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Stress Intensity and Exhaustion Among Infant and Toddler Teachers: Descriptive Analysis and Associations with Sources of Stress and Coping Strategy Use

Holly E. Brophy-Herb[1], **Ahnalee Brincks**[1], **Jody L. Cook**[1], **Ann Stacks**[2], **Claire D. Vallotton**[1], **Cynthia Frosch**[3], **Russell Carson**[4], **Rebecca Wheeler**[2], **Haiden A. Perkins**[1], **Patricia A. Jennings**[5]

[1]Michigan State University, Department of Human Development and Family Studies

[2]Wayne State University, Merrill-Palmer Skillman Institute

[3]Auburn University. Department of Human Development and Family Studies

[4]PlayCore

[5]University of Virginia, Curry School of Education and Human Development

Abstract

This study described infant/toddler teachers' (N = 106) perceptions of stress intensity and exhaustion (emotional, physical, mental) intensity. We examined the associations between stress and exhaustion and teachers' reports of stress sources and coping strategy use. Using ecological momentary assessment (EMA), teachers from Early Head Start (EHS), EHS childcare-partnerships, or independent childcare programs (midwestern U.S.) completed twice-weekly reports of: stress and exhaustion intensity; stress sources (workload, children's behaviors, personal life); and, coping strategies (support from colleagues, distraction, mindfulness techniques, reframing).

Research Findings: Stress and exhaustion reports were similar to studies of preschool teachers. Workload and personal life stressors were associated with stress and all exhaustion types. Teachers used fewer than two different coping strategies/per reporting day. Only reframing was negatively associated with stress and emotional exhaustion. Teachers reported greater stress at end-of-week than beginning-of-week. Older teachers reported greater stress and emotional exhaustion. Although one-third of teachers reported ≥4 ACEs, early adversity was not associated with stress or exhaustion.

Practice or Policy: We discuss the results relative to the sparse literature on infant/toddler teachers' well-being and suggest areas for professional development supports while underscoring the need for EHS federal policy makers and program administrators to consider how to reduce/streamline workload.

Corresponding concerning this article should be addressed to Holly Brophy-Herb, 552 W. Circle Drive, Department of Human Development and Family Studies, Michigan State University, East Lansing, MI 48824; 517-355-3397, hbrophy@msu.edu.

Disclosure statement

We have no known conflicts of interest to disclose.

Almost half of teachers in the United States report high daily stress levels, which are on par with nurses (Gallup, 2014). Further, research suggests that the younger the children, the greater teachers' stress and exhaustion (Faulkner et al., 2016). As compared to teachers of preschoolers and older children, infant and toddler teachers often encounter a lack of respect (Kwon et al., 2020), including suggestions that infant and toddler teachers are "babysitters" and not early childhood professionals. Moreover, low pay and lack of professional development opportunities contribute to stress among infant and toddler teachers (Whitebook, 2014), as does the highly relational and care-focused nature of the work. Throughout the workday, infant and toddler teachers are asked to be emotionally available, physically engaged, and mentally present for the children in their care (Lee & Brotheridge, 2011), likely to a greater degree than teachers of preschool and older children. Unlike older children, infants and toddlers rely almost entirely on their teachers to meet their emotional, cognitive, social, and physical needs, and center-based infant and toddler teachers typically care for three to four infants or three to six toddlers at a time (Childcare.gov, n.d.). As a result of these more intense requirements, perceptions of stress and exhaustion reported in samples of K-12 teachers (e.g., Greenberg et al., 2016) and even preschool teachers (e.g., Whitaker et al., 2015) may not be generalizable to infant and toddler teachers. While stress may be an inherent part of teaching, high levels of ongoing stress may threaten retention of teachers (Kwon et al., 2020) and compromise teachers' well-being (Buettner et al., 2016), the quality of teacher-child interactions (Jennings, 2015), and children's development (Institute of Medicine and National Research Council, 2015). In fact, existing models of high-quality practices in early childhood education (Jennings et al., 2017) highlight teachers' well-being as central to healthy teacher-child relationships, effective classroom management, and promotion of children's social-emotional competencies.

Beyond stress intensity, teachers' experience of exhaustion may also threaten teacher well-being (Carson et al., 2009). Although researchers have identified three related but unique types of exhaustion (Shirom, 2003), much of the existing literature on exhaustion focuses on the experiences of pre-K and K-12 teachers. However, the unique and demanding work of infant and toddler teaching may contribute to teachers' experiences of exhaustion, and high levels of exhaustion may impair teachers' classroom practice. Being too fatigued to engage in tasks requiring emotional energy (i.e., emotional exhaustion) such as displaying affection or responding to children with warmth and positive emotion can have a direct negative impact on the provision of individualized care to infants and toddlers (Lupien, 2009). Teaching is a cognitively demanding profession (Shulman, 2004), and working with infants and toddlers requires permanent cognitive flexibility and scaffolding. Teachers who are mentally exhausted experience difficulties in planning, working memory, and decision making in the classroom (Carson et al., 2017), ultimately jeopardizing the quality of their teaching. For example, toddlerhood can be a challenging time for teachers as they must support toddlers' normative bids for autonomy while still providing guidance and support during the everyday interactions that promote development. Higher levels of *mental exhaustion* may translate into difficulties making decisions regarding appropriate activities, interactions, and responses in the classroom. In addition, the physical demands of caring for infants and toddlers contribute to teachers' *physical exhaustion* (Gratz et al., 2002), as infant and toddler teachers often pick up and hold the children in their care, have restricted time

for personal care activities, and move regularly from floor-sitting, chair-sitting, and standing or stooping, while holding positions (Kwon, 2019; Kwon et al., 2019). While exhaustion is contrary to effective work with infants and toddlers and compromises teacher well-being, surprisingly little is known about rates of emotional, mental, or physical exhaustion among infant and toddler teachers.

Aside from a lack of focus on infant and toddler teachers, the majority of studies on teachers' stress and exhaustion assess these constructs at one or perhaps two static points in time, which may not capture teachers' ongoing experiences (Carson, Weiss et al., 2010; Carson et al., 2017). Methods such as Ecological Momentary Assessment (EMA) allow for brief, frequent assessments of teachers' experiences (e.g., Carson et al., 2017) and allow for a more robust illustration of teachers' lived experiences. Based on their review of the literature regarding EMA and studies of behavioral and mental health, Russell and Gajos (2020) note the value of EMA approaches for studying individual experiences, with a focus on both process and context. Moreover, McIntyre and colleagues (2016) recently highlighted the utility and feasibility of using EMA to study teacher stress. EMA has been used successfully to study the proximal aspects of teachers' lives, including teachers' emotions, behaviors, and perceptions of children's behavior (e.g., see McIntyre et al., 2016); however, only a handful of studies have utilized EMA in studies of early childhood, and particularly infant-toddler, teacher well-being (e.g., Baumgartner et al., 2021; Carson, Baumgartner et al., 2010; Carson et al., 2017). The current study utilizes EMA methods to better understand teachers' experiences of stress and exhaustion, as well as their ongoing perceptions of sources of stress and strategies for coping within the context of center-based early care and education.

