



The influence of multiple life stressors during Teacher Training on Burnout and Career Optimism in the first year of teaching

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H I G H L I G H T S

- Stress during teacher residency impacts teachers' developing career attitudes.
- Stress from daily hassles and stress from lack of social support differentially impact career attitudes.
- Emotional exhaustion mediates stress during residency and later career optimism.

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Relations among preservice teachers' (N = 133) life stress during teacher training (Time 1), burnout during the beginning of their first year teaching (Time 2), and career optimism at the end of the same year (Time 3) were examined. Path models revealed no direct effect of stress from daily hassles on participants' later career optimism, but did reveal a direct negative effect of stress from lack of social support on career optimism. Indirect effects were also detected; both life stress predictors were related to increased emotional exhaustion, which was related to decreased career optimism at the end of the first year.

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The Influence of Multiple Life Stressors during Teacher Training on Burnout and Career Optimism during the First Year Teaching.

The transition from preservice training into the first years of career teaching is an important, and potentially sensitive, period for early-career teachers' wellbeing and longevity in the teaching profession (Authors & et.al., 2017; Ferguson, Frost, & Hall, 2012; Kyriacou, 2001; Loeb, Darling-Hammond, & Luczak, 2005; Montgomery & Rupp, 2005). To illustrate, feelings of positivity and optimism felt by teachers at the beginning of their training often turn to disillusionment as they enter the classroom during the later student teaching portion of training (Brookhart & Freeman, 1992; Chaplain, 2008). These trends may be due, in part, to the high prevalence of chronic work-related stress, psychological distress, fatigue, and burnout experienced by teachers once in the classroom

(Katz, Greenberg, Jennings, & Klein, 2016; Steinhardt, Smith Jaggars, Faulk, & Gloria, 2011). As a result of this, it is important to understand the role of stress in the prevalence of early attrition and teachers' decisions to leave the profession (Chang, 2009; Ingersoll & Smith, 2003; Weldon, 2018). Although previous work has identified common challenges faced by teachers once they are in the classroom, there has been little examination of whether and how a variety of stressors that extend into teachers personal lives, before they begin their careers (i.e., during preservice training) affect how they progress through their early teaching career. The present study seeks to address this gap by investigating an array of perceived life stressors (i.e., daily hassles and lack of social support) reported during preservice training, as predictors of early feelings of burnout (characterized by emotional exhaustion and depersonalization) and subsequent career optimism in their first year of career teaching. In addition, we sought to understand if feelings of burnout function as a mechanism through which perceived life stressors are related to career optimism. Results have the potential

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to reveal early indicators of negative experiences among teachers that may predict early attrition from the field. In addition, this information may be particularly valuable in informing systems of teacher training and induction into the career. For example, teacher mentors/educators who work closely with preservice teachers during training (a potentially stressful period of career transition) could use this information to target their training/mentorship more purposefully, perhaps by more deliberately instructing trainees on topics such as positive coping strategies and/or mindfulness. These and other targeted practices could equip new teachers with the skills they need before entering the classroom, potentially setting them on more positive early career trajectories.

1. Teachers' career optimism

Teachers at all levels report pervasive, negative career-related experiences including prolonged stress, burnout, and low job satisfaction (Ferguson, Frost, & Hall, 2012; Fernet, Guay, Senecal, & Austin, 2012; Kyriacou, 2001; Loeb et al., 2005). Importantly, preservice teachers report these negative experiences before they even begin their careers (Chaplain, 2008; Goldstein, 2005), and these factors may play a role in many teachers' decisions to leave the field. Indeed, high rates of attrition are observed among early-career teachers in particular: it has been estimated that up to 50% of teachers leave the field within their first five years of teaching (Borman & Dowling, 2008; Sass, Flores, Claeys, & Perez, 2012; Skaalvik & Skaalvik, 2011; 2016). This high attrition rate is concerning as frequent teacher turnover has been shown to negatively impact student learning (Milanowski & Odden, 2007), underscoring a need to identify which factors most strongly relate to teachers' decisions to leave the profession. However, research on attriting vs. non-attriting teachers is difficult given the inherent challenge of identifying and following up with teachers who have already left the field. Absent of attrition outcomes, it is useful to examine factors such as career optimism as aspects of teachers' professional identity and engagement have been shown to forecast teachers' decisions to leave the field (Hong, 2010; Kelly & Northrop, 2015).

Career optimism plays an important role in teachers' goal-setting behaviors, establishment of career plans, and success in leadership roles (Creed, Patton, & Bartrum, 2002; Lucas & Wanberg, 1995; Marko & Savickas, 1998). Across multiple professions, career optimism has predicted career decisiveness, or the ability of an individual to make career decisions with certainty (Chatterjee, Afshan, & Chhetri, 2015). Teachers' career optimism is defined herein as teachers' expectations of positive career outcomes, emphasis on positive aspects of their career development, and comfort in planning their future teaching careers (Rottinghaus, Day, & Borgen, 2005). While career optimism is the primary outcome of interest in the present study, there is mounting evidence that teachers' career optimism plays an important role in their success and longevity in the field: Preservice teachers' career optimism has been shown to strongly relate to their later career engagement, which includes their satisfaction with their career-related choices, commitment to continuing to pursue that career choice, and professional aspirations within the teaching field (Eren, 2012; McIlveen & Perera, 2016). As such, investigating some of the ways teachers' experiences before and during the early-career stage impact their developing optimism for teaching could provide added insight into the high attrition rate observed among early-career teachers.

Career optimism has gained recent momentum as an important factor to study among teacher populations. However the majority of existing work focuses on teachers' intra-individual characteristics such as personality and self-efficacy as predictors of their career

optimism (see Chatterjee, Afshan, & Prerna Chhetri, 2015; McIlveen & Perera, 2016; McLennan, McIlveen, & Perera, 2017), rather than considering external factors such as perceptions of stressful life events. As such, the present study contributes to the literature by investigating daily hassles (personal, home, school/work) and lack of social support as direct and indirect predictors of teachers' career optimism. Recent work indicates that external factors such as school climate, class size and student characteristics have great potential to contribute to teachers' stress (Skaalvik & Skaalvik, 2009), feelings of burnout (Collie, Shapka, & Perry, 2012; Papay, West, Fullerton, & Kane, 2011), and overall job satisfaction (Borman & Kimball, 2005; Ferguson, 1998; Taylor & Tashakkori, 1995). Thus, we seek to expand on prior research by providing more information about external factors, such as those outside of the school, that impact preservice teachers' professional experiences and outcomes.

