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Only you can prevent burnout?: Factors influencing job satisfaction among special education teachers

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ONLY YOU CAN PREVENT BURNOUT?: FACTORS INFLUENCING JOB SATISFACTION AMONG SPECIAL EDUCATION TEACHERS

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Abstract

Special education teacher (SET) burnout is a complex problem impacting teacher health, student outcomes, and job satisfaction. This review examined burnout literature with special education teachers as participants in US studies between 1973-2020. Studies reviewed support SET burnout as an interaction between personal and occupational variables. Overall, it is likely that each burnout component is influenced by a different set of internal and external factors. The most supported factors for SET burnout were perception, role conflict, role ambiguity, and administrator support. Possible treatments should address the underlying factors of SET burnout rather than its symptoms. Future research should inform the prevention and treatment of SET burnout in ways that incite reform in our schools and foster individual resilience in our teachers.

Key Terms: burnout, special education teacher, internal factors, environmental factors, intervention, prevention, perception, locus of control, administration, role conflict, role ambiguity

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Chapter I: Introduction

The problem

Burnout and attrition are two intertwined problems that are impacting both the quality of education received by students with disabilities and the quality of life experienced by those who teach. Teacher attrition and supply have been a well-researched topic in the United States over the last four decades. General education teacher (GET) attrition rates in the United States are over twice the rate of other countries. For example, GET attrition rates in Finland, Singapore, and Canada are low, averaging around 3-4% (Carver-Thomas & Darling-Hammond, 2017). Meanwhile, the GET attrition rate in the United States is 8% (Carver-Thomas & Darling-Hammond, 2017).

In comparison, the special education teacher (SET) attrition rate in the United States is 46% higher than the rate for GETs (Carver-Thomas & Darling-Hammond, 2017). This rate is substantially higher than findings in 2004, which stated SETs "leave the classroom at approximately twice the rate" of GETs (Williams & Dikes, 2015, p. 337). In other words, the 2017 SET attrition rate was 54%, which is an increase from the 13% SET attrition rate in 2004.

Burnout is considered one of the correlated variables of attrition (Cooley & Yovanoff, 1996). Research in the field of burnout began in the 1970s, primarily in human services. Burnout resulting from prolonged distress is a problem impacting workers across the globe. It has three components: emotional exhaustion, cynicism, and inefficacy (Maslach, 2017). Emotional exhaustion (EE) describes the loss of energy professionals feel when their work has drained them to the point of fatigue (Maslach, 2017). Cynicism, formerly known as depersonalization (DP), is characterized by detachment and callousness to distance oneself from others (Williams & Dikes, 2015), possibly as a self-preservation response to prolonged stress. Inefficacy, formerly known

as reduced personal accomplishment (PA), is a loss of professional confidence marked by self-doubts regarding job performance and feeling unqualified (Maslach, 2017; Williams & Dikes, 2015).

Professionals in the fields of healthcare, human services, and education have high rates of burnout in the United States (US). Burnout statistics in the medical field suggest one-half of attending physicians in the US experience burnout, and one-third of nurses in hospitals experience burnout (Reith, 2018). However, one systematic review suggests burnout studies in the medical field lack standardized measurement tools and a consistent definition of burnout (Rotenstein et al., 2018). Such limitations may cause medical field burnout statistics to vary drastically (e.g., incidence rates among medical professionals may range from 0% to 81%; Rotenstein et al., 2018). While burnout data from the medical field are readily available, current burnout rates among other public service professionals are more challenging to find. For example, one study stated that "no definitive statistics exist on the prevalence rates of stress and burnout in social work" as of 2016 (Travis et al., 2016; p. 1077). Statistics on the prevalence of burnout for educators are similarly unclear and generally unavailable despite a fair amount of burnout research. One meta-analysis suggested secondary teachers experience higher levels of burnout than other professionals. For example, when examining components of burnout, García-Carmona et al. (2019) discovered a dissonant prevalence in the rate of burnout among surveyed secondary teachers (40%) when compared to surveyed police officers (15%).

Reported burnout statistics representing the working population of the United States are concerning when compared to the rates of reported burnout in other parts of the world. For example, 2.5% of working people in Finland experienced severe burnout symptoms in 2000 (Kinnunen et al., 2019). In Germany, 4% of the population is diagnosed yearly with clinically

recognized symptoms of burnout, and about 1-5% of teachers surveyed experience diagnosable total burnout (Scheuch et al., 2015). The rates of occupational burnout for Finland and Germany are much lower than Brazil, for example, where the average prevalence of burnout among community-based health professionals is 24% (Carod-Artal & Vázquez-Cabrera, 2013).

Burnout is a problem related to ongoing and excessive stress, which is possible in any profession; however, the factors contributing to the stress of teacher burnout differ from those experienced in other fields. According to multiple authors, teachers experience this type of stress as a consequence of disparities between the demands of teaching and the resources available to do the job well. Teachers report frustration related to classroom management (Garwood et al., 2018; McIntyre, 1983), challenges to meet the needs of an increasingly large and diverse school-aged population (Brownell & Smith, 1992; Nichols & Sosnowsky, 2002; Wisniewski & Gargiulo, 1997), and loss of control over curriculum, instruction, and assessment (Williams & Dikes, 2015). A perceived lack of resources may leave special educators feeling exhausted and ineffective.

The lack of data regarding teacher burnout is compounded by the fact that special education teachers (SETs) are subject to unique conditions that are less understood by general education teachers (GETs). For example, SETs may be expected to learn multiple curricula in addition to those taught by GETs for teaching general education in a variety of settings and ways (Williams & Dikes, 2015). SETs also experience difficulty meeting student needs and instructional objectives (Wisniewski & Gargiulo, 1997) despite designing instruction based on unique student characteristics (Stempien & Loeb, 2002). Moreover, SETs have many responsibilities in addition to teaching (Williams & Dikes, 2015) that differentiate the stress they experience from that of GETs. SETs experience stress due to changing roles and responsibilities

(McIntyre, 1983) that depend on special education law. The fact that SETs have many legal responsibilities puts them at higher risk for legal action than GETs, which can be an additional source of stress (Williams & Dikes, 2015). For instance, SETs are often designated the case managers of numerous students for writing, implementing, and maintaining educational programming (Williams & Dikes, 2015). Though assigned duties may vary between schools, SETs are teachers and case managers with the duty to manage excessive paperwork (Williams & Dikes, 2015; Wisniewski & Gargiulo, 1997), which includes electronic and hard-copy documents subject to audits (Williams & Dikes, 2015). Beyond the paperwork, SETs collaborate with multiple team members and conduct meetings for Individualized Education Program (IEP) implementation. SETs design modifications and accommodations to the general education curriculum and then inform GETs about how to implement those adaptations (Williams & Dikes, 2015). Coordinating individualized education plans and collaborating with multiple team members can expose SETs to stressful interpersonal interactions (Wisniewski & Gargiulo, 1997).

Problem Impact

In general, research suggests burnout has negative impacts on health, relationships, and work environments. According to Maslach (2017), burnout has several costs, which include “negative attitudes and poor performance...impaired physical health...turnover, low morale and incivility, and a greater risk of mental illness” (p. 144). The negative impacts of special education teacher (SET) burnout are not restricted to the workplace and can continue to affect educators in their personal lives. According to Emery and Vandenberg (2010), burnout negatively impacts special educators on a personal level through physical and mental health, as well as values. Specifically, SETs may experience chronic fatigue and illness, loss of interest and

satisfaction, and even loss of professional motivations, plans, and goals (Emery & Vandenberg, 2010; Garwood et al., 2018). Over time, relationships outside the school setting may be compromised, adding to the cost of burnout among afflicted SETs.

In addition to the effects of burnout experienced by teachers, schools are also impacted. Emery and Vandenberg (2010) noted that organizations affected by SET burnout report reduced organizational commitment, higher staff turnover, more frequent absenteeism, and decreased job performance. One possible contributor to negative organization impacts is job satisfaction, which is one result of perceptions regarding classroom demands and resources (McCarthy, Lambert, Lineback, et al., 2016). Job satisfaction occurs when SETs perceive that the resources required to do their work are greater than or equal to the demands of their work. Alternately, job dissatisfaction occurs when the demands of their work outweigh the available resources (McCarthy, Lambert, Lineback, et al., 2016). SETs experiencing high amounts of stress and burnout are more likely to experience job dissatisfaction when compared to general education teachers (GETs), mainly due to feelings of frustration regarding overwhelming job demands (Stempien & Loeb, 2002). In summary, SETs who experience burnout are less satisfied with their jobs. That dissatisfaction manifests in actions (such as negative interpersonal interactions and decreased performance), which, in turn, impact the school environment. Decreased SET performance may impact classroom outcomes; if the teacher is detached, the needs of the students are not being met – socially, emotionally, or academically.

