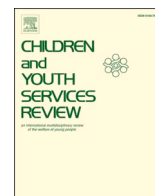




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A multi-tiered systems of support blueprint for re-opening schools following COVID-19 shutdown[☆]

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ARTICLE INFO

Keywords:

COVID-19
Multi-tiered systems of support
Adjustment
Traumatic stress
Academic status
Health and safety

ABSTRACT

The COVID-19 pandemic will create enormous disruptions for youth and families with respect to economic and health status, social relationships, and education for years to come. The process of closing and intermittently reopening schools adds to this disruption and creates confusion for parents and school officials who must balance student educational progress with health and safety concerns. One framework that may serve as a roadmap in this regard is a multi-tiered systems of support (MTSS) model. This article briefly addresses four main domains of functioning (*adjustment, traumatic stress, academic status, health and safety*) across three tiers of support (*universal, targeted, intensive*). Each section draws on existing literature bases to provide specific recommendations for school officials who must address various and changing logistical, academic, and health-based challenges. The recommendations are designed to be flexible given fluctuations in the current crisis as well as focused on maximum-value targets. An MTSS approach adapted for contemporary circumstances can also be used to help address longstanding disparities that have been laid bare by the pandemic.

1. Introduction

The COVID-19 pandemic has created enormous disruptions for youth and families with respect to economic and health status, social relationships, and education (Nicola et al., 2020). Unemployment, loss of health insurance, delayed medical procedures, illnesses, food and housing insecurity, reduced social support/contact, domestic violence, family separations, mental health problems, and other challenges have created substantial traumatic stress (Horesh & Brown, 2020). With respect to education, the pandemic has resulted in widespread school closures and shifts to virtual or hybrid learning for millions of students for extended periods of time (Masonbrink & Hurley, 2020). Quality has varied with respect to teaching and learning and has disproportionately impacted marginalized students (Kapasia et al., 2020). These students often have less support and face greater barriers in remote learning environments due to connectivity issues and limited technology access (US Department of Education, 2018). Students are estimated, during shutdowns, to experience only a portion of learning gains in reading (63–68%) and mathematics (37–50%) compared to a typical school year (Kuhfeld et al., 2020).

Several associations and agencies have thus advocated for resuming in-person instruction for children and adolescents under safe conditions, particularly for vulnerable students such as those with disabilities (American Academy of Pediatrics, 2020; World Health Organization, 2020). Surveys of parents and school officials worldwide, however, understandably reveal considerable angst, uncertainty, and confusion about the prospect of returning students to school for in-person instruction while simultaneously managing ongoing safety concerns and implementing necessary health protocols (Kroshus, Hawrilenko, Tandon, & Christakis, 2020; Pierantoni et al., 2020; Smith, Woodland, Amlôt, Rubin, & Rubin, 2020). Policymakers thus face the daunting task of deciding when and how to (1) reopen schools, (2) institute safety precautions, and (3) structure investments to deliver effective educational models while determining which students must be accommodated, how so, and at what point (Hubbard, Mackey, & Supovitz, 2020).

Subsequent decision-making has thus been fraught with disagreements regarding the scale, timing, and utility of returning students to physical learning environments (e.g., Banwo, Anderson, Childs, & Stone-Johnson, 2020). A patchwork of school reintegration plans has been implemented, many with lack of clarity when sudden stoppages

[☆] This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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occur due to new virus outbreaks or rising positivity rates (Stein-Zamir et al., 2020). School principals also report varying levels of responsiveness to the crisis (Weiner, Francois, Stone-Johnson, & Childs, 2020). In addition, the process of intermittent school closings and re-openings is expected to last months to years depending on vaccine availability and distribution in different locations (Azevedo, Hasan, Goldemberg, Iqbal, & Geven, 2020). Guidelines are thus needed for school officials and families who must balance educational progress via in-person instruction with student adjustment and health/safety considerations (Lordan, FitzGerald, & Grosser, 2020).

A multi-tiered systems of support (MTSS) model may be a helpful blueprint in this regard. MTSS models represent school-centered, ecological approaches to assessment and intervention service delivery to address a wide range of student needs across multiple domains of functioning (Benner, Kutash, Nelson, & Fisher, 2013). The models are designed to help schools efficiently and effectively address complex and intertwined problems across academic, social, and behavioral sectors (Sugai, Simonsen, Freeman, & La Salle, 2016). MTSS models have been designed, for example, to address lagging academic and social performance, inequities in access to student services and supports, mental health challenges, and school attendance, violence, and climate (Kearney & Graczyk, 2020; Stoiber & Gettinger, 2016). MTSS models are typically based on research-practice and school-community partnerships and are often embedded into existing school-based health services (Collins, Dart, & Arora, 2019). This allows for greater flexibility and responsiveness when addressing various student needs.

MTSS approaches typically involve matching assessment and intervention strategies to individual student need across a 3-tiered continuum of supports (McIntosh & Goodman, 2016). Tier 1 strategies focus on broad schoolwide or primary prevention practices for the entire student body to promote adaptive behavior (e.g., reading ability, social-emotional competencies) and deter maladaptive behavior (e.g., classroom disruption). Tier 2 strategies focus on early, selective intervention or secondary prevention practices to address emerging or acute academic and social/emotional/behavioral issues (e.g., reading difficulties, anxiety) and provide targeted services to students and families that require additional support from Tier 1. Tier 3 strategies focus on extensive intervention or tertiary prevention practices to address chronic and severe issues (e.g., learning or mental disorders) and provide intensive services to students and families that require additional support from Tier 2 (Lewis, McIntosh, Simonsen, Mitchell, & Hatton, 2017). Each tier emphasizes how systemic issues impact student attendance and academic and behavioral outcomes.