2. Teachers' life stress

Stress is defined as a state of negative psychological pressure that includes interactions among an individual's personality, environment, and emotions (Derogatis, 1987). Montgomery and Rupp (2005) present a theoretical-empirical model specific to teacher stress that describes the interactions between teachers' intra-individual processes (i.e., experiences, appraisals) and the external stressors that they experience (personal and professional). In this model, external stressors are thought to relate with intra-individual processes reciprocally, activating a "stress cycle" which has the potential to build and worsen over time if not intervened upon, eventually impacting one's well-being. The external stressors a teacher experiences and how they deal with them can lead to either negative or positive emotional reactions and feelings toward their personal lives and work. We apply this model to the present study by considering external stressors spanning across multiple life contexts, and examining how these stressors together influence teacher burnout and later career optimism.

Stress is a particularly salient issue among educators (Johnson et al., 2005; Kyriacou, 2001; Travers, 2001), with approximately one third of teachers reporting that they experience high levels of stress (e.g., Boyle, Borg, Falzon, & Baglioni, 1995). Sources of teacher stress can be work-related; stemming from excessive workloads, managing relationships with colleagues and administrators, a lack of professional support, or poor working conditions (Chaplain, 2008; Gardner, 2011; Kyriacou, 2001). Additionally, teachers, like all individuals, can experience a range of stressors in their personal lives including conflictual family relationships, personal demands on their time, and financial struggles that impact their wellbeing.

During preservice training, aspiring teachers must balance home life, personal relationships, school, coursework, and the challenges of field placements as they complete their practicums in preparation for the transition from college students to career teachers. Although previous research has examined work-related stressors among preservice teachers such as coping with a heavy workload and dealing with disruptive student behavior (Kyriacou & Stephens, 1999), few studies have examined the influence of non-work-related stressors (i.e., external stressful events in teachers' home and personal lives) on teachers' well-being and career experiences (see Montgomery & Rupp, 2005). In the present study, we consider two sources of life stress. First, we measure stress in terms of the daily hassles teachers experience, which include family relationships, household responsibilities, finances, personal activities, and school/work. Second, we consider a lack of social support from family, friends, colleagues, and community-based groups. While each of these is explored as a unique predictor of our outcomes, we view both as contributors to the overall life stress

our participants experience during their last training year. We assert that this approach provides a more inclusive and realistic view of teacher stress as stemming from multiple external sources (Montgomery & Rupp, 2005) including daily experiences and interpersonal factors. Below we offer some further introduction of each of these sources of life stress.

Stress from Daily Hassles. Daily stressors play an important role in how individuals progress through life transitions (Almeida & Wong, 2009). Given that the transition from training into career teaching is a sensitive life transition where practitioners are especially vulnerable to negative outcomes (Authors & et.al., 2017; Ferguson et al., 2012; Kyriacou, 2001; Loeb et al., 2005; Montgomery & Rupp, 2005), there is clear merit in including the repeated, normative stressors that participants experience on a daily basis (i.e., daily hassles) in our conceptualization of life stress. Daily hassles include normative events in teachers' lives across a range of contexts that negatively impact their plans and objectives, and bring about feelings of stress. Examples include getting an unexpected bill in the mail that you hadn't accounted for in your monthly budget, having household tasks pile up with little or no time to accomplish them, or having an ongoing conflict with a family member. Measuring these daily hassles is a unique approach in the realm of teacher research, as the majority of studies investigating teacher stress focus exclusively on work-related stressors (e.g., Borman & Kimball, 2005; Darling-Hammond, 1997; Ferguson, 1998; Ingersoll, 2001a, 2001b) while ignoring stress stemming from other areas of life. Therefore, our examination of the varied sources of life stress present in beginning teachers' lives provides a more holistic account of teachers' stress than previous studies that have focused solely on teachers' work-related experiences.

Stress from Lack of Social Support. In addition, the quality of interpersonal relationships individuals experience in their daily lives is considered in the present study as a unique and influential source of potential stress. These interpersonal experiences are particularly relevant for early career employees who must adjust to new job-related demands, and ambiguity about how to deal with them, in a context where they have not yet formed social bonds with colleagues (Saks, Uggerslev, & Fassina, 2007). For beginning teachers, the role of social support seems to be particularly influential (Authors & et.al., 2017), with positive relationships among colleagues and school administrators playing a role in psychological well-being across the transition into the career. In the present study, we view a lack of social support as a unique and direct stressor experienced by participants that has the potential to impact their outcomes directly, and note an important distinction emerging in the occupational health and medical literatures regarding how the presence vs. absence of social support can differ in its relationship to individuals' outcomes.

Traditionally, social support (i.e., the presence of positive and supportive interpersonal relationships) is conceptualized as a protective factor for individuals facing stressful events, providing what has been termed a "buffering effect" (Lin, Woelfel, & Light, 1985; Koeske & Koeske, 1990) whereby a positive presence of that mechanism mitigates the negative impact of some external stressor. For example when an individual is experiencing a significant amount of stress, having someone to turn to who can lend an ear or provide advice can help alleviate some of the pressure felt by the individual. However, there is ample evidence outside the field of education that a lack of social support is better conceptualized as a direct source of stress, rather than a buffering (or rather, non-buffering or exacerbating) factor. For example, a foundational study by Thoits (1984) revealed that low social support directly predicted psychological distress rather than interacting with other stressors to either protect against or exacerbate individuals' outcomes. Furthermore, a wealth of literature in the medical field has

directly related lack of social support to patients' negative health outcomes (Barth, Schneider, & von Kanel, 2010; Cornwell & Waite, 2009; House, Landis, & Umberson, 1988; Orth-Gomér, Rosengren, & Wilhelmsen, 1993). The idea behind treating lack of social support as a primary stressor rather than a mitigating factor is that social isolation is, in itself, a stress-inducing state with direct negative implications (Cacioppo & Hawkley, 2003; Cacioppo, Hawkley, & Thisted, 2010). While few studies in the field of education have conceptualized lack of social support as a direct stressor, some have illustrated its potential to be framed in this way: Chaplain (2008) reported that beginning teachers ranked lack of support from colleagues as one of four primary stressors experienced while teaching. Conceptualizing lack of social support as a unique and direct source of stress among early-career teachers represents an important innovation offered by the present study, as new teachers often feel they have been left to "sink or swim" upon entering the classroom, and generally do not receive the support of more experienced colleagues (Ingersoll, 2003; Johnson & Birkeland, 2003). As stated by Ingersoll and Kralik (2004), "Although elementary and secondary teaching involves intensive interaction with youngsters, the work of teachers is largely done in isolation from colleagues" (p. 3).

