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Special Educator Burnout and Fidelity in Implementing Behavior Support Plans: A Call to Action

Justin D. Garwood, PhD[1]

Abstract

Special education teachers have one of the most challenging and stressful jobs in public education, which often leads to increased burnout. High levels of burnout have, in turn, been related to lower levels of fidelity of implementation in delivery of evidence-based behavior interventions. The purpose of this position paper is to (a) propose exploration of several potential malleable factors related to burnout of special educators serving students with and at risk for emotional and behavioral disorders, (b) link those suggestions to theoretical frameworks, (c) discuss the relation between burnout and fidelity, and (d) suggest measures that may be used to pursue this research, with the ultimate goal of helping the field discover means of intervention to remediate and prevent burnout.

Keywords

emotional and behavioral disorders (EBD), student profiles, student characteristics

Federal guidelines make it clear that teachers are to use practices that have undergone rigorous evaluation in empirical research and have been shown to produce moderate-to-large effects for students with disabilities (Couvillon et al., 2018), including students with or at risk of emotional and behavioral disorders (EBD; Garwood et al., 2020; Vannest et al., 2011). However, if teachers are expected to be the agents of intervention and if those experiencing burnout are possibly doing so at low levels of fidelity, which would likely result in negligible, null, or even harmful effects, the evidence base of any intervention becomes irrelevant because it is not being implemented as designed. It is incumbent upon researchers to take up the charge to not only reduce but also prevent special educator burnout and focus on fidelity of implementation (FOI) as a key lever in intervention effectiveness. The purpose of this discussion paper is to (a) propose exploration of several potential malleable factors related to burnout of special educators serving students with and at risk for EBD, (b) link those suggestions to theoretical frameworks, (c) discuss the relation between burnout and fidelity, and (d) suggest measures that may be used to pursue this research, with the ultimate goal of helping the field discover means of intervention to remediate and prevent burnout.

Special Education Teacher Burnout

Special education teachers, especially those working with students with and at risk for EBD, have a high probability for job burnout (Garwood, Werts, et al., 2018). Burnout is more than just stress and can best be conceptualized as an experience that takes place when one's ability to cope with stress leads them to feel emotionally/physically exhausted, cynical, and unaccomplished (Brunsting et al., 2014). Teachers experiencing frustration with their occupation begin to develop a negative affect that leads to emotional and physical exhaustion and, eventually, ineffective job performance (Schaufeli et al., 2009). Ultimately, many teachers then leave the profession (Robinson et al., 2019). Approximately 13% of special educators leave the field every year and another 20% switch to general education, resulting in an annual attrition rate of 33% (Brownell et al., 2018).

Special education teacher shortages have existed ever since the 1975 passage of the Education for All Handicapped Children Act (Brownell et al., 2018) and the field of EBD faces the most significant shortage (Gilmour & Wehby, 2020). Attrition of special education teachers is an ever-present concern (Billingsley & Bettini, 2019). Teacher attrition is not only a financial burden on schools, but students in grades with more teacher turnover exhibit slower academic development than their peers (Ronfeldt et al., 2013).

[1]The University of Vermont, Burlington, USA

Corresponding Author:
Justin D. Garwood, College of Education and Social Services, The University of Vermont, 85 South Prospect Street, Burlington, VT 05405, USA.
Email: Justin.garwood@uvm.edu

However, many burned-out teachers also stay in the field and their feelings of burnout can have far-reaching negative consequences (Garwood, Werts, et al., 2018). Rather than just replenishing the supply of teachers, the more pressing concern is developing capacity and commitment (i.e., preventing burnout in the first place) because special educators experience more anxiety, less support, and less satisfaction with their job than their general education colleagues (Sindelar et al., 2010).

Research on teacher burnout was intense during the latter part of the 20th century, but has received less attention in the 21st century (Kim et al., 2017). In their review of 35 years of research (1979–2013), Brunsting et al. (2014) identified just 23 studies focused on special educator burnout, for an annual publication rate of only 0.66. Thirteen (57%) of these studies were published more than 25 years ago. Among the minimal stress and burnout research that has been done, general education teachers have more often been the focus (Larson et al., 2018). Studies from the general education literature are relevant to examinations of special educator burnout, but the job of special education teachers is also unique and distinct from that of any other school professional, such that targeted research efforts are needed. For example, in a recent study of 121 general education teachers and 1,817 students (only 9% with disabilities) in Grades K–4, Herman et al. (2018) found that teachers with the highest ratings of stress and burnout had students with the highest rates of behavior problems and the lowest academic achievement. Special education teachers are more likely to work with students with severe emotional and behavioral challenges and academic struggles; therefore, how these variables relate to feelings of burnout in special educators requires more attention.

Risks Associated With Burnout

Estimates at the turn of the century suggested that as many as 40% of teachers experience burnout (Jarvis, 2002). Many teachers experiencing burnout suffer with health problems, such as chronic fatigue and depression (Williams & Dikes, 2015). Burned-out teachers are also more authoritarian in their approach to behavior management, which can precipitate more behavior problems from students (Jennings & Greenberg, 2009). Willingness to use evidence-based practices (Ransford et al., 2009) and FOI in multitiered systems of support (MTSS; Oakes et al., 2013; Ross et al., 2012) are both inversely related to the levels of burnout the teacher is experiencing. Consequently, the efficacy of evidence-based practices and behavior management strategies may be null and void if the special educator delivering intervention to students with EBD is experiencing burnout.

Only three studies have examined the effects of burnout on special educator behavior and students, but two of these studies came from the same research team and data set. In one study, teachers rating higher on burnout were found to invest less time and energy in their teaching of preschool students ($N = 40$) with autism spectrum disorder (ASD; Dykstra et al., 2013). In a separate sample of 47 special educators, students working with teachers rating higher on burnout in the beginning of the school year were less likely to achieve Individualized Education Program (IEP) goals by the end of the year and the teachers with higher burnout developed lower quality IEPs (Ruble & McGrew, 2013). In another study with the same data set including 79 teacher–student dyads (children with ASD ages 3–9), Wong et al. (2017) again found a direct effect of higher teacher burnout predicting lesser attainment of IEP goals by students. Although important studies, the sample sizes were small and the focus narrow, including only young children with ASD. What these studies do demonstrate is that special educators' mental health risks are not a standalone problem. Policymakers and administrators would be wise to view interventions to prevent burnout as a viable option to improve teaching quality and student outcomes (Garwood, Werts, et al., 2018).

Delivering Behavior Support Plans to Students With and at Risk for EBD

For students with EBD, the use of behavior support plans (BSPs) informed by functional behavior analysis (FBA) is considered best practice (Garwood & Adamson, 2022; Horner & Yell, 2017). A meta-analysis on the use of FBA with students with and at risk for EBD found a 70% reduction in problem behaviors (Gage et al., 2012). The U.S. Department of Education (2016) released a report from the What Works Clearinghouse indicating that FBA-based interventions were found to have potentially positive effects on school engagement and behavior for students identified as with or at risk for EBD. Although FBA-informed BSPs can be considered the most desirable approach for students with and at risk for EBD because they address root causes of student behavior and involve environmental variable manipulation (Lee, 2018), the reality is that FBA-informed BSPs are not always used by teachers (Hirsch et al., 2017). A survey of over 1,500 special educators revealed they did not feel prepared to implement FBA-informed BSPs with students with EBD (Gable et al., 2012). It appears that lack of time for planning and feeling over-worked may be a primary reason why special education teachers neglect to use FBA when designing behavior interventions, or do so with low fidelity (Oram et al., 2016).

FOI—the degree to which an intervention is delivered as designed—is necessary to demonstrate that the effects of an intervention are related to the intervention itself, and it is generally expected that greater fidelity results in better outcomes for the participants in an intervention (Gresham, 2009). If interventions are modified during implementation

and/or elements of the protocol are missing, it is hard to know if the intervention is truly responsible for the change, or lack thereof, in the dependent variable (King-Sears et al., 2018). In a unique study with 248 school psychologists and special educators working with 125 students with disabilities requiring BSPs, Cook et al. (2012) found that high-quality BSPs (i.e., those based on FBA) did result in improved student behavior, but this relationship was mediated by FOI. Tier-3 supports for students with and at risk for EBD usually come in the form of BSPs—ideally informed by FBA—and should result in improved behaviors for this vulnerable population of students (Ennis et al., 2017). There is a need to identify transformable variables (e.g., burnout and its antecedents) that affect the malleable and critical factor of fidelity.