Sources of Stress

Identifying sources of stress (i.e., stressors) may have important implications for where and how to support teachers. Although little research has examined reported stressors among teachers of very young children, among preschool teachers reported sources of stress include meeting children's needs, paperwork/workload in non-teaching tasks, personal needs, interpersonal relationships, and working with families (Kelly & Berthelsen, 1995). Whitaker and colleagues (2015) examined three specific sources of stress (demands on teachers, degree of control, and low support) among Head Start teachers, finding that all three stressors were related to less closeness with children in the classroom. Tebben and colleagues (2021) conducted focus groups with infant, toddler, and preschooler teachers, finding that teachers pointed to the intense one-on-one time with very young children, multi-tasking, and interactions with parents and colleagues as sources of work-related stress. Some research conducted with pre-service early childhood teachers parallels early childhood education research findings on sources of stress. For example, Paquette and Rieg (2016) found that workload (teacher-related tasks and responsibilities), time management, and discipline concerns were three sources of stress identified by early childhood pre-service teachers. Similarly, Baumgarter and colleagues (2021) used EMA methodology to study childcare teachers' stress and reported that stress was associated with perceived workload burdens. Surveying primary and secondary education teachers in Australia, Carroll and colleagues (2020) found that organizational stressors, including workload and low resources,

were most prevalent. Organizational stressors have also been identified as a key source of stress related to emotional exhaustion (Bower & Carroll, 2017). Children's behaviors, too, are often cited as stressors, although most of this research has focused on teachers of older children (e.g., Bower & Carroll, 2017). In summary, while multiple sources of teachers' stress have been identified in the literature, the type and prevalence of these different stressors may differ somewhat across different educational settings (e.g., preservice, preschool, K-12). To address the question of whether findings with teachers of older children are generalizable to infant and toddler teachers, we examined the prevalence of commonly cited sources of stress across the literature (e.g., workload, children's behaviors, personal stressors) in this population of teachers.

Coping Strategies

Given the high rates of stress intensity and exhaustion that teachers may experience, and the diverse set of stressors that may contribute to stress and exhaustion, there is a critical need to examine coping strategies that may provide the necessary support for teachers to stay in the field and build the resilience of the workforce (Howard & Johnson, 2004). Tebben et al. (2021) highlighted the diverse strategies infant, toddler, and preschool teachers described for coping with stress, including using routines to increase a sense of control, deep breathing, positive self-talk, taking a break from the stressor, and drawing upon concrete and interpersonal support from co-workers and co-teachers. Using EMA methodology, Baumgartner and colleagues (2009) found that childcare providers described over 20 different coping strategies that they used to deal with work-related stressors; the identified strategies could be organized into the following categories: problem-focused coping (e.g., seeking advice from colleagues or mentors), emotion-focused coping (e.g., seeking support from friends, reinterpretation of the stressor, managing emotions), and avoidant coping often involving distraction from the stressor (e.g., spending time on the computer, eating for comfort). Teachers also mentioned the use of physical activity (e.g., walking) to alleviate stress.

Studies to date among samples of early childhood and elementary school teachers suggest that teachers' use of coping strategies is related to lower stress. Yet, little empirical work has examined coping strategies among infant and toddler teachers, despite the emotional, mental, and physical demands of the work. Paquette and Rieg (2016) documented the coping strategies used by pre-service early childhood teachers who described seeking social support and physical activity as important strategies in contending with stress. Other studies report no association between use of social support as a coping technique and early childhood teachers' stress (Wagner et al., 2013). In contrast, use of other emotion-focused coping strategies has been associated with lower stress. For example, elementary school teachers' use of adaptive emotion regulation strategies, such as cognitive reappraisal or reframing of a problem (e.g., thinking about a problem in a new way) and low suppression of emotional expression (e.g., using adaptive strategies to express emotions rather than repressing emotions), has been associated with less stress (Jennings et al., 2017). Use of problem-focused strategies such as making a plan to address a stressful challenge has been associated with lower stress among preschool teachers (Wagner et al., 2013). In addition, use of mindfulness-based coping strategies, such as deep breathing and

meditation, may foster teachers' well-being (Jennings, 2015; Lomas et al., 2017; Roeser et al., 2013). For example, Taylor and colleagues (2016) tested a mindfulness-based stress reduction intervention with elementary and secondary education teachers that focused, in part, on the use of mindfulness-based coping strategies. Teachers in the intervention group reported a significant decline in job-related stress as compared to teachers in the control group. Moreover, Lang and colleagues (2020) assessed an online social-emotional learning intervention for early childhood teachers that included components on mindfulness-based coping strategies. Post intervention, teachers reported increased knowledge about stressors and coping strategies, although teachers perceived greater stress after the intervention. Researchers suggested that increased awareness of stress might account for the unexpected findings. Despite these promising studies, what remains unknown is if, and how, infant and toddler teachers use mindfulness-based coping strategies. Describing what coping strategies infant and toddler teachers use and how coping strategy use relates to perceptions of stress and exhaustion has important implications for supporting teachers' well-being.

Current Study

Compared to the availability of research findings describing the experiences of preschool and K-12 teachers, limited research findings regarding infant and toddler teachers hampers efforts to support the infant and toddler workforce and contributes to the inequity in perceptions of infant and toddler teachers as professional educators. To address this gap, the goals of this study were to (1) provide a descriptive analysis of infant and toddler teachers' stress intensity and exhaustion intensity (how stressed and exhausted teachers feel) and (2) examine correlates of their well-being including sources of their perceived stress and use of coping strategies. Data were collected over a two-week period. As noted, a unique characteristic of this study is our use of Ecological Momentary Assessment (EMA) methodology to assess stress and exhaustion. We were specifically interested in understanding infant and toddler teachers' use of modifiable coping strategies that might be most easily addressed in professional development programs. Hence, we focused particularly on seeking support/advice from colleagues at work, reframing problems/challenges, distraction, and mindfulness-based coping strategies. Program administrators play a key role in constructing a supportive work climate that promote teachers' well-being (Jorde Bloom & Able, 2015). Better understanding infant and toddler teachers' experiences may provide valuable insight to program administrators as both teachers' coping skills and supportive work environments may play important roles in teacher well-being and high-quality care environments.

This descriptive, cross-sectional study is a first step in better addressing the gap in research on infant and toddler teachers' experiences of stress and exhaustion. Given the exploratory, cross-sectional nature of this study, we did not pose hypotheses regarding how each specific source of stress would be related to teachers' stress and exhaustion. Similarly, we did not hypothesize associations between use of particular coping strategies and infant and toddler teachers' well-being. Within each reporting period, teachers identified any coping strategy used. Generally, we expected teachers who used coping strategies would report less stress intensity. However, it could be that greater stress intensity could also necessitate using more coping strategies.

