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Stakeholder perspectives of adaptations of a burnout intervention for special education teachers

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Abstract

The high attrition and turnover rates of qualified special education teachers (SETs) is a significant concern exacerbated by COVID-19. Unfortunately, there are limited studies available on research-based interventions to decrease burnout. The purpose of this study was to describe our processes and results for adaptations and modifications of BREATHE, a burnout intervention originally developed for community mental health workers, into Burnout Reduction: Enhanced Awareness, Tools, Handouts, and Education: Evidence-based Activities for Stress for Educators (BREATHE-EASE) for special educators with guidance from the Framework for Reporting Adaptation and Modifications to Evidence-Based Interventions (FRAME). We applied the FRAME within a hybrid Type 1 trial for characterizing our approach. Four focus groups (N = 30; 83% female) were conducted separately according to job title (SETs; school administrators), with semi-structured questions tailored to each group. Emergent thematic analysis was used to identify core themes related to adaptations, and results were presented to a subset of focus group members. Modifications involved content, context, and implementation changes for the adapted intervention, with most changes identified for content. FRAME was helpful for providing a systematic approach to integrate stakeholder-informed adaptations of a burnout

intervention, addressing significant concerns of SET stress, burnout, and attrition.

KEYWORDS
BREATHE, FRAME, intervention adaptation, special education teacher burnout

1 | INTRODUCTION

The field of special education is at a precarious tipping point. For decades, researchers, professional organizations, and policy makers have lamented the high attrition and turnover rates, and the resulting shortage of qualified special education teachers (SETs; Emery and Vandenberg, 2010; Peyton et al., 2021; Shen et al., 2015). Further, the COVID-19 pandemic has further aggravated these issues for special educators, increasing the stress in an already challenging profession (Smith, 2020). In a recent survey of 468 special educators surveyed across the United States during 2020 (Cormier et al., 2021), 38.4% met clinical criteria for generalized anxiety disorder and 37.6% for major depressive disorder. Further, teachers reported that the pandemic had a moderate to extreme impact on their stress (91%), depression (58%), anxiety (76%), and emotional exhaustion (83%). These findings may be the harbinger of more problems to come—increased teacher attrition. Before the pandemic, the annual turnover rate was estimated to be as high as 25% (Cook & Boe, 2007; Nichols et al., 2008); more critically, 92% of states report a significant shortage of available special educators (Cross, 2017). There is growing recognition that the attrition in special education cannot be solved solely by increasing the number of special educators (e.g., Carver-Thomas & Darling-Hammond, 2019). Instead, sustainable solutions, although complex (Billingsley, 2004; NCTAF, 2007), must include research-supported interventions to directly address attrition and its antecedent, burnout.

Unfortunately, there are limited studies available on research-based interventions to decrease burnout with educators, especially special educators (Garwood, 2022; Iancu et al., 2017). Because teachers encounter a number of unique challenges, Iancu and colleagues (2017) recommended that burnout reduction interventions be designed for educational settings specifically. This recommendation is consistent with implementation science that shows that the contextual fit is critical for maximal implementation outcomes (e.g., acceptability, feasibility, appropriateness; Proctor et al., 2011). Of the limited studies specific to educators in general, most target teacher coping and problem-solving using a cognitive-behavioral framework (e.g., Cooley & Yovanoff, 1996; Ebert et al., 2014) or a mindfulness-based approach (e.g., Maricuțoiu et al., 2016; Roeser et al., 2012). However, according to a recent meta-analysis of 23 controlled trials, Iancu et al. (2017) calculated only a small effect size for interventions in reducing burnout. Moreover, of these trials, only two focused on SETs (Breeman et al., 2016; Cooley & Yovanoff, 1996) and none employed an effectiveness-implementation approach identifying teacher and school administrator recommendations for a burnout intervention.

1.1 | Breathe

To address the need for more evidence-based interventions for special educators, we turned to a burnout intervention originally intended for community mental health workers called BREATHE (Burnout Reduction: Enhanced Awareness, Tools, Handouts, and Education; Rollins et al., 2016; Salyers et al., 2011, 2019). This intervention was based on the Job Demands-Resources (JD-R; Demerouti & Bakker, 2001) model of burnout which hypothesizes that the cause of burnout is due to an imbalance between the excessive demands of a job and the lack of resources available to help employees effectively cope (Figure 1; Salyers et al., 2022).

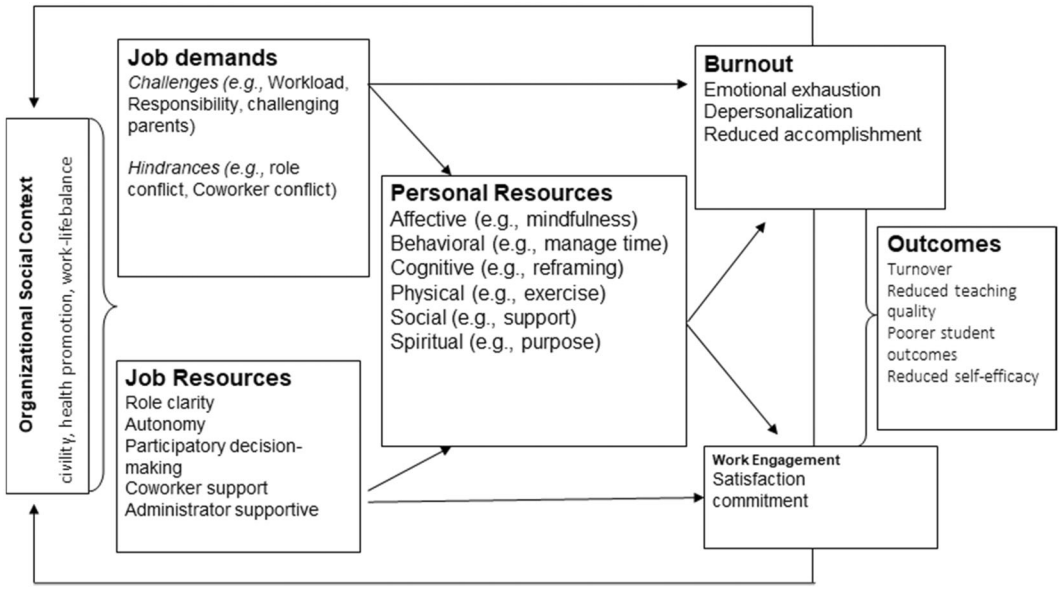

FIGURE 1 Differentiated job demands and resources within an organizational social context.

BREATHE aims to enhance personal resources through increasing effective coping strategies (e.g., mindfulness, interpersonal effectiveness at work) while decreasing demands by reducing stressors (e.g., learning to set boundaries, improving time management). BREATHE was developed and tested originally with community mental health workers, and participants have shown improvements over time in two critical aspects of burnout, depersonalization (e.g., feelings of cynicism toward those with whom you work) and emotional exhaustion (e.g., feelings of exhaustion related to work) (Rollins et al., 2016; Salyers et al., 2011, 2019). Although two randomized controlled trials of BREATHE did not demonstrate statistically significant experimental gains (Rollins et al., 2016; Salyers et al., 2019), qualitative analyses of BREATHE participant interviews demonstrated positive impacts including increased social connections at work, improved self-care, and reduced burnout (Salyers et al., 2019).

The personal resources targeted by BREATHE include contemplative (e.g., relaxation; mindfulness) practices and individual renewal and self-care plans for enhancing affective and physical resources. Behavioral and cognitive resources include strategies for managing one's workload, evaluating how employees think about work using a cognitive behavioral framework (e.g., reframing stressful, distorted or inaccurate thoughts and replacing them with more realistic and healthier thoughts), problem solving for reclaiming time (e.g., setting boundaries, saying "no"), organizing time (e.g., scheduling around strengths and values), and changing the way challenges are approached. Spiritual aspects include finding meaning or reconfirming meaning in one's work with a focus on gratitude. Lastly, strategies are introduced for enhancing social support and managing workplace incivility (e.g., how distorted or inaccurate beliefs lead to inappropriate action, and replacing these with healthy responses), having critical or difficult conversations, and building relationships. The delivery of the psychoeducational content includes opportunities for large and small group discussions, and role-plays. Participants receive a workbook that includes powerpoints from the presentation, activity and workbook exercises, and a personalized wellness plan. See Table 1 for the BREATHE curriculum. BREATHE was originally planned as a one-day workshop, but with feedback from participants, it was also delivered as two, half-day workshops.