An MTSS model may be a useful blueprint for re-opening schools for in-person instruction in several ways. *First*, the model could be adapted in the current situation to address multiple immediate, interconnected, and critical domains: *adjustment, traumatic stress, academic status, and health and safety* (Shah, Mann, Singh, Bangar, & Kulkarni, 2020). A recent tier-based approach by the National Association of School Psychologists (Association, 2020) focused on individual student adjustment; however, a broader consideration of other developmental domains is needed for this crisis (Benner & Mistry, 2020). *Second*, the

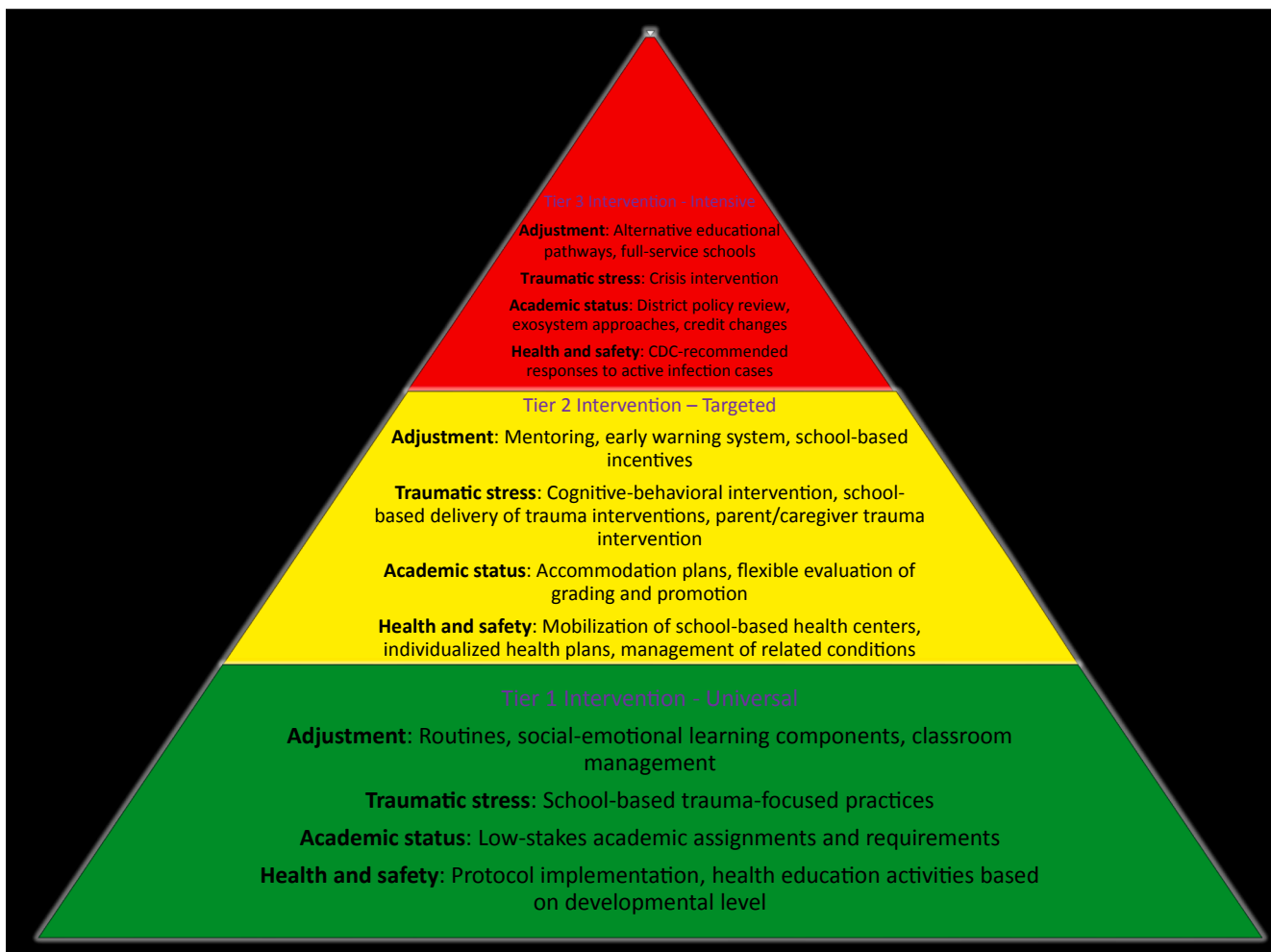


Fig. 1. Multi-tiered systems of support blueprint for re-opening schools in the COVID-19 era.

model is designed to maximize limited school-based resources by emphasizing feasibility and focusing on high-value targets (Arora et al., 2019). *Third*, the model is designed to be flexible and could be tailored to individual educational agencies and their location as well as to variations in COVID-19 rates, new virus strains, intermittent shutdowns and re-openings, vaccine availability, and the degree to which schools and families are able to recover economically, socially, and educationally over the next several years (Blundell, Costa Dias, Joyce, & Xu, 2020).