3. Stress, burnout, and career optimism

Over time, stress can result in a host of negative consequences for one's psychological wellbeing (Ong, Bergeman, Bisconti, & Wallace, 2006). Among educators, a well-established consequence of stress is burnout (Chambers & Belcher, 1992; Kyriacou, 2001; Travers & Cooper, 1996), commonly characterized as feelings of emotional exhaustion and depersonalization (Maslach, 1998; Schaufeli & Salanova, 2007). Specifically, emotional exhaustion is an element of burnout one experiences from within and is defined as a chronic state of emotional depletion and fatigue (i.e., feelings of being emotionally overextended and exhausted with one's work; Maslach, Schaufeli, & Leiter, 2001). Depersonalization, on the other hand, occurs in more interpersonal contexts, and refers to a teacher's negative, cynical attitudes and feelings about students or colleagues (Maslach et al., 2001). It is important to note that although related, research indicates these two dimensions of burnout are conceptually distinct from one another (Kokkinos, Panayiotou, & Davazoglou, 2005). Emotional exhaustion is the affective response to stress, driving an individual to put distance between themselves and others, whereas depersonalization is a strategy to create distance between oneself and others in an attempt to make work more manageable. Research consistently documents the relationship between high levels of stress and one's levels of emotional exhaustion (Kyriacou, 2001; Laugaa, Rasclé, & Bruchon-Schweitzer, 2008; Lee & Ashforth, 1996; Stordeur, D'hoore, & Vandenberghe, 2001) and depersonalization (Kokkinos, 2007; Schaufeli, Maslach, & Markek, 1993).

Many individuals working in inter-personal service-oriented professions report experiencing career-related burnout (Maslach, 1982). Regarding the specific dimensions of burnout, emotional exhaustion has been found to weaken an individual's drive, motivation, sense of enthusiasm, and positive feelings toward their career while depersonalization surfaces largely through a cynical attitude in response to these feelings of discouragement (Enzmann, Schaufeli, Janssen, & Rozeman, 1998). Across many professions, burnout (broadly conceived) is consistently related to a range of job withdrawal dimensions such as absenteeism, intention to quit, and turnover, with individuals who remain on the job despite these withdrawal characteristics engaging in professional under-performance (Ghorpade, Lackritz, & Singh, 2007; Maslach et al., 2001; Swider & Zimmerman, 2010; Whipp, Tan, & Yeo, 2007).

Research has also investigated the phenomena of burnout within educational settings. Specifically, Maslach and Leiter (1999) proposed a model of teacher burnout in which both emotional exhaustion and depersonalization influence teachers' classroom effectiveness. The model posits that as burnout increases, teachers' planning and active participation in learning activities decreases. Similar to other professions, burnout experienced in educational settings is strongly associated with decreased career satisfaction (Buisis et al., 2017), lower organizational commitment (Cho, Laschinger, & Wong, 2006), and career turnover (Becker, Milad, & Klock, 2006; Beecroft, Dorey, & Wenten, 2008; Rudman & Gustavsson, 2011).

4. The present study

We addressed two primary research aims: First, we sought to examine the direct effects of teachers' daily hassles (i.e., family, household, finances, personal, and school/work) and lack of social support experienced during the senior year of preservice training on their career optimism at the end of their first year teaching. Recent work indicates that external factors have great potential to contribute to teachers' stress (Skaalvik & Skaalvik, 2009) and overall job satisfaction (Taylor & Tashakkori, 1995), therefore we hypothesize that teachers' multiple life stressors during training will be negatively associated with their later career optimism. Second, we sought to investigate the potential role of teachers' burnout (i.e., emotional exhaustion and depersonalization) as a mechanism linking preservice teachers' daily hassles and lack of social support to their later career optimism. Given the strong associations between burnout in educational settings and professionals' experiences and attitudes (Becker et al., 2006; Beecroft et al., 2008; Buisis et al., 2017; Cho et al., 2006; Rudman & Gustavsson, 2011), we hypothesize that our predicted direct relations between initial daily hassles/lack of social support and later career optimism will be mediated by teachers' levels of burnout in the beginning of their first year of teaching. Specifically, we anticipate that more daily hassles and less social support during training will be related to higher levels of teacher emotional exhaustion and depersonalization during the fall of teachers' first year teaching, and these factors will in turn be negatively related to their career optimism in the spring of the same year.

To date, studies in this area have primarily investigated the influence of individual work-related stressors (e.g., student behavior) on the experiences and outcomes of practicing teachers and their students. Less work has examined the simultaneous influence of multiple life stressors (i.e., daily hassles, lack of social support), and how the presence of these stressors even before the start of a teaching career can have lasting impacts once teachers transition into the classroom. We seek to fill these gaps by utilizing a longitudinal framework to simultaneously investigate multiple life stressors and their influence across this important career transition. This is important because recent work has identified that the transition from training to teaching is a sensitive period that holds implications for teachers' wellbeing and success in the field (Authors & et.al., 2017).

5. Method

5.1. Recruitment and data collection procedures

Two sequential cohorts of undergraduate seniors enrolled in a teacher preparation program in a large, public university in the Southwestern United States were recruited to participate in a longitudinal study that followed them from the last years of their preservice training into their first years of formal teaching. As

undergraduate seniors, all participants were enrolled in a teaching practicum that involved full-time placement in a classroom with a mentor teacher for the duration of their senior year. Participants received a recruitment email in the fall semesters of 2011 (Cohort 1) and 2012 (Cohort 2). After agreeing to participate in the study, each participant was emailed a secure online survey link prompting them to complete a comprehensive battery of self-report assessments regarding their personal characteristics, life experiences, and professional/training experiences. They received this same battery of online assessments twice yearly (every fall and spring) throughout the duration of their participation in the study. Both cohorts followed the same data collection procedures and schedules one year apart chronologically. Three time points are included in the present study: the spring of participants' senior year of undergraduate preservice training (Time 1 [T1]), the fall of participants' first year of teaching (Time 2 [T2]) and the spring of participants' first year of teaching (Time 3 [T3]). At each of these time points, participants had two weeks to complete the online assessment and were sent regular email reminders until they completed the survey or the survey closed, whichever occurred first.