TABLE 1 BREATHE-EASE curriculum.

Module	Description of the module
• Module 1: Reminding ourselves to BREATHE in our work	• Introduction and ground rules • Definitions and descriptions of burnout • Overview of burnout in teachers and its impact • Framework/principles of BREATHE-EASE • Cornerstone/contemplative practices
• Module 2: Managing our workloads	• Meaning/values and basics of cognitive behavioral technique • Reclaiming time, setting compassionate boundaries, scheduling
• Module 3: Connecting with others	• Having difficult conversation • Social support and building the right relationships

Abbreviation: BREATHE-EASE, Burnout Reduction: Enhanced Awareness, Tools, Handouts, and Education: Evidence-based Activities for Stress for Educators.

1.2 | Implementation science and intervention adaptation

As recommended by Brownson et al. (2012), before testing the clinical effectiveness of BREATHE with special educators, stakeholder input was obtained to ensure that the perspectives of teachers and school administrators were considered in modification decisions for design, content, and delivery of the adapted intervention renamed BREATHE-EASE (Burnout Reduction: Enhanced Awareness, Tools, Handouts, and Education: Evidence-based Activities for Stress for Educators). Stakeholder input is essential for clinical effectiveness and implementation research (Curran et al., 2012). Implementation outcomes of feasibility (i.e., how well the intervention can be delivered within a setting), acceptability (i.e., satisfaction with the intervention), and appropriateness (i.e., the goodness of fit of the intervention within a specific setting) in addition to clinical effectiveness helps in supporting more rapid translation of research into practice. Although similar, these constructs differ because a study may be able to be implemented (i.e., feasible), but participants may not be satisfied (i.e., acceptable). In turn, participants may believe the intervention is compatible with the setting (i.e., appropriate), but may not be satisfied with the intervention overall (i.e., acceptable) (Proctor et al., 2011). Thus, stakeholder input into the newly adapted intervention, BREATHE-EASE, provides important information for intervention adaptation by identifying acceptable, feasible, and appropriate modifications that will impact implementation. Also, given the limited support from experimental evaluations of BREATHE, we wanted to identify issues that could impact effectiveness to improve outcomes.

We were guided by the Framework for Reporting Adaptation and Modifications to Evidence-Based Interventions (FRAME; Wiltsey Stirman et al., 2019) for characterizing how we adapted BREATHE into BREATHE-EASE. Intervention adaptation is the process of purposeful alteration of an intervention with the goal of improving its fit and effectiveness for a particular context (Wiltsey Stirman, et al., 2019). Because little is understood about how adaptations of interventions are made, implementation science seeks to understand the process of what, how, and when adaptations occur. When adaptations increase the fit of an intervention for a particular context, implementation outcomes, such as feasibility, acceptability, and appropriateness are enhanced. To provide a structure for reporting adaptations and modifications, FRAME explicates eight stages of describing intervention adaptation (1) when and how the adaptation or modification was made; (2) if the modification was planned or unplanned; (3) who identified the modification; (4) what was modified; (5) the level of delivery targeted by the modification, (6) the type of modification; (7) the extent that the modification was fidelity-consistent, and (8) the rationale for the modification, including its purpose and what contextual factors influenced the modification. FRAME has been applied in

implementation science studies such as the adaptation of a mental health intervention for Latinx families of children with autism (Chlebowski et al., 2020) and an occupational therapy intervention adapted for telehealth (Piller et al., 2021). To date, a systematic approach such as FRAME has not been applied to the study of adaptation for SET burnout interventions. The purpose of the current study was to describe our processes and results for our adaptations and modifications of BREATHE for BREATHE-EASE using FRAME. We conducted a series of stakeholder-engaged activities to identify the adaptations, the content and context considerations for the adaptations, the nature of the modifications, and the rationale for the modifications.

2 | METHOD

2.1 | Participants

Participants were recruited by initial contact with special education directors from one southern state and one Midwestern state. Directors forwarded information on the study to teachers and other administrators in their district, and interested participants contacted the researchers directly to discuss the study. In total, participants (N = 30) consisted of 15 SETs representing grade levels preschool through high school (3 males, 12 females) and 15 administrators (2 males, 13 females), including special education directors, and school principals serving students in grade levels preschool through high school. The participants had a mean age of 45.8 (standard deviation = 10.5; see Table 2). All participants completed informed consent and the study was approved by University of Kentucky IRB.

2.2 | Procedure

To identify potential modifications for BREATHE-EASE, we implemented a two-stage approach. First, we conducted focus groups with stakeholders to inform adaptations that should be made to the BREATHE intervention to better-fit SETs. Second, these modifications were presented through a series of meetings to a workgroup comprised of a subset of stakeholders from the original focus groups to attain feedback on these changes. For the first approach, the research team obtained stakeholder comments that were first analyzed qualitatively to produce codes that were then summarized and used by the research team to determine potential adaptations. The team then discussed the feasibility of each solution and how to integrate into BREATHE to make the intervention adaptation and presented these changes to the workgroup for feedback. We describe each approach in detail below.

2.3 | Focus groups

To identify modifications for BREATHE-EASE, we conducted a total of four focus groups, two with school administrators only and two with special education classroom teachers only. The focus groups were done separately by job title and with questions tailored to the groups to promote openness, comfort, and freedom to share without inhibitions that might come from role influence (i.e., supervisory or administrative). For both groups, a moderator asked semi-structured questions (see Appendix) based on six broad areas: (a) participants' experiences with burnout (e.g., What does burnout look like?), (b) causes of burnout, (c) the observable impact of burnout on the school, teacher, and student, (d) ways to address burnout, (e) feedback on the existing content in BREATHE for BREATHE-EASE, and (f) potential barriers for implementing BREATHE-EASE, including best approaches for delivery (number of sessions, timing of delivery, etc.). Focus groups lasted an average of 90 min.

TABLE 2 Demographic data for study participants ($N = 30$).

Demographic variable	%	n
Gender		
Male	16.7	5
Female	83.3	25
Race		
Native American/Alaska Native	3.3	1
Black	6.7	2
White	90.0	27
Primary role		
Principal	16.0	5
Special education administrator	30.0	9
Special education teacher	50.0	15
Other	3.3	1
Years of experience in role		
<1 year	3.3	1
1–3 years	23.3	7
4–6 years	3.3	1
11–15 years	23.3	7
16–20 years	16.7	5
More than 20 years	30.0	9
Grade levels they work with		
Preschool/Kindergarten–Eighth grade	40.0	12
Preschool/Kindergarten–High school	13.3	4
High school	30.0	9
Did not answer	16.7	5

2.4 | Workgroups

After analyzing the themes, proposed adaptations for BREATHE-EASE were identified by the research team (see detailed results below). The modifications were reviewed over four sessions with the workgroup members to assess acceptability, appropriateness, and feasibility of the proposed adaptations and our interpretation of the data. These workgroup sessions also served as member checking to help ensure validity of the findings (Creswell & Miller, 2000) by asking participants to verify and validate our interpretations of the data. For the first and second sessions, we reviewed results from the focus groups and discussed the proposed adaptations. For the third and fourth sessions, we discussed focus group suggestions that fell beyond the scope of our intervention, as well as proposed measures, recruitment, and other strategies for increasing participation in the pilot study. The research team then made final adaptations and modifications for BREATHE-EASE.