Malleable Factors Associated With Special Education Teacher Burnout

Research grounded in Bronfenbrenner's (1976) Ecological Model has suggested variables within the microsystem (e.g., teacher, student, and classroom characteristics) and mesosystem (e.g., support from colleagues and administrators) are the most influential on teacher stress, attrition, and burnout (Brunsting et al., 2014). More distal variables within the exosystem (e.g., school location) and macrosystem (national economic conditions) are less influential (Ross et al., 2012). They are also less malleable and therefore the focus in this call to action is on those microsystem and mesosystem variables more proximal to teachers' daily lives. Several individual variables within teachers have strong associations with burnout, with the extant literature suggesting that teacher age, years teaching, and higher degree attainment (Coman et al., 2013; Embich, 2001) are all inversely correlated with burnout. Age and experience are not malleable factors and teacher education has long been known as an important marker of teaching quality. In other words, these are not areas in need of focused attention.

Although some studies have found administrative support to be helpful in reducing teacher burnout (e.g., Hester et al., 2020), others have found no significant relationship (McIntyre, 1983), and others still have suggested administrators themselves need burnout prevention interventions (Federici & Skaalvik, 2012). Research targeting administrators is important, but beyond the scope of this article. There are, however, several variables at teachers' microsystem and mesosystem levels that may be more amenable to intervention and therefore deserve researchers' attention. Figure 1 depicts the ways in which mechanisms triggering burnout may result in a cascading effect of negative outcomes for teacher and students. These hypothesized relationships in the model are based on both theories and empirical research, which are outlined in the sections that follow. Where a plus symbol is present, a positive relationship between variables is suggested. A minus symbol indicates a hypothesized negative relationship.

Efficacy for Behavior Management

Although little research has been conducted with special education teachers, self-efficacy for behavior management (i.e., teachers' confidence in their abilities to manage students' behavior) has been correlated with burnout among general education teachers (Aloe et al., 2014; Varghese et al.,2016). Among a sample of 610 K–12 general education teachers, behavior management skills mediated the relationship between student misbehavior and teacher burnout (Tsouloupas et al., 2010). Students with and at risk for EBD exhibit some of the most challenging behaviors for teachers to deal with and they are also the most likely students to require BSPs (Conroy & Sutherland, 2012; Garwood & Moore, 2021). It is likely that the efficacy for behavior management of teachers serving students with and at risk for EBD may influence the degree to which they implement BSPs with fidelity (i.e., treatment integrity), a relationship that may be mediated by feelings of burnout.

When teachers struggle with behavior management, they can experience stress, which over long periods of time can lead to feelings of exhaustion and eventually detachment from one's job (i.e., depersonalization) as a coping mechanism (Chang, 2009). Consequently, depersonalization can lead teachers to blaming students for their own behavioral struggles and developing less of a commitment to positive behavior management (Han & Weiss, 2005). This can all lead to a lesser sense of accomplishment among teachers (Oakes et al., 2013). Affective Events Theory (Weiss & Cropanzano, 1996) suggests that job satisfaction is determined by one's affective reactions to events taking place in their work environment. These emotional responses are similar to the construct of self-efficacy (Jones & Youngs, 2012). Positive emotions increase self-efficacy and negative emotions do the opposite (Bandura, 1997).

Only two studies have explored behavior management efficacy among special education teachers and the relationship to burnout. In the first study, efficacy for behavior management was negatively correlated with burnout among 35 special education teachers working with young children with ASD (Ruble et al., 2011). In the most recent study, researchers found that among a sample of 64 special educators serving a variety of students with disabilities, behavior management efficacy had a strong inverse relationship to burnout ($d = -0.85$ to -1.20; Garwood, Werts, et al., 2018). Given these preliminary results, and the notion that behavior management is a malleable factor that can be addressed during preservice and inservice training (Garwood et al., 2017), examining special educators' efficacy for behavior management is necessary.

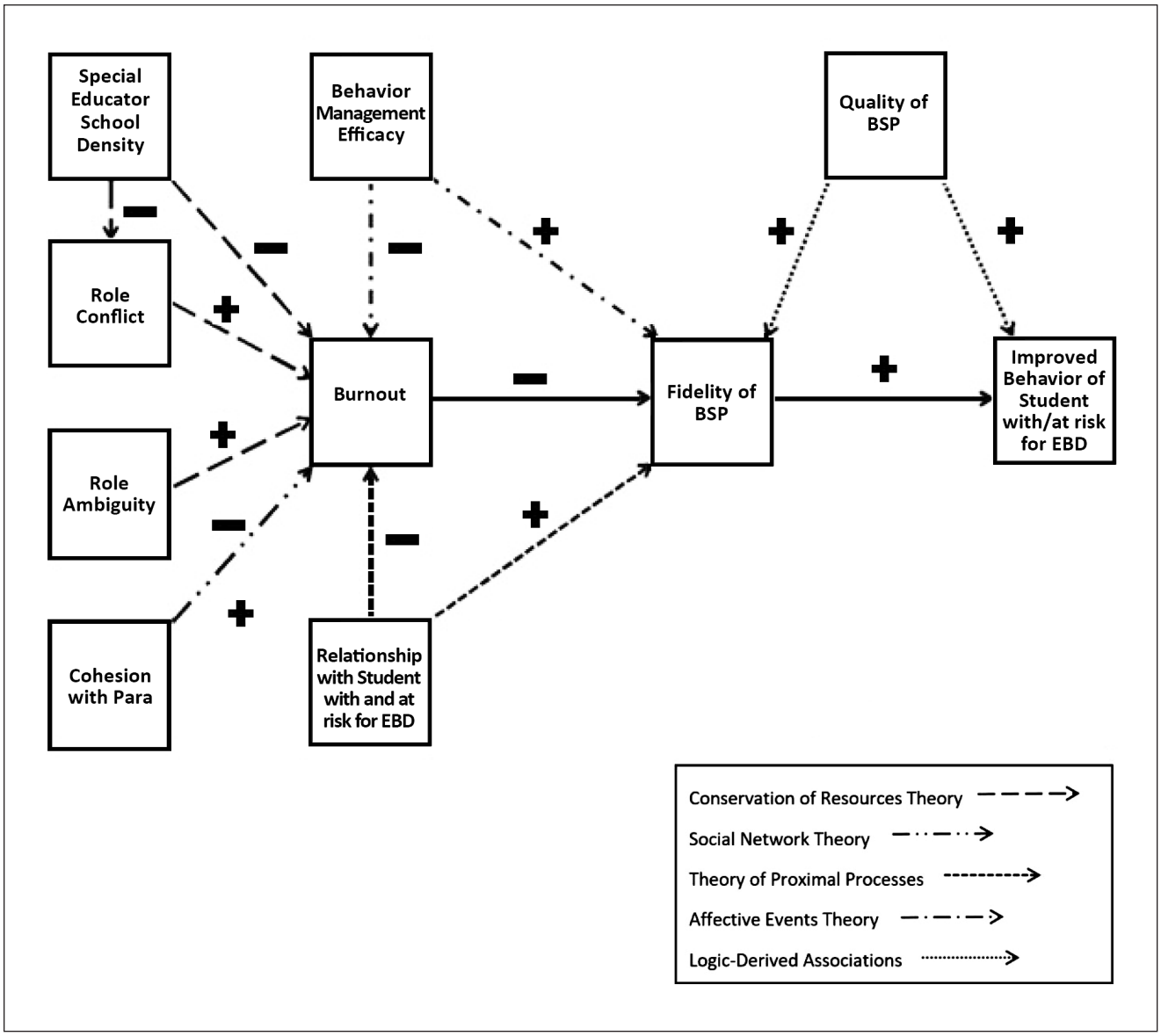

Figure 1. Potential pathways of burnout for special educators.