5.2. Participants

In the first cohort, all 364 undergraduate seniors in the teacher preparation program were invited to participate and 133 enrolled in the study (37%); in the second cohort, all 337 students were invited and 132 enrolled (39%), resulting in an initial recruited sample of 265 participants. As the present study focuses on the outcomes of first-year teachers, the analytic sample was limited to participants who reported becoming teachers in the year following the completion of their undergraduate training programs ($N = 133$). All participants in the final sample reported securing full-time teaching positions in U.S. elementary or middle schools, with grades taught ranging from kindergarten through eighth grade and specializations including early childhood, elementary, and special education.

The majority (95%) of participants in the analytic sample were female, and ages at recruitment ranged from 21 to 50 years ($M = 24.19$, $SD = 5.61$), with the majority (95%) under 33 years. The majority of the analytic sample were Caucasian (73%), followed by Hispanic (19%), Asian or Pacific Islander (3%), African American (less than 1%), Middle Eastern (less than 1%), and Multiracial/Other (3%). These demographics closely mirrored what was observed in the full recruited sample, with the exception of gender (88% of participants in the full recruited sample were female as opposed to 95% in the analytic sample). Of the analytic sample, 90 participants were responsive across all data collection time points, 40 participants responded at T1 and T2 only, and 3 participants responded at T1 only. T-tests comparing the 90 completely responsive participants to the 43 partially-responsive participants revealed no significant differences between groups on any study variables at any of the study time points.

5.3. Measures

Daily Hassles. At T1, participants rated on a scale of 1–4 (1 = none, 2 = somewhat, 3 = quite a bit, 4 = a great deal) the extent to which they felt a variety of daily activities were stress-inducing using the Hassles subscale of the Hassles and Uplifts scale (Kanner, Coyne, Schaefer, & Lazarus, 1981). Daily activities included those occurring at school/work (4 items; ex. "Your work or school load/Meeting deadlines or goal on the job or at school"), in family settings (3 items; ex. "your parents or in laws"), at home (4 items; "Housework/Yardwork"), having to do with money (2 items; ex.

“Enough money for necessities, clothing, housing, health care, taxes, insurances, emergencies”), and other personal activities (5 items; ex. “Amount of free time/Recreation and entertainment outside the home”). This scale has shown high predictive validity in past studies (Kanner et al., 1981), and the Hassles portion used in the present study showed high reliability among the final sample ($\alpha = .89$). Independent-samples *t*-tests revealed no significant differences between study cohorts on any of the T1 Hassles subscales.

Lack of Social Support. Participants reported on their perceived support from family, friends, colleagues, and community-based groups using the 20-item Multidimensional Scale of Perceived Social Support (MSPSS; Zimet, Dahlem, Zimet, & Farley, 1988) at T1 using a 7-point Likert scale (1 = very strongly disagree to 7 = very strongly agree). Items included “I get the emotional help and support that I need from my family” and “my friends really try to help me.” This measure has shown high reliability in past studies (Zimet et al., 1988), and high reliability within the current study was replicated at $\alpha = .91$. Items were recoded such that higher scores indicated less perceived social support (more social stress). Independent-samples *t*-tests revealed no significant differences between study cohorts on T1 perceived social support.

5.4. Burnout

Participants completed the 9-item Emotional Exhaustion and 5-item Depersonalization subscales of the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996) at T2. Initial versions of this scale include measures of both the frequency and intensity with which users experience various symptoms of burnout, however authors have since recommended the sole use of the frequency scales as the most reliable measure of more generalized burnout (Mujtaba & Reiss, 2013). As such, only the frequency subscales were used in the present study. These scales ask users to rate the frequency with which they experience common symptoms of exhaustion and depersonalization using a 7-point scale (0 = never to 7 = every day). Emotional exhaustion items included “I feel emotionally drained from my work” and “Working with people all day is really a strain for me.” Depersonalization items included “I’ve become more callous toward people since I took this job” and “I worry that this job is hardening me emotionally.” Previous research has shown good internal consistency and high reliability for this scale among elementary and middle school teachers (Gold, 1985; Iwanicki & Schwab, 1981), and high reliability for each subscale was observed in the present study ($\alpha = .95$ for Emotional Exhaustion and $\alpha = .90$ for Depersonalization). Mean scores were calculated for analyses. Independent-samples *t*-tests revealed no significant differences between study cohorts on T2 depersonalization, but did reveal that Cohort 1 had slightly higher average T2 emotional exhaustion ($M_{diff} = 0.76$, $t(88) = 2.20$, $p = .02$).

5.5. Career optimism

Participants completed the Career Optimism subscale of the Career Futures Inventory (Rottinghaus et al., 2005) at T3. This measure is defined by its authors as assessing “a disposition to expect the best possible outcome or to emphasize the most positive aspects of one’s future career development, and comfort in performing career tasks” (Rottinghaus et al., 2005, p. 11). Using a 5-point scale (1 = strongly disagree to 5 = strongly agree), participants responded to 11 items that included both positive sentiments, “I get excited when I think about my teaching career” and negative sentiments “It is difficult for me to set teaching career goals.” This scale has been shown to have high reliability ($\alpha = .88$; Rottinghaus et al., 2005), and this reliability estimate

was reflected in the analytic sample ($\alpha = .88$). All reverse-coded items were adjusted to reflect higher scores indicating more career optimism, a mean score was calculated for use in analyses. Independent-samples *t*-tests revealed no significant differences between study cohorts on T3 career optimism.