2.5 | Measures

A semi-structured interview guide was developed (see Appendix) and administered to the focus group and workgroup participants. For the focus groups, a total of 10 primary questions with follow-up probes were discussed. To begin discussion, participants were asked to describe (a) how they defined burnout; (b) their experiences with burnout; and (c) symptoms and indicators of burnout. Following this initial conversation, they were asked to discuss (d) contributors to burnout; (e) the impact of burnout on education; and (f) strategies that will reduce burnout. They then were presented with the different topics covered in BREATHE and asked if (g) the existing content could help teachers); (h) what barriers might interfere with implementing the new intervention, BREATHE-EASE; (i) how these barriers can be reduced; and (j) what other ideas should the researchers know for helping teachers. Following the initial questions, follow-up questions were presented using specific prompts.

A more focused approach was used for the workgroup sessions. Session 1 involved a review of (a) the specific ways to enhance and adapt BREATHE content for BREATHE-EASE; (b) recommendations about the structure and format of BREATHE-EASE to best work with teachers; and (c) discussion of enhancing social supports. Session 2 involved continued discussion of (a) the causes of burnout; (b) what supports teachers need to communicate with parents and caregivers more effectively; and (c) how best to describe and present the intervention while reducing stigma and emphasizing positive aspects. Session 3 focused on the format and structure of the adaptations. This discussion included the current format, modality, and timing of the intervention delivery. Also included was a general review of the resources and information developed for administrators. The last session focused on additional information important for administrators about SET burnout and how we might effectively share this information with administrators. Each session occurred about every 2 weeks and lasted about 1 h.

2.6 | Data analysis

Focus group data were analyzed using emergent thematic analysis. To ensure the credibility, confirmability, transferability, and trustworthiness of the data (Wu et al., 2016), we triangulated data across sources, methods, and researchers. For sources, we obtained input from SETs, special education directors, and school principals. For methods, we used both focus groups and a stakeholder workgroup review of results and modifications. For researchers, we had multiple transcript coders and multiple data interpreters who did not participate in the delivery of the focus groups (Creswell & Miller, 2000; Duffy, 1987). We maintained objectivity through consultation with the developer of BREATHE who was not directly involved in the design or implementation of the focus groups.

The focus groups were recorded, transcribed, checked for accuracy, and entered into MAXQDA qualitative data analysis software (VERBI Software, 2019) to help store and facilitate access to data for coding and analysis. After each focus group was transcribed, a second researcher listened to the audio to ensure integrity of the transcripts while checking them for accuracy. To initiate qualitative analysis using a thematic analysis approach, two graduate research assistants read focus group transcripts to identify possible areas of pursuit (open coding) (Clarke & Braun, 2013). Through an iterative, consensus-building process, the research team reviewed the emergent themes related to the main topic areas (see Appendix) with guidance from a senior researcher (Salyers) and an advanced graduate student (Fischer). Once codes were discussed and refined, the researchers defined all codes and created the codebook. Team members then coded each transcript using MAXQDA. Team members first coded independently and then met to discuss and clarify the codes and their coded segments and come to a consensus. The codes were divided between two team members and the pairs met to discuss their summaries and subcodes, further identifying what subcodes were unique to teachers or administrators and what subcodes were similar. Saturation was determined when comparison between the coded segments across transcripts revealed no new themes.

For the workgroups, our goal was to conduct a targeted analysis and identify implementation issues for improving the fit and effectiveness of BREATHE-EASE. Thus, we applied methods commonly used in implementation science because of our a priori research questions and a need for rapid and timely turnaround of results (rather than continuous data collection over an extended timeframe as seen in traditional qualitative methods). Our rapid analysis technique (Reger et al., 2017) was based on key concepts identified in advance from our focus groups, allowing us to ask guided questions to rapidly inform our adaptations and modifications of BREATHE. Data were obtained using real-time notes aligned with the guided questions. The rapid assessment process resulted in main topics that were noted during the workgroup sessions. Following the session, the topics were summarized into a template of key actionable items and organized responses that were based on the content, context, and implementation factors of what was already in BREATHE that should remain in BREATHE-EASE, what could be added to BREATHE-EASE or modified for BREATHE-EASE, and what was beyond the scope of BREATHE-EASE.

Using the FRAME-enhanced framework (FRAME; Wiltsey Stirman et al., 2019), we described the content, nature, and goals of each modification. For the nature of specific modifications, the recommendations were classified using FRAME's specific content categories with specifiers indicating why the adaptation was made. In addition to FRAME classifications, the current study collected stakeholder-identified reasons for each adaptation, which were used to identify the goal of the proposed adaptation.

3 | RESULTS

The following modifications were suggested by the focus group and workgroup members for BREATHE-EASE. Overall, the modifications based on FRAME fell within three areas: content, context, and implementation. Table 3 summarizes the modifications, including descriptions of the reason, goal, nature, and recommender (teacher; administrator; workgroup) of the modification.

3.1 | Area 1: Making content changes for BREATHE-EASE

For content changes, three areas were identified for modifications to (a) improve fit to reduce psychological jargon; (b) improve fit for SETs by providing classroom-based examples; and (c) increase effectiveness. Each is reviewed next.

3.1.1 | Improve fit to reduce jargon

BREATHE-EASE is based on general psychological wellness principles (e.g., relapse prevention) from BREATHE for community mental health workers. While describing the intervention to SETs and workgroup members, a recommendation was made for wording and level of content to be adjusted for SETs who would likely need more background on the principles underlying BREATHE-EASE such as explanation of cognitive-behavioral therapy. Thus, more descriptions of concepts of mental health appropriate for professionals who did not necessarily have specific mental health knowledge were incorporated.

3.1.2 | Improve fit with SET-specific examples

To improve the fit of BREATHE-EASE, we used the feedback from the SETs, administrators, and workgroup members and substituted, added elements, and tailored the content of the workshops related to (a) the expression

TABLE 3 Modifications and adaptations.

Modifications	Reason	Goal	Nature	Recommendations by group		
				SETs	Administrators	Workgroup
BREATHE-EASE intervention content changes	Need language that SETs understand (e.g., relapse prevention; CBT)	Improve fit to address recipient language	Tailoring	Use everyday language for describing psychological concepts		Teachers will need more background on some of the principles (social and emotional components) of CBT
	Need specific and actual examples of situations related to being a SET that lead to stress and burnout and improve perception of the intervention and its relevance with strategies that could be applied into classrooms/work and outside of work, and a need to acknowledge workplace incivility and communication barriers and potential solutions	Improve fit for SETs	Substituting, adding elements, and tailoring	Issues that lead to burnout are how to (a) deal with the little time available during the day to complete mandatory tasks, (b) have difficult conversations with administrators, co-workers, and parents, (c) balance workload, set boundaries, and (d) adjust, and deal with feeling disrespected	Teachers need to learn to set boundaries with others (wait to respond to emails until planning time) and be taught to be self-aware of triggers and personal limits, know when to step way to return to their balance point	The content on time management and building social support are things we know we should do better; role-plays, including how to talk to parents. Sometimes frustration comes from interactions between general and SETs; have examples for how to have difficult conversations with general ed teachers and administrators
	Include opportunities for small group problem solving during the workshop and for creating "balance buddies" for addressing stressful issues between workshops	Increase effectiveness	Adding elements	Need more social support, especially for SETs that feel isolated and lack other SETs in their school	Need to build staff relationships	Consider monthly breakfast meetings with new and experienced teachers; online social support
Context	Social support is important for increasing personal resources and reducing stress	Increase effectiveness	Adding elements	Be able to connect with SETs outside one's school; obtain peer support	Teachers need a mentor or one-on-one support or a formal social support group	

(Continues)

TABLE 3 (Continued)