Students may be equally impacted by SET burnout. SETs are drawn to the profession to help students with disabilities learn. However, multiple studies suggest SET burnout thwarts that mission. For example, Wong et al. (2017) found that teacher stress significantly predicted

decreases in teaching quality and student engagement. As teacher stress increases, teaching quality and student engagement may decrease.

Furthermore, SET burnout impacts the quality of classroom instruction (Wisniewski & Gargiulo, 1997), implementation of individualized educational programming (IEP), and goal attainment (McDowell, 2017). For example, Wong et al. (2017) examined burnout levels among a sample of SETs against measures of quality teaching (e.g., enjoyment, responsiveness, and participation) and student outcomes regarding IEP goals. They found burnout decreased the achievement of IEP goals indirectly through lower teaching quality and student engagement (Wong et al., 2017). The authors also found a correlation between low adherence to interventions written into the IEPs and high levels of burnout (Ruble & McGrew, 2013 as cited in Brunsting et al., 2014). Finally, the achievement of IEP goals was directly related to teachers' feelings of personal accomplishment, which did not rely on a relationship with measures of teaching quality or student engagement to impact goal attainment (Wong et al., 2017). In summary, as SETs are striving to help students succeed, it is possible those efforts are adversely affected by emotional exhaustion and lack of self-efficacy.

Schools are responsible for providing a free and appropriate public education (FAPE) for students with disabilities. SETs are essential in reaching this goal as they are the service providers, program developers, and team collaborators who ensure that FAPE is accessible to these students. Unfortunately, SET burnout poses a threat to teacher health and the quality of student education. Therefore, it is of the utmost importance that educators and educational institutions learn to prevent or reduce SET burnout before it negatively impacts educators and their students. Without preventative knowledge and intervention regarding teacher burnout, SETs

will continue to leave the field soon after induction, and students are at risk for poor outcomes in classrooms with teachers who suffer from discouragement and compromised mental health.

Purpose and Guiding Questions

The purpose of this paper is to review the literature on special education teacher (SET) burnout. First, I identify the factors of SET burnout and the current solutions. Then, I interpret the findings and discuss implications for future research. The following questions guided the research for this literature review: What are the external and internal factors of SET burnout? What prevention and intervention strategies exist for SET burnout, and how do these strategies differ in efficacy? How does locus of control impact SET burnout? How is school administration connected to SET burnout?

Key Terms

burnout, special education teacher, internal factors, environmental factors, intervention, prevention, perception, locus of control, administration

Chapter II: Literature Review

Educator burnout is complex, highly individual, and based on personal interactions between internal and external factors. Each teacher enters the classroom with perceptions and demographic influences. Each classroom is part of a school building with unique resources, administrative leadership, and interpersonal dynamics. While not every teacher experiences burnout, evidence suggests that special education teachers (SETs) report higher levels of burnout when compared to general education teachers and that reported experiences of SET burnout are primarily due to interactions between person and environment. Chapter II will discuss how factors weave together to create burnout among SETs and will include a brief description of theoretical models, supported by the literature, that help to explain the concept and etiology of teacher burnout.

Literature Search and Criteria

An electronic search was conducted in EBSCOhost using the following databases: Academic Search Premier; Cochrane Central Register of Controlled Trials; Cochrane Database of Systematic Reviews; EBSCO MegaFILE, ERIC; Professional Development Collection; APA PsycArticles; APA PsycInfo; Teacher Reference Center; Cochrane Clinical Answers; and Academic Search Ultimate. The following combinations of search terms were used: (burnout) AND (special education OR special educator OR special education teacher) AND (factor OR variable OR component) OR (treatment OR prevention OR intervention) OR (role conflict OR role ambiguity) OR (locus of control OR perception) OR (administration OR administrator OR principal). Results were limited to full-text, peer-reviewed documents in English between 1973-2020 that took place in the United States (US).

Models of Burnout

In the field of education, there are only a few theoretical models to support the notion of teacher burnout. One model for general use suggested a link between burnout and the interaction of personal and environmental variables. Maslach (2017) highlighted the areas-of-work-life model (AW) in her review of burnout solutions. AW is a conceptual framework of burnout that focuses on person-job interaction. The model posits that there are six key areas of work-life where job-person fit imbalances could occur and impact burnout. The first three areas include workload, control, and reward. Other areas included in the model are community, fairness, and values. Work overload depletes a person's capacity to meet the demands of their job. Perceptions of control, or professional autonomy, impact job engagement such that lack of control lessens job engagement. Reward, or recognition, is associated with feelings of personal accomplishment and the value placed on work. Imbalance in any of the key areas increases the likelihood of burnout (Maslach, 2017). The level of burnout then determines individual outcomes (i.e., employee health, absenteeism, quality of work, patient satisfaction, and cost-effectiveness). It is important to note, however, that the AW model is intended for general burnout and was not created using the lens of special education.

Another potential model suggested four occupational stressors that lead to SET burnout (Wisniewski & Gargiulo, 1997). The first occupational stressor is organizational structure. According to Wisniewski and Gargiulo (1997), the organizational structure is the combination of established workplace goals and objectives, defined teacher's roles, and available support structures to meet the school mission. Some examples of organizational structure include planning time, paperwork, and curricular materials (Wisniewski & Gargiulo, 1997). The second occupational stressor is professional training, which the authors stated should provide the skills

necessary to meet teaching demands and organization goals. The third occupational stressor is professional interactions, which inform SETs of their control in the instructional process and school environment. Examples of professional interactions include feedback, support, recognition, and conferences (Wisniewski & Gargiulo, 1997). The fourth occupational stressor is instructional assignment or placement within a specific categorical setting and program model. The authors suggested manifestations of stress could differ based on instructional assignment but offered the following examples: overwhelming task demands, low status amongst colleagues, and having one's professional needs ignored (Wisniewski & Gargiulo, 1997). In addition to the suggested stressors, Wisniewski and Gargiulo (1997) identified potential moderating variables, including integrated service delivery systems, professional support, professional development activities, and mentorships. In conjunction, these models suggest the importance of personal variables within the context of external environmental factors.

Brunsting et al. (2014) conducted a systematic review of special education burnout literature in the US between 1979-2013. The authors used Bronfenbrenner's ecological model as a framework to organize the results of their meta-analysis. Variables correlated to burnout were organized from proximal to distal into the following categories: individual level, classroom level, school level, and state or district level (Brunsting et al., 2014). Results are discussed in the following sections with the additional categorization of internal and external factors.

Measuring SET Burnout

Researchers across fields in the US commonly use the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1981 as cited in Crane & Iwanicki, 1986). The MBI is a widespread instrument used to measure burnout. While other formal and informal measures of burnout exist, one estimate suggested that over 90% of empirical studies on burnout use the MBI (McCarthy,

Lambert, Lineback, et al., 2016). Because numerous studies use the MBI, I will provide a brief description of the instrument before discussing special education teacher (SET) burnout factors.

The MBI is a questionnaire comprised of 22-items that measures the frequency of the three burnout components regarding one's job (Cooley & Yovanoff, 1996). The MBI has three subscales, presented nonsequentially, to measure the three components of burnout. Maslach and Jackson (1981, as cited in Frank & McKenzie, 1993) described the subscales as follows:

> The Emotional Exhaustion (EE) subscale contains nine items that assess "feelings of being emotionally overextended and exhausted by one's work"; The Depersonalization (DP) subscale contains five items that measure "an unfeeling and impersonal response towards recipients of one's service, care, treatment, or instruction"; The Personal Accomplishment (PA) subscale contains eight items that assess "feelings of competence and successful achievement in one's work with people." (p. 16)

Respondents rate the items for each subscale on a frequency range from 0 (never) to 6 (daily) (Frank & McKenzie, 1993). Questionnaire results place participants on a continuum of from less to more burned out, wherein "higher scores on the emotional exhaustion and depersonalization subscales and a lower score on the personal accomplishment subscale indicates more burnout" (Crane & Iwanicki, 1986, p. 25).