5.6. Control variables

School climate. Participants’ perceptions of their school’s climate was assessed at T3 using the School Climate subscale from the Consortium on Chicago School Research (CSSR, 2003) questionnaire. Participants indicated on a 4-point scale (1 = not at all to 4 = to a great extent) for 30 items the extent to which they felt supported by school systems of hierarchy (e.g., “The principal looks out for the personal welfare of the faculty members”) and by collegiality among colleagues (e.g., “Teachers respect other teachers who take the lead in school improvement efforts”). High reliability of the overall CSSR scale was established in the initial CSSR study, and the portion reflecting school climate used in the present study showed high reliability among the analytic sample ($\alpha = .96$). Mean scores were created with higher scores indicating more positive school climate. The school climate variable was included as a covariate in study analyses to control for common school-level stressors that may have influenced participants’ career optimism after the transition into teaching. School climate was chosen as the only school-level control variable as our sample size limited us from including additional covariates and our measurement of school climate represents a broad range of school characteristics important for teachers’ professional experiences. For these reasons, we felt this variable was the strongest choice for inclusion as a covariate broadly representing participants’ school experiences after their career transitions. Independent-samples *T*-tests revealed no significant differences between study cohorts on T3 school climate.

Cohort Belonging. Participants’ belonging to either Cohort 1 or 2 was included as a dummy coded variable in study analyses (Cohort 1 = 0) to control for any added influence of cohort-specific experiences on variables of interest.

5.7. Analytic strategy

Prior to all analyses, descriptive statistics were examined for all study variables in SPSS 24.0. To investigate the primary research questions, we conducted path analyses using Mplus version 7.0 (Muthén & Muthén, 1998–2012; 2012). Two models were run; the first examined the direct effects of participants’ T1 daily hassles and lack of social support on their T3 career optimism. The model then examined the additional potential mediating effects of T2 emotional exhaustion and depersonalization on participants’ T3 career optimism. Given that a predictor can still indirectly affect an outcome through its effect on an intervening variable in the absence of a direct effect (Hayes, 2013), indirect effects of participants’ emotional exhaustion and depersonalization were tested even if an initial direct effect between either T1 daily hassles or lack of social support and T3 career optimism was not detected. Both models controlled for T3 perceived school climate on the T3 career optimism outcome, as research indicates that external factors such as school climate have great potential to contribute to teachers’ job satisfaction (Taylor & Tashakkori, 1995). As well, all models controlled for any added effects of cohort belonging on the outcomes and mediators, as *t*-tests suggested the cohorts may differ in levels of emotional exhaustion.

Models were run using 2000 bias-corrected bootstrap resamples (Fritz & MacKinnon, 2007), which pulls a large number of artificial samples from the original data set by sampling cases with

replacement, treating each as a replication of the original sampling design. Compared to other methods, benefits of bias-corrected bootstrapping include increased power, lower Type I error rates, and less biased confidence intervals (MacKinnon, Lockwood, & Williams, 2004). Missing data were presumed to be missing at random, therefore full information maximum likelihood (FIML) estimation was employed to maintain the integrity of the full sample. The FIML approach is advantageous because it provides good consistency across parameter estimates, however it is possible for means to be underestimated and standard deviations to be overestimated when working with small samples (Jain & Wang, 2008).

Indications of model fit considered included the Comparative Fit Index (CFI, ideal value = 1), the Standardized Root Mean Square Residual (ideal value < 0.08), the Root Mean Square Error of Approximation (RMSEA; ideal value = 0.01) and the Chi-Square test (χ^2 ; smaller values indicate better model fit; Hu & Bentler, 1999). To test mediation formally, we examined bias-corrected 95% confidence intervals (Cis) for the indirect effects from the pooled bootstrap samples. Confidence intervals provide a range of possible values for the mediated effect, demonstrate the variability of the effect size, and provide evidence of indirect effects when the confidence intervals do not contain zero (MacKinnon et al., 2004). Standardized model parameter estimates are reported.

6. Results

6.1. Preliminary analyses

Table 1 contains descriptive statistics for all study variables. Estimations of skewness and kurtosis fell within normal ranges (skewness < 2, kurtosis < 7; Fidell & Tabachnick, 2003), suggesting all variables were normally distributed. Bivariate correlations (Table 2) revealed moderately-sized negative relations between T1 daily hassles and T3 career optimism, and moderately-sized positive correlations between T1 daily hassles and both T2 emotional exhaustion and T2 depersonalization. These patterns were reflected in the associations between T1 lack of social support and T3 career optimism, T2 emotional exhaustion, and T2 depersonalization. There was a large negative correlation between T2 emotional exhaustion and T3 career optimism, and a moderately-sized negative correlation between T2 depersonalization and T3 career optimism. Additionally, T3 school climate showed a moderately large positive relation to T3 career optimism, as well as a moderately-sized negative relation to T1 lack of social support.

6.2. Path models

Direct Effects Model. The initial model assessing the direct effects of T1 daily hassles and perceived lack of social support on T3 career optimism revealed no significant direct relation between T1 daily hassles and T3 career optimism, but did reveal a direct effect of T1 perceived lack of social support on T3 career optimism ($\beta = -0.24$,

Table 1
Descriptive statistics for study variables.

	N	Min	Max	Mean	SD
T1 Daily Hassles	91	5	15.82	9.76	2.34
T1 Perceived Social Support	106	1	4.50	2.31	.78
T2 Emotional Exhaustion	93	0.00	6.67	3.66	1.63
T2 Depersonalization	93	0.00	7.00	1.89	1.31
T3 Career Optimism	82	1.00	5.00	3.54	.76
T3 School Climate	81	1.53	4.37	3.30	.62

Note: Analytic sample size N = 133.

Table 2
Correlations among study variables.

	1	2	3	4	5	6	7
1. T1 Daily Hassles	1						
2. T1 Perceived Social Support	.20	1					
3. T2 Emotional Exhaustion	.39**	-.33**	1				
4. T2 Depersonalization	.31**	.30**	.58**	1			
5. T3 Career Optimism	-.28*	-.35**	-.62**	-.43**	1		
6. T3 School Climate	-.23	-.35**	-.37**	-.26	.52**	1	
7. T1 Cohort	-.20	.01	-.23*	-.25*	.08	-.09	1

**p < .01 *p < .05.

$p = .04$) such that participants who reported a more severe lack of social support at T1 reported lower career optimism at T3.