The purpose of this article is to briefly outline a school re-opening blueprint based on an MTSS approach. Each of the 3 main tiers of an MTSS approach is discussed with an emphasis on 4 immediate and critical domains: *adjustment, traumatic stress, academic status, and health and safety* (Fig. 1). Within each tier and domain, an emphasis is placed on feasibility and flexibility as well as on specific components and maximum value targets. As such, the blueprint is not necessarily exhaustive with respect to all possible options but is rather a heuristic framework that could be adjusted to different educational agencies and their unique circumstances and challenges. Although the current situation is somewhat unprecedented, drawing from existing literature bases (e.g., extended school absence, schoolwide initiatives, trauma-informed classrooms, school nursing) can be helpful for each domain. Recommendations provided in this article are meant neither to imply a deficit model nor place burden on any individual student. Deficit framing of students persists throughout education and creates negative stereotypes about certain student populations (Warren & Venzant Chambers, 2020). Recommendations in this article recognize the unique opportunity for researchers, educators, and policymakers to examine supports for students who transition back to school while at the same time rejecting deficit narratives that have continuously persisted in education research and practice for years (Valencia, 2010).

2. Tier 1: Universal intervention

Tier 1, schoolwide strategies can be implemented in the current situation over an initial 4–8-week reintegration period as students return to school for in-person instruction. A key premise of this Tier 1 blueprint is to allow *sufficient time and space* to readjust to semi-normal/regular routines, to redevelop skills, to process (traumatic) events, to enhance safety, to assess needed supports, and to identify students who are not yet returning to in-person instruction or who have otherwise become disconnected from the educational process. In addition, sufficient time and space will be needed to reconfigure each of these processes according to developmental level (preschool, elementary, middle, high school), individual school, and sudden changes in the pandemic situation. Tier 1 practices described next are recommended to be conducted *on a rolling basis* as students enter a particular re-opened school at different times. Schools are also encouraged to blend elements of tier-based recommendations dynamically as needed to enhance flexibility; some students, for example, will benefit from immediate Tier 2 or Tier 3 services (later sections) (Al Otaiba et al., 2014).

2.1. Adjustment

Students returning to schools for in-person instruction, particularly younger and/or marginalized students, will likely face substantial logistical, social, and academic challenges and barriers. Many will have been, for extended periods of time, off daily school preparation routines, unfamiliar with their method and timing of school transportation, socially isolated with little direct peer contact, and disconnected or disengaged from the teaching and learning process (Seymour, Skattebol, & Pook, 2020). Personal, family, and educator competencies (e.g., social, academic, in-person instructional) may have eroded and will thus need to be re-developed (see Korkmaz & Toraman, 2020). Guidance from literatures with respect to school attendance/problems, social-emotional learning, professional development, and classroom management may be helpful regarding the delivery of high-quality services to

help students readjust to school.

Kearney and Albano (2018) outlined recommendations for re-establishing morning school preparation routines following extended school absences. These recommendations included (1) set waking and rising times for all family members, (2) regular timelines and order for school preparation tasks, (3) buffer times to account for dawdling and minor noncompliance, (4) brief and specific parent commands (and ignoring minor complaints), and (5) completion of the routine 30 min prior to home departure. Re-establishing morning routines and appropriate sleep hygiene practices at least one week prior to school re-entry is recommended. Many younger students will also experience difficulty separating from caregivers at a school departure point. Recommendations in this case include asking caregivers to (1) discuss a child's school day and anticipated problems in the evening, not the morning, (2) ask a school official to escort the student from the car or bus and directly into the school building, and (3) depart the separation point quickly. In all cases, transportation to school should be reliable, safe, and well-understood in advance by all parties (Kearney, 2019). Mechanisms of re-developing these skills could include wide dissemination of information from school districts (websites, flyers, available resources), parent meetings, and school counselor appointments.

Kearney and Albano (2018) also suggested that youth out of school for extended periods of time become fully (re)acclimated to a school campus, particularly one not previously attended. A common mechanism for doing so involves tours of key areas such as classrooms, lockers, cafeteria, gymnasias, libraries, important offices (main, counselor, nurse), and bus depots. School orientation events (group or individual) are strongly recommended on an *ongoing basis* to accommodate students returning at different intervals. Orientation activities should also allow for reconnection with teachers and other school officials as well as with peers and classmates, include a description of the proposed academic schedule and changes due to the pandemic, and offer insight into expected course topics and opportunities for academic assistance.

Social and academic skills (re)instruction will also likely be a necessary component of school re-openings. Components of social-emotional learning (SEL) initiatives often administered at Tier 1 may be particularly instructive in this regard. Common SEL targets include self-awareness, self-management, social awareness, relationship skills, and responsible decision-making (Weissberg, Durlak, Domitrovich, & Gullotta, 2015). Key components in this regard include (1) identifying personal and others' emotions and perspectives, (2) understanding the connection between thoughts, emotions, and behaviors, (3) behavioral and cognitive coping with relaxation and self-talk skills, (4) goal setting and planning, (5) mindfulness, (6) valuing diversity, and (7) social and assertiveness skills (Lawson, McKenzie, Becker, Selby, & Hoover, 2019). Mechanisms for administering SEL components typically involve incorporation into teaching practices but could also involve separate individual and group sessions. Modifications for adolescents should consider greater detail with respect to creating relationships and relationship quality (Ross & Tolan, 2018). With respect to the pandemic, SEL themes can focus specifically on discussing health-based and social anxieties, understanding connections between thoughts (e.g., fear of contamination) and behaviors (e.g., avoiding others), and providing a menu of options for coping purposes (e.g., relaxation, music, mindfulness, self-care).