Role-Related Stressors

Special education teachers have complained that their roles in schools are not clearly defined and that this is a regular stressor in their lives (Youngs et al., 2011). In a recent study with 245 novice teachers, the special educators (n = 61) rated their workloads as more demanding than their general education colleagues, and those with more demanding workloads rated higher on emotional exhaustion (i.e., burnout; Bettini et al., 2017). Research by the same team has also found that workload manageability of novice special educators is improved in schools where there is a culture of shared responsibility for students with disabilities (Bettini et al., 2019) and that school principals can improve special educators' working conditions by including them more in decision-making and fostering a climate of positivity and collegiality (Billingsley et al., 2020). Finally, specific to students with EBD, Bettini et al. (2020) demonstrate how administrators could better support special educators serving these students by providing teachers with more planning time and curricular resources, as well as paying more attention to how students are grouped based on instructional need.

The number of students with IEPs served by special education teachers (i.e., caseload) has been posited as a possible source of the chronic stress they experience due to unmanageable workloads (McIntyre, 1983; Russ et al., 2001). However, the movement toward inclusion and a

focus on MTSS has found many special educators serving students not officially identified for services, meaning caseloads are not capturing the full picture of special educators' responsibilities because they only include students with IEPs (Suter & Giangreco, 2009). A more accurate way to measure the role stressors placed on special educators may be to calculate *special educator school density*, which is defined as the total number of full-time special education teachers in a school per the total number of students enrolled (Giangreco et al., 2013). In their study of 174 special educators across 32 inclusion-oriented schools, Giangreco and colleagues found *density* to relate to special educators' ratings of the adequacy of their working conditions. Schools with larger ratios of students-to-special educators had teachers who felt more stressed in fulfilling their roles.

Conservation of Resource (COR) Theory (Hobfoll, 1989) suggests that when employees (e.g., special educators) are limited in resources, such as time, they make strategic choices about how and when to deploy those resources. If resources are limited over a long period of time, the employee then reduces the overall investment they make in their job as a whole (i.e., depersonalization; Alarcon, 2011). Having too many things to do (i.e., *role conflict*) and/or feeling unsure of where one's job responsibilities begin and end (i.e., *role ambiguity*) are two variables that have only been preliminarily explored in the research on special education teacher burnout. With a sample of 443 special educators, Crane and Iwanicki (1986) found that role conflict and role ambiguity related to higher rates of burnout. A more recent study with 64 special educators (Garwood, Werts, et al., 2018) revealed role conflict and role ambiguity were positively associated with burnout. Although the study was limited by a small sample size, it does indicate these variables are in need of further exploration.

Cohesion With Paraprofessionals

Research has pointed to the importance of mentorship models for young teachers (Schlichte et al., 2005) and collegial relationships between special education teachers and their general education peers—sometimes referred to as *teacher team efficacy* (Conley & You, 2017)—when aiming to address issues of teacher attrition. At the same time, special education teacher shortages, due in part to high rates of attrition, have resulted in a current state of affairs where there are more paraprofessionals delivering services to students with disabilities than there are highly qualified special educators (Bitterman et al., 2013). One of the most prominent roles played by special education paraprofessionals is supporting the behavior management of students with disabilities (Fisher & Pleasants, 2012). By definition, paraprofessionals are not highly qualified service providers, which has caused concern among some regarding their proper role in service delivery (Giangreco et al., 2012). Among those paraprofessionals serving students with EBD, most do not possess an adequate level of knowledge to effectively perform their job duties (Maggin et al., 2009). Special education teachers are often called upon to act as supervisors and mentors to paraprofessionals to overcome the lack of training for their support staff (Brock & Carter, 2016).

The Individuals with Disabilities Education Improvement Act (IDEA, 2004) states "paraprofessionals and assistants who are appropriately trained and supervised (may be used) to assist in the provision of special education and related services to children with disabilities" (20 U.S.C. §1412). Unfortunately, methods for supervising paraprofessionals is not a topic that is regularly addressed during preservice or inservice education for special educators (Giangreco et al., 2010), despite special educators indicating paraprofessional supervision is one of their most demanding responsibilities (Bettini et al., 2019; Garwood, Van Loan, & Werts, 2018). In separate national surveys (Berry et al., 2011; Katsyiannis et al., 2000), researchers found the most in-demand topic for professional development from practicing special educators was working with paraprofessionals. The unfortunate irony is that the presence of paraprofessionals—staff who are meant to help alleviate special education teachers' workloads—may actually add more stress and complications to teachers' lives (Kratz et al., 2015).

Working together with others in pursuit of a common goal has been defined as *cohesion* (Wang et al., 2006). In a recent study grounded in social network theory (Moolenaar & Daly, 2012), which highlights the importance of social relationships in the workplace, Kim et al. (2017) found the quality of teachers' relationships with their colleagues had an inverse association with teacher burnout in their sample of 171 elementary and middle-grades general education teachers. It is possible the cohesiveness of the working relationship between special educators and their paraprofessionals has a similar influence. In the singular intervention study targeting burnout reduction in a sample of 92 K–12 special educators and related service providers, Cooley and Yovanoff (1996) implemented a two-pronged training program by providing participants with coping skills for stress management and a model for peer collaboration based in collegial dialogue. Results in the treatment group indicated reduced burnout. Although not focused on paraprofessionals, participants spoke positively about the intervention's attention to reducing collegial isolation. Others have found the strength of collegial networks is related to teachers' intentions to stay in the field of special education (Gersten et al., 2001). It is therefore concerning that special education teachers report collaboration with paraprofessionals as constituting only 2% of their work time (Shyman, 2010). The nature of the relationship between special educators and their paraprofessionals may act as either a source of stress or a stress-reliever, as it influences the level of productivity within the work environment (Carnahan et al., 2009).

Although as yet unexplored, cohesion with paraprofessionals may act as a contributor to or buffer against special education teacher burnout.

Teacher–Student Relationships

In working with students with EBD, teachers are expected to take on many roles (e.g., model, surrogate parent, counselor, teacher, disciplinarian; Kaufman & Ring, 2011). When the relationship is good, research suggests students experience greater learning and exhibit fewer disruptive behaviors (Decker et al., 2007; Van Loan et al., 2019). However, poor relationships with students have been related to teacher attrition (Billingsley & Bettini, 2019) and greater stress (Yoon, 2002). In two studies with children exhibiting psychiatric disorders (e.g., ASD, EBD) and samples of special educators in the Netherlands, the best indicators of teacher competence and well-being (i.e., low burnout) were children's prosocial classroom behaviors and the quality of the teacher–student relationship (Hopman et al., 2018). A separate study of general education teachers found high–quality student–teacher relationships can protect teachers from burnout (Taxer et al., 2019). Others have found relationship-building was the most important skill preservice educators felt they would need to work with students with EBD and prevent burnout (Garwood & Van Loan, 2019).

Strong relationships between teachers and their students with EBD provide the foundation that allows positive behavior support programs to be successful (Mihalas et al., 2009). For example, when students feel an emotional connection to their teacher and they believe the teacher cares for them, they are more likely to accept praise and/or corrective feedback because the teacher's opinion of them now matters (i.e., the source of the praise has credibility; Van Loan & Garwood, 2020a). Students with EBD have acknowledged that having a meaningful relationship with their teacher is critical to their success in school (Sellman, 2009). One study in Australia found that secondary students with EBD expressed a desire for more affective relationships with their teachers, ones characterized by patience and understanding (Capern & Hamond, 2014). The importance of these interactions are captured in Bronfenbrenner's Ecological Systems Theory and the daily interactions, or *proximal processes*, that serve as the drivers of healthy development in people's lives (Bronfenbrenner & Morris, 2006). Given preliminary evidence about the relationship between teacher–student relationship quality and special educator stress (Yoon, 2002), the ability to build relationships with students may be a malleable factor related to burnout.