The Maslach Burnout Inventory-Educator Survey (MBI-ES; Maslach et al., 1996 as cited in Zabel & Zabel, 2001) is an updated version of the MBI specifically for educators. Items on the MBI-ES include minor changes in terminology (e.g., from "recipient" to "student") but do not differ otherwise (Zabel & Zabel, 2001). For example, subscale scores still indicate the same degree of burnout on a continuum ranging from low to high (Nichols & Sosnowsky, 2002), indicating strong psychometric integrity. Along with Maslach's (2017) dimensions of burnout,

there are additional factors reported in the literature that contribute to the experience of burnout among (SETs).

Demographics

Demographics alone are not enough to produce burnout. Evidence suggests, however, that demographics, along with other factors, may contribute to burnout. While some studies indicate age (Banks & Necco, 1990; Embich, 2001) and education level (Embich, 2001) as possible correlates to burnout, those connections remain unclear. A small number of studies have suggested gender (Crane & Iwanicki, 1986) and licensure path (Banks & Necco, 1990) as possible predictors of burnout, but those connections are also unclear. Demographics are widely variable in their correlations to burnout and may be connected most strongly through years and type of teaching experience.

Years of Teaching Experience

Some studies found experience correlated to personal accomplishment (PA; Embich, 2001; Zabel & Zabel, 2001). For example, Embich (2001) conducted a study to determine which factors contribute to burnout for special education teachers (SETs) in secondary settings. Participants were 464 SETs at either middle or high schools located in the mid-Atlantic US. Burnout and demographic information data were collected using a questionnaire that included the Maslach Burnout Inventory (MBI) as well as two items regarding participant perceptions of workload and principal support. Three hundred questionnaires were analyzed using multiple regression analysis. The results of the study indicated a correlation between PA and years of teaching experience (Embich, 2001), indicating as SETs gain more years of teaching experience, they feel a greater sense of personal accomplishment.

In an earlier study, Banks and Necco (1990) did not find any correlation between years of teaching experience and burnout. Banks and his colleague examined the relationship between SET burnout, special education disability categories, and teacher training background. Participants in the study were 181 SETs from two school districts in separate regions of the country (i.e., Great Lakes and southeastern). Burnout and demographic information were collected from participants using a questionnaire with two sections, one of which was the MBI. The authors used two separate statistical analyses to analyze the data for continuous variables (e.g., burnout components) and dependent variables (e.g., training background and special education category). Results revealed that years of experience in special education was not significantly correlated to any component of burnout among research participants (Banks & Necco, 1990). Contrary to the results of Embich (2001), this finding suggests years of teaching experience is unrelated to an educator's sense of personal accomplishment.

Type of Teaching Experience

Zabel and Zabel (2001) found support for a correlation between burnout and type of teaching experience. The team replicated a study they conducted 20 years earlier when they sought to examine whether the type of teaching experience (e.g., general or special education) might influence burnout. The older study showed significant negative correlations between general education experience and all three burnout components. Decades later, curious about how the experience of SET burnout may have changed over time, Zabel and Zabel reconducted the study with 301 special education teachers randomly selected from the Kansas State Board of Education 1998 SETs listing. SETs represented equal numbers of the six largest disability classification fields. Participants received questionnaires by mail, and non-respondents received a follow-up mailing after three-weeks. The questionnaire had two sections: demographic

information and Maslach Burnout Inventory-Educators Survey (MBI-ES). The demographic section recorded the educators' amount of general and special education teaching experience. Participants in the new study reported burnout levels comparable to participants in the prior study.

Examinations of experience type (i.e., general or special education experience) in Zabel and Zabel's (2001) replication study indicated years of general education teaching experience was significantly, positively correlated to only PA. The authors speculated educators' years of general education experience might have given them reasonable expectations of what teachers can accomplish (Zabel & Zabel, 2001). Curiously, the years of special education experience was not statistically correlated to any burnout components; however, it approached significance for emotional exhaustion (EE). These findings differ from the initial study results showing less special education teaching experience was statistically, negatively correlated to depersonalization (DP). In contrast, general education teaching experience related to all three components of burnout (Zabel & Zabel, 2001). The connections between experience (both type and years) and burnout remain unclear because the study was unable to replicate earlier findings and indicated new relationships. However, this research may suggest that SETs become more confident in their teaching abilities with more years of general education teaching experience.

Miscellaneous Variables

Education level is a recognized factor in the burnout literature. (Banks & Necco, 1990; Embich, 2001; Zabel & Zabel, 2001). Education level includes the type of degree a teacher has obtained, for example, a bachelor's degree and beyond. Zabel and Zabel (2001) determined education level had a significant and positive correlation to PA. This was one of the only

replicated findings from their earlier study (Zabel & Zabel, 2001). The finding suggests SETs with higher levels of education (e.g., master's degree) feel more accomplished.

Similarly, Embich (2001) found the level of SET education correlated to emotional exhaustion (EE) such that educators with higher levels of education experienced lower amounts of exhaustion. Embich (2001) examined multiple groups of teachers, including those in self-contained or co-taught settings. SETs in co-taught settings could team-teach for one or more class periods per day. Further analysis of separate team-teaching groups revealed SETs who team-taught for two or more periods per day also correlated with the level of education and EE. The correlation between level of education and EE did not exist for those who team-taught one period per day or SETs in a self-contained setting. Results suggested that the impact of demographic variables (e.g., education level) and the connections to burnout components differed between teaching positions (Embich, 2001). Thus, education level may contribute to fatigue for SETs team-teaching two or more classes per day but not SETs in a self-contained setting.

Internal Factors

Internal factors are personal variables that contribute to burnout (Maslach, 2017). These are variables or independent stressors that exist within the individual. Independent stressors include demographics and perceptions (Brunsting et al., 2014).

Locus of Control (LOC) is a person's tendency to attribute events to either personal actions or environmental circumstances. According to Crothers et al. (2010), people with an *external locus of control* believe other people or situations impact and control events. *Internal locus of control*, on the other hand, determines how likely a person is to believe that personal actions impact and control events. Variables such as personality, psychological history, and

cultural identity determine how much individuals attribute work outcomes to themselves (i.e., internal LOC) or others (i.e., external LOC). While all people have both orientations, individuals will have a natural inclination to one or the other, and that inclination may change over time or differ between settings.

Locus of Control (LOC)

Multiple studies suggest LOC is related to or based on perceptions of the work environment (Crothers et al., 2010; McCarthy, Lambert, Lineback, et al., 2016; Wisniewski & Gargiulo, 1997). While district policy and regulations may indicate to special education teachers (SETs) what they can and cannot control, perceptions of authority and interactions with supervisors or other teachers may influence SETs' responses. For example, McCarthy, Lambert, Lineback, et al. (2016) stated class size is a factor outside a teacher's LOC. Similarly, Cooley and Yovanoff (1996) discussed that many large-scale, systematic changes are outside a teacher's control, but they can control personal responses to stressors and professional encounters. According to Conley and You (2014), some studies found external LOC increased when SETs encountered role conflict.

Various studies have identified external LOC as a significant correlate of burnout (Banks & Necco, 1990; Brunsting et al., 2014). One study found external LOC positively correlated to emotional exhaustion (EE) and depersonalization (DP) (Sunbul, 2003 as cited by Conley & You, 2014). Conley and You (2014) examined LOC as a moderator between job structure and work outcomes in a correlational study. Participants were 177 high school teachers across seven schools in southern California. Among the 177 participants, 164 reported their positions: GETs (n=140), mentor teachers or specialists (n=14), and department heads (n=10). The researchers used surveys to collect data and distributed them either by teacher mailbox at the school or in-

person at a faculty meeting. The authors chose SEM factor analysis as the analytic approach to counter issues of directionality and for general flexibility when testing causal relationships. The first analysis conducted examined the independence of job structuring and role stressors. The second analysis examined the relationships between latent variables. Researchers tested the model using Normal Fit Index (NFI), comparative fit index (CFI), and non-normed fit index (NNFI) in addition to chi-square statistics.

