

TEACHER BURNOUT, SELF-EFFICACY, AND THE IDENTIFICATION AND REFERRAL
OF AT-RISK STUDENTS

by

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ABSTRACT

Teachers face great demands on their time, energy, and level of commitment. Previous studies have established that high numbers of teachers leave the profession each year due to burnout. Burnout is frequently caused by difficulties with classroom management and behavior problems, as well as time pressures, and social isolation. Despite these obstacles, other teachers have been able to maintain positivity and dedication in their practice. Teachers' sense of self-efficacy has been found to be a predictor of better job satisfaction, less burnout, and more positive and productive interactions with students. The current study examined how burnout and self-efficacy may interact and how they might impact teachers' referral of at-risk students for additional school supports. Additionally, this study examined whether burnout and self-efficacy impacted teachers' identification of at-risk students using a screening measure developed to improve the school's ability to identify and start interventions for students experiencing difficulties. Results found a moderate correlation among burnout and self-efficacy, whereby teachers with higher self-efficacy experienced less burnout. Higher teacher self-efficacy was correlated with fewer referrals for students to the student support team and the identification of fewer students at-risk for emotional difficulties. Higher teacher burnout was not correlated with number of referrals but was found to be associated with the identification of more students at-risk for emotional difficulties as well as the number of total students identified as at-risk overall. Implications for practice, limitations, and future research directions are also discussed.

CHAPTER 1

INTRODUCTION

Teaching is a profession that demands high levels of intellectual, physical, and emotional resources. Teachers handle a multitude of situations every day. This includes lesson planning and preparation, addressing student behavior problems, ensuring that students with a wide variety of needs are learning, communicating with parents, collaborating with colleagues, grading and recording student work, and adhering to administrative and state-driven rules and requirements. In light of this complex workload, it is not surprising that teachers often “burn out” and leave the teaching profession. Within the United States, 25% of new teachers leave the profession within three years, and 40% leave within five years (Chang, 2009). Teacher burnout has also been recognized as a global concern, and has prompted research in countries such as Australia, China, France, Iran, Germany, Korea, Syria, and The Netherlands (Aloe, Amo, & Shanahan, 2014; Helms-Lorenz & Maulana, 2016; Schwarzer & Hallum, 2008).

Teacher burnout is a common and complex problem that can take an emotional, physical, and psychological toll on teachers with varying levels of experience (Maslach, 1976; Maslach & Jackson, 1981). Conversely, teacher self-efficacy has been proposed as one construct that seeks to define what makes some teachers feel more effective and happier in their jobs (Pas, Bradshaw, Hershfeldt, & Leaf, 2010). Research suggests that when teachers feel successful, their levels of professional burnout decrease (Chwalisz, Altmaier, & Russell, 1992). Research on the intersection of teacher burnout and self-efficacy has demonstrated that feelings of low self-efficacy contribute to higher levels of burnout, while higher levels of self-efficacy act as a protective factor against burnout (Brouwers & Tomic, 2000; Shoji et al., 2015).

The present study seeks to explore how teacher burnout (TBO) and teacher self-efficacy (TSE) interact with how teachers identify and refer students with social, academic, and/or emotional problems. Specifically, the study examined how rates of TBO and TSE are related to the number of students identified as at-risk for social, academic, or emotional problems, as well as the number of referrals teachers make for students who have academic or behavioral difficulties. The potential relationships among these constructs are important for a number of reasons. First, if teachers with higher levels of burnout are over-referring students because they feel overwhelmed or unable to help these students, precious resources within the school to address multiple referrals could be potentially misused. On the other hand, if the burned out or ineffective teacher under-refers due to feelings of apathy or exhaustion, then multiple students in the classroom may be missed for identification, referral, and/or support (Pas et al., 2010). The relationships among TBO, TSE, and the identification of at-risk students can be examined to guide professional development and administrative support for teachers who are feeling burned out, ineffective, and ready to leave the profession.