In related fashion, teachers will need to refocus their efforts on basic student academic and classroom management skills. Time and space will be needed to re-establish classroom routines, breaks, and transitions as well as accommodations to new health and safety protocols (below). Aspects of school-wide positive behavioral interventions and supports can be important at this time: (1) clear academic and behavioral expectations (e.g., daily lesson plans, rules for engaging others), (2) positive group contingencies (e.g., collective free time following clean-up), (3) affirmative and constructive feedback (e.g., clear rubrics, focus on one skill), and (4) differential reinforcement of appropriate behavior (e.g., praise for on-task behavior) (Wills, Caldarella, Mason, Lappin, &

Anderson, 2019). Reactive and punitive measures such as exclusionary discipline are often utilized in instances of limited resources and training and are applied disproportionately to marginalized students (Ritter & Anderson, 2018). Exclusionary discipline measures *must be minimized* in the current situation to avoid exacerbating the school disengagement process (Skiba, Arredondo, & Williams, 2014).

2.2. Traumatic stress

Many students returning to schools for in-person instruction will have faced traumatic situations such as domestic violence, parental separation or illness, maltreatment and neglect, food and housing insecurity, systemic racism, loss of loved ones (potentially without opportunities for closure or funeral attendance), and other intense stressors (Menschner & Maul, 2016). These stressors can translate to self-regulation difficulties, negative cognitions about self and the world, hypervigilance, lack of trust in adults, and inappropriate social interactions, often in unpredictable ways, that can be incompatible with the teaching and learning process (Minahan, 2019). In addition, an extended school disengagement process itself can be traumatic for many youth, particularly those for whom schools were previously a main source of support (Martin & Sorensen, 2020).

School-based trauma-focused practices (also trauma-informed teaching/classrooms) (Zakszeski, Ventresco, & Jaffe, 2017) may be particularly relevant to many schools that are re-opening after an extended shutdown. Trauma-focused practices at Tier 1 are designed to improve educational outcomes for traumatized students, address traumatic effects, and prevent re-traumatization (Crosby, 2015; McInerney & McKlinton, 2014). Universal screening measures (e.g., Strengths and Difficulties Questionnaire; Goodman, 1997; www.sdqinfo.org) are initially used to understand the scope of traumatic reactions in a particular school, and thus the extent of needed Tier 1 intervention, as well as to identify students in need of more intensive (Tier 2) supports (Reinbergs & Fefer, 2018).

Key intervention components, in addition to social-emotional learning aspects such as social problem-solving and coping skills (above), include (1) educating teachers/school officials about child trauma and its effects and signs, (2) building trust-based and collaborative teacher-student interactions (e.g., empathy, active listening, positive affirmations, multiple forms of communication), (3) providing rationales (transparency) for expected behavior as well as extended compliance times, (4) incorporating predictability and consistency as well as supportive feedback into classroom routines, (5) developing effective calming strategies (e.g., cool-down areas, play, walks, dimmed lights, flexible seating), (6) recognizing and developing competencies (i.e., a growth mindset as opposed to a deficit mindset), and (7) enhancing a sense of safety (Minahan, 2019). Trauma-informed programs must also emphasize cultural responsiveness, minimize exclusionary discipline, avoid practices that could inadvertently re-traumatize a student, and address parent/caregiver trauma (Chafouleas, Johnson, Overstreet, & Santos, 2016). Mechanisms for trauma-focused practices, as with SEL, could include classroom instruction and/or separate individual and group sessions. Modifications for older children and adolescents may need to consider a longer trauma history and wider array of traumatic events (Darnell, Flaster, Hendricks, Kerbrat, & Comtois, 2019).

2.3. Academic status

Students returning to schools for in-person instruction in the current situation will likely have experienced a serious erosion of their academic knowledge and skills (Van Lancker & Parolin, 2020). In addition, many students will take longer to resume regular school attendance due to logistical and administrative obstacles, family and personal concerns about safety, and other issues (Sheikh, Sheikh, Sheikh, & Dhami, 2020). Sufficient time and space will be required not only to relearn fundamental academic concepts but also to prevent school disengagement;

school officials must ensure that students understand what is happening in their classes. Indeed, academic remediation has been found to best predict re-entry into school following extended absences (Haight, Chapman, Hendron, Loftis, & Kearney, 2014). In addition, Tier 1 practices must include universal, efficient, and effective screening methods to immediately identify students with specific competencies that may require remediation and/or Tier 2 intervention (Salinger, 2016).

Low-stakes academic assignments are recommended during the initial re-entry period as students re-adjust scholastically. Low-stakes academic assignments are those that are early, frequent, and formative in nature and that do not necessarily contribute to a substantial portion of a final grade or other main evaluative benchmark (Sotola & Crede, 2020). Examples include short quizzes, brief essays, reading journals, and in-class problem-solving. Dissection of larger projects into smaller components (e.g., prospectus to outline to draft to peer review) is common as well. Low-stakes academic assignments allow for timely feedback on initial requirements prior to final work, enhance student-teacher interactions and engagement, and provide rubrics and ideas for seeking additional resources (Solomonidou & Michaelides, 2017). The assignments can help manage student stress (previous section) and serve as a bridge during a transition phase to later high-stakes academic endeavors as appropriate.

Low-stakes academic *requirements* may also be helpful in this regard. This involves an initial de-emphasis on high-stakes and/or standardized testing as a basis for grades or promotion; instead, greater emphasis may be placed on experiential and service work, volunteerism, internships, group and video projects, portfolios, presentations, discussions/debates, reflections, and other less traditional methods (Salam, Iskandar, Ibrahim, & Farooq, 2019). Low-stakes academic requirements can also involve extended timelines, additional academic support and conferences, flexible evaluation, and a focus more on benchmarks and key competencies than on formal grades or in-seat class time (Högberg, Lindgren, Johansson, Strandh, & Petersen, 2019). The main premise is that flexibility with respect to evaluating student progress must be prioritized in the current environment.