We included several demographic characteristics as covariates. One of the most important of these was teachers' histories of adverse childhood experiences (ACEs). When considering cumulative life stress in combination with high levels of workplace stress and exhaustion, individuals with a history of ACEs may be at particular risk for poor well-being (Felitti, Anda et al., 1998; Felitti, Anda…Marks et al., 1998). Prior exposure to trauma, which may include ACEs, sensitizes individuals to stress hyper-reactivity (Harkness et al., 2006) and avoidant affective processing (Choi et al., 2017). Thresholds of three or more, and particularly four or more ACEs (Felitti, Anda, et al., 1998; Felitti, Anda…Marks et al., 1998) pose a significant risk to mental and physical health outcomes. The scant studies (e.g., Whitaker et al, 2014; Grist et al., 2021; Hubel et al., 2020) reporting on ACEs among early childhood teachers suggested that as many as 23% to 34% report three or more ACEs. Hence, we felt it was important to include ACEs history in our study of teachers' well-being given its potential association with infant and toddler teachers' reports of stress intensity and exhaustion intensity.

Materials and Methods

Participants

The sample consisted of 116 infant and toddler teachers (115 female). Ten teachers dropped out of the study or became ineligible (moved out of classroom teaching or out of infant and toddler classrooms), resulting in a final sample of 106 infant and toddler teachers. Participants were recruited from eight Early Head Start programs (EHS), including EHS childcare partnership (CCP) sites, and nine independent childcare programs in a major metropolitan area in a midwestern city (n = 75; 71%) and other smaller urban cities (n = 31; 29%) in the United States. All teachers were recruited through face-to-face informational sessions at their programs in the fall and spring during the study period between 2018 and 2019 (different teachers were recruited each fall and spring). EHS teachers and EHS CCP teachers were participating in a larger study on teachers' professional development (Barron et al., 2020). Current study data were collected prior to any intervention activities in the main study.

Procedures

Following study enrollment, teachers completed online questionnaires, including demographic characteristics and ACEs. At the study outset, teachers began twice-weekly EMA reports of stress, exhaustion, sources of stress, and coping strategies via a smartphone app. The reporting period utilized in the current study to describe teachers' stress and exhaustion reflects the two-weeks of reporting after study enrollment (up to 4 reports of stress/exhaustion per teacher). Teachers were compensated $20 for completing the initial set of questionnaires and received $5 per report of stress/exhaustion (up to $40 in total). The study was approved by the affiliated university research ethics boards. The research was carried out in accordance with the Code of Ethics of the World Medical Association. Written, informed consent was obtained prior to data collection.

Measures

EMA Measures—Data were collected using smartphones via the widely used and compatible RealLife Exp application (Runyan et al., 2013). Research staff installed the application (i.e., app) on teachers' personal devices or on a study-provided smartphone when participants did not own a compatible smartphone or preferred not to use their own (n = 10). The project manager was available throughout the study to work with teachers who had any difficulty using the application. Responses automatically uploaded to a secure server with a wi-fi connection.

Using an interval-contingent sampling scheme, teachers were prompted at 6:00 p.m. twice a week (early week = Monday or Tuesday, late week = Thursday or Friday) during the two-week period for a maximum of four observations per teacher. Teachers received up to three reminder notifications after the initial 6 p.m. prompt at 7:00 p.m., 8:00 p.m., and 9:00 p.m. The app allowed responses to be recorded until 11:59 p.m. of each reporting day. Prompts were scheduled to occur after the workday to avoid interference with the teachers' work and to allow responses to reflect experiences from the workday. We invited teachers to report at the end of the day rather than multiple occasions within the day for specific reasons. Infant and toddler care and education is relational work, and the teacher-child relationship is central to high quality care and education. Continued interruptions to respond to EMA prompts during the day are not consistent with the relational demands of early care and education and could have deleterious effects on relational and safe classroom practices. Aside from this central rationale, our research questions were not designed to address within-day changes in teachers' stress and exhaustion.

Stress intensity.: At each EMA prompt, intensity of daily stress was assessed with one-item ("*What was the intensity of your stress today?"*) utilized in other EMA research (Metzenthin et al., 2009), and scored on a 7-point sliding scale that was visible on teachers' smartphone screens with 1 identified as 'extremely low' and 7 identified as 'extremely high'. No other scale anchors were noted.

Exhaustion intensity.: Exhaustion was assessed with three items from Carson and colleagues' (2017) EMA-based study; one-item addressed each form of exhaustion intensity (emotional, physical, mental). Participants rated the intensity of their emotional ("*How emotionally exhausted are you today?*"), physical ("*How physically exhausted are you today*?"), and mental ("*How mentally exhausted are you today?*") exhaustion. The three-dimensional properties of exhaustion have been a longstanding conceptualization in the literature (Shirom, 2003). Parallel to stress intensity, response options ranged from 1 'not at all exhausted' to 7 'extremely exhausted' on a sliding scale. No other scale anchors were noted.

Sources of stress.: Stress sources included in this study were informed by existing literature (e.g., Griffith et al., 1999; Shernoff et al., 2011). Teachers rated each source of stress from 1 (not at all) to 7 (drastically). The question stem was as follows: "How much did X contribute to your stress today?" regarding the following seven sources as they appeared in the app: workload; children's behaviors; interactions with parents/families; supervisor/

administration; colleagues at work; Early Head Start or program policies such as enrollment, assessment, or record keeping policies; and, personal life.

Coping strategy use.: Teachers were asked to identify all the strategies they used to manage their stress from the following seven choices based on the existing literature (e.g., Baumgartner et al., 2009; Jennings, 2015; Paquette & Rieg, 2016), worded verbatim in the app as: got support from a friend or family member, got support from a colleague/someone from work, distracted myself (e.g., watched TV, ate comfort food, listened to music), used relaxation exercises (e.g., deep breathing, yoga, meditation), thought about a problem in a new way and it was easier to handle (note: we refer to this as reframing), exercised (e.g., went for a walk, worked out), and relied on my spirituality or religion. We calculated the total number of times each strategy was selected, as well as the total number of different strategies employed.

Covariates

Temporal characteristics.: For each EMA report, teachers indicated temporal characteristics of the day, including whether the day was a typical day with children present (referent) or whether they had a sick/vacation day, were in a professional training or meetings, or were on-site but children were not present. Also included with each report was whether the participant responded early in the week (Monday/Tuesday) versus late (Thursday/Friday) week and whether the report was completed in the fall (September to December) versus Spring (January or February). These characteristics were covaried in analyses and did not propose specific research questions.

Teachers' characteristics.: Teachers completed a demographics questionnaire at study enrollment which included items concerning age, educational background, and race which were included in the models. Teachers also reported on their history of adverse childhood experiences at study enrollment. The Adverse Childhood Experiences (ACEs; Felitti, Anda et al., 1998) survey indicates the presence/absence of 10 childhood adverse experiences (psychological, physical, and sexual abuse, and household dysfunction). The more events experienced, the higher the ACEs score. Teachers were asked to report the number (from 0 to 10) of ACEs they experienced before the age of 18 but were not asked to identify which specific events they experienced. Analytic models operationalized ACEs as either high (4 or more ACEs) or low (fewer than 4 ACEs).

Data Analytic Plan

Pursuant to Aim 1, descriptive statistics were calculated for stress intensity, emotional exhaustion intensity, physical exhaustion intensity, and mental exhaustion intensity. We examined descriptive statistics for sources of stress and coping strategy use prior to testing analytic models examining associations of sources of stress with teachers' stress intensity and exhaustion intensity.