Fidelity of Implementation and Burnout

The evidence-based practice movement, which began at the early part of the 21st century, is designed to identify and promote the use of practices in schools with sufficient backing in high-quality research (Sanetti et al., 2014). The focus by national education agencies (e.g., Institute of Education Sciences) on identifying, validating, and scaling up effective school-based interventions has come along with a worry about teachers' abilities to implement procedures with fidelity (Wehby et al., 2012). Concerns about the transportability of interventions from more lab-controlled settings to real-world classrooms (Hulleman & Cordray, 2009) has resulted in a field known as implementation science (Fixsen et al., 2009), with a focus on systems-level factors that impact fidelity (e.g., school policies and organizational structures). However, there has been limited focus on teacher-level variables that impact fidelity, which is ironic considering teachers are expected to be the agents of intervention in schools (Han & Weiss, 2005). The effect size obtained in an intervention is often related to the level of fidelity obtained by the intervention agent (Perepletchikova & Kazdin, 2005). It is alarming then that burnout has been related to diminished FOI by teachers.

In a study with 86 middle school teachers ($n = 9$ special educators) in two different schools, teachers with higher ratings of burnout demonstrated lower FOI in delivering integrated academic and behavioral MTSS (Oakes et al., 2013). In a similar study with 184 teachers across 40 different schools implementing school-wide behavioral supports, higher ratings of burnout were related to lower FOI (Ross et al., 2012). Finally, in a study of the Good Behavior Game (Barrish et al., 1969)—a group contingency behavior management program with a strong evidence base—with 73 teachers ($n = 25$ special educators) working with elementary-grades students with and at risk for EBD, Wehby et al. (2012) found that higher ratings of burnout were related to lower FOI. Although empirical research on the relationship between teacher burnout and FOI is minimal, these three studies point to the far-reaching negative impact of burnout. Fortunately, like burnout, FOI is also a malleable factor.

A small number of correlational studies indicate significant positive relationships between behavior management efficacy (Garwood, Werts, et al., 2018; Ruble et al., 2011), cohesion with paraprofessionals (Garwood, Van Loan, & Werts, 2018), and the teacher–student relationship (Hopman et al., 2018) and special educator burnout, as well as significant negative relationships between role-related stressors (Bettini et al., 2019) and burnout. However, it is likely that some or all of these variables also coalesce in a dynamic process to influence burnout and teachers' FOI via both direct and indirect pathways. Take, for example, teacher–student relationships. Yoon (2002) found an inverse relationship between the level of teacher stress and the quality of the teacher–student relationship among a sample of 113 K–5 teachers. It is therefore possible that negative teacher–student relationships are also related to burnout. It has also recently been suggested that

cultivating a positive relationship with a child is the key ingredient in FOI (Sutherland et al., 2013). If children will not engage, adherence to an intervention protocol will not be enough to bring about desired changes in student behavior. Traditional definitions of fidelity have not considered the relational dimension between teacher and student (Perepletchikova & Kazdin, 2005), nor have any studies attempted to assess the degree to which relationship quality may affect both burnout and FOI.

Measures to Support the Research

Teacher Burnout

The most widely used measure of teacher burnout has been the Maslach Burnout Inventory–Educator Survey (MBI-ES; Maslach et al., 1996), which includes three subscales: emotional exhaustion (EE; higher = more burnout), depersonalization (DP; higher = more burnout), and personal accomplishment (PA; lower = more burnout). The MBI-ES contains 22 items rated on a Likert-type scale from 0 (*Never*) to 6 (*Every Day*) assessing the frequency with which respondents' experience certain feelings. Subscales of burnout are calculated for EE ($\alpha = .90$), DP ($\alpha = .79$), and PA ($\alpha = .71$). There is no *total burnout* score calculated in the measure.

Behavior Management, Roles, and Density

Although many measures to assess teachers' efficacy for behavior management are available (O'Neill & Stephenson, 2011), most were not designed specifically with students with EBD in mind. One exception is the Behavior Management Self-Efficacy Scale (Main & Hammond, 2008), which is an adaptation of another scale that focused on teachers of students with EBD and contained an individualized behavioral perspective. The Behavior Management Self-Efficacy Scale contains 14 items ($\alpha = .88$) measured on a 6-point Likert-type scale with responses ranging from *Strongly Disagree* to *Strongly Agree* and was built with the recognition that special educators vary in their level of exposure to behaviorist techniques (Main & Hammond, 2008).

The Role Questionnaire (Rizzo et al., 1970) includes 14 Likert-type scale items rated 1 (*Absolutely False*) to 7 (*Absolutely True*) and is divided into two subscales regarding respondents' job duties: conflict (eight items; $\alpha = .87$) and ambiguity (six items; $\alpha = .81$). The questionnaire has been found to be reliable and valid when used with teachers (Embich, 2001).

The formula for calculating special educator school density is as follows: special educators in full-time equivalents (FTE) per total school enrollment (Giangreco et al., 2011). Suter and Giangreco (2009) suggested the following density score categories for schools in terms of capacity to meet students' educational needs: *healthiest* (<1:80), *precarious* (1:80–1:100), and *least healthy* (>1:100). Density can be scored as a continuous variable for analysis (Giangreco et al., 2011) but also reported according to Suter and Giangreco's (2009) categories for descriptive purposes.

Teachers' Relationship Quality With Students and Paraprofessionals

The most commonly used measure to assess relationship quality has been the Student–Teacher Relationships Scale (STRS; Pianta, 2001). Although popular, this scale was designed for use with children in early elementary school and did not focus on students with disabilities. However, researchers have recently modified the STRS to create the Student–Teacher Relationship Scale–Revised Teacher (STRS-RT; Van Loan & Garwood, 2020b). The STRS-RT was designed specifically for teachers of secondary students with EBD. It measures aspects of relationship quality from the teacher perspective with items measured on a 5-point Likert-type scale ranging from *definitely does not apply* to *definitely applies*. The *conflict* subscale ($\omega = .96$), which contains 12 items, is most appropriate to assess relationship quality. Previous studies have shown a higher degree of conflict between teacher and student is negatively correlated with teachers' emotional support of students (Birch & Ladd, 1998) and positively correlated with the frequency of student behavior problems (Decker et al., 2007).

The Classroom Cohesion Survey (CCS; Kratz et al., 2015) measures the level of cohesion between special educators and their paraprofessionals. The teacher-response form ($\alpha = .97$) contains 18 Likert-type scale items rated 1 (*Not at All*) to 5 (*Always True*) and exhibits good variability ($SD = 0.82$) on the overall item-level mean measured on the 5-point scale.

Quality of Behavior Support Plans and Fidelity

Behavior support plans can be scored using the Behavior Support Plan Quality Evaluation Guide II (BSP-QE II; Browning-Wright et al., 2007; Cook et al., 2012). The BSP-QE II ($\alpha = .82$) assesses the following 12 components of BSPs: (a) defining the problem behavior, (b) specifying predictors for each behavior, (c) analyzing what is supporting the behavior, (d) specifying environmental changes, (e) hypothesizing functions of behavior, (f) describing replacement behaviors, (g) teaching alternative behaviors that relate to function, (h) specifying reinforcers for alternative behaviors, (i) outlining reactive strategies, (j) specifying goals and objectives to evaluate progress, (k) team coordination efforts, and (l) communication among staff. Each component is rated on a 3-point Likert-type scale of 0 to 2,

with higher ratings suggesting higher quality and a total score ranging from 0 to 24.

Protocols for measuring fidelity vary by the intervention being delivered (King-Sears et al., 2018); however, it is always necessary to assess both the frequency (i.e., how often is it taking place) and duration (i.e., how long each time) of intervention (King-Sears & Garwood, 2020). In addition, there must be attention to the quality of the teacher's delivery because this can influence students' engagement in the intervention (Sanetti et al., 2014). Therefore, while noting the presence or absence of intervention components, researchers can also use Likert-type scales to record the quality with which the intervention is delivered (Gresham, 2009; King-Sears et al., 2018). The most accurate approach for measuring fidelity is to use direct observation (King-Sears et al., 2018), either via videotape or in-person coding. These observations by research team members are needed because teachers tend to self-report higher levels of fidelity than what is recorded by independent observers (Noell et al., 2005). The limited research available involving systematic examination of fidelity in behavior support to students with and at risk for EBD has relied on self-report data (e.g., Cook et al., 2012; Oakes et al., 2013; Ross et al., 2012), which is a noted limitation in the extant literature. As in previous research (Wehby et al., 2012), fidelity checklists can be developed based off key intervention components and reliability should be calculated using Cronbach's alpha. Minimum reliability is .70 (Nunnally & Bernstein, 1994).