2.4. Health and safety

Students returning to schools for in-person instruction will likely face health and safety protocols that at least temporarily alter their physical learning environment. Examples include enforced social distancing, frequent handwashing or sanitizing, face coverings, staggered entry and exit times, and rapid or other medical testing (España et al., 2020). Parents and students will likely be informed about health and safety protocols prior to school re-entry by their districts. However, many students (and parents) will have substantial anxiety about the current situation with respect to their personal and family member health status (Racine et al., 2020). Discussions regarding health and safety could thus be incorporated into classroom curricula, assemblies, and school counselor- or other official-led workshops. These discussions can be adapted to Piagetian developmental levels.

Preschool children initially enter a prelogical phase of phenomenism and rather poor explanations of illness such as a belief that illness symptoms come from sources far removed from the child (e.g., from the sky) (Bibace & Walsh, 2016). Older preschoolers engage in contagion-based explanations of illness that are closer to the child but often with less direct contact (e.g., from being outside) (Koopman, Baars, Chaplin, & Zwinderman, 2004). Interactions with preschoolers in this regard can thus involve visual effects (e.g., soap bubbles as virus), drawings of the virus, play experiences, stories, videos, and discussions about family members, pets, activities while quarantined, and emotions in the household during this time (Capurso, Dennis, Salmi, Parrino, & Mazzechi, 2020). Techniques to avoid contagion can be emphasized and practiced as well.

Elementary school children enter a concrete-logical explanation phase where internal causes of illness become better understood. The

initial part of this phase, contamination, involves linking an external cause such as extended time in cold weather or direct contact with a sick person with an internal effect such as congestion. The later part of this phase, internalization, involves greater detail regarding the contamination process such as a better understanding of bacteria and viruses and their transmission (McQuaid, Howard, Kopel, Rosenblum, & Bibace, 2002). Interactions with elementary school youth in this regard can thus involve those described above (as age-appropriate) in addition to detailed education about disease transmission (and particularly regarding COVID-19) and current health and safety protocols, emotional processing of worries and anxieties about the current situation, coping strategies, and creative projects regarding the coronavirus (Bate & Malberg, 2020).

Adolescents are more sophisticated about their knowledge of disease and often progress through two formal-logical explanation phases (Bibace & Walsh, 2016). The initial phase, physiologic, involves an understanding of how contaminants affect internal somatic processes (e.g., lowered white blood cell count, suppressed immune system). The latter phase, psychophysiologic, involves an added psychological component to disease; a greater understanding, for example, that stress and other underlying conditions exacerbate physical illness. Adolescents also tend to be more tolerant of medical procedures and pain, more aware of preventative practices, more adherent to treatment, and less fearful of physicians and injections than younger children (O'Donohue, Benuto, & Tolle, 2014). However, adolescents can still benefit from discussions about different coping methods (e.g., exercise, reading, social interaction) and in particular the importance of stress management and self-care practices during this time (Callaghan, 2006).

3. Tier 2: Targeted intervention

Tier 2 targeted strategies can be implemented in the current situation both during Tier 1 and following the suggested 4–8-week reintegration phase as needed. A key premise of this Tier 2 blueprint is to identify students and families in need of additional resources, to provide more targeted supports at each domain, and to partner with outside mental health and other service agencies. Students (and families) that may require more immediate Tier 2 support include those not attending school for at least 2 weeks following school re-opening as well as those demonstrating early warning signs of future absenteeism. Common signs in this regard include (1) difficulties attending specialized classes or the cafeteria, entering the school building in the morning, or transitioning from class to class; (2) frequent visits to key offices (main, nurse, counselor) or requests to otherwise leave the classroom or contact caregivers; (3) persistent distress at school or upon caregiver separation; and (4) sudden decline in completed academic work or sudden behavioral changes (Kearney, 2018).

3.1. Adjustment

Some students will experience continued difficulty re-adjusting to an in-person school environment and may benefit from additional support. Tier 2 practices with respect to student adjustment in this regard could be derived from existing models such as Check and Connect or Check-in/Check-out (Christenson, Sinclair, Thurlow, & Evelo, 1999; Miller, Dufrene, Sterling, Olmi, & Bachmayer, 2015). Components of these programs include (1) daily morning check-ins and afternoon check-outs with a mentor; (2) daily report card from a teacher to parents regarding academic and behavioral performance; (3) frequent teacher monitoring and feedback; and (4) parent involvement strategies (e.g., school-based resource rooms for parents) (Maynard, Kjellstrand, & Thompson, 2014). Mentors can include teachers, other school officials, outside volunteers, and peers; key topics can include (1) academic work and skills, (2) challenges with peers and teachers, (3) conflict resolution strategies, (4) family stressors, (5) incentives to attend school, (6) obstacles to school attendance, (7) life skills (e.g., problem-solving, coping, self-regulation,

social), (8) transitions to new (or renewed) school settings, (9) transportation difficulties, and (10) the value of school attendance and completion (Kearney, 2019).

Early warning systems have also been devised that may be especially pertinent in the current environment. Cook, Dodge, Gifford, and Schulting (2017), for example, established a school-based system whereby teachers were informed about the home life of their students and individual circumstances that could interfere with attendance. Additional components included frequent teacher-parent communication in these cases, an online attendance information system to identify main attendance barriers for a given student, and interventions (e.g., interpreters, specialized transportation) to remove these barriers and to maintain ongoing student/family contact when disruptions occurred. First-period or homeroom teachers may also be utilized as early detection mechanisms to immediately alert administrators about a student absence with the hope of remediating the situation as soon as possible (Kearney, 2016).