Results of the study indicated LOC moderated the impact of job structure on role stressors, which mediated work outcomes (i.e., satisfaction and commitment). For both internal and external LOC groups, high amounts of job structure related to low stress (Conley & You, 2014). Herein lies the complexity between internal and external factors: the study found low correlations between external LOC and role stressors (i.e., role conflict and role ambiguity). In addition, satisfaction and commitment were impacted by different role stressors for the two groups. Specifically, more role ambiguity correlated to less satisfaction for the internal LOC group, but less satisfaction correlated to more role overload for the external LOC group. Conclusions about this study are unclear regarding the differences between types of LOC as moderators, but the study does show how complicated it is to isolate discrete factors of burnout.

Perceptions

Personal interpretations of events, environments, or interactions result in perceptions. Perceptions impact stress and account for variance in measures of EE between teachers within the same building. Several studies have suggested that perceptions of the work environment and events in the workplace impact stress levels (Crothers et al., 2010; Fore III et al., 2002; Haydon et al., 2018). Wisniewski and Gargiulo (1997) suggested stress results from SET perceptions of a quality educational setting rather than student disability. Conley and You (2014) found

perceptions of role stressors were associated with perceptions of satisfaction and commitment, which are work outcomes. Moreover, variability between teachers may be due to the perceptual nature of stress (i.e., stress is subjective between people). For example, McCarthy, Lambert, O'Donnell, et al. (2009) conducted a correlational study to understand teacher stress and burnout symptoms between and within schools at the individual level. The authors administered a single cross-sectional survey to 451 teachers from 13 schools (specific teacher roles not recorded) that measured burnout symptoms, stress, and the availability of preventative resources. McCarthy and his team of researchers used a theoretical linear measurement model (HLM) to examine between-school variance and a multivariate three-level model to examine correlations. Researchers determined that most of the burnout variance occurred between items within individuals with less variance found between schools. This study posits that stress results from the difference between an individual's perceived work demands and the resources available to meet said demands. These perceptions are predictive of emotional burnout symptoms that vary between teachers - not the environment.

Measuring perceptions requires the use of a valid and reliable tool. McCarthy, Lambert, Lineback, et al. (2016) conducted a meta-analytic review to evaluate the validity of the Classroom Appraisal of Demands and Resources (CARD; Lambert et al., 2009 as cited in McCarthy et al., 2016) instrument as a consistent measure of teacher perceptions of classroom stress. CARD produces three scores: demands scale score, resources scale score, and an appraisal index. The demands scale score indicates the "severity of demands associated with various aspects of the classroom environment," and the resources scale score indicates a teacher's perception of the "helpfulness of various school-provided resources" (McCarthy, Lambert, Lineback, et al., 2016; p. 582). The appraisal index is the difference between the demands and

resources scale scores. The distribution of appraisal scores can be divided into three groups illustrating that higher scores represent more stress. The demands group perceives demands as outweighing resources. The resources group perceives more resources than demands. The balanced group views demands and resources in equal amounts. The authors consulted 18 studies, eight of which were peer-reviewed articles, in the meta-analysis (McCarthy, Lambert, Lineback, et al., 2016).

The results of the study indicated that across the literature, those studies that included the CARD as a measure of stress perception among teachers, report that perceptions of stress account for the variance between individuals in burnout (i.e., EE). In comparison to the resource group, the demands group had higher average burnout scores, lower preventative coping resources, and lower job satisfaction scores. The demands group also had higher concentrations of challenging student demands and higher intentions to leave than the resource group. In relation to CARD, the demands scale score and the appraisal index were both positively correlated to EE. This finding suggests the variance in EE is accounted for by perceptions of the difference between resources and demands rather than demands alone (McCarthy, Lambert, Lineback, et al., 2016). The appraisal index was negatively correlated with job satisfaction. In other words, the perception of more stress than resources correlated to lower job satisfaction. This study suggests that SETs who perceive their job demands as outweighing the available resources may suffer from exhaustion. Thus, SETs struggling to help students meet goals with the available resources (e.g., curriculum and planning time) may have limited energy over time.

External Factors

External factors of special education teacher (SET) burnout can be described as situational, social, and environmental variables (Maslach, 2017). Maslach (2017) stated that burnout results from the interactions between *person* and *job*. If internal factors represent personal variables, then external factors are the job variables. Studies suggest two categories of external factors: classroom stressors and school stressors (Brunsting et al., 2014). Classroom stressors here refer to classroom composition. School stressors consist of professional interactions and role design within the context of how the organization is structured. For this paper, school stressors include workload, role conflict, role ambiguity, and administrator support.

Classroom Composition

It is common for a special education classroom to include a mix of different disability types. In larger districts, some classrooms include students with homogenous disabilities. However, it is likely special education classes are configured in a way that aligns with teacher availability, space, and disability ratios. Student age and disability type are part of classroom configuration, or composition, and have been recognized as contributors to SET burnout. Those who work with teenagers with significant emotional and behavioral disorders (i.e., Emotional or Behavioral Disorders, EBD, and Autism Spectrum Disorders, ASD) report higher levels of burnout when compared to SETs in other grade levels and disability categories. The most common classroom stressors examined in studies were student age, student disability category, and service model or setting - in other words, classroom composition (Brunsting et al., 2014).

Frank and McKenzie (1993) conducted a five-year longitudinal study to examine trends in the onset of burnout among newly licensed special education teachers. Participants were 41 first-year SETs employed full time for all five years of the study, and each entered the field with

a four-year degree in education. The investigators gathered data for two variables: burnout levels and classroom composition. Researchers used The Maslach Burnout Inventory (MBI) to measure levels of burnout factors, and they administered a questionnaire to collect data about student age, student disability category, and program setting (i.e., resource room or self-contained classroom). Data were gathered in two cycles throughout the five-year study. Cycle 1 included an initial administration of the MBI and classroom composition questionnaire with two additional administrations of the MBI spaced within the first year following graduation. Cycle 2 followed the same pattern of administration of the MBI and classroom composition questionnaire in the fourth year following graduation with a second survey mailing sent to non-respondents after four weeks. Data were initially analyzed using a multivariate analysis of variance (MANOVA), followed by an ANOVA for any significant results. Results indicated a significant difference for Emotional Exhaustion (EE) in cycle one between the first and third administrations of the MBI and over time between cycles 1 and 2, illustrating that teachers became more exhausted with time. Student age (specifically ages 13 -19) was identified as a significant correlate meaning SETs in 5-12 classrooms were more likely to report high levels of EE when compared to SETs in elementary classrooms. This finding suggests that student age may influence the onset of burnout among new special education teachers.

Student disability category has been correlated to all three components of burnout. In the same five-year study conducted by Frank and McKenzie (1993), SETs of students with behavioral disorders reported higher EE scores over those reported by SETs serving in other disability categories. Of particular interest were the trend lines for EE across the five years. The trend line for SETs of students with behavioral disorders was flat, whereas emotional exhaustion for SETs of students with Learning Disability (LD) and multiple disabilities trended upward.

These trends suggest that SETs of students with behavioral disorders experience exhaustion right away without noticeable change through the years while their counterparts experience a slow increase in EE over time.

Other studies report correlations between student disability category and Depersonalization (DP) (Banks & Necco, 1990). Depersonalization is characterized by "emotional detachment and impersonal responses towards students" (Nichols & Sosnowsky, 2002, p. 76). Nichols and Sosnowsky (2002) conducted a correlational study to examine the relationship between burnout and classroom composition in self-contained settings. The participant sample consisted of 77 SETs in self-contained middle-school settings selected from the Michigan state database system. Participants completed two surveys: the Maslach Burnout Inventory-Educator Survey (MBI-ES) was used to measure burnout; the Student Diversity and Organizational Satisfaction Survey (SDOSS) was used to measure classroom composition and SET contentment in school. The research team analyzed data using an analysis of variance (ANOVA). Results indicated that in special education classrooms with mixed disability categories, the proportion of students with Emotional/Behavioral Disorder (EBD) to students in other disability categories demonstrated a significant and positive correlation to DP. Meaning, educators became more callous and closed off when their classrooms contained high proportions of students with EBD. Furthermore, the "Degrees of depersonalization increased as teachers felt increasingly dissatisfied with social support" (Nichols & Sosnowsky, 2002; pp. 79-80). While the proportion of students in the class with EBD correlated with burnout, the number of different disability categories in a classroom did not correlate with burnout.

