixth-grade reading level) (Basch et al., 2020).

IMPLICATIONS FOR SCHOOL SOCIAL WORK RESEARCH AND PRACTICE
As COVID-19 has radically shifted education in the United States and across the globe, information on these changes, along with information on resources to support the basic needs and mental health and health needs of families, is of paramount importance. School district Web sites offer one mechanism to provide this information, and findings from this study suggest that these Web sites are variable in the types of information provided. School social workers have expertise in many of these areas identified by researchers and others as critical to help families with their needs at this time (Golberstein et al., 2020; Kelly, McCoy, & Ochocki, 2020; Masonbrink & Hurley, 2020; Reich et al., 2020; Van Lancker & Parolin, 2020). As such, school social work contributions to these sites are critical, and the resources cited in this article can help school social workers articulate the value of including this content to administrators and others who may be involved in decision making regarding district and school Web site content. Understanding how to contribute useful information and resources provided to families on these Web sites, and ultimately help address the persistent educational disparities and inequities during this unprecedented time, is now more important than ever. Future research during COVID-19 should continue to examine who gets access to what in-
formulation, and how, and how we can strengthen and reach all families to support their needs during a pandemic or other natural disaster.

REFERENCES
Agozzino, A., & Kaiser, C. (2014). Social media as a practical approach in engaging key stakeholders in school crisis communications plans. Journal of School Public Relations, 35, 44–62.

American Psychological Association. (2020). Recommendations on starting school during the COVID-19 pandemic. Retrieved from https://www.apa.org/ed/schools/teaching-learning/recommendations-starting-school-covid-19.pdf

Anderson-Butcher, D., Lawson, H., Iachini, A. L., Flaspohler, P., Bean, J., & Wade-Mdavian, R. (2010). Emergent evidence in support of a community collaboration model for school improvement. Children & Schools, 32, 160–171.

Basch, C. H., Mohlman, J., Hillyer, G. C., & Garcia, P. (2020). Public health communication in time of crisis: Readability of on-line COVID-19 information. Disaster Medicine and Public Health Preparedness, 14, 635–637. doi:10.1017/dmp.2020.151

Cauchemez, S., Van Kerkhove, M. D., Archer, B. N., Cetron, M., Cowling, B. J., Grove, P., et al. (2014). School closures during the 2009 influenza pandemic: National and local experiences. BMC Infectious Diseases, 14, Article 207.

Edworthy, J., Hellier, E., Newbold, L., & Titchener, K. (2015). Passing crisis and emergency risk communications: The effects of communication channel, information type, and repetition. Applied Ergonomics, 48, 252–262.

Elswick, S. E., Cuellar, M., Williams, M., Albert, W., Norfleet, T., & Carlson, S. (2018). School social work leadership: Essential knowledge, skills, and practices for the profession. School Social Work Journal, 42(2), 57–73.

Gates, G., & Anctil, E. (2005). Educational accountability in cyberspace: Analyzing Website differences between high-and low-performing Washington State School Districts. Journal of School Public Relations, 26(2), 101–125.

Golberstein, E., Wen, H., & Miller, B. F. (2020). Coronavirus disease 2019 (COVID-19) and mental health for children and adolescents. JAMA Pediatrics, 174, 819–820. doi:10.1001/jamapediatrics.2020.1456

Kelly, M. S., Astor, R. A., Benbenishty, R., Capp, G., & Watson, K. R. (2020). Opening schools safely in the COVID-19 era: School social workers’ experiences and recommendations technical report. Los Angeles: UCLA Lusk School of Public Affairs, Department of Social Work.

Kelly, M., McCoy, C., & Ochocki, S. (2020). SSWA: A response to COVID-19 health crisis and the role of school social workers. London, KY: School Social Work Association of America.

Masonbrink, A. R., & Hurley, E. (2020). Advocating for children during the COVID-19 school closures. Pediatrics. Advance online publication. doi:10.1542/peds .2020–1440

Miller, S., Adsit, K. I., & Miller, T. (2005). Evaluating the importance of common components in school-based websites: Frequency of appearance and stakeholders’ judged value. Tech Trends, 49(6), 34–41.

Nation’s Report Card. (2020). South Carolina demographics (2017–18). Retrieved from https://www.nationsreportcard.gov/profiles/stateprofile/overview/SC?cti=PgTab_Demographics&chart=1&sub MAT&js=SC&f=Grade&st=MN&year=2017R3&sg=Gender%3A+Male+vs.+Female&sgv=Difference&ts=Single+Year&ts=-2017R3&sgf=NP

Pew Research Center. (2020). 53% of Americans say the internet has been essential during the COVID-19 outbreak. Retrieved from https://www.pewresearch.org/internet/2020/04/30/53-of-americans-say-the-internet-has-been-essential-during-the-covid-19-outbreak/

Quirk, A. (2020). Mental health support for students of color during and after the coronavirus pandemic. Retrieved from https://www.americanprogress.org/issues/education/k-12/news/2020/07/28/488044/mental-health-support-students-color-coronavirus-pandemic/1/8

Reich, J., Buttmer, C. J., Fang, A., Hillaire, G., Hirsch, K., Larke, L., et al. (2020). Remote learning guidance from state education agencies during the COVID-19 pandemic: A first look. Cambridge, MA: Massachusetts Institute of Technology, MIT Teaching Systems Lab. doi:10.35542/oa/SoE/437c2

Rogers, J., & Shishimoto, M. (2020). Learning lessons: U.S. public high schools and the COVID-19 pandemic in spring 2020. Los Angeles: UCLA’s Institute for Democracy, Education, and Access.

School Social Work Association of America. (2020). Role of school social workers. Retrieved from https://www.swaaw.org/school-social-work

South Carolina Department of Education. (2020). Schools. Retrieved from https://ed.sc.gov/districts-schools/schools/

Taddeo, C., & Barnes, A. (2016). The school website: Facilitating communication engagement and learning. British Journal of Educational Technology, 47, 421–436.

Turner, E. O., Christopherson, S., Good, A., Gracia, J., Hagen, E., Hilgendorf, A., et al. (2020). Equity in pandemic schooling: An action guide for families, educators & communities. Retrieved from https://tinyurl.com/EquityGuidePandemicSchooling

Van Lancker, W., & Parolin, Z. (2020). COVID-19, school closures, and child poverty: A social crisis in the making. Lancet Public Health, 5(5), e243–e244.

Warner-Richter, M., & Lloyd, C. M. (2020). Considerations for building post-COVID early care and education systems that serve children with disabilities. Retrieved from https://www.childtrends.org/wp-content/uploads/2020/08/ECEDisabilitiesCovid19_ChildTrends_August2020.pdf

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