Mediation Model. T2 emotional exhaustion and depersonalization were added to the above model as simultaneous mediators in the relations between T1 daily hassles and perceived lack of social support and T3 career optimism. School climate remained as a control variable on the T3 career optimism outcome, and cohort was controlled for in the cases of both burnout mediators in order to best align with results of t-tests between cohorts and other preliminary analyses. As previously stated, indirect effects were tested even in the case that a direct effect was not initially detected (as was observed for T1 daily hassles). This model (see Fig. 1) fit the data well ($\chi^2(6) = 3.40$, $p = .34$; CFI = 0.99; RMSEA = 0.03, $p = .48$, 90% C.I. = 0.00 to 0.15; SRMR = 0.04) and revealed an indirect effect of both T1 daily hassles and T1 perceived lack of social support on T3 career optimism via T2 emotional exhaustion. For T1 daily hassles, the indirect effect ($\beta = -0.11$; 95% CI [-0.25, -0.03]) indicated that participants who reported more daily hassles at T1 reported more severe emotional exhaustion at T2 ($\beta = 0.30$, $p = .02$), which in turn led to lower career optimism at T3 ($\beta = -0.41$, $p = .01$). For T1 perceived social support, the indirect effect ($\beta = -0.12$; 95% CI [-0.31, -0.01]) indicated that participants who reported more severe lack of perceived lack of social support at T1 reported more severe emotional exhaustion at T2 ($\beta = 0.27$, $p < .01$), which in turn led to lower career optimism at T3. T2 depersonalization was not found to be a mechanism through which T1 daily hassles and perceived lack of social support operated in relation to T3 career optimism; however, effects of T1 daily hassles and perceived social support on T2 depersonalization were detected ($\beta = 0.22$, $p = .05$ for life stress, $\beta = 0.24$, $p = .01$ for perceived social support). These paths indicated that participants who reported more daily hassles and more severe lack of social support at T1 reported more depersonalization at T2.

7. Discussion

The transition from training to teaching is a particularly sensitive period for teachers' wellbeing; however, to our knowledge the present study is among the first to examine the influence of multiple life stressors including non work-related stressors during this stage of early-career teaching, and to conceptualize lack of social support as a unique and direct source of stress on teachers. Specifically, the purpose of this study was to investigate links between participants' daily hassles and lack of social support, their burnout, and their career optimism as they transitioned from the final year of teacher training into their first year as career teachers. Results of this study inform the extent to which different sources of stress operate across the transition to teaching with implications for teachers' developing career attitudes.

Prior to formal analysis of our research questions, descriptive statistics and correlation analyses suggested that daily hassles and lack of social support acted similarly in relation to the other key

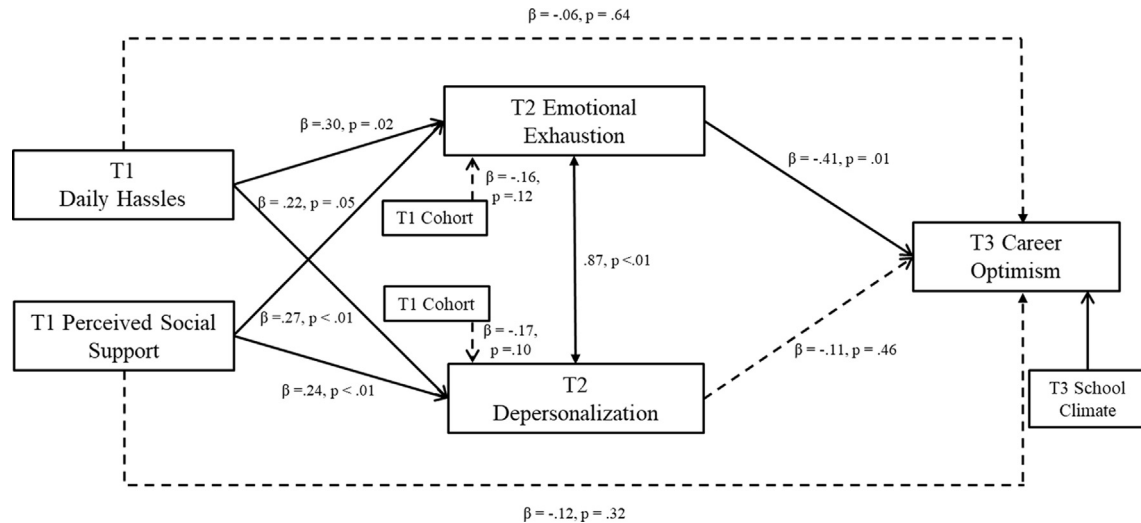


Fig. 1. Mediation model estimation summary of 2000 artificial bootstrap samples showing longitudinal paths from teachers' T1 daily hassles and perceived social support to T2 emotional exhaustion and depersonalization, to T3 career optimism. Solid lines represent significant relations, dashed lines represent non-significant relations. Standardized parameter estimates provided. Note. Analytic sample size $N = 133$.

study variables, providing initial indication that a lack of social support can be viewed as a significant, direct stressor along with other well-validated types of stress. Regarding formal analyses, we predicted that both daily hassles and lack of social support during training would each be directly negatively associated with teachers' later career optimism. We also expected increased emotional exhaustion and depersonalization to mediate the relations between daily hassles/lack of social support and later career optimism. Results generally supported our hypotheses.

7.1. Direct effects of daily hassles and lack of social support

Results generally support our hypothesis that life stress during training can impact new teachers' developing attitudes towards their careers. We interpret this as consistent with our theoretical framework of teacher stress in which external stressors experienced by beginning teachers (personal and work-related) influence their experiences and appraisals, activating a "stress cycle." Depending on a teachers' ability to cope with this stress, and sometimes directly due to the stress itself, individuals experience a range of emotional responses related to their well-being and feelings about life and work.

The first model examined the direct effects of T1 daily hassles and lack of social support on T3 career optimism. Contrary to our expectations, there was no direct relation between T1 daily hassles and T3 career optimism. Although a clear link between external stressors and career attitudes has been established (e.g., Taylor & Tashakkori, 1995), less work has examined the contribution of teacher's life stress to their career optimism. One explanation for the lack of significant effects of daily hassles on career optimism may be related to the timing with which daily hassles are measured. Previous research has examined the dynamic interaction between life and work domains, linking major life events to individual's job satisfaction (Georgellis, Lange, & Tabvuma, 2012). Major life events (e.g., the birth of a child) are thought to influence an individual's job attitudes by shifting their larger priorities (e.g., away from their career goals to a more satisfying family life). On the other hand, it could be that the impacts of major life events (e.g., the transition to teaching) manifest via the daily experiences of teachers' across personal and work contexts. These challenges faced on a daily basis likely disrupt an individual's daily plans and behaviors. Impacts on one's well-being are the result of the

frequency, type, focus, and severity of the daily hassles experienced; with days characterized by more hassles resulting in lower levels of well-being (Almeida, 2005). Although prior research has identified associations between both major life events and daily hassles and teachers' job dissatisfaction (Lin, Woelfel, & Light, 1985), the lack of significant direct effects between daily hassles and career optimism in the present study may be the result of measurement timing. For example, it is plausible that daily hassles have not had enough time (i.e., across a single school year) to lead to a larger shift in teachers' attitudes. As such, more work examining the impact of stressful life events on teacher's career attitudes is warranted.