EMA data in the current study require the use of a methodological approach that can model the dependency of repeated measures within individuals. Hence, to address Aim 2, we took several steps and employed multilevel regression models that enable decomposition

of the variance into within-person variance (repeated measures; Level-1) and between-person variance (Level-2; Raudenbush & Bryk, 2002). We first examined an unconditional multilevel regression model for each of the four outcomes (stress intensity, emotional exhaustion intensity, physical exhaustion intensity, and mental exhaustion intensity) to estimate the intraclass correlation, which is the proportion of total variation due to differences between teachers. We then estimated four, separate multilevel models that regressed each stress intensity and exhaustion intensity (emotional, physical, and mental) outcome on within-person (Level-1) covariates and between-person (Level-2) covariates. These models employed random intercepts. Some of the data included more than one teacher from a classroom, introducing additional potential for non-independence. However, the complexity of the models and the number of classroom clusters prevented estimation of three-level multilevel models.

Within-person, time-varying covariates included the type of day for the teacher (e.g., typical day with children, meeting day). Indicators of time control variables were also included in the within-person model. These included early (Monday/Tuesday as the referent group) vs. late (Thursday/Friday) week and Fall (September to December) vs Spring (January or February as the referent group) for the month in which data were collected from the teacher.

Within-level sources of stress and coping strategies were group mean centered for ease of interpretation and the means were included at the between-level. Note that in modeling procedures, the average rating of each source of stress (e.g., how much each source of stress contributed to overall stress intensity on a 1 to 7 scale) over the four possible report days appeared at the between-person level (Level-2). Similarly, use of each coping strategy scores was in the within-person model (Level-1), and the average number of times each coping strategy was selected over the four possible report days was in the between-person model (Level-2). To preserve model parsimony, we included only the three most frequently selected sources of stress (workload, children's behaviors, and personal stressors) in multilevel models examining associations of sources of stress with stress intensity and exhaustion. Similarly, we focused on the four coping strategies (supports from colleagues, distraction, mindfulness-based coping, reframing) most amenable to inclusion in professional development interventions in multilevel modeling, although we provide the descriptive statistics for all coping strategies in Table 1. This decision was practical from the perspectives of both study implications and model parsimony. Between-person covariates also included age, education level, location (e.g., large urban area vs semi-urban area), and race (Black as the referent group as this was the majority group), and adverse childhood experiences (high ACEs = 1, low ACEs=0). All models used full information maximum likelihood estimation enabling the use of all available data, and analyses were completed in Mplus 8.0 (Muthén & Muthén, 1998-2017).

Results

Characteristics of Teachers

Teachers' demographic characteristics are reported in Table 1. Teachers' mean age was 36.67 years (*SD* = 12.04). Teachers identified predominantly as Black/African American (49%) or White (34%). Most teachers held at least an associate degree (generally a two-year

college program; 23%) or greater (47%). In bivariate analyses, teachers who identified as White reported greater physical exhaustion ($p = .01$) compared with teachers who identified as Black; there were no other differences in mean levels of stress or exhaustion by race or ethnic group.

Descriptive Statistics on Teachers' Well-Being (Study Aim 1)

Teachers completed 83.96% of the possible EMA reports across the four report days, and 82% of the sample provided 3 or 4 reports. Relative to Aim 1, we present descriptive statistics for teachers' stress intensity and emotional exhaustion in Tables 2 (unadjusted bivariate correlations among study variables) and 3 (means and SDs). One-third of infant and toddler teachers reported a history of four or more ACEs ($M = 2.88$, $SD = 2.39$; Range 0-10). Teachers' ACEs history was not associated with reported stress intensity or exhaustion intensity. Stress intensity and all forms of exhaustion intensity (emotional, physical, mental) were significantly and positively correlated.

The reported mean stress intensity was 3.80 ($SD = 0.88$; max score is 7). When examining teacher-reported exhaustion intensity, physical exhaustion had the highest mean ($M = 4.02$, $SD = 1.03$; max score is 7) followed by mental exhaustion ($M = 3.87$, $SD = 1.15$; max score is 7) and emotional exhaustion ($M = 3.79$, $SD = 1.04$; max score is 7). Teachers identified workload, interactions with children, and personal life stressors as the greatest contributors to their stress (see Table 3), followed by work policies, colleagues, and supervisors (between 2.6 and 3). Interactions with parents were the least reported source of stress.

When examining coping strategy use, teachers reported (see Table 3) seeking support from colleagues at work most often/frequently (selected 39% of the time during the reporting period), followed by engaging in distraction (29% of the time) and seeking family support (28% of the time). Teachers reported using the proactive, individual, emotion-focused strategies of mindfulness-based coping (24% of the time), reframing a problem (23% of the time), and religion or spirituality (23% of the time). Finally, teachers reported using exercise as a coping strategy the least (selected 11% of the time). Overall, teachers reported an average of 1.77 different coping strategies each day they were assessed.

Multilevel Model of Associations of Teachers' Stress Intensity and Exhaustion with ACEs, Sources of Stress, and Coping (Study Aim 2)

Unconditional multilevel models provided estimates of the intraclass correlation for the stress and exhaustion intensity measures (see Table 4). These models estimated that 25.5% of the total variation in stress intensity, 33.8% of emotional exhaustion intensity, 35.1% of physical exhaustion intensity, and 40.6% of mental exhaustion intensity was due to variation between teachers, reflecting substantial variation between teachers on these measures of stress and exhaustion.

Sources of Stress

Within-level.: At the within-level, teachers' selection of workload as a source of stress was positively and significantly associated with stress intensity ($\beta = 0.55$, $p < .001$). emotional exhaustion intensity ($\beta = 0.59$, $p < .001$), physical exhaustion intensity ($\beta = 0.55$, $p <$

.001), and mental exhaustion intensity ($\beta = 0.61$, $p < .001$). Personal life stressors were positively and significantly related to stress intensity ($\beta = 0.22$, $p < .001$). emotional exhaustion intensity ($\beta = 0.14$, $p < .05$), and mental exhaustion intensity ($\beta = 0.14$, $p < .05$), but not physical exhaustion intensity. Children's behaviors as a source of stress were not significantly associated with stress or exhaustion intensity.

Between-level.: At the between-level, the average teacher rating of workload stress (the degree to which workload contributed to overall stress) across the repeated measures was positively, significantly associated with stress intensity ($\beta = 0.64$, $p < .001$) and exhaustion intensity (emotional $\beta = 0.50$, $p < .001$; physical $\beta = 0.30$, $p < .001$; mental $\beta = 0.52$, $p < .001$). Average personal life stressors (the degree to which personal life contributed to overall stress) were positively associated with stress intensity ($\beta = 0.49$, $p < .001$) and all forms of exhaustion (emotional $\beta = 0.56$, $p < .001$; physical $\beta = 0.57$, $p < .001$; mental $\beta = 0.67$, $p < .001$). The average teacher rating of child behaviors as contributing to stress across the repeated measures was not significantly associated with stress intensity or exhaustion.