Modifications	Reason	Goal	Nature	Recommendations by group		
				SETs	Administrators	Workgroup
	Teachers may not participate if they view burnout as a stigma. For normalizing burnout, allow teachers time during the school day to attend the workshops	Increase engagement	Packaging	Teachers often feel that they need to have all the answers and cannot ask for help	Let teachers know that it is okay to not have all the answers and ask for help	Consider using "thrive" rather than resilience. Get commitment from principal and others for teacher participation
Implementation	To match the delivery modality (in person, zoom), frequency of workshops, and timing (fall, spring, short sessions; after school) to the preferences of the school To increase accessibility and acceptability, conduct first session in person; videotape sessions for people who cannot attend	Increase reach and feasibility engagement, and retention	Tailoring	Offer the workshop at the start of the year so that teachers get support when their stress is higher over the year		Especially important to provide support to teachers at the end of the year when they are very stressed with grades and IEPs, etc.; shorter workshops, the better; ideally have first session in person, then zoom; have video recordings after meeting in person or on zoom
	For gaining administrator buy-in and providing information on how they can help current teachers and recruit new teachers	Increase reach	Packaging and adding elements		Administrators need to understand the warning signs of burnout and how to help teachers	Administrators need resources for how to support teachers experiencing burnout and reminders that the intervention is a support that can help with recruitment of new teachers

Abbreviations: BREATHE-EASE, Burnout Reduction: Enhanced Awareness, IEPs, individual education programs; Tools, Handouts, and Education: Evidence-based Activities for Stress for Educators, CBT, cognitive behavior therapy; SET, special education teacher.

of burnout from SETs, (b) the antecedents or issues specific to SETs, and (c) factors that can alleviate burnout. Incorporating examples that came directly from stakeholders helped inform the overall fit of the intervention.

Expression of burnout

To understand the psychological aspects and impacts of burnout, SETs reported feeling underappreciated, like giving up, not being able to reactivate positive feelings, having self-doubts, and feeling ineffective. Both teachers and administrators described the behavioral manifestations of burnout as working the minimal amount, leaving the job, negative interactions with co-workers, and taking "mental health" days off. Only teachers reported additional behaviors of crying and poor self-care.

Antecedents of burnout

Factors that led to burnout (i.e., antecedents specific to SETs) fell within four subcategories: (a) lack of support and understanding from co-workers and administrators, (b) job responsibilities, (c) student needs, and (d) caregivers. Multiple teachers explained how their interactions with other co-workers led to cumulative stress and burnout, particularly a lack of understanding and support from administration. During a focus group with just SETs, a teacher explained, "The biggest thing at our school is just not being appreciated by the administration. They just … you know 'that's your problem'. You know?" Along with the responsibilities of their own positions, SETs often find themselves helping other teachers. For example, teachers stated that they often spend time coaching general education teachers regarding strategies for teaching content to special education students, on top of their normal duties. Despite the extra attention or effort given to other teachers, participants still felt underappreciated and a lack of respect and understanding of their jobs from their colleagues. Many participants specifically reported that their administrators did not understand the difficulties and challenges of their jobs, as one teacher described, "Oh yeah, goes back to administration not understanding. Cause you know, I have several students who are in the sixth grade, several students on the first-grade level reading, but they are expected to pass that … test."

Job responsibilities were identified as a common cause of burnout, as participants across focus groups reported being asked to complete several responsibilities on top of one's normal workload. For example, teachers reported that as special educators, they were often asked to serve as substitute teachers or even cover classrooms for longer periods of time that have no teacher due to turnover, which takes away time from their regular duties and requires teachers to build new relationships with the staff and students outside their caseload—an emotionally taxing task. One teacher explained, "I'm in a classroom teaching math all day, English all day, social studies all day, because we don't have enough [general education] subs." Participants frequently discussed how SETs are overworked with more paperwork than can be completed during school hours resulting in teachers giving up personal time outside of work hours to finish job tasks. Participants mentioned that the stress of accountability to standardized test scores also contributes to burnout. SETs reported experiencing pressure for raising scores of their special education students because they negatively impact the scores of the student body, and principals and administrator participants agreed that the testing requirements were especially challenging for special educators. One principal discussed the burden felt by teachers using state testing to demonstrate progress, "I think in addition to that, our state testing that the public sees, is not really conducive to the information that we need to see if those students are progressing." SETs may also experience stress due to ever-changing rules. Focus group members discussed that SETs often must cope with learning and following new special education guidelines and job expectations, including learning how to complete the paperwork that accompanies these changes. One teacher participant reflected that "People are burned out because the expectations are rising and class caseloads are rising, and we're only one person."

Participants identified cumulative stress from interactions with challenging students as an important cause of burnout. Teachers and administrators reported that SETs often must deal with the emotional and behavioral challenges of their special education students, which can sometimes lead to constant crisis management that

impacts their ability to teach effectively. An administrator participant articulated it clearly by naming it "secondary trauma."

> Because the big experience that we have right now with our teachers that are getting burned out is really related to that secondary trauma. We've had a lot of kids in crisis this year. And a lot of kids in crisis … a lot during the day. And when we don't address how the teacher is feeling after one of those events, or after we've done the debriefing with the parent over having to use safe crisis management, then what are we doing for that teacher? And we've missed that, and I've seen that that's been a huge factor, especially for our newer teachers when they are, you know it's their first-year teaching.

Finally, while crisis management for the more challenging students may be a source of burnout, teachers and administrators also stated that interactions or working with parents and caregivers of their students around challenging situations can also contribute to SET burnout. One teacher recalled that she had "been dealing with a lot of our incoming parents that just aren't trusting us as a professional …. we are documenting, we are doing everything, and they are always questioning our ability or [whether we are] following the individual education program (IEP)."

Factors for alleviating burnout

Repeatedly and across all focus groups, teacher participants stated that more understanding from their administrators would be helpful. It was clear that participants felt misunderstood by their administrators, which led to feelings of exhaustion and fatigue. One participant said:

> I don't feel like they have a clue what we do. I don't think they have any concept of what our jobs really are … I think their focus is usually regular ed, and they don't think about what the special ed teachers are doing and how that is gonna be different from what somebody else might be doing.

Teachers explained that it would also be helpful if administrators provided more realistic expectations around special education, especially in relation to goals for student progress. In both teacher and administrator focus groups, helpful solutions often involved more empathy, understanding, and support from administrators. Both teacher and administrator participants stated administration may help reduce teacher burnout by providing more positive feedback, showing more respect, and being more visible by visiting the teachers' classrooms. This was a recurring theme in the data, as teachers reported lack of support from their principals and administrators who did not understand the unique challenges and roles faced by a SET. Because of these factors in total, multiple participants felt that administers could benefit from individualized burnout interventions and training designed to teach administers how to support special educators, in addition to teachers receiving burnout interventions.

Additionally, suggestions for intrapersonal factors were offered that included personal growth and skills related to learning to set boundaries, strategies for having difficult conversations, and improved time management. Participants explained that teachers naturally see their job as functioning without strict hours to meet deadlines and plan for classes, and they, therefore, continuously work outside of their scheduled work hours. Creating boundaries between professional and work time as well as boundaries around their job description might help decrease burnout and increase respect and understanding for being a SET. Participants explained that training and support in having difficult conversations, a frequent demand of SETs, might help reduce the burnout and stress related to those conversations. Finally, time management, a theme intertwined in many of the findings from this study, was identified as an area of growth for all SETs and an important intrapersonal skill to reduce burnout. Many teachers reflected on how it was the "students who suffer when teachers are burned out" and the challenge when teachers don't have quality time management skills: "Teachers are giving kids not the planned lessons and the instruction

they need because they are so overwhelmed and all they can do is try to get all that little stuff into the computer before they leave."

Thus, to improve the fit of BREATHE-EASE, we incorporated feedback from the SETs, administrators, and workgroup members. We added information on SET-specific examples of the manifestations of burnout and substituted role-play activities and other examples with SET-specific situations that came from the focus groups. We also tailored activities with language expressed by participants.