In line with expectations, there was a direct effect of T1 lack of perceived social support on T3 career optimism in the direction that we predicted. While research has consistently documented a link between high levels of work-related social support and less burnout (López, Bolaño, Mariño, & Pol, 2010; Pascual, Perez Jover, Mirambell, Ivanetz, & Terol, 2003; Schaufeli & Buunk, 2003; Zellars & Perrewé, 2001), a smaller body of work suggests a lack of social support may itself operate as a primary stressor. For example, Chaplain (2008) identified a lack of support from colleagues as a primary stressor in beginning teachers. The direct effect detected in the present study provides further support for the conceptualization of lack of social support as a primary source of stress in beginning teachers' lives, rather than conceptualizing this variable solely as a buffer/reverse buffer that plays a less direct role in determining teachers' well-being and career outcomes.

7.2. The added role of burnout

The second model then examined the indirect relations between T1 daily hassles and lack of perceived social support on T3 career optimism through T2 emotional exhaustion and depersonalization (components of burnout). Significant indirect effects of both predictors on T3 career optimism existed, and each operated through T2 emotional exhaustion. Specifically, teachers who experienced increased daily hassles and more severe lack of social support during teacher training were more emotionally exhausted in the fall of their first year teaching and, as such, experienced lower career optimism in the spring.

These results suggest stress experienced before teachers' even begin their careers has longer-term implications on teachers' lives

through increasing emotional exhaustion and eventually lowering their career attitudes. During teaching residency students typically experience a large degree of fluctuation in their personal lives due to increased responsibility. This likely results in increased distress, emotional vulnerability, lower self-esteem, changes in their daily routines, and health habits (Caires, Almeida, & Martins, 2009). In addition, teachers in training report that during their practicum, balancing their personal commitments is a significant source of stress (Murray-Harvey, Slee, Lawson, Silins, Banfield, & Russel, 2000). This difficulty can result in less time for home, family, and personal commitments, as well as increased financial pressure. Importantly, the present study suggests that the effects of daily hassles and lack of social support on career optimism operate primarily through emotional exhaustion. In order to succeed in their new professions, novice teachers must take on a variety of roles (e.g., instructor, friend, disciplinarian) and navigate new situations and complex relationships with students, parents, and colleagues. These and other emotional aspects of the career, elements which are underrepresented in teacher training (Day, 2008), require intensive “emotional labor” (Hargreaves, 1998; Sutton, 2007). Indeed, novice teachers have been found to underestimate the amount of emotional labor required by their new profession (Bullough & Baughman, 1997). In addition, new teachers may be less likely to have positive coping strategies for dealing with these situations, and this may be particularly challenging for teachers experiencing increased life stress. These feelings of emotional exhaustion can then diminish teachers’ feelings of motivation (Schaufeli & Salanova, 2007), potentially lowering their career optimism by making it difficult for them to plan ahead and set future career goals.

Interestingly, teachers who reported increased daily hassles and more severe lack of social support also reported increased depersonalization, which is characterized by negative and cynical attitudes and feelings towards others. This is worrisome because increased depersonalization in the fall of the first year teaching likely results in teachers distancing themselves from others, potentially impacting the quality of relationships they have with students, colleagues, and parents. It is also possible that this relationship is bi-directional, with increased depersonalization (causing teachers to pull away from others), creating even more stress in teachers’ lives. However, we did not find evidence of a relation between this increased depersonalization and participants’ career optimism. It is possible that the negative impacts of depersonalization (e.g., isolation, decreased relationship quality) may take longer to manifest than emotional exhaustion, and therefore would not be captured by our T3 assessment of career optimism. Teachers may in fact use depersonalization as a protective factor in order to sustain their continued participation in the teaching profession. This is supported by the many stories of “worn out” teachers, who remain in the classroom despite their cynical views and diminished teaching ability (Farber, 1991). However, while no effects of this relation were seen on teachers’ developing career optimism, a myriad of other classroom, teacher, and student factors are likely impacted by this increased depersonalization. Future work may benefit still from exploring these associations.

7.3. Broader implications

Our results present several considerations for systems (training programs, school supports, professional development/interventions) seeking to improve the career attitudes of early-career teachers. This study demonstrates the role that different sources of life stress during residency can play across the transition to teaching, with important implications for how teacher residency programs can promote positive outcomes for early career teachers. Teachers in residency must

simultaneously balance their coursework with the professional responsibilities of teaching; this is often identified as the most stressful aspect of teacher training programs (Chaplain, 2008). Our study suggests that this may be even more difficult for teachers when they are experiencing significant daily hassles or a lack of social support. Outside factors, such as stress stemming from family, home, personal, finances, and social relationships, likely play a role in the larger issue of teacher attrition. Preservice teacher training programs, as well as in-service school-level supports, interventions, and PD efforts have the opportunity to target support components focused on teacher wellbeing such as helping trainees develop positive coping strategies. For example, acknowledging the influence of stress on teachers’ wellbeing and career attitudes, teacher training programs could include coursework focused on teacher wellbeing so that new teachers begin their careers with tools to manage stress and engage in effective teaching, and schools could support early career teachers by providing supports in the classroom during emotionally challenging situations. A promising example of such a program is the Mindfulness-Based Wellness Education (MBWE) program (Poulin, Mackenzie, Soloway, & Karayolas, 2008) for preservice teachers. It is a 9-week, 36 h course titled “Stress & Burnout: Teacher and Student Applications” taught as part of the college curriculum at the University of Toronto. The course provides mindfulness techniques, discussion of various aspects of wellness using a wellness wheel, and experiential activities (e.g., role playing) that include discussions of mindful teaching strategies (Soloway, Poulin, & Mackenzie, 2010). Compared to a control group taking other college coursework, students who participated in MBWE demonstrated increased mindfulness, health, and teaching self-efficacy (Poulin et al., 2008; Poulin, 2009). Another example for in-service teachers is the Cultivating Awareness and Resilience in Education (CARE) program for teachers in pre-K-12 classrooms (www.garrisoninstitute.org; Jennings et al., 2017). The CARE program aims to improve teacher wellbeing, teaching effectiveness, classroom relationships, and students’ pro-social behavior. The intervention includes emotion coaching to help teachers learn and practice important self-regulation strategies, mindfulness practices to help reduce stress and enhance awareness, and compassionate listening practices to support positive interactions with students (Jennings, 2011). Preliminary evidence of the CARE program’s effectiveness suggests program attendance is associated with improvement in mindfulness and stress reduction for urban teachers (Jennings, Snowberg, Coccia, & Greenberg, 2011), as well as with higher-quality classroom features such as emotional support and classroom interactions (Jennings et al., 2017).