Coping Strategy Use

Within-level.: At the within-level, the number of times reframing was selected as a coping strategy was negatively and significantly associated only with physical exhaustion ($\beta = -0.09$, $p = .04$). The number of times work support, distraction, or mindfulness-based coping strategies were selected was not related to stress intensity or any form of exhaustion.

Between-level.: At the between-level, teachers' average selection of reframing as a coping strategy across the repeated measures was negatively, significantly associated with stress intensity ($\beta = -0.18$, $p = .02$) and emotional exhaustion intensity ($\beta = -0.24$, $p < .001$) but not with physical or mental exhaustion intensity. Use of other coping strategies was not significantly associated with stress intensity or exhaustion intensity at the between-level.

Associations of Control Variables with Stress and Exhaustion

Although we did not pose specific study questions, we have reported the associations of the covariates with stress intensity and exhaustion intensity in the adjusted models to provide additional insight into correlates of teachers' stress intensity and exhaustion intensity (see Table 4). At the within-level, reports of stress intensity ($\beta = 0.10$, $p = .01$), but not exhaustion intensity, were higher toward the end of the week (Thursday or Friday) than the beginning (Monday or Tuesday) of the week. Reports of stress intensity or any form of exhaustion intensity did not differ according to the type of day (typical day with children present, teacher absent from work, professional development/ training day, other type of planning day when children are not present). At the between-level there were few differences by demographic characteristics. Teachers who were older reported greater stress intensity ($\beta = 0.26$, $p = .01$) and greater emotional exhaustion intensity ($\beta = 0.19$, $p = .03$) than teachers who were younger. Also at the between-level, significantly less physical exhaustion intensity was reported by teachers who identified as Native American, "other" races, excluding White, or Hispanic origin, compared to Black/African American (referent group) teachers ($\beta = -0.18$, $p = .02$).

Discussion

Study findings provide three key contributions to the literature on infant and toddler teachers' experiences of stress and exhaustion. First, using EMA, we found that levels of stress intensity and exhaustion intensity were similar to those of preschool teachers (e.g., Jeon et al. 2018) and mixed samples of infant, toddler, and preschool teachers (e.g., Carson, Baumgartner et al., 2010). Second, our finding that teachers' individual stressors (both workload and personal), but not children's behaviors, were associated with stress intensity and all forms of exhaustion highlights the need to support teachers in identifying and effectively managing stressors. This point is underscored further by our findings regarding teachers' coping strategy use; teachers' use of reframing was related to lower levels of perceived stress intensity and emotional exhaustion. Third, our exploration of ACEs as a possible variable for understanding teachers' experiences of stress and exhaustion is a relatively novel contribution. Although infant and toddler teachers reported high rates of ACES, the overall number of ACEs was not associated with perceived stress or exhaustion intensity. Taken together, findings from the present investigation may deepen our understanding of infant and toddler teachers' experiences of stress and exhaustion as a precursor to developing strategies to support and promote infant and toddler teachers' well-being.

Infant and Toddler Teachers' Stress and Exhaustion

Although there is little available research in which to contextualize EMA-based mean scores for stress intensity and emotional, physical, and mental exhaustion reported by infant and toddler teachers, we have called on existing published EMA findings with samples of early childhood teachers. Carson et al. (Carson, Baumgartner et al., 2010; Carson, Weiss et al., 2010; 2017) have conducted the bulk of EMA-based research utilizing one-item measures of exhaustion with additional studies from Jeon et al. (2018). The intensity of stress and exhaustion reported in those studies is similar to reports by teachers in the current study. Interestingly, intensity of stress and exhaustion among teachers in the current study reflected moderate to moderate-high ratings rather than extremely high levels of intensity. There is no doubt that the infant and toddler workforce is asked to engage in high-quality, intense work that contributes to teachers' perceptions of stress and exhaustion. It is possible, though, that the commitment and devotion many infant and toddler teachers feel towards their professions, and, particularly to the children and families they serve, may provide some protection against stress (Kwon et al., 2020). Similarly, in addition to passion and commitment in their work, infant and toddler teachers may perceive rewards in their profession that offset stress and exhaustion. For example, recent studies have documented the psychological rewards of the profession including feelings of happiness and emotional intimacy with children (Lee et al., 2010) and sense of pride and accomplishment in early childcare and education (Berlin et al., 2020). While we did not measure rewards in the current study, such investigations may be important in understanding teachers' experiences of stress and exhaustion.

Teachers' Sources of Stress and Exhaustion

The finding that infant and toddler teachers' workload and personal life stressors were associated with their stress intensity and emotional exhaustion intensity aligns with the existing literature on early childhood teachers (e.g., Kelly & Berthelsen, 1995; Paquette & Rieg, 2016) and primary and secondary school teachers (e.g., Bower & Carroll, 2017; Carroll et al., 2020). The consistency of these reported sources of stress across teachers of different age groups likely underscores the many tasks of teachers, aside from their direct work with children.

Workload—In this study, workload was associated with stress and exhaustion for teachers on average as well as within individual teachers. Interestingly, there appears to be no common definition of workload within the literature. Most studies refer to workload broadly, and several seem to suggest workload as including several dimensions. For example, in their qualitative study of student teachers, Nghia and Tai (2019) defined workload as including the many roles early childhood teachers undertake (teacher, caregivers, play partner, janitor, records keeper, etc.) and after-hour work-related activities (e.g., parent events). Teachers from at least two studies (Brown & Englehardt, 2016; Skaalvik & Skaalvik, 2015) described having too much to do relative to workload. In a confirmatory factor analysis of a preschool job attitude scale, Jeon and Wells (2018) included an item referencing manageable workload as part of classroom responsibilities. Similarly, Paquette and Rigg (2016) defined workload as "teacher-related tasks and responsibilities" (p. 52). On the other hand, Kelly and Berthelsen (1995) referred to workload as including non-teaching tasks (e.g., paperwork). The lack of consensus on what constitutes workload makes it difficult to understand teachers' experiences and hampers the extent to which administrators can address workload feasibility concerns.

Personal Life Stress—Personal life stressors, too, were consistently related to stress and all forms of exhaustion across teachers, and individual teachers' personal stress was related to their stress intensity and emotional and mental exhaustion. Although teachers were not asked to specify personal stressors in the current study, various life task events may tax teachers personally and relate to their experiences of stress and exhaustion at work. On average, teacher age fell within typical childbearing and childrearing years. Berlin and colleagues (2020) recently reported that 82% of infant and toddler teachers in their study were parents themselves. The multiple demands of caring for their own children and children at work reflects significant taxation on emotional, physical, and mental resources. In our ongoing work (Barron et al., 2020; Stacks, 2021), teachers have anecdotally reported to us that policies that prohibit them from enrolling their own infants in the same centers where they work and having to leave their children with caregivers about whom they did not feel positively caused a great deal of stress.