3.1.3 | Increase effectiveness

Although BREATHE includes content on the importance of social support and strategies for enhancing personal resources, elements were added in this area based on stakeholder feedback that was repeated across all participant groups. SETs, administrators, and workgroup members all commented on the need for SETs to have more social support, especially for SETs that are isolated and lack other SETs in their school. Stakeholders suggested this could include online support and monthly breakfast meetings. They also noted that building relationships in and out of the workplace was needed to help counter feelings of burnout. To address this recommendation, we added small group activities during the workshop where members stayed constant throughout the workshop. We also created these small groups with SETs from different schools as much as possible to allow for increased opportunities of varied perspectives and experiences to be shared.

3.2 | Area 2: Making context changes with BREATHE-EASE

Stakeholders provided recommendations related to context changes for increasing effectiveness and engagement.

3.2.1 | Increase effectiveness

One theme that resulted from the SET and administrator focus groups was the need to connect with SETs outside one's school, receive mentoring or one-on-one support, or be part of a formal social support network. One principal explained that they were working on building staff relationships to decrease stress by "encouraging teachers that [they] do need to establish friendships and relationships with [other staff], so [they] have somebody to go to." Thus, although we discussed the modification of adding elements of small group problem solving using the same participants for each small group activity across the workshop sessions, we also maintained the inclusion of "balance buddies" for between-session support. Further, we encouraged balance buddies to maintain contact between the workshops so that they could share successes, seek input when there was needed support, and problem solve. We allowed the small groups to decide how they wanted to maintain contact between sessions through online support, social media, or text messaging.

3.2.2 | Increase engagement by normalizing burnout

Participants described barriers and challenges to consider when designing a burnout intervention. Such barriers included stigma associated with the label "burnout," lack of resources including teacher-related reasons (time, psychological, and physical), and school and community-related factors. Although responses varied, common themes emerged. First, both teachers and administrators discussed the stigma that exists around teachers' help-seeking behavior and self-reflection. Focus groups members stated that teachers may not feel comfortable and

even fearful admitting to feeling burned out. One teacher said, "You know, a lot of people are afraid to ask for help because then somebody says, 'Oh you know, she can't do what she's supposed to be doing.'" This may act as a barrier by hindering participation in a burnout intervention or being able to admit that help is needed. Thus, to address this recommendation, we repackaged the intervention as a wellness intervention. Also, in the workshop, when we define burnout, we normalize it and discuss it as an experience we all share at times in the help-giving professions.

3.3 | Area 3: Making implementation changes with BREATHE-EASE

Recommendations were offered by SETs and workgroup members on how to tailor and package BREATHE-EASE to increase reach, engagement, retention, and feasibility of the intervention.

3.3.1 | Increase reach, engagement, feasibility, and retention

All participant groups provided recommendations on the timing and modality of delivery of the intervention. Administrators and teachers had many ideas on when and how to do interventions; often competing, or at least differing, approaches were mentioned. For some schools, that might be summer or early in a semester, while some suggested that shorter workshops spread over the school year would be beneficial. SETs suggested that the workshop should be offered at the start of the year to get support early that can be accessed when stress increases over the school year. On the other hand, the workgroup recommended that support should be provided at the end of the year when they are very stressed with grades, IEPs, and so on. Although there was no consensus in terms of when to host training related to a burnout intervention, participants suggested that decisions be made locally, depending on the teachers and schools involved. Participants also provided suggestions about the worst times to meet (specifically, not a Monday, Friday, or next to a long weekend).

Participants also considered teacher and school resources when discussing the timing of the training. One teacher explained that "for me, it's also all the work … There's no time during the day to work on my special education paperwork. That always has to be done at home." If SETs already feel they have little time to devote to their mandatory tasks, then a burnout intervention, no matter how helpful, is going to be difficult to commit to. Focus group members stated that teachers are already very busy and may not have the mental resources available to add more to their schedules by participating in an intervention. Participants explained that if the intervention is conducted during the school day, schools may lack the funds to pay for substitute teachers or may not even be able to find a substitute teacher to enable the teacher to attend the intervention. In addition, administrators discussed already having allocated time for teachers to attend required training and professional development opportunities, which serves as a barrier to additional time for training. Teachers may not be motivated to participate in the intervention, or their administrator may not allow them to participate if the intervention is delivered during school hours. Some teachers suggested that the intervention could be counted as professional development as a suggestion for how to overcome that barrier. Regardless of when the training occurs, participants reported that it would be important to develop incentives that fit into the local school requirements

In terms of how to provide training, there was a lot of support for at least some portion of the training to be in-person (note that the focus groups took place before COVID-19 pandemic). However, both administrators and teachers supported a multimodal approach, with also having online and app-based approaches to supplement an in-person workshop. Thus, we tailored the implementation of BREATHE-EASE to be able to be delivered online or in person and as a 2-day or 3-day workshop, or over multiple 60- or 90-min sessions that could be delivered during school hours or after school depending on preferences of administrators and teachers.

3.3.2 | Increase reach by packaging and adding elements of the intervention for administrator buy-in

To improve interest and motivation for administrator buy-in with the intervention, administrators reported that they need to be more aware of the warning signs of burnout and how to intervene. Further, in the workgroup discussions, members reported that when trying to hire new teachers, administrators are often asked by college students about the kind of support provided during recruitment. Thus, we packaged BREATHE-EASE as an organizational support tool for SETs. We also developed a webinar describing SET burnout, its antecedents, and how administrators can support teachers (Administrator Webinar).

4 | DISCUSSION

This study was conducted to inform adaptations of a burnout intervention for SETs using the Framework for Reporting Adaptations and Modifications—Expanded as a guide (Wiltsey Stirman et al., 2019) for classifying the modifications. Intervention adaptation is critical for improving fit and maximizing effectiveness of evidence-based practices (EBPs; Wiltsey Stirman et al., 2019). On average, 86% of EBPs are never adopted. The remaining 14%, takes on average 17 years before they become the standard of practice (Balas & Boren, et al., 2000). Understanding the local context and tailoring implementation activities are designed to decrease this research-practice gap by increasing the reach and feasibility of an intervention and engagement and retention of participants—necessary outcomes for scalability and use. Without adaptation, interventions are viewed as a poor fit making acceptability of interventions by stakeholders difficult (Damschroder et al., 2009). As a result, our purposeful and active approach for meaningful engagement of stakeholders for proactive adaptation of BREATHE-EASE should help improve implementation outcomes. We are currently evaluating BREATHE-EASE using a randomized control design, followed by a pre–post design (Ruble et al., 2023; Stayton et al., 2023). While findings are pending, preliminary feedback suggests that teachers find BREATHE-EASE informative, helpful, and engaging as expected. When EBPs are adapted, increased fitness, improved involvement, increased acceptability, and improved clinical outcomes are observed. However, despite its importance, little research attention has been given to the documentation of planned modifications including the process, nature, and results (Sundell et al., 2016). This may be surprising because implementation science rests on the assumption that EBPs must consider the fit with the target population (Bernal & Rodríguez, 2012).

Responding to the need for SET-specific interventions to reduce burnout (Iancu et al., 2017), we adapted a research-based intervention (BREATHE; Salyers et al., 2011) originally developed for mental health professionals. With input from stakeholders, we created an "enhanced" version uniquely designed for and with special education professional input called BREATHE-EASE. By gathering direct perspectives from key informants including SETs, principals, and special education administrators, their candid experiences and history with burnout directly shaped the intervention in terms of content, context, and implementation. As mentioned, such intervention adaptation is critical (Brownson et al., 2012) for clinical effectiveness and implementation research with attention to tailoring interventions to meet the needs of the employees for whom they are designed Maricuţoiu et al. (2016).

Characterizing our modifications using the FRAME approach, we identified content, context, and implementation changes for BREATHE-EASE. The specific goals for our changes were to improve the fit of the intervention for SETs, increase the effectiveness and feasibility of the intervention, and increase the engagement, reach, and retention of participants. By understanding potential barriers and facilitators related to the implementation outcomes and effectiveness of BREATHE-EASE at the start, there is an opportunity to advance findings more quickly for a meaningful public health impact—a goal that is especially urgent as school administrators seek interventions to retain teachers (Institute for Education Sciences [IES], 2022). The COVID pandemic has accelerated these concerns. In a sample of 830 public schools, about a third of schools reported that the percentage

of staff who requested mental health services increased since the start of the COVID-19 pandemic (National Center for Education Statistics, 2020).