Defining Burnout and Teacher Self-Efficacy

Maslach and Jackson (1981) define burnout as “a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do ‘people-work’ of some kind” (p. 99). Maslach and Jackson identify three main strands of burnout: emotional exhaustion, depersonalization, and personal accomplishment. Emotional exhaustion is characterized by feeling overextended and depleted of personal resources. Depersonalization occurs when the helping professional experiences cynicism, irritability, or negative ideation toward the people they are employed to support. Personal accomplishment is related to feelings of reduced productivity and a lowered sense of competence (Schwarzer & Hallum, 2008).

Self-efficacy is the belief that one has the ability to exercise control in order to handle challenges (Bandura, 1977; Shoji et al., 2015). Teacher self-efficacy may be further defined as “the extent to which the teacher believes he or she has the capacity to affect student performance” (Berman, McLaughlin, Bass, Pauly, & Zellman, 1977, p. 137). Teacher self-efficacy has been studied through a variety of conceptualizations (Gibson & Dembo, 1984; Guskey, 1981; Skaalvik & Skaalvik, 2007). For purposes of the current study, teacher self-efficacy is defined as efficacy in instructional strategies, student engagement, and classroom management (Tschannen-Moran & Hoy, 2001).

Findings are equivocal on what causes a teacher to feel more burned out or less efficacious than his or her colleagues. Individual teacher characteristics such as gender, age, ethnicity, level of education, and years of teaching experience, have all been found to correlate with burnout and self-efficacy, but to different degrees, depending on the study (e.g., Brissie, Hoover-Dempsey, & Bassler, 1988; Ozdemir, 2007; Russell et al., 1987). Past research has also focused on student characteristics, such as exhibition of disruptive or disrespectful behavior. Many studies have shown that dealing with student behavior problems can lead to lowered feelings of self-efficacy and higher levels of burnout (Burke, Greenglass, & Schwarzer, 1996; Farber, 1984). In fact, it has been suggested that student behavior problems are one of the main sources of teacher stress (Friedman, 1995). Finally, some research has suggested that school-level characteristics, such as administrative supports, collegiality, and school climate can impact feelings of burnout and self-efficacy in teachers (Caprara, Barbaranelli, Borgogni, & Steca, 2003; Pas et al., 2010).

Teacher Burnout, Self-Efficacy, and Identification of At-Risk Students

Burnout and self-efficacy in teachers have been studied extensively to examine how these phenomena impact a variety of teacher behaviors, including use of new programs and methods (Berman et al., 1977; Evers, Brouwers, & Tomic, 2002), classroom management (Aloe et al., 2014), and relationships with students (Gibson & Dembo, 1984; Yoon, 2002). Burnout and self-efficacy have also been studied together to explore how one construct may interact with the other and how this process impacts teachers and students (Brouwers & Tomic, 2000). For example, studies suggest that teachers with a higher sense of self-efficacy experience lower feelings of burnout (Brown, 2012) and that self-efficacy may be a protective factor against burnout (Aloe et al., 2014).

Researchers have also explored how burnout and self-efficacy impact how teachers identify and ask for additional supports for their students with more intensive learning or behavioral needs. Meijer and Foster (1988) found that higher self-efficacy in teachers led to lower chances of referring a struggling student for special education testing, with the implication being that more self-efficacious teachers felt more capable of handling struggling students' needs without additional supports. Egyed and Short (2006) found that teachers who scored higher in burnout were less certain about whether or not they would refer a student with behavior problems for special education. Finally, Pas et al. (2010), in studying both burnout and self-efficacy, found that teachers with lower self-efficacy and higher burnout levels were less likely to seek help for students with behavioral problems. The authors of this study postulated that burned out and less self-efficacious teachers may feel apathetic, or disconnected to adequately support their students.