It is also possible that pervasive personal stressors, such as financial worries, contribute to stress and exhaustion at work. Early childhood teachers are consistently undervalued and underpaid (Whitebook et al., 2018) and often struggle to make ends meet (Whitebook et al., 2015). In fact, recent studies report widespread food insecurity (Johnson et al., 2020) and financial hardships related to paying utility bills, securing sustained family housing,

and paying for health care (Berline et al, 2020) among infant, toddler, and early childhood teachers.

Children's Behaviors—Research findings regarding children's behaviors as a source of stress for teachers have been mixed. Our finding that behaviors were not related to teachers' collective (between level) experiences of stress and exhaustion are both similar to, and different from, other research with early childhood teachers. For example, Jeon and colleagues (2018) found that children's behaviors were not significantly related to teachers' perceptions of stress, although children's behaviors were related to teachers' reports of overall exhaustion at work. Our results are consistent with some research among teachers of older children that reported no associations with stress, particularly when teachers view children's behaviors from a developmental perspective (e.g., Carroll et al., 2020). Results also align with Kwon and colleagues' (2020) qualitative work with infant and toddler teachers. As one teacher in their study explained, "Of course, there are the stresses of working with the kids, but that's not what stresses me most" (p. 4). Most of the teachers in our study were affiliated with EHS, which provides professional development opportunities to teachers; hence, teachers in the current study may be skilled with framing children's behaviors from developmental perspectives. Alternatively, teachers of infants and toddlers may simply view infant and toddler behaviors, including externalizing behaviors, as normative and not problematic.

The association between children's behaviors and individual teacher's physical exhaustion may relate to the physical demands of caring for very young children who may need physical connection in the form of being held or carried when they are emotionally or behaviorally dysregulated. This may be exacerbated for teachers who are in poor health. Importantly, health-related conditions including obesity, poor cardiorespiratory fitness, and ergonomic pain are disproportionately represented among early childhood educators (Jeon et al., 2019). We did not assess these conditions, but it is plausible that such health conditions might moderate associations between children's behaviors and teachers' physical exhaustion.

Coping Strategies

Some of the most common coping strategies used by teachers (support from colleagues at work, support from family or friends, and distraction strategies) were not significantly associated with stress or exhaustion intensity. Regarding support from work colleagues, we did not inquire about the specific individuals from whom teachers sought support. It is possible that the type and quality of teacher-colleague relationships (Whitaker et al., 2015) may relate in unique ways to teachers' well-being. Hence, our measurement may not have been sensitive enough to nuances in work supports. The same might apply to turning to family members for support. In the cases of both support at work and support at home, receiving support may not necessarily relate to reduced stress and exhaustion. For example, although venting frustrations to a colleague or family member might provide a moment's relief, venting is unlikely to change the sources of the stress and exhaustion. Similarly, using distraction as a coping strategy may not resolve stress and exhaustion in substantial ways. Finally, use of mindfulness-based strategies can be effective for reducing

stress and exhaustion, although practice and consistent use may be required before benefits are experienced (e.g., Grossman et al., 2004).

Across teachers, the use of reframing to think about a problem in a new way was associated with lower stress and emotional exhaustion intensity. Reframing, a form of cognitive reappraisal (e.g., Liu et al., 2019), is a flexible strategy allowing individuals to up-regulate to increase positive emotion or down-regulate to modulate negative emotions (Gruber et al., 2014). Teachers' use of reframing may be helpful not only in regulating stress but also in thinking flexibly about children's behaviors, each of which may help to alleviate the emotional and physical demands of caregiving. Reappraisal, for instance, alters the emotional significance individuals attribute to a given situation (Gruber et al., 2014). This concept is highly relevant to working with infants and toddlers. For example, reframing a toddler's tantrum to focus on needs the toddler is trying urgently to express rather than on the behavior as "acting out" or in defiance of the educator may result in more compassion and less emotional exhaustion. Alternatively, it could be that only teachers experiencing less emotional exhaustion intensity were able to use reframing to think about an issue or problem in a new way.

The association between teachers' individual reports of reframing and lower physical exhaustion intensity is an interesting and non-intuitive finding; this is particularly true if one considers that reframing might result in more physical caregiving and, thus, more physical exhaustion. However, if teachers interpreted physical exhaustion as feeling tired, rather than body aches and/or muscle pain, then perhaps reframing results in the teacher seeing the importance in their work, which might be a barrier to stress and perhaps feeling tired.

Although we offer several empirically informed explanations, none of these can be tested in the current sample, and this work would benefit from future qualitative probes to further explore teachers' use of coping strategies and how coping strategy use influences, or is influenced by, teachers' experiences of stress exhaustion. It is also interesting to note that teachers in the current study reported using, on average, fewer than two coping strategies on each reporting day, perhaps underscoring the need for professional development opportunities aimed at teacher well-being for the teachers of our youngest children. As compared to their colleagues teaching older children, infant and toddler teachers typically have less access to professional development and are paid less (Whitebook, 2014). Such deficits may contribute to greater isolation among infant and toddler teachers and negatively impact well-being.

Other Teacher Characteristics, Stress, and Exhaustion

ACES among Infant and Toddler Teachers—Forty-six percent of infant and toddler teachers in the current study reported three or more ACEs and 33% of the teachers reported four or more ACEs, as compared to 16% of adults nationally (Merrick et al., 2018). For context, Whitaker and colleagues (2014) found 23% of Head Start preschool teachers reported three or more ACEs while Hubel and colleagues (2020) studied a mixed sample of infant, toddler and preschool teachers and reported that 34% of teachers had experiences three or more ACEs; 22% had experienced four or more ACEs. Similarly, among preschool teachers, Grist and Caudle (2021) found 24% of teachers reported four or more ACEs.

As such, our results align closely with prior work showing that teachers (Whitaker et al., 2014), like many professionals in the human services (Esaki & Larkin, 2013), may be vulnerable to compromised well-being, given higher rates of prior trauma exposure compared to professionals outside of the human services (Whitaker et al., 2013; 2014). Human service professionals may enter the field because they want to support vulnerable children, perhaps to act as buffers for children with similar childhood experiences (Hubel et al., 2020).

Despite the relatively high number of ACEs reported, total ACEs were not significantly associated with teachers' stress or exhaustion intensity. It is possible that ACEs have effects on other aspects of teachers' well-being not measured in the current study. For example, Grist and Caudle (2021) reported that ACEs indirectly related to early childhood teachers' reports of burnout through their personality traits (namely neuroticism and openness). Whitaker and colleagues (2014) found that Head Start teachers' ACES were related to poorer physical health, poorer health-related quality of life indicators, and more frequent health behaviors of concerns (e.g., smoking, less sleep). Another possibility may be that, over time, teachers have processed or otherwise developed ways to cope with these earlier adverse experiences, perhaps lessening their impact on teachers' current experiences. We also measured the total number of adverse experiences and could not examine whether specific types of experience were differentially related to stress and exhaustion intensity. Further, it may be that children's exposure to adverse and potentially traumatic events has more of a direct impact on teachers' stress and exhaustion than their own experiences, another potential area for further investigation. Faulkner and colleagues (2016) reported that concerns about children's home lives and safety outside of school weighed heavily on early childhood teachers' minds. Generally, the field of early childhood education has increasingly emphasized secondary trauma as a key focus in professional development efforts to support early childhood teachers (Ruprecht et al., 2020).