Themes for modifications mostly focused on intervention content changes for using language appropriate for SETs. Addressing jargon has been recognized as a significant issue in implementation science (Brownson et al., 2012). Ensuring that stakeholders have a common understanding and acceptance of terminology is important for fit. Other changes based on improving fit were embedding real-life examples and content related to SET-identified issues of burnout and its causes. Interventions are more successful when they utilize language and examples that are consistent with the experiences of those they are intended to help. The behavioral and intrapersonal manifestations of burnout reported by our participants are consistent with constructs of burnout and findings from other researchers (Billingsley & Bettini, 2019). Maslach et al. (2001) conceptualized burnout as a psychological response to chronic job stressors characterized as exhaustion, detachment, and feelings of ineffectiveness. Input from our stakeholders provided examples consistent with Maslach that could be readily incorporated into changes in content.

Essentially all topics that were already part of BREATHE were corroborated by our focus groups and thus were maintained and easily adapted and applied to the teaching context. For example, topics focused on both the antecedents (e.g., poor work-home boundaries or lack of feeling valued) and consequences of burnout as applied to the teaching context (e.g., completing work in a timely manner or updating student teaching plans). Similarly, the content included contemplative, cognitive behavioral, and skill-based strategies as verified by participant feedback. That is, cognitive strategies for thinking about how time is valued, prioritized, and spent at work and home, and skill-based strategies for time management and completing tasks efficiently and effectively are discussed. Further, a universal theme expressed within all interviews with stakeholders was lack of time and being spread "too thin." Perceptions of insufficient time to adequately perform their work is consistent with results from prior studies and has been well-researched in work examining attrition and special education (e.g., DeMik, 2008), along with research on other resource shortages including classroom materials, curriculum, planning time, and professional development (Robinson et al., 2019). BREATHE-EASE addresses this common finding by including a component that educates participants on time management strategies, discussing how to prioritize work tasks as well as how to think about one's work, and how to communicate with supervisors and administrators, when necessary, about work priorities.

The problems stakeholders described often involved interpersonal and workload issues that required problem solving skills. Thus, in BREATHE-EASE we included additional skill-building examples such as better use of problem-focused versus avoidance-focused problem solving, having difficult and challenging conversations with co-workers and administrators rather than making assumptions of intent of others' actions, setting boundaries and balancing one's workload, managing confusing or upsetting situations, and identifying and accessing social support. Further, the use of teacher-described scenarios for role-plays and discussion of challenging issues provided meaningful problem-solving scenarios directly relevant to teachers.

A factor consistently described by teachers and also confirmed by multiple researchers that alleviates teacher burnout is social support (Ansley et al., 2019; Bettini et al., 2018; Fernet et al., 2013; Garwood et al., 2018; Greenberg et al., 2011; Tyler & Brunner, 2014; Maslach & Leiterh, 1999). Teachers are part of an integrated workplace that requires them to have multiple, long-term interactions with co-workers and students. Because of the importance of social support from colleagues, elements were added to enhance BREATHE-EASE outcomes. The original BREATHE intervention had participants pair up with other participants for interactive activities in a random fashion (your neighbor sitting next to you). But for BREATHE-EASE, the same members were used in each small group across all the workshops to allow opportunity for relationship-building and for interacting with members from different schools to provide a more diverse set of viewpoints and experiences for discussion. Relatedly, with the goals of increasing effectiveness and engagement, we retained the concept of "balance buddies" that was recommended in BREATHE. Buddy systems are commonly used in other interventions, such as weight loss or smoking cessation (Abrams & Follick, 1983; May & West, 2000). Specifically, the teachers in the small groups were

encouraged to serve as "balance buddies" and be available for each other between workshop sessions and after the intervention. For engagement, we packaged the intervention as a wellness intervention to normalize burnout.

When asked what barriers would prevent them from participating in an intervention for burnout, practical and logistical issues were reported. Participants stated that time, stigma, and professional development overload were common impediments. These findings were consistent with recommendations by Leko and Brownell (2009) who considered the unique context of special education in designing professional development opportunities. We attempted to address these factors using several methods, such as scheduling the intervention workshops around the needs of the school.

Implementation changes focused on improving fit included tailoring, packaging, and adding elements to BREATHE-EASE. Important information described by participants was a need for flexibility because they did not identify consistent information on the timing or delivery of BREATHE-EASE. These findings are in-line with other research on the need for interventions that can be applied in a variety of formats in terms of frequency and modality to meet the individual needs of different populations for fostering optimal implementation (Dindo et al., 2017). The results pointed to the need for assessment of the preference of the school as necessary to determine how the intervention should be delivered (in person, online, hybrid), how frequently it is provided (half-day workshops or 90 min sessions), and when it is provided (during the school day or after). BREATHE-EASE is flexible enough that it can be provided in different formats.

One common theme that also involved reach was the importance of administrative support and collaboration, which is consistent with the results from several prior studies (Billingsley & Bettini, 2017; Cancio et al., 2013; Youngs et al., 2011). For increasing reach, modifications on packaging and adding elements included the development of a webinar for administrators for increasing their understanding of SET burnout, its importance, and more importantly, how they can help.

Our results made clear the importance of including strategies within burnout interventions that target not only intrapersonal factors (teacher variables), but also organizational factors (e.g., administrator variables). These findings are consistent with recent meta-analyses reviewing interventions aimed at reducing burnout in the medical professions, which support the use of both individual and organizational interventions, particularly in combination (West et al., 2016) or to prioritize organizational level interventions over individual ones (Panagioti et al., 2017). Knowing that colleague and administrator support was identified as one of the causes of burnout, we found administrators to be very receptive to the idea of education on how best to reduce burnout among their teachers. Langher et al. (2017) advocated for a similar approach when they explored the association between perceived support in special education and concluded that collegial support was critical in reducing burnout. In addition to individualized training for administrators, participants also made recommendations for the involvement of teachers as facilitators, which would increase credibility and buy-in. Thus, future research that combines personal and organizational interventions is warranted.

5 | LIMITATIONS AND FUTURE DIRECTIONS

The study had several limitations. Although typical of a qualitative study, our sample was small and included participants from the same geographical area. Future research is needed with more diverse samples as research suggests that teachers of color experience different issues impacting their stress and workplace experience (Cormier et al., 2021).

A large body of research identifies SETs as "high-risk" for leaving the profession, as they have been reported to have low job satisfaction, increased stress, and increased burnout (Billingsley & Bettini, 2017; Emery & Vandenberg, 2010). Park and colleagues (2020) stated that "burnout has a long-term relationship with individuals who are constantly exposed to fatigue, hostility, discouragement, maladjustment, discomfort, and restraint" (p. 1), and many of these variables are commonly experienced by SETs. Stakeholder need suggests that implementation efforts to reduce burnout, with an approach like BREATHE-EASE, would be welcome. Future work with BREATHE-EASE

specifically will examine the intervention's adaptations through iterative studies including investigation into the sensitivity of the measures collected throughout the study to ensure alignment with the study's primary constructs, a randomized controlled trial, and a longitudinal examination of the intervention's effectiveness. Billingsley and Bettini (2019) note that while some teacher attrition is normal, 67% of attrition signifies that SETs are leaving the profession due to factors unrelated to retirement—a number that may be reduced with successful wellness interventions. This study is a step toward reducing that attrition, responding to the concerns of stakeholders, and supporting this group of essential teaching professionals.

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CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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REFERENCES

Abrams, D. B., & Follick, M. J. (1983). Behavioral weight-loss intervention at the worksite: Feasibility and maintenance. *Journal of Consulting and Clinical Psychology*, *51*(2), 226–233.