Although clearly a critical aspect of evaluating the effectiveness of interventions, the science of FOI has been as yet under-researched (Sutherland et al., 2013). The lack of research is not simply a lack of interest, but likely also reflects the fact that one of the main reasons implementation fidelity—and its measurement—is so difficult is because every student and every school context is unique. Given the student-specific nature of BSPs, flexibility in design of these rubrics is not only warranted, but also desired (McLeod et al., 2021).

Summary: Why Is Burnout Research Needed?

Too little research has focused on FOI as the key lever in intervention effectiveness (Gresham, 2009; King-Sears et al., 2018), particularly for teachers serving students with and at risk for EBD (Cook et al., 2012). Similarly, and due in part to increased accountability systems emphasizing academic outcomes for students, researchers have largely moved on from empirical studies of special educator burnout. However, burnout is still a pervasive problem among special educators and it only appears to be getting worse (Brunsting et al., 2014; Garwood, Werts, et al., 2018). Too few researchers are focusing on the relationship between burnout and teachers' quality of service delivery and their fidelity when delivering practices that have been deemed *evidence-based*.

The job of special education teachers in schools across the United States is distinct and unique from their general education colleagues and other school practitioners; so unique that exploratory studies of special educator burnout are needed before interventions from other fields are assumed to generalize to this population. Cooley and Yovanoff (1996) reported on a burnout intervention for special educators, but given the vast changes in the field in the 25 years since its publication, the limitations of the study (e.g., participant self-selection bias, lack of a true control group), and a focus on remediation rather than prevention of burnout, it does little to inform current efforts aimed at preventing burnout. With the exception of two research teams and small number of studies focused on burnout of teachers working with young children with ASD (Ruble et al., 2011; Ruble & McGrew, 2013; Wong et al., 2017) and the working conditions of special education teachers (Bettini et al., 2017, 2019, 2020), there appears to be no systematic effort by researchers to address special educator burnout. No studies have been conducted examining special educator burnout as both a dependent variable and an independent variable related to teachers' FOI in BSPs with students with EBD. Considering special educators indicate behavioral support of these students is their most challenging responsibility (Berry et al., 2011; Garwood, Werts, et al., 2018), this research is sorely needed. Without it, advances in evidence-based practices will do little to benefit secondary students with EBD or their teachers.

Results from this type of research can inform preservice preparation and the development of new interventions, as well as adaptations to ones currently being developed. Utilizing rigorous mixed-methods approaches that include advanced statistical analysis and in-depth qualitative inquiry, results from this research could allow us to answer questions such as the following: (a) What are the malleable factors influencing special educator burnout and how does burnout impact special educators' FOI? (b) What types of behavior management practices do teachers feel should be included in preservice coursework for future teachers of students with EBD? (c) How can special educators better advocate for resources and well-defined roles in schools when interviewing for a job or interfacing with their administrators? (d) What strategies are helpful in building relationships with students with EBD? (e) What training is needed to properly supervise paraprofessionals?

The field needs to maintain a strong focus on the needs of special educators serving students with and at risk for EBD. These service providers have some of the shortest teaching careers (Prather-Jones, 2011), often due to burnout

(Brunsting et al., 2014; Park & Shin, 2020), and their needs as professionals serving some of our most vulnerable children and youth are not being met. The research outline in this article can address root causes, not just symptoms, and promote a better future for both teachers and students alike.

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References

Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, *79*(2), 549–562. https://doi.org/10.1016/j.jvb.2011.03.007

Aloe, A. M., Amo, L. C., & Shanahan, M. E. (2014). Classroom management self-efficacy and burnout: A multivariate meta-analysis. *Educational Psychology Review*, *26*, 101–126. https://doi.org/10.1007/s10648-013-9244-0

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.

Barrish, H. H., Saunders, M., & Wolf, M. M. (1969). Good behavior game: Effects of individual contingencies for group consequences on disruptive behavior in a classroom. *Journal of Applied Behavior Analysis*, *2*(2), 119–124. https://doi.org/10.1901/jaba.1969.2-119

Berry, A. B., Petrin, R. A., Gravelle, M. L., & Farmer, T. W. (2011). Issues in special education teacher recruitment, retention, and professional development: Considerations in supporting rural teachers. *Rural Special Education Quarterly*, *30*(4), 3–11. https://doi.org/10.1177%2F875687051103000402

Bettini, E. A., Cumming, M. M., O'Brien, K. M., Brunsting, N. C., Ragunathan, M., Sutton, R., & Chopra, A. (2020). Predicting special educators' intent to continue teaching students with emotional or behavioral disorders in self-contained settings. *Exceptional Children*, *86*(2), 209–228. https://doi.org/10.1177%2F0014402919873556

Bettini, E. A., Jones, N. D., Brownell, M. T., Conroy, M. A., Park, Y., Leite, W., Crockett, J., & Benedict, A. (2017). Workload manageability among novice special and general educators: Relationships with emotional exhaustion and career intentions. *Remedial and Special Education*, *38*(4), 246–256. https://doi.org/10.1177%2F0741932517708327

Bettini, E. A., Wang, J., Cumming, M., Kimerling, J., & Schutz, S. (2019). Special educators' experiences of roles and responsibilities in self-contained classes for students with emotional/behavioral disorders. *Remedial and Special Education*, *40*(3), 177–191. https://doi.org/10.1177%2F0741932518762470

Billingsley, B. S., & Bettini, E. (2019). Special education teacher attrition and retention: A review of the literature. *Review of Educational Research*, *89*(5), 697–744. https://doi.org/10.3102/0034654319862495

Billingsley, B. S., Bettini, E., Mathews, H. M., & Mceskey, J. (2020). Improving working conditions to support special educators' effectiveness: A call for leadership. *Teacher Education and Special Education*, *43*(1), 7–27. https://doi.org/10.1177%2F0888406419880353

Birch, S. H., & Ladd, G. W. (1998). Children's interpersonal behaviors and the teacher-child relationship. *Developmental Psychology*, *34*(5), 934–946. https://doi.org/10.1037/0012-1649.34.5.934

Bitterman, A., Gray, L., & Goldring, R. (2013). *Characteristics of public and private elementary and secondary schools in the United States: Results from the 2011–12 Schools and Staffing Survey* (NCES Publication No. 2013-312). National Center for Education Statistics.

Brock, M. E., & Carter, E. W. (2016). Efficacy of teachers training paraprofessionals to implement peer support arrangements. *Exceptional Children*, *82*(3), 354–371. https://doi.org/10.1177%2F0014402915585564

Bronfenbrenner, U. (1976). The experimental ecology of education. *Teachers College Record*, *78*, 157–204. https://doi.org/10.2307/1174755

Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In R. M. Lerner & W. Damon (Eds.), *Handbook of child psychology: Theoretical models of human development* (Vol. 1, 6th ed., pp. 793–828). Wiley.

Brownell, M. T., Bettini, E., Pua, D., Peyton, D., & Benedict, A. E. (2018). Special education teacher effectiveness in an era of reduced federal mandates and increasing teacher shortages. In J. B. Crockett & B. S. Billingsley (Eds.), *Handbook of leadership and administration for special education* (pp. 260–280). Routledge.