Finally, teachers of students with significant emotional and behavioral disorders (i.e., EBD and Autism Spectrum Disorder, ASD) have been found at the highest risk of developing

burnout (Brunsting et al., 2014; Garwood et al., 2018; Wong et al., 2017). According to Wong et al. (2017), SETs of students with ASD and EBD experience the most stress of any other disability category. Crane and Iwanicki (1986) found SETs in self-contained settings experienced higher levels of all burnout components compared to those in resource room settings. It may be relevant to note that Frank and McKenzie (1993) found the setting was not significantly different for EE. In sum, student age and disability category are correlated to burnout, but there are conflicting reports as to whether classroom setting may impact burnout.

Workload

Embich (2001) identified workload as the strongest predictor of emotional exhaustion (EE) for special education teachers (SETs) in self-contained settings. Paperwork has been identified as a stressor and found positively correlated to EE. Other workload stressors may include lack of planning time (Fore III et al., 2002), work hours (Crane & Iwanicki, 1986; Zabel & Zabel, 2001), "difficulty meeting student needs and instructional objectives" (Wisniewski & Gargiulo, 1997; p. 326), and poor job preparation (Fore III et al., 2002). Studies agree that due process responsibilities can be overwhelming for SETs (Crane & Iwanicki, 1986; Zabel & Zabel, 2001). According to Stempien and Loeb (2002), paperwork was one of the three most reported aspects of the job SETs would change. Furthermore, the amount of paperwork required for state and federal compliance to special education law has been linked to burnout (Frank & McKenzie, 1993).

One example comes from Fore III et al. (2002). The authors conducted a literature review to synthesize the research on SET burnout within the context of special education classrooms. The authors presented a synthesis of the research on SET burnout between 1995 and 2001 and found that burnout factors were related mostly to classroom stress or lack of mentoring and

direct support. According to the research, classroom stress was associated with high caseloads, building-level support, and instructional assignments. Moreover, the authors suggested increasing paperwork loads and lack of planning time have been identified as burnout factors (Fore III et al., 2002). Wisniewski and Gargiulo (1997) posit that excessive paperwork interferes with classroom responsibilities. More recent studies suggest paperwork may be specifically connected to EE and personal accomplishment (PA). For instance, Williams and Dikes (2015) claimed the evidence of a positive correlation between additional hours spent completing paperwork and EE. The authors suggested this could be a result of the daunting amount of physical and computerized paperwork SETs are responsible for completing in addition to their teaching duties (Williams & Dikes, 2015). In contrast, qualitative results from Garwood et al. (2018) found that teachers who reported having access to support to complete paperwork experience greater levels of PA. Thus, the responsibilities surrounding due process paperwork have been observed as correlates to SET burnout, but the strength of those correlations is yet unclear.

Stress related to role

Two role stressors often found in the burnout literature are role conflict and role ambiguity. Role conflict occurs when the role description does not match the reality of the job, resulting in EE and sometimes depersonalization (DP) (Crane & Iwanicki, 1986; Embich, 2001). Role ambiguity occurs when a person does not have enough information regarding their position description and expectations to do their job, which may lead to reduced PA (Brunsting et al., 2014; Wisniewski & Gargiulo, 1997). According to Wisniewski and Gargiulo (1997), special education teachers reported role conflict and role ambiguity as significant sources of stress.

Crane and Iwanicki (1986) conducted one of the earliest studies on role conflict and ambiguity. They proposed to extend the burnout literature from human services to the field of special education and examine the relationship between organizational role stressors and SETs' perceived burnout levels. Participants in the study included 443 SETs from eight of ten central city schools in Connecticut (investigators invited all ten schools to participate, but only eight agreed to enter the study). The investigators used three instruments to collect data: The Stress Survey for Special Educators (SSSE) was used to collect participant background information; the MBI was used to collect burnout data; and the Role Questionnaire (Rizzo et al., 1970 as cited in Crane & Iwanicki, 1986) was used to measure role conflict and role ambiguity. The authors conducted multiple regression analyses to examine relations between burnout, role conflict, and role ambiguity while controlling for background variables. Combined, role conflict and role ambiguity accounted for the greatest variance in EE, some variance in DP, and the least variance in PA. In this sample, role conflict accounted for the most variance in EE and DP. This finding is also supported in a later study by Embich (2001), who reported role conflict as a correlate to EE and DP for all teaching positions in a comparable sample. According to Embich (2001), role conflict was the strongest predictor of EE for team teachers (i.e., three or more class periods per day).

Further validation to support role conflict as a predictor of burnout comes from Garwood et al. (2018). Garwood and his colleagues conducted a two-phased mixed-methods analysis of role stressors and behavior management. Participants in the first phase included 64 SETs in three rural school districts across a region of the southeastern United States Participants received a web-based survey with three measures: The MBI-ES to measure burnout, the Role Conflict and Role Ambiguity Questionnaire (Rizzo et al., 1970 as cited in Garwood et al., 2018) to measure

role stressors, and the Classroom Management Efficacy subscale of the Teachers' Sense of Efficacy Scale to measure self-efficacy (Tschannen-Moran & Woolfolk Hoy, 2001 as cited in Garwood et al., 2018). Data were analyzed using separate multiple regressions for each burnout component in relation to classroom management, role conflict, and role ambiguity. Results indicated role conflict and role ambiguity are negatively correlated to personal accomplishment (PA) and positively correlated to emotional exhaustion (EE) and depersonalization (DP). Within this sample of teachers, the degree of role conflict and role ambiguity experienced by these teachers impacted their sense of personal accomplishment. These same factors were associated with levels of work-related exhaustion and reported decompensation of student-teacher relationships. This report confirms the findings of a 2014 study connecting role ambiguity to feelings of personal accomplishment in first-year teachers (Brunsting et al., 2014). It also supports an earlier 1986 study in which role ambiguity was nearly unrelated to EE and DP but reported as the only variable to account for variance in SETs' experience of personal accomplishment (Crane & Iwanicki, 1986). In self-contained settings, Embich (2001) found that role ambiguity correlated to DP and PA and was one of the strongest predictors of PA. Research suggests clearly defined roles are important for first-year SETs to feel effective in their job.

Clearly defined roles may also be important for work outcomes (i.e., job satisfaction and commitment). Conley and You (2014) measured perceptions of role stress and locus of control (LOC) among 177 high school teachers in southern California. Researchers used items from the Role Questionnaire (Rizzo et al., 1970 as cited in Conley & You, 2013) to measure role conflict and role ambiguity; LOC was measured with reliable and adapted items from an undisclosed questionnaire (Spector, 1988 as cited in Conley & You, 2013). The authors discovered well-defined roles, like those found in mechanistic job structuring, reduced the amount of role conflict

for internal and external locus of control (LOC) groups, but especially for those with internal LOC. Results of the research also indicated both role conflict and role ambiguity mediated the relationship between job satisfaction and commitment, and higher perceptions of role conflict correlated with lower perceptions of satisfaction and commitment. However, satisfaction mediated the effect of role conflict and role ambiguity on commitment. In other words, special education teachers (SETs) need clearly defined roles to feel effective, satisfied, and committed in their jobs.

On the other hand, SETs who are satisfied in their careers can still be committed even if there are role conflict and role ambiguity (Conley &You, 2014). This result suggests teachers who love their jobs can stay committed over time despite periods when their role is vague and undefined. Still, it is unclear how long even the most committed teachers can continue working without the parameters of a defined role.

Administrator Support

Administration can impact the work environment in a school and the stress levels of its SETs. Among the studies referenced in this literature search, a generalized operational definition of "administrative support" does not exist. Examples of administrator support include creating a positive environment, being knowledgeable about special education department needs, and using a collaborative decision-making process that is positive, respectful, and trustworthy (Haydon et al., 2018). Multiple studies have identified a lack of administrator support as a substantial source of stress (Crane & Iwanicki, 1986; Haydon et al., 2018; Wisnieski & Gargiulo, 1997). In a study conducted by Haydon et al. (2018), qualitative data collected from 16 participants suggested a lack of administrative support was one of the five most reported sources of workplace stress by SETs. Furthermore, previous research demonstrates a link between insufficient administrator

support and the onset of burnout in teachers (Fore III et al., 2002; Frank & McKenzie, 1993). As stated by Brunsting et al. (2014), administrator support is one of the strongest school-level predictors of SET burnout.