Ansley, B. M., Houchins, D., & Varjas, K. (2019). Cultivating positive work contexts that promote teacher job satisfaction and retention in high-need schools. *Journal of Special Education Leadership*, *32*(1), 3–16.

Balas, E. A., & Boren, S. A. (2000). Managing clinical knowledge for health care improvement. *Year Book of Medical Informatics*, *9*(01), 65–70.

Bernal, G. E., & Rodríguez, M. M. (2012). *Cultural adaptations: Tools for evidence-based practice with diverse populations*. American Psychological Association.

Bettini, E. A., Jones, N. D., Brownell, M. T., Conroy, M. A., & Leite, W. L. (2018). Relationships between novice teachers' social resources and workload manageability. *The Journal of Special Education*, *52*(2), 113–126.

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

Billingsley, B. S., & Bettini, E. (2017). Improving special education teacher quality and effectiveness. In *Handbook of special education*. Routledge.

Billingsley, B. S. (2004). Special education teacher retention and attrition: A critical analysis of the research literature. *The Journal of Special Education*, *38*(1), 39–55. https://doi.org/10.1177/00224669040380010401

Breeman, L. D., van Lier, P. A., Wubbels, T., Verhulst, F. C., van der Ende, J., Maras, A., & Tick, N. T. (2016). Effects of the good behavior game on the behavioral, emotional, and social problems of children with psychiatric disorders in special education settings. *Journal of Positive Behavior Interventions*, *18*, 1–12. https://doi.org/10.1177/1098300715593466

Brownson, R. C., Colditz, G. A., & Proctor, E. K. (2012). *Dissemination and implementation research in health: Translating science to practice*. Oxford University Press. Retrieved from https://pbrn.ahrq.gov/sites/default/files/docs/AHRQ_PBRN_Webinar_Dissemination_Implementation_7.22.15.pdf

Cancio, E. J., Albrecht, S. F., & Johns, B. H. (2013). Defining administrative support and its relationship to the attrition of teachers of students with emotional and behavioral disorders. *Education and Treatment of Children*, 71–94.

Carver-Thomas, D., & Darling-Hammond, L. (2019). The trouble with teacher turnover: How teacher attrition affects students and schools. *Education Policy Analysis Archives*, *27*, 36. https://doi.org/10.14507/epaa.27.3699

Chlebowski, C., Hurwich-Reiss, E., Wright, B., & Brookman-Frazee, L. (2020). Using stakeholder perspectives to guide systematic adaptation of an autism mental health intervention for Latinx families: A qualitative study. *Journal of Community Psychology*, *48*(4), 1194–1214. https://doi.org/10.1002/jcop.22296

Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. *The Psychologist*, *26*(2), 120–123.

Cook, L. H., & Boe, E. E. (2007). National trends in the sources of supply of teachers in special and general education. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, *30*, 217–232. https://doi.org/10.1177/088840640703000402

Cooley, E., & Yovanoff, P. (1996). Supporting professionals-at-risk: Evaluating interventions to reduce burnout and improve retention of special educators. *Exceptional Children*, *62*, 336–355. https://doi.org/10.1177/001440299606200404

Cormier, C. J., & Scott, L. A. (2021). Castaways on Gilligan's Island: Minoritized special education teachers of color advocating for equity. *Teaching Exceptional Children*, *53*(3), 234–242.

Creswell, J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice*, *39*(3), 124–130. https://doi.org/10.1207/s15430421tip3903_2

Cross, F. (2017). Teacher shortage areas nationwide listing 1990–1991 through 2017–2018 June 2017. Office of Postsecondary Education, US Department of Education. https://www2.ed.gov/about/offices/list/ope/pol/ateachershortageareasreport2017-18.pdf

Curran, G. M., Bauer, M., Mittman, B., Pyne, J. M., & Stetler, C. (2012). Effectiveness-implementation hybrid designs: Combining elements of clinical effectiveness and implementation research to enhance public health impact. *Medical Care*, *50*(3), 217.

Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, *4*(1), 50. https://doi.org/10.1186/1748-5908-4-50

Demik, S. A. (2008). Experiencing attrition of special education teachers through narrative inquiry. *The High School Journal*, 22–32.

Demerouti, E., Bakker, A. B., De Jonge, J., & Janssen, P. P. (2001). Burnout and engagement at work as a function of demands and Control. *Scandinavian Journal of Work, Environment, and Health*, *27*(4).

Dindo, L., Van Liew, J. R., & Arch, J. J. (2017). Acceptance and commitment therapy: A transdiagnostic behavioral intervention for mental health and medical conditions. *Neurotherapeutics*, *14*(3), 546–553.

Duffy, M. E. (1987). Methodological triangulation: A vehicle for merging quantitative and qualitative research methods Image. *The Journal of Nursing Scholarship*, *19*(3), 130–133.

Ebert, D. D., Lehr, D., Boß, L., Riper, H., Cuijpers, P., Andersson, G., Thiart, H., Heber, E., & Berking, M. (2014). Efficacy of an Internet-based problem-solving training for teachers: Results of a randomized controlled trial. *Scandinavian Journal of Work, Environment & Health*, *40*, 582–596. https://doi.org/10.5271/sjweh.3449

Emery, D. W., & Vandenberg, B. (2010). Special education teacher burnout and ACT. *International Journal of Special Education*, *25*, 119–131.

Fernet, C., Austin, S., Trépanier, S. G., & Dussault, M. (2013). How do job characteristics contribute to burnout? Exploring the distinct mediating roles of perceived autonomy, competence, and relatedness. *European Journal of Work and Organizational Psychology*, *22*(2), 123–137.

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.

Garwood, J. D. (2022). Special educator burnout and fidelity in implementing behavior support plans: A call to action. *Journal of Emotional and Behavioral Disorders*. https://doi.org/10.1177/10634266221099242

Greenberg, J. S. (2011). *Comprehensive stress management*. McGraw Hill.

Iancu, A. E., Rusu, A., Măroiu, C., Păcurar, R., & Maricuțoiu, P. (2017). The effectiveness of interventions aimed at reducing teacher burnout: A meta-analysis. *Educational Psychology Review*, *30*(2), 373–396. https://doi.org/10.1007/s10648-017-9420-8

Institute for Education Sciences. (2022). *Pulse Survey*. https://ies.ed.gov/schoolsurvey/spp/#tab-7

Langher, V., Caputo, A., & Ricci, M. E. (2017). The potential role of perceived support for reduction of special education teachers' burnout. *International Journal of Educational Psychology*, *6*(2), 120–147.

Leko, M. M., & Brownell, M. T. (2009). Crafting quality professional development for special educators: What school leaders should know. *Teaching Exceptional Children*, *42*(1), 64–70.

Maricuţoiu, L. P., Sava, F. A., & Butta, O. (2016). The effectiveness of controlled interventions on employees' burnout: A meta-analysis. *Journal of Occupational and Organizational Psychology*, *89*, 1–27. https://doi.org/10.1111/joop.12099

Maslach, C. (2001). What have we learned about burnout and health. *Psychology & Health*, *16*(5), 607–611.

Maslach, C., & Leiter, M. P. (1999). Teacher burnout: A research agenda. In R. Vandenberghe & A. M. Huberman, (Eds.), *Understanding and preventing teacher burnout: A source book of international research and practice* (pp. 295–303). Cambridge University Press. https://doi.org/10.1017/CBO9780511527784.021

May, S., & West, R (2000). Do social support interventions ("buddy systems") aid smoking cessation? A review. *Tobacco Control*, *9*(4), 415–422.