Browning-Wright, D., Mayer, G. R., Cook, C. R., Crews, S. D., Kraemer, B. R., & Gale, B. (2007). A preliminary study on the effects of training using Behavior Support Plan Quality Evaluation Guide (BSP-QE) to improve positive behavioral support plans. *Education and Treatment of Children*, *30*(3), 89–106. https://doi.org/10.1353/etc.2007.0017

Brunsting, N. C., Sreckovic, M. S., & Lane, K. L. (2014). Special education teacher burnout: A synthesis of research from 1979 to 2013. *Education and Treatment of Children*, *37*(4), 681–712. https://doi.org/10.1353/etc.2014.0032

Capern, T., & Hamond, L. (2014). Establishing positive relationships with secondary gifted students and students with emotional/behavioral disorders: Giving these diverse learners what they need. *Australian Journal of Teacher Education*, *39*(4), 46–67. https://doi.org/10.14221/ajte.2014v39n4.5

Carnahan, C. R., Williamson, P., Clarke, L., & Sorenson, R. (2009). A systematic approach for supporting paraeducators in educational settings. *Teaching Exceptional Children*, *41*(5), 34–43. https://doi.org/10.1177%2F004005990904100504

Chang, M. (2009). An appraisal perspective of teacher burnout: Examining the emotional work of teachers. *Educational Psychology Review*, *21*(3), 193–218. https://doi.org/10.1007/s10648-009-9106-y

Coman, D., Alessandri, M., Gutierrez, A., Novotny, S., Boyd, B., Hume, K., & Odom, S. (2013). Commitment to classroom model philosophy and burnout symptoms among high fidelity teachers implementing preschool programs for children with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, *43*, 345–360. https://doi.org/10.1007/s10803-012-1573-1

Conley, S., & You, S. (2017). Key influences on special education teachers' intentions to leave: The effect of administrative support and teacher team efficacy in a mediational model. *Educational Management and Leadership*, *45*(3), 521–540. https://doi.org/10.1177/1741143215608859

Conroy, M. A., & Sutherland, K. (2012). Effective teachers for student with emotional/behavioral disorders. *Beyond Behavior*, *22*(1), 7–13. https://doi.org/10.1177%2F107429561202200103

Cook, C. R., Mayer, G. R., Wright, D. B., Kraemer, B., Wallace, M. D., Dart, E., . . . Restori, A. (2012). Exploring the link among behavior intervention plans, treatment integrity, and student outcomes under natural educational conditions. *Journal of Special Education*, *46*(1), 3–16. https://doi.org/10.1177%2F0022466910369941

Cooley, E., & Yovanoff, P. (1996). Supporting professionals-at-risk: Evaluating interventions to reduce burnout and improve retention of special educators. *Exceptional Children*, *62*(4), 336–355. https://doi.org/10.1177%2F001440299606200404

Couvillon, M., Yell, M., & Katsiyannis, A. (2018). Endrew F. v. Douglas County School District (2017) and special education law: What teachers and administrators need to know. *Preventing School Failure*, *62*(4), 289–299. https://doi.org/10.1080/1045988X.2018.1456400

Crane, S., & Iwanicki, E. (1986). Perceived role conflict, role ambiguity, and burnout among special education teachers. *Remedial and Special Education*, *7*(2), 24–31. https://doi.org/10.1177%2F074193258600700206

Decker, D. M., Dona, D. P., & Christenson, S. L. (2007). Behaviorally at-risk African American students: The importance of student-teacher relationships for student outcomes. *Journal of School Psychology*, *45*(1), 83–109. https://doi.org/10.1016/j.jsp.2006.09.004

Dykstra, J. R., Sabatos-DeVito, M. G., Irvin, D. W., Boyd, B. A., Hume, K. A., & Odom, S. L. (2013). Using the Language Environment Analysis (LENA) system in preschool classrooms with children with autism spectrum disorders. *Autism*, *17*(5), 582–594. https://doi.org/10.1177%2F1362361312446206

Embich, J. L. (2001). The relationship of secondary special education teachers' roles and factors that lead to professional burnout. *Teacher Education and Special Education*, *24*(1), 58–69. https://doi.org/10.1177%2F088840640102400109

Ennis, R. P., Jolivette, K., & Swoszowski, N. C. (2017). Special considerations for using functional behavior assessment and functionally-indicated interventions with students in alternative settings. *Beyond Behavior*, *26*(3), 141–151. https://doi.org/10.1177%2F1074295617728512

Federici, R. A., & Skaalvik, E. M. (2012). Principal self-efficacy: Relations with burnout, job satisfaction, and motivation to quit. *Social Psychology of Education*, *15*, 295–320. https://doi.org/10.1007/s11218-012-9183-5

Fisher, M., & Pleasants, S. L. (2012). Roles, responsibilities, and concerns of paraeducators: Findings from a statewide survey. *Remedial and Special Education*, *33*(5), 287–297. https://doi.org/10.1177%2F0741932510397762

Fixsen, D. L., Blase', K. A., Naoom, S. F., & Wallace, F. (2009). Core implementation components. *Research on Social Work Practice*, *19*(5), 531–540. https://doi.org/10.1177%2F1049731509335549

Gable, R. A., Tonelson, S. W., Sheth, M., Wilson, C., & Park, K. L. (2012). Importance, usage, and preparedness to implement evidence-based practices for students with emotional disabilities: A comparison of knowledge and skills of special education and general education teachers. *Education and Treatment of Children*, *35*(4), 499–519. https://doi.org/10.1353/etc.2012.0030

Gage, N. A., Lewis, T. J., & Stichter, J. P. (2012). Functional behavioral assessment-based interventions for students with or at risk for emotional and/or behavioral disorders in school: A hierarchical linear modeling meta-analysis. *Behavioral Disorders*, *37*(2), 55–77. https://doi.org/10.1177%2F019874291203700201

Garwood, J. D., & Adamson, R. (2022). Youth identified with emotional disturbance whoexhibit aggression: Perspectives on origins and options for intervention. *Preventing School Failure*, *66*, 33–41. https://doi.org/10.1080/1045988X.2021.1922334

Garwood, J. D., Harris, A. H., & Tomick, J. K. (2017). Starting at the beginning: An intuitive choice for classroom management. *Teacher Education and Practice*, 30, 77–97.

Garwood, J. D., & Moore, T. (2021). School connectedness insights for teachers educatingyouth with a severe emotional disturbance in residential treatment. *Residential Treatment for Children & Youth*, *38*, 153–165. https://doi.org/10.1080/0886571X.2019.1707145

Garwood, J. D., Peltier, C., Sinclair, T., Eisel, H., McKenna, J. W., & Vannest, K. J. (2020). A quantitative synthesis of intervention research published in flagship EBD journals: 2010-2019. *Behavioral Disorders*, *47*(1), 14–27. https://doi.org/10.1177%2F0198742920961341

Garwood, J. D., & Van Loan, C. L. (2019). Pre-service educators' dispositions toward inclusive practices for students with emotional and behavioural disorders. *International Journal of Inclusive Education*, *23*(12), 1332–1347. https://doi.org/10.1080/13603116.2018.1447614

Garwood, J. D., Van Loan, C. L., & Werts, M. G. (2018). Mindset of paraprofessionals serving students with emotional and behavioral disorders. *Intervention in School and Clinic*, *53*(4), 206–211. https://doi.org/10.1177%2F1053451217712958

Garwood, J. D., Werts, M. G., Varghese, C., & Gosey, L. (2018). Mixed-methods analysis of rural special educators' role stressors, behavior management, and burnout. *Rural Special Education Quarterly*, *37*(1), 30–43. https://doi.org/10.1177%2F8756870517745270

Gersten, R., Keating, T., Yovanoff, P., & Harniss, M. K. (2001). Working in special education: Factors that enhance special educators' intent to stay. *Exceptional Children*, *67*(4), 549–567. https://doi.org/10.1177%2F001440290106700408

Giangreco, M. F., Doyle, M. B., & Suter, J. C. (2012). Constructively responding to requests for paraprofessionals: We keep asking

the wrong questions. *Remedial and Special Education*, *33*(6), 362–373. https://doi.org/10.1177%2F0741932511413472

Giangreco, M. F., Suter, J. C., & Doyle, M. B. (2010). Paraprofessionals in inclusive schools: A review of recent research. *Journal of Educational and Psychological Consultation*, *20*(1), 41–57. https://doi.org/10.1080/10474410903535356

Giangreco, M. F., Suter, J. C., & Hurley, S. M. (2013). Revisiting personnel utilization in inclusion-oriented schools. *Journal of Special Education*, *47*(2), 121–132. https://doi.org/10.1177%2F0022466911419015

Gilmour, A. F., & Wehby, J. H. (2020). The association between teaching students with disabilities and teacher turnover. *Journal of Educational Psychology*, *112*(5), 1042–1060. https://doi.org/10.1037/edu0000394

Gresham, F. M. (2009). Evolution of the treatment integrity concept: Current status and future directions. *School Psychology Review*, *38*(4), 533–540.