School-based incentives may also be helpful for students and families at Tier 2, particularly in situations where the school environment provides certain resources not available at home. Examples include extended computer access, recess or unstructured time with peers, school supplies, individual time or lunch with a teacher or counselor, public recognition of accomplishments, extra time at a specialized class (e.g., music, art), and special seat assignments (Balu and Ehrlich, 2018). Incentives can be academically-based as well (see academic status section). Many families will also continue to experience severe financial, food, housing, social and other disruptions that could be eased via school-based non-academic resources. Additional recommendations in this regard include working with caregivers, often via home visits, to (1) set realistic attendance goals and time frames, (2) understand and resolve key barriers to attendance, (3) develop problem-solving strategies, and (4) provide access to necessary external services and resources (Finning et al., 2018).

3.2. Traumatic stress

Students and families at Tier 2 in the current environment will be experiencing substantial mental health and behavioral challenges related to traumatic stress such as anxiety, depression, suicidality, substance use, and self-regulation difficulties. Many of these families will benefit from connection with mental health services. A rich and diverse literature base is available regarding interventions for school attendance problems. These interventions typically involve cognitive-behavioral, family therapy-oriented, and service-based components (Maynard, McCrea, Pigott, & Kelly, 2013) such as somatic/anxiety management, cognitive restructuring, mindfulness, gradual exposure or reintegration to school, parent training, contingency management, contracting, communication skills and problem solving training, peer refusal skills training, motivational interviewing, student engagement strategies, and anxiolytic or antidepressant medications (Kearney, 2021). These interventions have been adapted for delivery in various contexts particularly relevant for the current environment, such as via home visits, schools, and telehealth (Chu, Rizvi, Zendegui, & Bonavitacola, 2015; Haight et al., 2014; Tolin et al., 2009).

Tier 2 recommendations have also been made regarding trauma-focused practices with respect to the instructional/school environment as well as additional care. With respect to the instructional/school environment, trauma-focused practices at Tier 2 will need to be tailored to very specific individual student circumstances. This can involve specialized opportunities for de-escalation, separate school areas as needed to complete work and receive extra support, extended school counselor sessions, mentoring, and arrangements for safer transportation to and from school (McInerney & McKlindon, 2014). With respect to additional care, cognitive-behavioral intervention, community-based services, and wraparound care are recommended (Chafouleas et al., 2016). Specific intervention components designed for

school-based delivery include (1) affective regulation/relaxation and cognitive coping skills; (2) anger and grief management; (3) in vivo gradual or narrative exposure; (4) parenting skills; (5) psychoeducation; (6) resilience training; (7) restorative retelling; (8) trauma narratives; (9) safety plans; and (10) social problem-solving (see Trauma-Focused Cognitive Behavior Therapy, [Cohen & Mannarino, 2015](#); Cognitive Behavioral Intervention for Trauma in Schools, [Jaycox, Kataoka, Stein, Langley, & Wong, 2012](#); Grief and Trauma Intervention for Children, [Salloum & Overstreet, 2012](#); Multimodal Trauma Treatment, [Amaya-Jackson et al., 2003](#)).

Tier 2 supports in this domain may also need to be expanded further to address *parent and caregiver trauma*. In addition to parenting strategies, key components include a focus on parent/caregiver trauma history and symptoms, cognitive-behavioral interventions, relationship repair and attachments, and emotional coaching and recognition of child emotions ([Kiser, Miller, Mooney, Vivrette, & Davis, 2020](#)). Parents at this stage will also require considerable support with respect to their child's school attendance. In addition to linkage to external resources, key efforts from the literature in this regard include (1) conducting intervention sessions at home or virtually, (2) focusing on small, gradual improvements in attendance over a short period of time, and (3) mobilizing a family's social support network, especially for morning routines, transportation to school, and homework assistance ([Kearney, 2018](#)).

3.3. Academic status

Students and families at Tier 2 in the current environment will likely display sporadic in-person attendance that may not be conducive to traditional grading and promotion systems. In addition to the academic strategies discussed for Tier 1, teachers and school officials will need to adopt increased flexibility and innovation with respect to evaluating students in Tier 2 and may need to do so across constant changes in instructional format. Note that many of the additional supports described next can be implemented more immediately with vulnerable students, particularly students with disabilities who have been disconnected from the educational process for an extended time ([Bruhn, Lane, & Hirsch, 2014](#)).

Accommodation plans may need to be emphasized and expanded in the current environment. Students and families at Tier 2 may benefit from 504 (Section 504 of the Rehabilitation Act of 1973) or individualized education (Individuals with Disabilities Education Act) plans to provide extra supports within an administrative system. Accommodation plans may be developed to provide supplemental services or assistance to bolster academic functioning and school attendance. Such plans may be used, for example, to alter class schedules and test-taking times, institute part-time schedules, modify academic work requirements, provide space for therapeutic and other ameliorative procedures, schedule regular meetings with a school counselor, and allow for other changes and forms of specialized assistance ([Kearney, 2019](#)). Accommodation plans with these components may be especially helpful for salvaging the current academic year to improve chances of grade promotion.

Other accommodation plans for students and families at Tier 2 can be designed with extended instructional timelines in mind. This may include allowances for auditing courses (to better prepare for later formal coursework in a topic area), linking current courses with summer work, identifying alternative methods of evaluation and criteria for grade promotion, altering credit accrual requirements, extending hybrid education and resources, monitoring progress more frequently, and providing long-term academic tutoring ([Hoyle, Marshall, & Yell, 2011](#); [Kearney, 2018](#)). Components of plans at Tier 2 can intersect as well with accommodations mentioned later for Tier 3; components of Tier 2 and Tier 3 plans may also alternate dynamically across certain time periods to adjust to changing conditions ([Frank & Richards, 2021](#)). This could involve, for example, shared work load across school-based and

community-based professionals ([Mitchell, Bruhn, & Lewis, 2016](#)).