Administrator support has been explicitly correlated with emotional exhaustion (EE) and external LOC. Crothers and colleagues (2010) found a lack of organizational support significantly related to external LOC for a US sample of teachers, but the relationship did not exist for the non-western sample. It can be noted here that culture may influence the way teachers perceive organizational support. Results from Embich (2001) indicated principal support correlated to EE and PA for all team teachers as one group. Further examination of team teachers as separate groups revealed that in addition to the correlate of EE, principal support was one of the strongest predictors of PA for SETs team teaching one period per day. That group of SETs happened to be the youngest and least experienced teachers in the study (Embich, 2001). This implies that new teachers with the compounding challenge of team teaching may be more dependent on principal support during the induction of a new teaching career.

Similarly, Nichols and Sosnowsky (2002) found SETs' dissatisfaction with professional development opportunities - often controlled by the administration - and teacher preparation programs significantly and positively correlated to EE. Qualitative results reported by Garwood et al. (2018) indicated principal support provided clarity in role expectations, although administrator support was less important to SETs in a rural setting than colleagues' support. Specifically, when the administration offered feedback, SETs reported greater levels of PA than when it was not offered (Garwood et al., 2018). These findings suggest principal support, in the form of constructive and positive feedback, leads to SET reports of increased personal accomplishment. On the other hand, lack of principal support (e.g., inapplicable professional

development or unclear expectations) leads to SET reports of lower personal accomplishment and increased exhaustion.

Solutions to SET Burnout

If researchers are to design effective solutions to minimize burnout for special educators, they must first understand which variables to target and how each one contributes to burnout. For example, Conley and You (2014) conducted a correlational study to examine the causal order connecting role stressors, job structure, and work outcomes. In addition, the authors examined locus of control (LOC) as a moderator for those relationships. Participants were 177 high school teachers with a mix of teaching assignments. Results of their analyses indicated a high job structure was associated with low stress, and the impact of job structure was moderated by LOC (Conley & You, 2014). Thus, research suggests prevention or intervention programs that target job structure as a source of stress may have more effective results than programs focused on the manifestation of stress.

While numerous studies have suggested that external variables strongly correlate to burnout, it seems these variables have not been the focal points of prevention and intervention research for SET burnout. Rather, the few existing prevention and intervention studies in the US focus on coping skills teachers can implement personally. This trend exists in general burnout literature as well. According to Maslach (2017), solutions to burnout focus either on fixing the person or the job. Strategies focused on fixing the person may help ameliorate burnout for professionals already suffering. However, Maslach (2017) claims solutions focused on fixing the job may effectively and proactively reduce the prevalence of burnout. In summary, prevention and intervention literature appear to perpetuate a trend focused on the adaptability of the individual SET rather than the improvement of the job.

Maslach (2017) organized general burnout solutions focused on fixing the person into several categories. Health and fitness solutions suggest nutrition, exercise, and sleep create resilience to burnout (Maslach, 2017). Relaxation strategies (e.g., mediation) help people "achieve a state of calm" (Maslach, 2017; p. 147). Self-understanding strategies (e.g., mindfulness and therapy) help people understand why they are experiencing burnout (Maslach, 2017). Lastly, the author suggested coping skills (e.g., conflict resolution) alter stressful responses to stressors. Interventions focused on coping skills do not improve the environment, and, therefore, are insufficient to reduce burnout. Maslach (2017) laments most interventions fall into this category. Workplace context, on the other hand, is a significant yet poorly recognized factor in finding solutions for burnout (Maslach, 2017).

Prevention

Numerous researchers acknowledged prevention over treatment as a desired approach to burnout intervention (Crane & Iwanicki, 1986; Greer & Greer, 1992; Maslach, 2017). However, search results included only two studies that actually measured the effects of an intervention. One qualitative study provided some insight into protective factors. Haydon et al. (2018) interviewed 16 SETs ranging in years of experience to identify potential factors that protect against burnout. Interview data were collected over three years; all participants were interviewed once for approximately 75 minutes. The researchers analyzed the interview data using a 3-level coding scheme: open-, axial-, and selective-coding. Researchers then determined two primary selective codes as sources of stress and protective factors based on interview transcripts.

According to the data, the four strongest protective factors were: peer interactions, administrative support, teacher perceptions, and health/well-being efforts (Haydon et al., 2018). These qualitative results support the interaction between person and workplace. Based on these

results, authors suggested administrators should create a work environment that fosters collaboration and well-being for educators (Haydon et al., 2018; McCarthy, Lambert, O'Donnell, et al., 2009). Administrative support such as that proposed by Haydon et al. (2018) is one of only a few reasonable examples suggested in the literature for fixing the "job" rather than the "person".

One cross-sectional survey measured mindfulness as a stress-reduction technique specifically for preventing SET burnout. Again, mindfulness is a self-understanding strategy categorized by Maslach (2017) as a solution focused on fixing the person rather than the job. Abenavoli et al. (2013) conducted a study to replicate correlations between mindfulness and burnout. In addition, the researchers wanted to determine if daily function indicators mediate mindfulness effects on burnout, and whether mindfulness is most protective for highly stressed educators who are also highly ambitious. Participants were one group of 64 Pennsylvanian educators, including classroom teachers and other staff members. Participants completed web-based, self-report surveys at the beginning of the 2012-2013 academic year as part of a baseline assessment for an ongoing longitudinal study.

Abenavoli et al. (2013) examined the association between mindfulness and burnout using a regression analysis for each component of burnout and potential mediators (i.e., affect, sleep-related impairment, and daily physical symptoms). Researchers then conducted a regression analysis using all four potential mediators to determine if any outcomes mediated mindfulness effects on burnout. Finally, the authors used a regression analysis to examine the interaction effects between mindfulness, perceived stress, and ambition on the components of educator burnout. Results indicated mindfulness was negatively associated with all three components of burnout and was most protective for educators with high stress and high ambition (Abenavoli et

al., 2013). Specifically, mindfulness lessened the impacts of daily stress. These results suggest that mindfulness is an effective prevention for burnout that targets stress reduction within the teacher.

Although studies such as Abenavoli et al. (2013) offer some promising avenues for reducing Special education teacher (SET) burnout, little work has been conducted to create different solutions and determine their effectiveness. While research currently suggests mindfulness can prevent SET burnout through stress reduction, the effectiveness of the strategy remains undetermined. Moreover, studies that test protective factors such as those identified by Haydon et al. (2018) are yet to exist. Again, Maslach (2017) identified the best proactive solutions in reducing the incidence of burnout as those that reduce environmental factors. Currently, there are no prevention studies in SET burnout literature that target external or environmental factors (e.g., administrator support or peer interactions), and only one study examined internal factors.

Intervention

Few interventions, or treatments, exist for SET burnout. Those that do exist fit within Maslach's (2017) categories for person-centered approaches. The interventions tested include stress management, peer collaboration, and Acceptance and Commitment Therapy (ACT). Other interventions used for teachers but not specifically SETs include mentoring and meditation (Emery & Vandenberg, 2010).

Cooley and Yovanoff (1996) conducted the only intervention for SET burnout between 1979 and 2013 (Brunsting et al., 2014). In their seminal study, the authors evaluated the effects of a stress management workshop and a peer collaboration program on factors correlated to attrition for SETs - including burnout. There were 92 participants in the study: SETs (51%),

related service providers (25%), and others (24%). Using a modified crossover design, they measured job satisfaction, job burnout, organizational commitment, and social validation.

Cooley and Yovanoff (1996) designed the stress management workshop to focus on stressful aspects of teaching that SETs can impact. They chose skills based on research supporting effective, active strategies for stress management. The stress management program included three types of coping skills: situational, physiological, and cognitive. Situational coping skills are an active way to directly change the source of stress by "seeking and implementing positive change" (Cooley & Yovanoff, 1996; p. 344). Physiological coping skills focused on changing the teacher's physical response to stress. Cognitive coping skills focused on altering how the teacher thought about a situation.