The Current Study

The current study will build upon previous research by examining the relationship between teacher burnout and self-efficacy, and how these influence teacher referrals of students for support. It is hypothesized that higher levels of teacher self-efficacy and lower burnout will be linked to higher numbers of students referred for support. In addition, considering newer approaches to identifying and supporting at-risk students, (e.g., academic and behavioral screening, multi-tiered systems of support), this study also explored whether or not teacher burnout and self-efficacy are associated with how teachers identify students at-risk for social, academic, or emotional problems using a universal screening measure. It is hypothesized that teachers with higher levels of self-efficacy and lower levels of burnout will identify more of their students as at-risk for social, academic, and behavioral problems.

A pattern of increased responsiveness from more efficacious and less burned out teachers is expected in light of studies that have shown that higher teaching efficacy may be a protective factor for burnout (Aloe et al., 2014; Brown, 2012; Skaalvik & Skaalvik, 2007). Further, research has also demonstrated that teachers with higher levels of efficacy are more responsive to their students' needs (Skaalvik & Skaalvik, 2007); have better relationships with their students (Yoon, 2002); and are more willing to accept consultative support and to try new methods to help their students succeed (Allinder, 1994; DeForest & Hughes, 1992; Gibson & Dembo, 1984). The following research questions will be explored in the current study.

Research question 1. Does level of self-reported efficacy predict the level of self-reported burnout? Null Hypothesis 1: Self-reported self-efficacy will not predict the level of self-reported burnout. Alternate Hypothesis 1: Teachers reporting higher levels of self-efficacy will report lower levels of burnout.

Research question 2a. Do teachers' self-reported levels of self-efficacy impact their identification of students at-risk of social, academic, or emotional problems? Null Hypothesis 2a: There will be no relationship between self-reported levels of self-efficacy and the number of students identified at-risk of social, academic, or emotional difficulties. *Hypothesis 2a:* Teachers with higher levels of self-efficacy will identify more students as at-risk of social, academic, or emotional difficulties.

Research question 2b. Do teachers' self-reported levels of self-efficacy impact the number of students they refer to the student support team? Null Hypothesis 2b: There will be no relationship between a teacher's self-reported levels of self-efficacy and the number of students that he or she referred to the student support team. *Hypothesis 2b:* Teacher with higher levels of self-efficacy will make more referrals for school supports.

Research question 3a. Do teachers' self-reported levels of burnout impact their identification of students at-risk for social, emotional, or behavioral difficulties? Null Hypothesis 3a: There will be no relationship between teachers' self-reported levels of burnout impact and the number of students identified at-risk for social, emotional, or behavioral difficulties. *Hypothesis 3a:* Teachers with higher burnout will identify fewer students as at-risk for social, academic, or emotional difficulties.

Research question 3b. Do teachers' self-reported levels of burnout impact the number of students they refer to the student support team? Null Hypothesis 3b: There will be no relationship between teachers' self-reported levels of burnout impact and the number of students referred to the student support team. *Hypothesis 3b:* Teachers with higher burnout will refer fewer students to the school support team.

CHAPTER 2

LITERATURE REVIEW

This chapter will provide the reader with information on the background of teacher burnout and self-efficacy, describing how these constructs are measured, as well as how they might interact with one another. This chapter will then briefly review the history of and current trends in identifying students with academic and social-emotional problems.

Teacher Burnout

Early burnout research. Freudenberger (1974, 1975) conducted early research on the concept of occupational burnout. Freudenberger recognized that therapeutic jobs, such as those that require giving to people in need, can cause workers to become depleted of energy, strength, and resources. This depletion negatively impacts the person's ability to perform the job effectively, leading to physical, behavioral, and psychological signs of burnout. Physical symptoms may include exhaustion and fatigue, sleeping problems, headaches, and gastrointestinal disturbances. Behavioral symptoms may be expressed as quickness to anger; outbursts of irritability; and a tendency to spend longer, inefficient, and unproductive hours at work. Freudenberger (1975) noted that the burned out worker demonstrates the potential to become rigid in his or her thinking, closed off to receiving input, resistant to change, and may employ a negative attitude toward the mission of the community. Additional consequences of burnout include deterioration of quality of care, job turnover, low morale, absenteeism, family and marital problems, and increased alcohol and other substance use (Freudenberger, 1975; Maslach, Schaufeli, & Leiter, 2001).