3.4. Health and safety

Some students in the current environment will be particularly susceptible to complications from COVID-19 exposure due to underlying physical conditions, unhealthy living environments, and lack of adequate protective measures ([Zar, Dawa, Fischer, & Castro-Rodriguez, 2020](#)). Many of these students will remain home to minimize exposure and so accommodations with respect to academic progress within a distance learning format will be necessary. Other students may eventually return to school for in-person instruction but still require extra monitoring and support given their vulnerability. This may be especially important for students of color, students in poverty, and students with disabilities whose main source of behavioral health care is often a school setting ([Phelps & Sperry, 2020](#)).

Tier 2 interventions for youth at risk of developing behavioral health concerns are often part of school-based health programs. These programs commonly partner with community agencies to offer in-school and out-of-school therapeutic services to provide health care and minimize school absences ([Williams et al., 2018](#)). Involvement of school nurses is often crucial in this regard via wellness checks, coordination of health services, and development of individualized health plans ([Rau & Lytle, 2020](#)). In the current environment, school-based health initiatives will also need to coordinate, particularly for vulnerable students, preventative and quarantine measures (and possible vaccine distribution), virus testing, contact tracing, appropriate ventilation, and other responses ([Panovska-Griffiths et al., 2020](#)).

Tier 2 health-related interventions for vulnerable students will also need to closely manage associated respiratory conditions such as asthma, communicate meticulously with parents about accessing services, establish reliable telehealth portals and crisis management procedures, and implement measures to ensure continuity of care ([Martin & Sorensen, 2020](#)). Management of related conditions such as diabetes that accentuate risk must also be a priority ([Maughan & Bergren, 2020](#)). Ongoing assessment will also be needed to screen students who have yet to return to school and to monitor COVID-19 complications such as multisystem inflammatory syndrome in children ([Panda et al., 2020](#)).

4. Tier 3: Intensive intervention

Tier 3 intensive strategies can be implemented in the current situation *both* during Tiers 1 and 2 *as well as* following the interventions already described, as appropriate. A key premise of this Tier 3 blueprint is to provide outreach to students and families who are likely to remain disconnected from a traditional in-person educational process for an extended period of time or permanently. As such, Tier 3 practices in this regard involve highly flexible educational practices and evaluations as well as substantially greater collaboration and partnerships with outside mental health and other service agencies. The following sections outline broad-stroke recommendations that must be tailored to the resource and logistical availability of a particular educational agency.

4.1. Adjustment

Tier 3 interventions for students (and families) disconnected from a traditional in-person instructional process for an extended period of time typically involve a focus on *alternative educational pathways* toward school completion/graduation ([Aron, 2006](#)). Alternative educational pathways often intermix high school requirements with career and adult readiness goals, such as working simultaneously toward a diploma as well as toward skills needed for success as an adult. The overall goal is to enhance academic and social competencies to a point where a student may be eligible for community college, military enrollment, vocational/technical training or certification programs, or other progressive avenues ([Rutschow & Cray-Ross, 2014](#)).

Alternative educational pathways can involve separate schools or academic programs based on a variety of altered academic requirements (see academic status section below). Key components include academic remediation in core areas, flexible scheduling, mental health and other services, mentoring, personalized instruction, and skills-based learning. Alternative educational pathways can broadly involve several forms: (1) *after-school opportunities* (assistance after normal school hours, community service, formal or extended classes, medical and mental health services, tutoring); (2) *community-based learning centers* (high school work with occupational training); (3) *general education development* (examinations for an equivalency high school diploma or certificate); (4) *home-based instruction* (caregiver-led instruction, visiting teachers, hybrid format); (5) *specialized schools* (e.g., focus on specific areas such as technology); and (6) *summer programs* (e.g., for credit recovery or vocational training) (Kearney, 2016).

A rapid shift toward more *full-service community schools* may also be particularly critical given widespread food and housing insecurity in the current crisis. This involves combining academic settings and in-person instruction with family, food, housing, physical and mental health, and other social services via school-community partnerships (Warren, 2005). This process draws students and families to educational agencies, reduces transportation and stigma concerns, and enhances family capital (Diamond & Freudenberg, 2016). With specific respect to the current pandemic situation, full-service community schools may also be configured as public health information centers, medical assessment destinations, and vaccination points for a given neighborhood or area (Daley et al., 2014).

4.2. Traumatic stress

Some students and families are experiencing very intense mental health challenges, family transitions/limitations, and resource needs in the current crisis. Tier 3 interventions for traumatic stress will overlap with those described at Tier 2 although some have advocated for a specific extra tier of support for families most in crisis (Berger, 2019). Tier 3 supports at this level are highly individualized via detailed case conceptualization (Reinbergs & Fefer, 2018). Information from the school-based crisis intervention literature may be instructive in this regard. School-based crisis intervention can refer to methods of addressing the entire student body after a violent or disastrous event but is described next within the context of individual care (Compton, Bahora, Watson, & Oliva, 2008).

School-based crisis intervention techniques for individual children are often based initially on removing students from immediately harmful or dangerous circumstances, ensuring physical safety, and identifying immediate psychological trauma (Lai, Esnard, Lowe, & Peek, 2016). Other key components include (1) psychoeducation (e.g., one's expected reactions to the trauma for normalization purposes; methods to obtain help in a crisis); (2) immediate coping strategies to help manage these reactions; (3) social and peer support; and (4) safety plans as needed (Kramer & Landolt, 2011). These approaches obviously must be tailored to a child's cognitive developmental level, ability to advocate for oneself, and degree of responsiveness to the intervention (Dorado, Martinez, McArthur, & Leibovitz, 2016).