Teacher training programs can also help alleviate the negative impacts of teachers’ life stress by ensuring students are matched with high quality mentor teachers. A study of teachers in training indicated that the most important coping resource for students was turning to their mentor for support (Murray-Harvey et al., 2000). Mentors can help teachers-in-training become aware that their stress during this period can carry over into their beginning careers, and that taking simple steps to provide self-care during residency (i.e., increasing social connectedness, managing their time effectively) can better their chances of succeeding in teaching. They can also provide beginning teachers with insight into how life, work, and professional demands fluctuate over time. This is especially relevant in the cases of full-year teaching residency programs such as the one in place for the current study, in which trainees and their mentors are matched for an extended amount of time, and likely form a closer, more intensive mentor/mentee relationship.

7.4. Study limitations and future directions

Although this study offers novel information regarding the relation between life stress during teacher residency and early

career teachers developing career attitudes, it is not without limitations. First, this study was conducted in partnership with a teacher education program at a single university, and although the sample was representative of teachers in the state, it was not particularly diverse (i.e., age, gender, race/ethnicity). This may limit the generalizability of findings to in-service teachers as a whole. There may be particular features of the teacher training program at this university that are particularly salient for students developing career attitudes, and that are not present in training programs across the nation or in other countries. Regarding diversity of the sample, stress could differentially impact individuals at different stages of life, males versus females, and/or those of different racial/ethnic groups. For example, you might expect students to experience different levels of daily hassles and perceived social support in early adulthood compared to later adulthood. Future studies would benefit from recruiting diverse participants across a range of universities/teacher-training programs. Second, the sample was quite modest in size, limiting our statistical power. This increases our likelihood of making a Type II error, or failing to detect an existing effect. For parsimony and to maximize power, we limited our covariates to two variables. Additionally, we employed bias-corrected bootstrapping, which produces confidence intervals corrected for estimated sampling bias (MacKinnon et al., 2004). With this approach, our study detected several significant results. Standardized estimates reflected modest effect sizes. Despite our statistical corrections, effects may have been underestimated. It is also possible our estimates reflect an accurate account of modest associations between variables. Poor feelings towards teaching is not a function of one or two key determinants. For example, attrition has been linked to many characteristics of teachers' personal and professional experiences (Borman & Dowling, 2008; Grissmer & Kirby, 1997), including those not captured in our models. Thus, we recognize the comparatively modest overall influence that life stress may have, still our study offers an important early look at the impact of life stress on beginning teachers' career attitudes, and results suggest this as an area warranting further inquiry, particularly in regard to attrition. Next, participants themselves reported all the data used in this study and as such, the associations presented are correlational in nature, limiting our ability to make claims of causality. However, the chronological nature of our three time points greatly increases suppositions of directionality. Last, it could be that students struggling with more life stress were less likely to participate in the research study, which would skew our estimation of stress in the study sample. The results presented herein should be considered as preliminary indicators of teachers' early-career experiences, and future studies should attempt to address these limitations, and replicate these results among larger samples. However, we remain confident the results of the present study make a unique contribution to the field.

Although this study represents an important first step in understanding the relationship between beginning teachers' life stress and career optimism, there are still additional questions to be investigated. The current investigation considered daily hassles and lack of social support, however future work could consider different types of stress even more individually within the same model to understand how personal, family, home, health, financial, and school/work stress act on burnout and career optimism. This would help elucidate whether it is the presence of certain stressors or the accumulation of multiple stressors that leads to burnout, and would provide more information about the specific types of stress to target in systems of intervention and support. Future work could also consider other outside influences, in addition to stress, to get a bigger picture of all the elements that "act upon" early-career teachers simultaneously to impact their career optimism. For example, measuring qualities of the mentor-mentee relationship

during residency may reveal that what otherwise would be interpreted as toxic stress may become tolerable in the presence of appropriate social supports. It is also important to note that the covariate, school climate, included in this study was consistently found to relate to career optimism: More positive school climate was associated with increased career optimism. Future work could further examine this relationship by examining a moderated mediation model to determine if the relationship between preservice teachers' burnout and career optimism differs by school climate. Additionally, the field could benefit from research examining how these factors relate to student outcomes. For example, the learning experiences of students likely vary depending on whether they are in a classroom with a first year teacher experiencing increased emotional exhaustion and depersonalization versus a first year teacher experiencing fewer burnout characteristics. Finally, although the current study conceptualizes early-career teachers' career optimism as a variable that can be considered indicative of their likelihood to attrit from the career, future work should more concretely link career optimism with eventual attrition.

8. Conclusions

This study contributes new understanding of how different sources of life stress during teacher training are related to career optimism during the first year of career teaching, an important contributor to teachers' career engagement. Given the importance of career optimism for teachers' goal-setting and future career plans, identifying practical mechanisms by which to improve these attitudes, especially before teachers enter the field, is essential. This study provides an important foundation for future work that must be conducted in order to more fully investigate the influence of early career teachers' life stress on their career optimism, with the ultimate goal of producing teachers who have positive career expectations and show comfort in planning their future teaching careers. Providing early career teachers with supports focused on decreasing emotional exhaustion, such as developing positive coping strategies, stands to benefit new teachers and the teaching field as a whole.

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