In the late 1970s and early 1980s, Maslach and colleagues continued exploration of the concept of burnout. Maslach and Jackson (1981) defined burnout as "a syndrome of emotional

exhaustion and cynicism that occurs frequently among individuals who do ‘people-work’ of some kind” (p. 99). Burnout has been found to lead to exhaustion, depersonalization, and feelings of reduced personal accomplishment. Exhaustion, the most widely reported aspect of burnout, is conceptualized as physical and emotional depletion and overextension (Maslach, Schaufeli, & Leiter, 2001). Depersonalization involves negative, cynical, or detached reactions towards others, which impacts how the worker interacts with his or her clients, coworkers, supervisors, and family members. Early studies of burnout noted a central focus on relationships, which at any given time could be a source of stress, reward, or release (Maslach et al., 2001). Finally, reduced personal accomplishment involves lowered feelings of achievement, efficacy, and competence.

Teacher burnout. Burnout in teachers has been identified as a global concern with studies examining its consequences conducted in a large number of countries, from the United States to Australia, China, Iran, Korea, Malaysia, Netherlands, Spain, and Turkey (see Aloe et al., 2014). In the United States, burnout is thought to contribute greatly to teacher attrition with as many as 25% of first-year teachers leaving the profession (Dworkin, 2008; Luekens, Lyter, & Fox, 2004). In addition to attrition, the consequences of burnout are numerous, including deterioration of the quality of work performed, low morale, high absenteeism, and increased personal and health problems (Haberman, 2005; Maslach & Jackson, 1981). Research has found that teaching is an occupation especially prone to stress and that teachers may experience greater levels of stress, psychological distress, and burnout than many other help-related jobs (Evers et al., 2002; Helms-Lorenz & Maulana, 2015; Shoji et al., 2015). In the teaching profession, burnout has been shown to impact teachers’ ability to work effectively with students and diminishes the teacher’s ability to address disruptive student behaviors (Brouwers & Tomic,

2000; Friedman & Farber, 1992); to utilize social supports and humor as coping strategies (Ho, 2015); and impacts teacher perceptions of school climate and job satisfaction (Ashton & Webb, 1986; Jackson, Schwab, & Schuler, 1986; Kyriacou & Sutcliffe, 1979).

Early studies identified many sources of self-reported teacher stress, including student behavior problems, apathy, absenteeism, and low achievement (Blase, 1982; Friedman, 1995; Kyriacou & Sutcliffe, 1978). Teachers also experience stress as a manifestation of a lack of control and lack of time (Blase, 1986). Teacher stress can be attributed to a variety of work-related sources, including administrative pressures, violence in the schools, low pay, overcrowded classrooms, as well as social factors, such as feelings of isolation (Friedman & Farber, 1992). While there may be a variety of potential causes and contributors, Maslach et al., (2001) suggested that both *situational* and *individual* factors impact levels of burnout. *Situational factors* can include occupational characteristics (e.g., the specific demands of the job), as well as organizational characteristics (e.g., school demographic context, school accountability policies, school climate; Dworkin, 2008). *Individual factors* include teachers' demographic characteristics, personality traits, and levels of education and experience. Higher levels of teacher burnout have also been found to be related to higher organizational rigidity in the school environment, lower internal individual rewards, lower principal and peer support, and lower teacher self-efficacy. Maslach et al. (2001) posited that changes within areas of teacher ownership and ongoing professional support, particularly support and feedback provided by the school principal, would help teachers gain in their sense of efficacy and reward. Other studies have also supported the importance of social supports, especially administrative support, in reducing or mediating levels of burnout in teachers (Ho, 2015; Russell, Altmaier, & Van Velzen, 1987).