Increased prevalence of child maltreatment is expected in the current crisis (Lawson, Piel, & Simon, 2020) and will pose a special challenge for school officials. School officials are legally obligated to report suspected instances of child maltreatment but can also proactively assist in supporting the child following this point. Examples include providing (1) a positive school environment that enhances a child's sense of accomplishment and resilience, (2) social support from adults and peers; and (3) opportunities for group projects (Crosson-Tower, 2003). The classroom trauma-based practices presented earlier provide extra detail as well for this situation. School officials can also provide support to non-offending caregivers with respect to academic work, financial burden, and community-based referrals (Deblinger, Mannarino, Cohen, Runyon,

& Heflin, 2015).

4.3. Academic status

Tier 3 interventions with respect to academic status will intersect with the alternative educational pathways noted above but can also include other systemic and individual approaches. At a systemic level, Tier 3 interventions regarding academic status, at least in the near future, should include a *full review, revision, and/or suspension* of district policies on attendance, credit accrual, curriculum choice, exclusionary discipline, grade retention, graduation, scheduling, and other relevant areas to provide the most flexible, innovative pathways to academic advancement for students almost completely disconnected from the educational process (Gage, Sugai, Lunde, & DeLoreto, 2013). However, schools will need to balance such flexibility with concerns about advancing students who may not be academically prepared (Edgerton, 2019). With respect to attendance, school district-based review boards, panels, or task forces should proactively address the most severe cases of school absenteeism to reduce burden on individual counselor caseloads, develop detailed case management plans for these students and their families, and coordinate multi-agency responses in the current crisis (Shea, Zetlin, & Weinberg, 2010).

Exosystem approaches with greater involvement of external social structures may also need to be emphasized more in the current crisis. Examples include consulting with juvenile justice and other agencies to adjust legal procedures regarding school absenteeism, incorporating truancy court procedures into school-based settings, forming multidisciplinary teams and temporary specialized centers that are skilled at addressing absenteeism issues, and focusing existing school-community partnerships to increase mental health and academic support inside school buildings (Sugrue, Zuel, & LaLiberte, 2016; Sutphen, Ford, & Flaherty, 2010). Other exosystem targets can include transportation systems, barriers to school attendance, and resource disparities (Melvin et al., 2019).

At a more individual level, credit accrual alternatives must be emphasized for students (and families) at Tier 3. This can involve (1) non-traditional methods of securing course credit (e.g., portfolios; see also Tier 2 academic status); (2) altered pathways or number of credits needed for graduation/completion (particularly for students with disabilities); (3) greater use of modular courses and credit-by-examination (or other demonstration of competencies) over shorter periods of time; and (4) field trips and service/experiential learning opportunities that focus on academic and real-world skills (Fowler et al., 2014). Extended timelines in this regard (e.g., fifth-year senior programs) would be helpful as well (Uretsky & Henneberger, 2020).

4.4. Health and safety

Health and safety considerations at Tier 3 in the COVID-19 era will include the broad-based initiatives described for Tier 2 in addition to school responses to newly active cases. The Centers for Disease Control and Prevention have outlined guidelines for schools in this instance (CDC, 2020). Components of these guidelines include (1) advising those identified as ill of CDC criteria for home isolation; (2) asking staff and parents to notify school officials of a positive diagnosis; (3) isolating and transporting students that develop symptoms at school (and immediately notifying caregivers); (4) closing off all areas used by an ill person to clean and disinfect; (5) notifying health district officials and close contacts for quarantine purposes; and (6) suspending school events as deemed appropriate. The latter may involve suspension of certain limited activities (e.g., assemblies), broader activities (e.g., sporting events), specific building common areas or pods, or all classes for a period of time. Readers are encouraged to seek updated guidance in this regard from the CDC as pandemic circumstances change.

The CDC has also provided guidance for students with disabilities or special healthcare needs who are at school. Components of these

guidelines include (1) providing extra assistance with prevention measures such as handwashing or disinfecting personal supplies; (2) considering the fact that students with disabilities may have difficulties with face coverings and social distancing; (3) protecting service animals from COVID-19; (4) understanding that disinfection procedures may aggravate students with sensory or respiratory issues; and (5) relying more heavily on visual cues, timers, and other innovative methods to convey preventative measures. Direct service providers who assist students with disabilities or special healthcare needs at multiple schools should closely monitor their own symptoms as well. The CDC has a general readiness assessment protocol for schools to use for the current crisis (<https://www.cdc.gov/coronavirus>).

5. Conclusion

Children and adolescents and their families are expected to experience severe disruptions in multiple domains of functioning due to COVID-19 (and its variants) and school shutdowns. Youth in particular are forced to engage in alternative methods of behaving, learning, interacting (or not interacting) with peers, and managing emotions while facing difficult and traumatic situations at home and while attending school. These shutdowns and their effects may last months to years. As academic centers reopen, school officials will encounter significant changes in their students and families who have navigated the pandemic in different ways, as well as significant challenges when adapting to these changes. A clear plan of action, such as via an MTSS approach, is needed so that parents, school officials, and community partners can communicate efficiently and collaborate intensely to benefit the whole child. The current crisis within an MTSS approach also provides a chance to address longstanding disparities that have been laid bare by the pandemic. Educational systems at all levels must develop flexible plans that allow full scholastic access and support for all students no matter the instructional format and reigning circumstances.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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