Han, S. S., & Weiss, B. (2005). Sustainability of teacher implementation of school-based mental health programs. *Journal of Abnormal Child Psychology*, *33*(6), 665–679. https://doi.org/10.1007/s10802-005-7646-2

Herman, K. C., Hickmon-Rosa, J., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. *Journal of Positive Behavioral Interventions*, *20*(2), 90–100. https://doi.org/10.1177%2F1098300717732066

Hester, O. R., Bridges, S. A., & Rollins, L. R. (2020). "Overworked and underappreciated": Special education teachers describe stress and attrition. *Teacher Development*, *24*(3), 348–365. https://doi.org/10.1080/13664530.2020.1767189

Hirsch, S. E., Bruhn, A. L., Lloyd, J. W., & Katsiyannis, A. (2017). FBAs and BIPs: Avoiding common challenges related to fidelity. *TEACHING Exceptional Children*, *49*(6), 360–379. https://doi.org/10.1177%2F0040059917711696

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513–524. https://doi.org/10.1037//0003-066x.44.3.513

Hopman, J. A. B., Tick, N. T., van der Ende, J., Wubbels, T., Verhulst, F. C., Maras, A., . . . van Lier, P. A. C. (2018). Special education teachers' relationships with students and self-efficacy moderate association between classroom-level disruptive behaviors and emotional exhaustion. *Teaching and Teacher Education*, *75*, 21–30. https://doi.org/10.1016/j.tate.2018.06.004

Horner, R. H., & Yell, M. L. (2017). Commentary on Zirkel: Judicial rulings specific to FBAs or BIPs under the IDEA and corollary state laws—An update. *Journal of Special Education*, *51*(1), 57–79. https://doi.org/10.1177%2F0022466917697289

Hulleman, C. S., & Cordray, D. S. (2009). Moving from the lab to the field: The role of fidelity and achieved relative intervention strength. *Journal of Research on Educational Effectiveness*, *2*(1), 88–110. https://doi.org/10.1080/19345740802539325

Individuals with Disabilities Education Improvement Act. (2004). Public Law 101-476.

Jarvis, M. (2002). Teacher stress: A critical review of recent findings and suggestions for future research directions. *Stress News*, *14*, 12–16.

Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, *79*(1), 491–525. https://doi.org/10.3102%2F0034654308325693

Jones, N., & Youngs, P. (2012). Attitudes and affect: Daily emotions and their association with the commitment and burnout of beginning teachers. *Teachers College Record*, *114*(2), 1–36. https://doi.org/10.1177%2F016146811211400203

Katsyiannis, A., Hodge, J., & Lanford, A. (2000). Paraeducators: Legal and practice considerations. *Remedial and Special Education*, *21*(5), 297–304. https://doi.org/10.1177/074193250002100506

Kaufman, R. C., & Ring, M. (2011). Pathways to leadership and professional development inspiring novice special educators. *Teaching Exceptional Children*, *43*(5), 52–60. https://doi.org/10.1177%2F004005991104300505

Kim, J., Youngs, P., & Frank, K. (2017). Burnout contagion: Is it due to early career teachers' social networks or organizational exposure? *Teaching and Teacher Education*, *66*, 250–260. https://doi.org/10.1016/j.tate.2017.04.017

King-Sears, M. E., & Garwood, J. D. (2020). DÉCOR to measure fidelity of implementation for behavior interventions. *The Clearing House*, *93*, 225–232. https://doi.org/10.1080/00098655.2020.1772703

King-Sears, M. E., Walker, J. D., & Barry, C. (2018). Measuring teachers' intervention fidelity. *Intervention in School and Clinic*, *54*(2), 89–96. https://doi.org/10.1177%2F1053451218765229

Kratz, H. E., Locke, J., Piotrowski, Z., Outlette, R. R., Xie, M., Stahmer, A. C., & Mandell, D. S. (2015). All together now: Measuring staff cohesion in special education classrooms. *Journal of Psychoeducational Assessment*, *33*(4), 329–338. https://doi.org/10.1177%2F0734282914554853

Larson, M., Cook, C. R., Flat, A., & Lyon, A. R. (2018). Stressed teachers don't make good implementers. Examining the interplay between stress reduction and intervention fidelity. *School Mental Health*, *10*, 61–76. https://doi.org/10.1007/s12310-018-9250-y

Lee, D. L. (2018). Social dynamics and functional behavioral assessment. *Journal of Emotional and Behavioral Disorders*, *26*(1), 62–64. https://doi.org/10.1177%2F1063426617750142

Maggin, D. M., Wehby, J. H., Moore-Partin, T. C., Robertson, R., & Oliver, R. M. (2009). Supervising paraeducators in classrooms for children with emotional and behavioral disorders. *Beyond Behavior*, *18*(3), 2–9.

Main, S., & Hammond, L. (2008). Best practice or most practiced? Pre-service teachers' belies about effective behavior management strategies and reported self-efficacy. *Australian Journal of Teacher Education*, *33*(4), 28–39. https://doi.org/10.14221/ajte.2008v33n4.3

Maslach, C., Jackson, S. E., & Leiter, M. P. (1996). *Maslach burnout inventory: Manual* (3rd ed.). Consulting Psychologists Press.

McIntyre, T. C. (1983). The effect of class size on perceptions of burnout by special education teachers. *Mental Retardation and Learning Disability Bulletin*, *11*(3), 142–145.

McLeod, B. D., Sutherland, K., Broda, M., Granger, K. L., Martinez, R. G., Conroy, M. A., Snyder, P. A., & Southam-Gerow, M. A. (2021). Development and initial psychometrics of a generic treatment integrity measure designed to assess practice elements targeting social, emotional, and

behavioral outcomes in early childhood. *Prevention Science*, *23*, 488–501. https://doi.org/10.1007/s11121-021-01304-w

Mihalas, S., Morse, W. C., Allsopp, D. H., & Alvarez-McHatton, P. (2009). Cultivating caring relationships between teachers and secondary students with emotional and behavioral disorders: Implications for research and practice. *Remedial and Special Education*, *30*(2), 108–125. https://doi.org/10.1177%2F0741932508315950

Moolenaar, N. M., & Daly, A. J. (2012). Social networks in education: Exploring the social side of the reform equation. *American Journal of Education*, *119*(1), 1–6. https://doi.org/10.1086/667762

Noell, G. H., Witt, J. C., Slider, N. J., Connell, J. E., Gatti, S. L., Williams, K. L., . . . Duhon, G. J. (2005). Treatment implementation following behavioral consultation in schools: A comparison of three follow-up strategies. *School Psychology Review*, *34*(1), 87–106. https://doi.org/10.1080/02796015.2005.12086277

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Oakes, W. P., Lane, K. L., Jenkins, A., & Booker, B. B. (2013). Three-tiered models of prevention: Teacher efficacy and burnout. *Education and Treatment of Children*, *36*(4), 95–126. https://doi.org/10.1353/etc.2013.0037

O'Neill, S. C., & Stephenson, J. (2011). The measurement of classroom management self-efficacy: A review of measurement instrument development and influences. *Educational Psychology*, *31*, 261–299. https://doi.org/10.1080/01443410.2010.545344

Oram, L., Owens, S., & Maras, M. (2016). Functional behavior assessments and behavior intervention plans in rural schools: An exploration of the need, barriers, and recommendations. *Preventing School Failure*, *60*(4), 305–310. https://doi.org/10.1080/1045988X.2016.1144555

Park, E.-Y., & Shin, M. (2020). A meta-analysis of special education teachers' burnout. *SAGE Open*. Advance online publication. https://doi.org/10.1177/2158244020918297

Perepletchikova, F., & Kazdin, A. E. (2005). Treatment integrity and therapeutic change: Issues and research recommendations. *Clinical Psychology*, *12*(4), 365–383. https://doi.org/10.1093/clipsy.bpi045

Pianta, R. C. (2001). *STRS Student teacher relationship scale. Professional manual*. Psychological Assessment Resources.