The peer collaboration program was designed to target work-related problem solving (Cooley & Yovanoff, 1996). It included four steps teachers worked through as a pair (i.e., one facilitator and one presenter). The first step focused on clarifying the problem in writing and through verbal answers. The second step required the presenter to summarize the problem into specific problematic patterns, the teacher's responses to those patterns, and what the teacher could control about the problem (i.e., locus of control). In the third step, teachers created three potential action plans, evaluated the best- and worst-case scenarios for each, then the presenting teacher chose one. During the fourth step, the presenting teacher made a plan to evaluate the effectiveness of the solution based on whether they implemented the plan and whether it worked.

The results of Cooley and Yovanoff's (1996) interventions showed peer collaboration and stress management decreased emotional exhaustion (EE) with a large effect size, despite being an initial study. This study has yet to be replicated. It is important to note that Cooley and Yovanoff (1996) were searching for strategies SETs could control for a noticeable impact on

malleable components of burnout. In other words, the authors specifically stated that these strategies are intended to be stop-gap skills and not a replacement for institutional support or systemic change. Thus, teachers need feasible strategies for noticeable change on the individual level, in addition to, as Maslach (2017) suggests, interventions that also target the environment.

An alternate intervention was designed using Acceptance and Commitment Therapy (ACT), which targets psychological flexibility. According to Emery and Vandenberg (2010), the intervention increases a person's acceptance of their responses to a stressful work environment while considering whether the response is useful and aligned with personal values. Biglan et al. (2013) tested this intervention, which has been used successfully in other fields (Emery & Vandenberg, 2010). Biglan et al. (2013) conducted a quasi-experimental evaluation of the ACT impact on stress and support for early childhood special education teachers (SETs). Using a wait-list controlled group design, the authors measured psychological processes and teacher well-being. Psychological processes included experiential avoidance, mindfulness, and valued living. Valued living referred to participants' belief and practice in values, such as family, relationships, education, and citizenship. Measures of teacher well-being included the following: burnout, job motivation, job satisfaction, teaching stress, teacher efficacy, depression, and organizational change. Participants were classroom teams (teacher and aid) and individual family consultants who were randomly assigned to participate in workshops in either an immediate group or delayed group. Interventions had two 3.5-hour sessions followed by a booster session one month after intervention completion. Data were collected across four time points.

Results of the study indicated ACT mindfulness workshops - even brief ones - can increase acceptance, efficacy, and positive work culture while reducing stress for early childhood SETs over time (Biglan et al., 2013). However, the results do not indicate significant correlations

to the components of burnout. For example, analysis of the results showed mindfulness (i.e., non-react component) approached a significant correlation to EE. Results also indicated lower levels of emotional avoidance - a target of ACT - were non-significantly correlated to increased levels of personal accomplishment (PA). Similarly, valued living was not significantly correlated to increased levels of PA. Thus, the correlations existed but were not significant.

Iancu et al. (2017) conducted a meta-analysis to determine intervention effectiveness and potential moderators for intervention effects. The authors suggested interventions can be categorized as one of the following six types: Cognitive Behavioral Therapy (CBT), mindfulness/relaxation, social-emotional skills, psychoeducational approach, social support, and professional development. Studies included in the meta-analysis required teachers as participants, but the type of teacher was unspecified. After analyzing effect sizes for 23 studies, the authors determined some interventions are effective in reducing components of burnout, but there is no one intervention that statistically impacts all three components (Iancu et al., 2017).

According to Iancu et al. (2017), the overall effects of interventions on burnout symptoms were weak, both for overall mean effect size and the effect size of each burnout component. In fact, there was practically no difference in effectiveness between the identified approaches. Furthermore, the authors found that intervention effects can vary in intensity at different time points. Interventions lasting less than one month had the smallest effects. Therefore, interventions are most effective when they last one month or longer.

In addition to overall intervention effects, Iancu et al. (2017) examined differences between types of intervention on the components of burnout. Results indicated two interventions significantly reduced emotional exhaustion (EE): cognitive behavioral therapy and mindfulness/meditation. The impact of the intervention on EE was moderated by teaching level,

time lag, and intervention duration. Thus, teachers who improved their coping skills for stress using an intervention that lasted between one to three months were able to alleviate some of their exhaustion. Two interventions significantly increased PA: mindfulness/meditation and social support. As with EE interventions, the impact of PA interventions was moderated by teaching level, time lag, and intervention duration. Therefore, teachers who engaged in peer collaboration with support and encouragement using an intervention between one to three months may have felt more accomplished than when the intervention began. While EE and PA were impacted by interventions, this was not true for depersonalization (DP). In fact, DP was not significantly reduced by any interventions, and the authors did not find moderators for this component of burnout. This finding suggests callousness and averting the openness necessary for relationship building are difficult to reverse. It is worth noting, however, that mindfulness/meditation had a small effect on DP. These findings suggest treatment efforts should focus on SET exhaustion and self-efficacy.

Chapter III: Discussion and Conclusion

Special education teacher (SET) burnout is a multifaceted issue. The variables that contribute to burnout are found in the external working environment and within personal and individualized experiences unique to each teacher. Burnout results from the interaction of personal and occupational variables. Not all teachers experience burnout; in fact, not all SETs within the same building will experience burnout. Individual perceptions of workplace experiences contribute to recognized dimensions of burnout. Workplace variables pertaining to job responsibilities and the degree of support available appear to contribute to the onset of burnout in special education teachers. When workplace variables are perceived by SETs as negative and inadequate, we see a greater likelihood that teachers are also experiencing higher levels of fatigue, reduced efficacy, and indifference. The literature supports a strong argument for proactive change in the administrative and organizational framework of our public schools in order to reverse the trend and prevalence of SET burnout. It is unlikely SETs will be able to impact external factors or see real structural change; however, SETs and administrators alike need implementable solutions to increase teacher longevity in the classroom.

Summary of the Literature

What are the external and internal factors of SET burnout? How does locus of control (LOC) impact SET burnout? How is administration connected to SET burnout?

Current models support SET burnout as the product of a person-job interaction (Maslach, 2017; Wisniewski & Gargiulo, 1997). Different factors contributed to each component of burnout. Emotional exhaustion (EE), for instance, had 12 contributing factors that were a mix of demographic, internal, and external variables. Most of the factors associated with EE were external school-level variables such as workload, role definition, and classroom composition.

Administrator support repeatedly appears throughout the SET burnout literature. Administration may be connected to burnout through their ability to make decisions regarding school-level variables. Additional hours spent on paperwork, lack of principal support, and an ambiguous job description are a few examples of how SETs – especially those of teenage students with significant emotional and behavioral disorders – become drained. However, external factors are not the only contributors to EE.

The differences between educators who do and do not experience burnout under the same school-level variables seem to be found in demographics and internal factors such as level of education, locus of control (LOC), and perception. The exact role of demographic variables in burnout is still unclear. Variables such as level of education, years of experience, and age have correlated to EE. Age may connect to burnout through years of experience, which may be connected through level of education. The connections between EE and internal factors, on the other hand, seem more evident. Research suggested EE occurs when SETs perceive a lack of available resources to meet occupational demands (McCarthy, Lambert, Lineback, et al., 2016). Researchers attributed the variance in EE among teachers in the same building to their differing perceptions of resources and demands (McCarthy, Lambert, O'Donnell, et al., 2009).

Workplace perceptions and LOC are related and may indicate the level of confidence teachers have in the personal agency of their own ideas and initiatives. When teachers operate out of an internal LOC, they are confident in their power to influence external events. Those who operate out of an external LOC attribute events – good or bad – to factors outside of their power, such as other people or unchangeable dynamics in the environment. Teachers with external LOC, which is increased by role conflict (Conley & You, 2014), are less proactive and less confident in their ability to leverage resources or initiate change. Higher amounts of external

LOC correlated to higher levels of EE and depersonalization (DP; Conley & You, 2014). Therefore, a discrepancy between the description and the reality of one's job may lead SETs to feel exhausted because they experience little to no control in their position.

Fewer known factors contributed to personal accomplishment (PA) and depersonalization (DP). While research indicated EE has 12 contributing factors, PA had five and DP had three. External factors connected to PA included principal support, role conflict, and role ambiguity. Principal support in the form of positive and actionable feedback increased PA, whereas role conflict and role ambiguity combined to decrease PA, especially for first-year SETs. External factors were the only contributors to DP, specifically combined role conflict and ambiguity, student disability category, and the proportion of students with emotional/behavioral disorder (EBD) in a classroom. Higher levels of role conflict and role ambiguity lead to higher levels of DP. Interestingly, reports of lower social support seemed to negatively impact the relationship between DP and the proportion of students with EBD. This finding suggests student disability category alone may not be contributing to depersonalization; rather, it is potentially a lack of support from colleagues.