A number of studies have explored individual teacher characteristics in burnout, but thus far there has not been a consistent relationship established. For example, Pas et al. (2012) found no relationship between teacher self-efficacy and teacher burnout across gender or race/ethnicity. In addition, neither years of teaching experience nor education (e.g., possession of a master's degree) predicted burnout or efficacy. Other studies have shown that younger teachers experience more burnout than older teachers (Gold & Bachelor, 1988; Perlman & Hartman, 1982), while other studies have demonstrated that teachers with very little experience as well as those with extensively more experience (e.g., 25 years or more) report increased feelings of burnout (Leithwood, Jantzi, & Steinbach, 2001), and that teachers within a certain age range (33-44 years) experience the highest levels of burnout (Farber, 1984). Additional research is needed to further substantiate the relationship between teacher years of experience, level of education, and teacher burnout across various age, race/ethnicity, and communities.

Additional studies have also explored how individual characteristics, such as teacher personality traits, perceptions of efficacy and reward, and job attitudes may impact tendencies toward burnout, with mixed results (Alarcon, 2009; Brissie et al., 1988; Maslach, Schaufeli, & Leiter, 2001). For example, student characteristics have been found to be highly correlated with teacher burnout. Friedman (1995) found that student behaviors such as disrespect, inattentiveness, and peer socialization contributed to burnout for teachers in secular and religious schools. Interestingly, the student may be viewed as a situational factor, but the teacher's reaction to his or her students could also be viewed as an individual factor. For example, student behavior patterns have been found to be a significant contributor to teacher burnout and student misbehavior is a primary reason that teachers leave the profession (Friedman, 1995; Pas et al.,

2010). Burned-out teachers may actually perceive and react differently to students with behavior problems than teachers not experiencing such high rates of burnout (Balles, 2007).

Measuring teacher burnout. Maslach and Jackson developed the Maslach Burnout Inventory (MBI) (1981) after spending years conducting interviews, observations, and survey questionnaires with members of helping professions such as police officers, child care workers, and health professionals. The authors identified three distinct areas of burnout: *emotional exhaustion*, described as feelings of emotional and physical exhaustion; *depersonalization*, characterized by lack of emotion or care for client needs; and *personal accomplishment*, which describes feelings of competence and achievement in working with people. In an initial study of the MBI with over 1,000 human service professionals, the authors found that these workers reported significantly elevated levels in all three areas of burnout. Eventually, Maslach and colleagues created three unique tests, based on occupation: the MBI-Human Services Survey (MBI-HSS, 1981) for people working in human services and health care; the MBI-Educator's Survey (MBI-ES, 1996), for use with people working in educational settings; and the MBI-General Survey (MBI-GS, 1996) for occupations not directly related to working intensively with people. The Maslach instruments have been the most frequently utilized measure of burnout across a wide variety of occupations (Aloe et al., 2014; Kristensen, Borritz, Villadsen, & Christensen, 2005; Maslach, Schaufeli, & Leiter, 2001). Some researchers argue that emotional exhaustion and depersonalization are the central components of burnout and have used only these dimensions of burnout in previous studies (e.g. Skaalvik & Skaalvik, 2010).

Other less commonly used measures of burnout include the Teacher Stress Inventory, which examines teachers' perceptions of their job stress (Blase, 1982). Seidman and Zager (1986) developed The Teacher Burnout Scale comprised of career satisfaction, perceived

administrative support, coping with job-related stress, and attitudes toward students. Finally, the Copenhagen Burnout Inventory (CBI; Kristensen et al., 2005) was developed to study burnout in the Netherlands and contains three dimensions: personal burnout (fatigue and exhaustion), work-related burnout, and client-related burnout. The CBI was developed to address concerns about the MBI, including the measurement of burnout in occupations that are not focused on helping others, and challenges to Maslach et al.'s conceptualizations of burnout. The CBI has been translated into nine languages and has been used in a variety of studies on burnout (Lin & Lin, 2013; Milfont, Denny, Ameratunga, Robinson, & Merry, 2008); however, it appears to be used less often than the MBI at this time (Aloe et al., 2014; Shoji et al., 2015).