Temporal characteristics—We found that infant and toddler teachers reported greater stress intensity at the end of the work week than they did at the beginning of the work week, suggesting that as the work week continues, teachers may experience declines in well-being. Also, older teachers reported greater stress and emotional exhaustion intensity compared to younger teachers. Studies of primary and middle school teachers (Pedditzi et al., 2020) have reported positive associations between teachers' age and emotional exhaustion, although a recent study among early childhood teachers found no association between teachers' age and stress or exhaustion at work (Jeon et al., 2018). It may be helpful to examine other indicators of stressors with which age may be related. For example, Pedditzi and colleagues (2020) note that specific life stages (e.g., raising children, nearing retirement) that often co-occur with specific age periods may be helpful for understanding teachers' well-being. Perhaps age is also associated with health or other age-related conditions that contribute to exhaustion. Additional work to identify other contextual factors, perhaps related to age, may shed light on the nature of associations between teachers' age, stress, and exhaustion. Taken together, our findings suggest that future studies of stress, exhaustion, and coping may benefit from expanded attention to the timing of assessments (early vs. late week) as well as

teachers' age, child rearing status, and health (or perhaps, more specifically, outside of work developmental life events).

Limitations

Study findings must be contextualized with the limitations that data are self-reported and subject to variation in participants' definitions of the items that assess stress, exhaustion, sources of stress, and coping. The cross-sectional and observational nature of the data preclude any claims of causality; however, our study was intended to be descriptive rather than causal. Second, we acknowledge that study data were collected prior to the COVID-19 pandemic. A growing body of research (e.g., Hanno et al., 2022; Jennings et al., 2020; Swigonski et al., 2021) has documented the severe impacts of the pandemic on early childhood teachers' well-being. Hence, the rates of stress and exhaustion reported in this pre-COVID study may not be generalizable to today's infant and toddler teachers. Future research may also uncover differences in stress for teachers of infants versus toddlers, as the emergence of new language, motor and cognitive skills in toddlerhood may contribute to teachers' qualitatively different classroom experiences. Third, delving more deeply into components of emotional, physical, and mental exhaustion intensity would enhance our understanding of teachers' experiences. For example, lack of time to take care of personal needs, including eating and toileting breaks, is associated with toddler teachers' emotional arousal (Gloeckler et al., 2014); Hence, additional research examining events and activities that may interfere with teachers' self-care practices would shed light on teachers' lived experiences. Fourth, given the small numbers of teachers who identified as American Indian/Alaska Native, Native Hawaiian/Pacific Islander or Asian, it was not possible to understand findings relative to race and stress and exhaustion; this is an important area for continued work. Fifth, teachers worked in programs in which administrators allowed research study recruitment. It is possible that teachers' experiences and work climates differ in programs open to research as compared to programs that are not. It may be that teachers worked in supportive environments that contributed to lower stress and exhaustion intensity, compared to teachers from programs that might be less supportive. This is speculative as we do not have data on perceptions of program supportiveness, but it is a point to consider in future work. Finally, we were not able to control for any potential effects of teachers' roles (i.e., lead teacher, co-lead teacher, or assistant teacher) in analyses as these data were not collected. Similarly, small samples sizes did not allow us to parcel out potential effects of type of program (EHS, EHS-CCPs, other programs) or classroom types (infants only, toddlers only, infant and toddler combined classrooms) on teachers' experiences.

Implications

Results suggest several key implications for practice. First, teachers were more stressed by workload challenges and personal life challenges than they were by infants' and toddlers' behaviors. Workload may reflect numerous stress sources, including complexities of the work, breadth of responsibilities, and availability of resources (Logan et al., 2020), that might be amenable to program supports to reduce burden but also to systemic policy changes needed to reduce burdens on teachers. For example, infant, toddler, and preschool teachers in Tebben et al.'s (2021) recent qualitative study explained that program policies that support their work (e.g., reduced ratios, ensured time for professional development)

are important considerations in reducing teachers' stress. Because workload may be defined differently among teachers, building relationships with teachers to allow for conversations and insights about teachers' experiences would yield valuable information for administrators. Similarly, providing well-being referral resources to teachers and ensuring an adequate staff plan to allow for flex days or "well-being" days off may reduce personal stressors. Teachers feel more supported when administrators express concern for their well-being. For example, teachers interviewed during the COVID-19 pandemic (Author, under review) described feeling cared for when their program administrators shared information on community mental health resources and concrete community resources, such as assistance with bill payments and food banks. Also, temporal characteristics associated with well-being, including increased stress toward the end of the week, suggest administrators be sensitive to end of the week stressors, including the timing of staff and professional development meetings. Similarly, continuing to examine coping strategies that may be helpful to teachers, perhaps including reframing, may inform professional development programs.

Conclusions

In summary, findings from the present investigation may deepen our understanding of infant and toddler teachers' experiences of stress and exhaustion as a precursor to developing strategies to support and promote infant and toddler teachers' well-being. Despite widespread ACEs exposure, prior adversity was not related to stress or exhaustion, both of which appear to be similar to levels reported in preschool teachers. Workload and personal life stressors were most commonly associated with stress and exhaustion, highlighting the overlap and interplay between the home and work lives of infant and toddler teachers. Temporal characteristics associated with stress and exhaustion, along with workload concerns, suggest the need for both administrator and programmatic support in promoting teachers' well-being. In a field susceptible to high turnover, with staff who are both undervalued and in short supply (Tebben et al., 2021), acknowledging and addressing teachers' stress and exhaustion, including further examining the potential value of reframing as a coping strategy, may enable researchers, practitioners, and policy-makers to better promote high quality infant and toddler care.

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Data Availability Statement

As analyses for the larger study are ongoing, data are not currently available. All protocols, measures, and syntax are available upon request from the first author.

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Table 1

Descriptive Statistics for Infant and toddler Teachers' Race/Ethnicity and Educational Background (N = 106)

Characteristics	n (%)
Teacher Characteristics	
Race	
American Indian/Alaska Native	1 (<1)
Asian	1 (1)
Black/African American	52 (49)
Native Hawaiian/Other Pacific Islander	0 (0)
White	36 (34)
Other	1 (<1)
Multiple categories selected	8 (8)
Did Not Disclose	7 (7)
Ethnicity	
Hispanic or Latino	5 (5)
Not Hispanic or Latino	93 (88)
Did Not Disclose	8 (7)
Educational Background	
Less than Associate Degree	24 (23)
Associate Degree	24 (23)
More than Associate Degree	50 (47)
Did Not Disclose	8 (7)

Table 2

Bivariate Correlations for Continuously Scored Study Variables

Variable	1	2	3	4	5
1. ACES	1.00				
2. Stress Intensity	0.11	1.00			
3. Emotional Exhaustion Intensity	0.02	0.83***	1.00		
4. Physical Exhaustion Intensity	−0.03	0.66***	0.73***	1.00	
5. Mental Exhaustion Intensity	0.13	0.68***	0.79***	0.73***	1.00

Note.

*p < .05

**p < .01

***p < .001

Note.