What prevention and intervention strategies exist for SET burnout, and how do these strategies differ in efficacy?

Limited research exists in the literature for SET burnout prevention and intervention strategies. The literature search produced two studies targeting interventions for SET burnout, one study that examined a preventative solution, and one study that found protective factors from qualitative interviews. Existing solutions target symptoms of burnout, rather than underlying factors, to improve the teacher's coping skills rather than improving the job or workplace

environment. Not enough data exists to determine why solutions target teachers over job improvement.

Mindfulness could be one of the most protective practices teachers can employ to avoid SET burnout due to its ability to reduce the daily impacts of stress (Abenavoli et al., 2013). The research suggested the effects were beneficial for all SETs but particularly pronounced for ambitious and well-educated teachers (Abenavoli et al., 2013). It is important to note that mindfulness does not extinguish external stressors such as lack of principal support, but it does alter the teacher's response to stress. Mindfulness was also part of Acceptance and Commitment Therapy (ACT), an intervention focused on increasing psychological flexibility (Biglan et al., 2013). Again, this intervention did not change anything about the environment or stressors. Instead, the intervention goal was two-fold; to increase SET acceptance of personal responses to workplace stress, and to show SETs how to evaluate their reactions in accordance with personal values and usefulness. Stress management and peer collaboration combined as an intervention provided SETs with actionable steps to cope with workplace stressors and apply critical thinking to workplace problems. This intervention effectively decreased EE.

Limited research is available to determine the efficacy of prevention strategies for studies specifying SETs as participants. However, more research is available for intervention strategies. Meta-analytic data suggests the effectiveness of intervention strategies differ. It seems the degree to which SETs experience burnout is relieved by different approaches. Just like each burnout component correlated to different variables, each burnout component had different effective treatments (Iancu et al., 2017). Cognitive-behavioral therapy reduced EE, and social support increased PA. Mindfulness/meditation impacted both EE and PA. There were no reports of interventions that significantly decreased DP. The data from the meta-analysis indicated that

existing interventions produced weak outcomes and that today, there are no published studies confirming the efficacy of any interventions with positive effects across all three dimensions of burnout.

Professional Applications

Instructors of aspiring educators must understand the implications of special education teacher (SET) burnout to prepare new teachers who are fully informed about the practical, emotional, and very personal cost of being an educator. Because most teachers may never desire or have the opportunity to speak into the larger systemic issues that contribute to SET burnout, new teachers must be equipped with the knowledge and strategies necessary to maintain personal mental health and professional efficacy within a rapidly changing political landscape. New SETs need realistic expectations of the work environment they may encounter and strategies to protect themselves from burnout. According to Greer and Greer (1992), SET preparation programs should include realistic expectations, detached concern (e.g., work-life balance), LOC, and stress reduction as part of the curriculum. Suggestions for realistic expectations and stress reduction are important for internal factors of SET burnout and should be included in preparation programs. In addition, SET preparation programs should include strategies to cope with stressors related to role definition and the realities of administrative function in a school building.

New administrators also need to know how their support (or lack thereof) impacts SETs. It seems that administrators have some influence over many external factors related to SET burnout. For example, deliberate role design may be a proactive solution to role conflict and role ambiguity. Billingsley (2004) stated:

> …educational opportunities for students with disabilities will be reduced if teachers are confused about their roles, if teachers' roles are structured in ways that do not allow them

> to use their expertise, and if substantial teaching time is lost because of nonteaching tasks. (p. 373)

In other words, administrator preparation programs need to equip administrators with the ability to thoughtfully design positions with consistent and clear expectations that enable educators to use their expertise and teach students.

Addressing SET burnout is not limited to preparation programs. SETs and administrators currently in the field need to know how burnout happens and what to do about it. Both parties need to understand the signs and potential impacts of SET burnout for students, the workplace culture, and colleagues. Creating effective schools that support learning for all students is a collaborative goal that naturally includes an environment in which educators (both general and special) can be effective. For example, SETs can use data to substantiate requests for more teachers or more support (Billingsley et al., 2019). Principals can affect "positive school culture, shared sense of purpose, PD, colleague support, [and] appropriate roles" (Billingsley et al., 2019, p. 11). According to Billingsley et al. (2019), principals can provide logistical supports (e.g., planning time, collaboration time, and carefully planned master schedules) that SETs rely on to complete their duties. Thus, multiple parties are involved in actively creating effective learning communities.

Another implication from the research is that administrators should implement SET burnout interventions with fidelity. For example, the interventions prepared by Cooley and Yovanoff (1996) still require training, guidance, and ongoing time for implementation. Educators participating in the interventions received multiple hours of practice, review, and feedback.

Limitations

Literature accepted for this review was conducted in the US. While SET burnout is a phenomenon studied globally, the cultural and political variables may make non-US samples incomparable (e.g., work practices and expectations could differ between Finland and America). Studies had to include special education teachers as participants. SET burnout factors may differ between general and special educators due to various role differences (e.g., case management duties). Lastly, articles were filtered by full-text and peer-review for access and quality.

Special education teacher (SET) burnout literature is currently limited in its methodology, quality, and available treatment studies. Most research included in this review was nonexperimental correlational research with survey data. Intervention and prevention studies require, at the very least, quasi-experimental research with controlled or wait-list controlled treatment groups to determine viable treatment effects. Another limitation of the literature was that studies did not always meet quality indicators of research (Thompson et al., 2005). For example, only one in four correlational research studies reported effects data. Finally, many interventions were international studies, but only one intervention study targeting SET burnout was conducted in the US between 1979 and 2013 (Brunsting et al., 2014). One more intervention occurred between 2013 and 2020. A possible explanation for these limitations is a lack of funding. Research is expensive, and until the occupational health of teachers becomes a priority on a national scale, funding for research in this area will remain lacking. Another potential explanation for limited study results is attrition. SET burnout is a known correlate of attrition, and it is possible that educators leaving the field or even changing geographical location could impact the ability for researchers to retain their participants long enough to gather full data sets over any significant length of time.

During my literature search, I expected to find more studies that included SETs as participants. Several studies did not specify role assignment (e.g., general or special educator), which in some cases was for participant anonymity in small districts. Specifying SETs as study participants limited my search results. Similarly, I expected more studies to examine prevention and intervention strategies. The prevention strategies available seem to target symptoms rather than root causes. Of the limited intervention and prevention studies available, one of them (Cooley & Yovanoff, 1986) examined effect size for treatment impact. Most unexpectedly, the research did not identify interventions to significantly decrease depersonalization (DP). This could be due to participants not truly experiencing DP at a high level, resulting in low effect sizes between treatments.

Implications for Future Research

Future research into special education teacher (SET) burnout should include treatment studies and their effectiveness. More intervention studies are needed to support solutions for SET burnout. Longitudinal studies are needed in order to observe effects over time and for the replication of promising intervention trials. In addition, research suggests administrator support is a protective factor against SET burnout (Haydon et al., 2018), but this finding has not extended into intervention research. If, as authors suggest, prevention is better than intervention, more studies must be conducted to identify effective, protective strategies. Some potential prevention strategies for future research include teacher preparation program design (Greer & Greer, 1992), job design (Billingsley et al., 2019), and perceptions of control (Conley & You, 2014). Whatever direction future researchers pursue, they must use quality indicators of research for interpretable results and replicable studies. Using best practices for educational research may allow future researchers to answer lingering questions regarding intervention efficacy. For

example, “why are interventions not effectively impacting depersonalization?” and “what external factors can reasonably be targeted by interventions?”.

Conclusion

In conclusion, SET burnout is complicated and emerges from a combination of factors. External, school-level variables are the most supported contributors to SET burnout. Role ambiguity and principal support appear to contribute to reduced personal accomplishment. However, internal factors also relate to SET burnout. SET perceptions of resources and demands, for instance, contribute to how drained the educator feels at a day’s end. Overall, it is likely that each burnout component is influenced by a different set of external and internal factors, which implies the need for differentiation among possible treatments to address those factors. Future research should inform the prevention and treatment of SET burnout in ways that incite reform in our schools and foster individual resilience in our teachers.

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