Teacher Self-Efficacy

Pines (2002) argued that teacher burnout could be explained in part by the teachers' sense that they could no longer reach their goal of influencing or inspiring their students, therefore diminishing their sense of value. This observation highlights the shared relationship between teacher burnout and self-efficacy. In fact, much of the literature examining teacher burnout has included discussion of the concept of teacher self-efficacy (Brown, 2012; Ozdemir, 2007; Skaalvik & Skaalvik, 2010). Self-efficacy has been defined as "the conviction that one can successfully execute the behavior necessary to produce a desired outcome" (Chwalisz et al., 1992, p. 380). Further, teacher self-efficacy has been defined as "the extent to which the teacher believes that he or she has the capacity to affect student performance" (Berman et al., 1977, p. 137).

Teacher self-efficacy research has been explored primarily through two theoretical perspectives. One conceptualization borrows from Rotter's (1966) social learning theory regarding locus of control. Locus of control theory posits that the effects of reward or

reinforcement depend on whether a person perceives the reward as a result of his or her behavior or as independent of it. Rotter further argued that one's performance differs in situations that are perceived as determined by skill or by chance. "[T]he individual who has a strong belief that he can control his own destiny is likely to (a) be more alert to those aspects of the environment which provide useful information for his future behavior; (b) take steps to improve his environmental condition; (c) place greater value on skill or achievement reinforcements and be generally more concerned with his ability, particularly his failures; and (d) be resistive to subtle attempts to influence him" (Rotter, 1966, p. 25). In extending this conceptualization to the work of teachers, it has been argued that the most effective teachers appear to have a more intrinsic locus of control and believe that they have the capabilities to reach and teach their students (Armor et al., 1976; Berman et al., 1977; Hoy & Woolfolk, 1993). Teachers who believe that the outside environment has more of an impact on their students' potential achievement than their teaching abilities demonstrate an extrinsic locus control, and thus have less belief in their ability to impact student performance (Brouwers & Tomic, 2000; Pas et al., 2010).

The second strand of self-efficacy research is grounded in Bandura's social cognitive theory. Bandura (1977) was one of the first researchers to explore self-efficacy and believed that it influences if, and how a person will respond or cope in any given event or environment. Bandura (1986) argued that self-efficacy is driven by the person's belief that he or she can produce the necessary response to succeed. Beliefs about one's self-efficacy do not refer to one's skills or capabilities, rather they refer to what the person believes he or she is able to do in a given circumstance (Evers et al., 2002). Further, Bandura (1986, 1997) proposed that people with higher levels of self-efficacy may produce more coping options and may view stressful events as more controllable than those with lower self-efficacy. Bandura proposed two types of

efficacy: *efficacy expectation* (i.e., self-efficacy) and *outcome expectancy*. The *efficacy expectation* is the person's belief that he or she is able to perform the actions necessary to perform a task. An *outcome expectancy* is the person's estimate of the outcome of the performing the action at the expected level of competence (Bandura, 1986). As noted by Tschannen-Moran, Hoy, and Hoy (1998), "The efficacy question is, do I have the ability to organize and execute the actions necessary to accomplish a specific task at a desired level? The outcome question is, if I accomplish the task at that level, what are the likely consequences?" (p. 210). Bandura believed that outcome expectations and efficacy expectations were different because a person could theoretically believe that certain behaviors could produce certain outcomes, but may not believe that he or she can execute and/or maintain the necessary set of actions.

The earliest studies of teacher self-efficacy focused on teachers' locus of control (Armor et al., 1977; Berman et al., 1977) and what teachers believed about their abilities to reach and teach "difficult and unmotivated" students. Gibson and Dembo (1984) argued that Bandura's theory of self-efficacy could be applied to teacher efficacy in light of teachers' *efficacy expectations* and *outcome expectations*. *Efficacy expectations* reflect teachers' beliefs in their own abilities to make a positive impact on their students' achievement and *outcome expectations* reflect the degree to which teachers believe that students can be successfully taught, regardless of outside factors, such as socioeconomic status, family background, intelligence, or school climate.