National Center for Education Statistics. (2020). *Mental health and well-being of students and staff during the pandemic*. https://ies.ed.gov/schoolsurvey/spp/

National Commission on Teaching and America's Future. (2007). The high cost of teacher turnover (Policy Brief). https://www.nctaf.org

Nichols, S. M. C., Bicard, S. C., Bicard, D. F., & Casey, L. B. (2008). A field at risk: The teacher shortage in special education. *Phi Delta Kappan*, *89*(8), 597–600. https://doi.org/10.1177/003172170808900813

Panagioti, M., Panagopoulou, E., Bower, P., Lewith, G., Kontopantelis, E., Chew-Graham, C., Dawson, S., van Marwijk, H., Geraghty, K., & Esmail, A. (2017). Controlled interventions to reduce burnout in physicians: A systematic review and meta-analysis. *JAMA Internal Medicine*, *177*(2), 195–205. https://doi.org/10.1001/jamainternmed.2016.7674

Park, E. Y., & Shin, M. (2020). A meta-analysis of special education teachers' burnout. *SAGE Open*, *10*(2). https://doi.org/10.1177/2158244020918297

Peyton, D. J., Acosta, K., Harvey, A., Pua, D. J., Sindelar, P. T., Mason-Williams, L., Dewey, J., Fisher, T. L., & Crews, E. (2021). Special education teacher shortage: Differences between high and low shortage states. *Teacher Education and Special Education: The Journal of the Teacher Education Division of the Council for Exceptional Children*, *44*(1), 5–23.

Piller, A., Juckett, L. A., & Hunter, E. G. (2021). Adapting interventions for occupational therapy practice: Application of the FRAME coding structure. *OTJR: Occupation, Participation and Health*, *41*(3), 206–215. https://doi.org/10.1177/15394492211011609

Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research*, *38*(2), 65–76.

Reger, G. M., Browne, K. C., Campellone, T. R., Simons, C., Kuhn, E., Fortney, J. C., & Reisinger, H. S. (2017). Barriers and facilitators to mobile application use during PTSD treatment: Clinician adoption of PE coach. *Professional Psychology: Research and Practice*, *48*(6), 510.

Robinson, O. P., Bridges, S. A., Rollins, L. H., & Schumacker, 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

Roeser, R. W., Skinner, E., Beers, J., & Jennings, P. A. (2012). Mindfulness training and teachers' professional development: An emerging area of research and practice. *Child Development Perspectives*, *6*, 167–173. https://doi.org/10.1111/J.1750-8606.2012.00238.X

Rollins, A. L., Kukla, M., Morse, G., Davis, L., Leiter, M., Monroe-Devita, M., Flanagan, M. E., Russ, A., Wasmuth, S., Eliacin, J., Collins, L., & Salyers, M. P. (2016). Comparative effectiveness of a burnout reduction intervention for behavioral health providers. *Psychiatric Services*, *67*(8), 920–923. https://doi.org/10.1176/appi.ps.201500220

Ruble, L., Ogle, L., McGrew, J., & Dueber, D., (2023). BREATHE-EASE for reducing burnout and enhancing wellness of special educators. Manuscript in preparation.

Salyers, M. P., Garabrant, J. M., Luther, L., Henry, N., Fukui, S., Shimp, D., Wu, W., Gearhart, T., Morse, G., York, M. M., & Rollins, A. L. (2019). A comparative effectiveness trial to reduce burnout and improve quality of care. *Administration and Policy in Mental Health and Mental Health Services Research*, *46*(2), 238–254.

Salyers, M. P., Hudson, C., Morse, G., Rollins, A. L., Monroe-DeVita, M., Wilson, C., & Freeland, L. (2011). BREATHE: A pilot study of a one-day retreat to reduce burnout among mental health professionals. *Psychiatric Services*, *62*(2), 214–217. https://doi.org/10.1176/appi.ps.62.2.214

Salyers, M., Ruble, L., Fischer, M., Jones, L., & Morse, G. (2022). Breathe-ease goals training guide: Burnout reduction: Enhanced awareness tools. *Handouts and Education* [Unpublished manuscript].

Shen, B., McCaughtry, N., Martin, J., Garn, A., Kulik, N., & Fahlman, M. (2015). The relationship between teacher burnout and student motivation. *British Journal of Educational Psychology*, *85*, 519–532. https://doi.org/10.1111/bjep.12089

Smith, C. (2020). Challenges and opportunities for teaching students with disabilities during the COVID-19 pandemic. *International Journal of Multidisciplinary Perspectives in Higher Education*, *5*(1), 167–173. https://doi.org/10.32674/jimphe.v5i1.2619

Stayton, B., Bopp, M., Hoffman, M. B., & Ruble, L. (2023). *Time to exhale: BREATHE-EASE for promoting teacher well-being*. Poster presented at the National Association of School Psychologists Annual Convention in Denver, CO.

Sundell, K., Beelmann, A., Hasson, H., & von Thiele Schwarz, U. (2016). Novel programs, international adoptions, or contextual adaptations? Meta-analytical results from German and Swedish intervention research. *Journal of Clinical Child and Adolescent Psychology: The Official Journal for the Society of Clinical Child and Adolescent Psychology, American Psychological Association, Division 53*, *45*(6), 784–796.

Tyler, T. A., & Brunner, C. C. (2014). The case for increasing workplace decision-making: Proposing a model for special educator attrition research. *Teacher Education and Special Education*, *37*(4), 283–308.

VERBI Software. (2019). *MAXQDA 2020 [computer software]*. VERBI Software. Available from maxqda.com
West, C. P., Dyrbye, L. N., Erwin, P. J., & Shanafelt, T. D. (2016). Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. *The Lancet*, *388*(10057), 2272–2281. https://doi.org/10.1016/S0140-6736(16)31279-X
Wiltsey Stirman, S., Baumann, A. A., & Miller, C. J. (2019). The FRAME: An expanded framework for reporting adaptations and modifications to evidence-based interventions. *Implementation Science*, *14*(1), 58.
Wu, Y. P., Thompson, D., Aroian, K. J., McQuaid, E. L., & Deatrick, J. A. (2016). Commentary: Writing and evaluating qualitative research reports. *Journal of Pediatric Psychology*, *41*(5), 493–505. https://doi.org/10.1093/jpepsy/jsw032
Youngs, P., Jones, N., & Low, M. (2011). How beginning special and general education elementary teachers negotiate role expectations and access professional resources. *Teachers College Record*, *113*(7), 1506–1540.

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APPENDIX

Focus Group Discussion Questions

1. How do you define teacher burnout?
2. What are your experiences with teacher burnout?
3. How can you tell when a teacher is burned out?
4. What are the factors that contribute to increased burnout?
   - **Probe**: Teacher factors, organizational factors
   - **Probe**: Do these vary by grade level?
   - **Probe**: Do these vary by general ed. or special ed. teachers?
5. What impact does teacher burnout have on education
   - **Probe**: Impact on the teacher, impact on students, impact on other staff and teachers, impact on administrators, impact on the school, impact on parents?
6. What do you think would help reduce teacher burnout?
   - **Probe**: What things about the teacher might we be able to change to reduce burnout?
   - **Probe**: What things about the school or school system might we need to change to reduce burnout?
   - **Probe**: What is already being done at your school to prevent burnout? How is it working?
7. We have an intervention we have used with other professionals and would like to make sure it fits the needs of teachers with burnout. Right now it's set up as a workshop where people learn about burnout including how to identify their own early warning signs, and then they learn and practice strategies they can use to reduce burnout (like mindfulness, time management, social support). How helpful do you think something like that would be for teachers?
8. What things might get in the way of effectively doing a burnout intervention like that?
   - **Probe**: (Barriers) What challenges might staff face in attending/benefiting from this type of intervention?
   - **Probe**: What are some ways to deliver an intervention that would be the most helpful or preferred (in person, online, via an app on your phone, etc.)?
   - **Probe**: Would it be better to deliver the intervention across multiple sessions or a single session?
9. What ideas do you have to address these barriers or challenges?
   - **Probe**: When is the best time to do the intervention (summer, start of school, fall, etc.)?
   - **Probe**: What other types of intervention might be helpful?
   - **Probe**: What resources might a school need to implement or attend an intervention like this?
10. What other things do you think we should know to better help teachers?