[a]Correlations involving repeated measures were estimated using multilevel modeling with group mean centering at Level-1.

Table 3

Descriptive Statistics for Teachers' Stress, Exhaustion, Sources of Stress and Endorsement of Coping Strategies

Measures	**Mean (*SD*)**	
Repeated Measures	**Mean (Between Person *SD*)**	
Stress and Exhaustion		
Stress Intensity	3.80 (0.88)	
Emotional Exhaustion	3.79 (1.04)	
Physical Exhaustion	4.02 (1.03)	
Mental Exhaustion	3.87 (1.15)	
Stress Source		
Workload	3.47 (0.83)	
Children's Behaviors	3.36 (0.82)	
Personal	3.30 (1.22)	
Policies	2.99 (1.30)	
Colleagues	2.72 (1.24)	
Supervisor	2.67 (1.12)	
Parents	2.20 (0.88)	
	Mean (SD)	**Percentage**
Coping Strategies		
Number of coping strategies selected	1.77 (0.64)	
	Percent of Sample Who Selected Strategy at Least Once Over the 4 Reports	
Work Support		39%
Distraction		29%
Family Support		28%
Mindfulness-Based Coping		24%
Reframe		23%
Religion		23%
Exercise		11%

Note. Intensity of stress and intensity of exhaustion reflect a 1 to 7 scoring range. Stress sources reflect the degree to which each contributed to overall stress intensity on a 1 to 7 scale. For each EMA report, teachers identified any coping strategy used.

Table 4

Fixed Effects from Multilevel Models Examining Relationship of Sources of Stress, Coping Strategies, Demographics, and Teacher Characteristics with Stress Intensity and Exhaustion

	Stress Intensity			Emotional Exhaustion			Physical Exhaustion			Mental Exhaustion		
Within-Level Variable	***β***	***SE***	***p***	***β***	***SE***	***p***	***β***	***SE***	***p***	***β***	***SE***	***p***
Sources of Stress *												
Work Load	**0.55**	**0.06**	**< .001**	**0.59**	**0.05**	**< .001**	**0.55**	**0.06**	**< .001**	**0.61**	**0.05**	**< .001**
Children's Behavior	0.13	0.07	0.08	0.06	0.08	0.48	−0.03	0.08	0.66	−0.03	0.07	0.67
Personal Life	**0.22**	**0.05**	**< .001**	**0.14**	**0.07**	**0.04**	0.11	0.07	0.10	**0.14**	**0.06**	**0.02**
Coping Strategies *												
Work Support	−0.05	0.05	0.34	−0.08	0.05	0.13	−0.07	0.04	0.09	−0.03	0.05	0.50
Distraction	0.01	0.05	0.79	−0.05	0.05	0.31	−0.03	0.05	0.50	−0.02	0.05	0.71
Mindfulness	0.04	0.04	0.39	0.02	0.05	0.63	−0.01	0.05	0.78	0.02	0.04	0.72
Reframing	−0.02	0.05	0.71	−0.08	0.05	0.09	**−0.09**	**0.05**	**0.04**	−0.02	0.05	0.74
Type of Day [1]												
Sick/Vacation	0.05	0.06	0.42	−0.03	0.07	0.66	0.05	0.08	0.51	0.07	0.06	0.25
PD or Meetings	0.03	0.06	0.63	0.06	0.05	0.24	−0.06	0.04	0.21	0.07	0.05	0.17
No Children in Classroom	−0.02	0.06	0.73	−0.03	0.07	0.67	−0.02	0.08	0.77	−0.03	0.04	0.51
Time Control Variables												
Thursday/Friday [2]	**0.10**	**0.04**	**0.01**	0.08	0.04	0.08	0.06	0.04	0.15	0.08	0.04	0.07
Fall [3]	0.07	0.05	0.23	−0.02	0.07	0.80	−0.10	0.05	0.06	−0.07	0.06	0.25
Between-Level Variable												
Mean Sources of Stress												
Workload	**0.64**	**0.12**	**< .001**	**0.50**	**0.10**	**< .001**	**0.30**	**0.15**	**0.04**	**0.52**	**0.10**	**< .001**
Children's Behavior	0.21	0.13	0.11	0.10	0.12	0.41	**0.48**	**0.15**	**.001**	0.17	0.13	0.19
Personal Life	**0.49**	**0.08**	**< .001**	**0.56**	**0.06**	**< .001**	**0.57**	**0.09**	**< .001**	**0.67**	**0.07**	**< .001**
Mean Coping Strategies												
Work Support	−0.11	0.07	0.14	−0.14	0.08	0.07	−0.09	0.09	0.33	−0.02	0.08	0.81
Distraction	0.01	0.07	0.93	0.02	0.07	0.79	−0.01	0.09	0.92	−0.07	0.08	0.36
Mindfulness-Based Strategies	−0.01	0.07	0.86	0.00	0.09	0.99	−0.09	0.09	0.32	−0.04	0.08	0.59

Reframing	**−0.18**	**0.08**	**0.02**	**−0.24**	**0.06**	**< .001**	−0.16	0.09	0.07	−0.12	0.07	0.07
Teacher Characteristics												
Age	**0.26**	**0.09**	**0.01**	**0.19**	**0.09**	**0.03**	0.05	0.09	0.62	−0.02	0.08	0.79
Education[4]												
< Associate	−0.01	0.09	0.88	0.08	0.10	0.43	0.18	0.11	0.12	0.02	0.10	0.84
Associate	0.03	0.07	0.68	−0.05	0.07	0.46	−0.10	0.09	0.23	0.00	0.07	1.00
Larger Urban Area	0.05	0.09	0.59	−0.10	0.09	0.26	−0.12	0.11	0.24	−0.03	0.09	0.78
Race/Ethnicity[5]												
White	0.10	0.08	0.25	0.07	0.09	0.44	0.19	0.10	0.06	0.14	0.09	0.12
Other	−0.12	0.08	0.13	**−0.18**	**0.08**	**0.02**	0.10	0.08	0.20	−0.02	0.08	0.83
ACES (4+)	−0.07	0.05	0.13	−0.06	0.06	0.33	0.01	0.08	0.91	−0.04	0.06	0.50
Within Level R^2	**0.39**	**0.06**	**< .001**	**0.39**	**0.06**	**< .001**	**0.35**	**0.07**	**< .001**	**0.41**	**0.06**	**< .001**
Between Level R^2	**0.83**	**0.08**	**< .001**	**0.74**	**0.07**	**< .001**	**0.79**	**0.07**	**< .001**	**0.79**	**0.06**	**< .001**

Note. All coefficients are standardized. Interpersonal Mindfulness was correlated with Mindful Awareness in all models. **Bold items** are statistically significant at $p < .05$.

*Within-level sources of stress and coping strategies are group-mean centered.

[1]Reference is days when children are present in the classroom.

[2]Reference days are Monday or Tuesday.

[3]Month is September, October, November, or December (identified as Fall), reference is January or February (identified as Spring).

[4]Reference is a Bachelor's degree.

[5]Reference race/ethnic group is African American/Black, the predominant group in the current study.