Ashton and Webb (1986) propose that teacher self-efficacy can be broken down to include teaching efficacy (i.e., the effectiveness of the teacher's work on actual student outcomes) and personal efficacy (i.e., a teacher's belief that he or she has the ability to impact student learning). Tschannen-Moran and Woolfolk-Hoy (2001) broke down this

conceptualization even further and described three components of teacher self-efficacy: instructional efficacy, engagement efficacy, and classroom management efficacy. Finally, Skaalvik and Skaalvik (2010) described six elements of teacher self-efficacy, including instruction, modification of instruction to fit student needs, motivating students, classroom management, cooperation with colleagues and parents, and coping with challenges.

Why teacher self-efficacy is important. Teacher self-efficacy has been found to be associated with a number of positive student outcomes, including improved academic achievement and increased engagement in academic tasks (Allinder, 1994; Berman et al., 1977; Caprara, Barbaranelli, Steca, & Malone, 2006; Gibson & Dembo, 1984; Skaalvik & Skaalvik, 2007). Teachers with higher efficacy have been also found to utilize higher levels of planning and organization, have increased persistence in working with struggling students, provide more praise and support to students, provide more effective instruction and proactive classrooms, and have increased job satisfaction (Allinder, 1994; Caprara et al., 2006; Tschannen-Moran & Woolfolk-Hoy, 2007). In addition, higher teacher self-efficacy may be an important protective factor against teacher burnout (Aloe et al., 2014; Brown, 2012; Cherniss, 1993). From the numerous studies that have been completed, it is clear that teacher self-efficacy is a critical component for healthy and productive teaching.

Measuring teacher self-efficacy. One of the first attempts to measure teacher self-efficacy was embedded within two RAND studies examining the outcomes of federally grant-funded education projects in the mid-1970s (Armor et al., 1976; Berman et al., 1977). The original efficacy measures consisted of just two items from a larger set of questions developed by Berman et al. (1977): RAND Item 1: *When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home*

environment; and RAND Item 2: *If I try really hard, I can get through to even the most difficult or unmotivated students*. The two items were grounded in Rotter's (1966) social learning theory regarding locus of control. The researchers found that teachers who expressed confidence in teaching difficult or unmotivated students believed that reinforcement of their teaching efforts was within their control, and thus demonstrated an internal locus of control. Conversely, those teachers who believed that the environment trumped their ability to impact student learning exhibited an external locus of control. RAND Item 1 addressed the teacher's beliefs about the impact of these external factors compared to the influence of teachers and schools and was subsequently labeled *general teaching efficacy* (GTE). RAND Item 2 addressed the extent to which teachers believed that they could effectively teach all students and was labeled *personal teaching efficacy* (PTE; Gibson & Dembo, 1984; Tschannen-Moran, Hoy, & Hoy, 1998). The RAND researchers found these two questions were powerful predictors of both student achievement and the teachers' continued use of the grant-funded methods and materials in the classrooms.

From the RAND items, researchers worked to create comprehensive measures of the construct of teacher self-efficacy. Gibson and Dembo (1984) developed the *Teacher Efficacy Scale* (TES). The TES expanded upon the two RAND items and incorporated Bandura's self-efficacy conceptualizations. The authors built upon the PTE and GTE structure, which they believed matched Bandura's two expectancies of self-efficacy and outcome expectancy. The TES has since been used for many teacher self-efficacy studies and has been translated into several languages (see Aloe et al., 2014 and Shoji et al., 2015 for meta-analyses); however, some researchers continue to express concern over inconsistencies among the factor structures.

Another issue in the measurement of efficacy is that of context and subject matter specificity. Pajares (1996) noted that if the self-efficacy measure is too broad, self-efficacy beliefs can be transformed into “a generalized personality trait rather than the context-specific judgment” (p. 547). On the other hand, if the measure is too specific, it loses “(its) predictive power for anything beyond the specific skills and contexts being measured.” Some researchers have modified Gibson and Dembo’s TES to study teacher self-efficacy within specific subjects or aspects of teaching, such as the teaching of science (Riggs & Enochs, 1990), classroom management (Emmer & Hickman, 1990), and special education (Meijer & Foster, 1988).