Prather-Jones, B. (2011). "Some people aren't cut out for it": The role of personality factors in the careers of teachers of students with EBD. *Remedial & Special Education*, *32*(3), 179–191. https://doi.org/10.1177%2F0741932510362195

Ransford, C. R., Greenberg, M. T., Domitrovich, C. E., Small, M., & Jacobson, L. (2009). The role of teacher's psychological experience and perceptions of curriculum supports on the implementation of a social and emotional learning curriculum. *School Psychology Review*, *38*(4), 510–532.

Rizzo, J., House, T., & Lirtzman, S. (1970). Role conflict and ambiguity in complex organizations. *Administrative Sciences Quarterly*, *15*, 150–163.

Robinson, O. P., Bridges, S. A., Rollins, L. H., & Schumaker, R. E. (2019). A study of the relation between special education burnout and job satisfaction. *Journal of Research in Special Educational Needs*, *19*(4), 295–303. https://doi.org/10.1111/1471-3802.12448

Ronfeldt, M., Loeb, S., & Wyckoff, J. (2013). How teacher turnover harms student achievement. *American Educational Research Journal*, *50*(1), 4–36. https://doi.org/10.3102%2F0002831212463813

Ross, S. W., Romer, N., & Horner, R. H. (2012). Teacher well-being and the implementation of school-wide positive behavior interventions and supports. *Journal of Positive Behavior Interventions*, *14*(2), 118–128. https://doi.org/10.1177%2F1098300711413820

Ruble, L. A., & McGrew, J. H. (2013). Teacher and child predictors of achieving IEP goals of children with autism. *Journal of Autism and Developmental Disorders*, *43*, 2748–2763. https://doi.org/10.1007/s10803-013-1884-x

Ruble, L. A., Usher, E. L., & McGrew, J. H. (2011). Preliminary investigation of the sources of self-efficacy among teachers of students with autism. *Focus on Autism and Other Developmental Disabilities*, *26*(2), 67–74. https://doi.org/10.1177%2F1088357610397345

Russ, S., Chiang, B., Rylance, B. J., & Bongers, J. (2001). Caseload in special education: An integration of research findings. *Exceptional Children*, *67*(2), 161–172. https://doi.org/10.1177%2F001440290106700202

Sanetti, L. M. H., Collier-Meek, M. A., Long, A. C. J., & Kratochwill, T. R. (2014). Using implementation planning to increase teachers' adherence and quality to behavior support plans. *Psychology in the Schools*, *51*(8), 879–895. https://doi.org/10.1002/pits.21787

Schaufeli, W. B., Leiter, M. P., & Maslach, C. (2009). Burnout: 35 years of research and practice. *Career Development International*, *14*(3), 204–220. https://doi.org/10.1108/13620430910966406

Schlichte, J., Yssel, N., & Merbler, J. (2005). Pathways to burnout: Case studies in teacher isolation and alienation. *Preventing School Failure*, *50*(1), 35–40. https://doi.org/10.3200/PSFL.50.1.35-40

Sellman, E. (2009). Lessons learned: Student voice at a school for pupils experiencing social, emotional and behavioural difficulties. *Emotional and Behavioural difficulties*, *14*(1), 33–48. https://doi.org/10.1080/13632750802655687

Shyman, E. (2010). Identifying predictors of emotional exhaustion among special education paraeducators: A preliminary investigation. *Psychology in the Schools*, *47*(8), 828–841. https://doi.org/10.1002/pits.20507

Sindelar, P. T., Brownell, M. T., & Billingsley, B. (2010). Special education teacher education research: Current status and future directions. *Teacher Education and Special Education*, *33*(1), 8–24. https://doi.org/10.1177%2F0888406409358593

Suter, J. C., & Giangreco, M. F. (2009). Numbers that count: Exploring special education and paraprofessional service delivery in inclusion-oriented schools. *The Journal of Special Education*, *43*(2), 81–93. https://doi.org/10.1177%2F0022466907313353

Sutherland, K. S., McLeod, B. D., Conroy, M. A., & Cox, J. R. (2013). Measuring implementation of evidence-based programs targeting young children at risk for emotional/behavioral disorders: Conceptual issues and recommendations.

Journal of Early Intervention, *35*(2), 129–149. https://doi.org/10.1177%2F1053815113515025

Taxer, J. L., Becker-Kurz, B., & Frenzel, A. C. (2019). Do quality teacher-student relationships protect teachers from emotional exhaustion? The mediating role of enjoyment and anger. *Social Psychology of Education*, *22*, 209–226. https://doi.org/10.1007/s11218-018-9468-4

Tsouloupas, C. N., Carson, R. L., Matthews, R., Grawitch, M. J., & Barber, L. K. (2010). Exploring the association between teachers' perceived student misbehavior and emotional exhaustion: The importance of teacher efficacy beliefs and emotion regulation. *Educational Psychology*, *30*(2), 173–189. https://doi.org/10.1080/01443410903494460

U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse. (2016). *Children identified with or at risk for an emotional disturbance topic area intervention report: Functional Behavioral Assessment-based interventions*. http://whatworks.ed.gov

Van Loan, C. L., & Garwood, J. D. (2020a). Facilitating high-quality relationships for students with emotional and behavioral disorders in crisis. *Intervention in School and Clinic*, *55*(4), 253–256. https://doi.org/10.1177%2F1053451219855740

Van Loan, C. L., & Garwood, J. D. (2020b). Measuring relationships between adolescents with emotional and behavioral disorders and their teachers: A psychometric report. *Assessment for Effective Intervention*, *45*(2), 144–150. https://doi.org/10.1177%2F1534508418786779

Van Loan, C. L., Garwood, J. D., Smith, S. W., & Daunic, A. P. (2019). Take CHARGE! A randomized controlled trial of a social problem-solving curriculum to support students with emotional and behavioral disorders. *Journal of Emotional and Behavioral Disorders*, *27*(3), 143–153. https://doi.org/10.1177%2F1063426617754083

Vannest, K. J., Harrison, J. R., Temple-Harvey, K., Ramsey, L., & Parker, R. I. (2011). Improvement rate differences of academic interventions for students with emotional and behavioral disorders. *Remedial and Special Education*, *32*(6), 521–534. https://doi.org/10.1177%2F0741932510362509

Varghese, C., Garwood, J. D., Bratsch-Hines, M., & Vernon-Feagans, L. (2016). Exploring magnitude of change in teacher efficacy and implications for students' early literacy growth. *Teaching and Teacher Education*, *55*, 228–239. https://doi.org/10.1016/j.tate.2016.01.011

Wang, E. T. G., Ying, T., Jiang, J. J., & Klein, G. (2006). Group cohesion in organizational innovation: An empirical examination of ERP implementation. *Information and Software Technology*, *48*(4), 235–244. https://doi.org/10.1016/j.infsof.2005.04.006

Wehby, J. H., Maggin, D. M., Moore Partin, T. C., & Robertson, R. (2012). The impact of working alliance, social validity, and teacher burnout on implementation fidelity of the Good Behavior Game. *School Mental Health*, *4*, 22–33. https://doi.org/10.1007/s12310-011-9067-4

Weiss, H. M., & Cropanzano, R. (1996). Affective events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Research in Organizational Behavior*, *18*, 1–74.

Williams, J., & Dikes, C. (2015). The implications of demographic variables as related to burnout among a sample of special education teachers. *Education*, *135*(3), 337–345.

Wong, V. W., Ruble, L. A., Yu, Y., & McGrew, J. H. (2017). Too stressed to teach? Teaching quality, student engagement, and IEP outcomes. *Exceptional Children*, *83*(4), 412–427. https://doi.org/10.1177/0014402917690729

Yoon, J. S. (2002). Teacher characteristics as predictors of student-teacher relationships: Stress, negative affect, and self-efficacy. *Social Behavior and Personality*, *30*(5), 485–494. https://psycnet.apa.org/doi/10.2224/sbp.2002.30.5.485

Youngs, P., Jones, N., & Low, M. (2011). How beginning special and general education elementary teachers negotiate role expectations and access to professional resources. *Teachers College Record*, *113*(7), 1506–1540. https://doi.org/10.1177/016146811111300704