In 2001, Tschannen-Moran and Hoy developed an instrument that attempted to address problems of construct validity as well as variation in teaching contexts. Working with a group of educators, the authors used items provided from Bandura’s theory as well as self-generated items to narrow down 30 items that represented “the full range of teaching tasks and capabilities” (p. 796). This new measure was initially named the *Ohio State Teacher Efficacy Scales* (OSTES) and was analyzed in three separate studies. After three analyses, the authors were able to assert that the OSTES enabled measurement of a wider range of teaching tasks than previous measures. In addition, the OSTES allowed for measurement of additional aspects of teaching such as encouraging thinking and creativity in students, effectiveness with capable students, classroom management, and flexible instructional and assessment strategies. After running final studies to determine satisfactory reliability and validity (Tschannen-Moran & Hoy, 2001), the final instrument became known as the Teachers’ Sense of Efficacy Scale (TSES) which measured three aspects of teacher efficacy: efficacy in *student engagement*, efficacy in *instructional strategies*, and efficacy in *classroom management*. A total self-efficacy score was provided, as well as scores for each of the three subdomains.

Interaction of Teacher Burnout and Self-Efficacy

Teacher burnout and self-efficacy are two widely examined constructs that share an ongoing relationship. Leiter (1992) argued that burnout is in fact “a crisis in self-efficacy.” A number of studies have supported this statement, finding that teachers reporting lower self-efficacy are more likely to report higher levels of burnout and that high self-efficacy may be a protective factor against burnout (Chwalisz, Altmaier, & Russell, 1992; Evers et al., 2002; Skaalvik & Skaalvik, 2007). Shoji and colleagues (2015) conducted a meta-analysis of 57 teacher self-efficacy studies and found moderate associations between self-efficacy and burnout; with the largest effect found in the relationship between self-efficacy and reduced personal accomplishment. Brown (2012) conducted a systematic review of 11 studies exploring the interaction between teacher self-efficacy and burnout and found that the majority of the studies discovered a significant negative correlation between self-efficacy and the three elements of burnout, whereby teachers with lower levels of self-efficacy reported higher levels of emotional exhaustion and depersonalization, and reduced levels of personal accomplishment.

Several studies have found that teachers with lower self-efficacy are also more likely to struggle with classroom management and more likely to report higher levels of burnout. In a meta-analysis exploring connections among burnout and self-efficacy beliefs in regard to classroom management, Aloe and colleagues (2014) found higher self-efficacy could protect teachers against burnout. Studies have also suggested that the combination of low self-efficacy and high burnout contribute directly to teachers leaving the field altogether (Huberman, 1993). Teachers leaving the education field for other occupations report improved work load and work-home balance, as well as increased control over their work (Marvel, Lyter, Strizek, & Morton, 2006).

Impact on teacher referral behavior. In addition to the impact on classroom management, teacher burnout and self-efficacy have also been examined in terms of how they impact a teachers' decision to refer struggling students for additional support. For example, Meijer and Foster (1988) were interested in identifying teacher characteristics that may predict or contribute to "referral-related decision making." Results suggested teacher self-efficacy was a significant predictor of whether a teacher would refer a student for special education, whereby teachers with higher self-efficacy demonstrated lower chances of referring students for support. Soodak and Podell (1993) examined the referral practices of 192 general and special education teachers. They found that general education teachers with higher levels of personal teaching efficacy were more likely to find a general education placement appropriate for a student with learning and/or behavior problems. The authors also found that general and special education teachers with high personal self-efficacy but lower teaching self-efficacy (i.e., they believed that teaching in general could not fully overcome external factors) would be more likely to determine that a student with learning and/or behavior problem does not belong in the general education classroom. Egyed and Short (2006) found that teachers with higher levels of burnout displayed more uncertainty than less burned out teachers as to whether or not to refer a hypothetical student exhibiting behavior problems.

Pas et al. (2010) found that teachers who report less self-efficacy and more burnout seek help for students with behavioral problems at lower rates than their colleagues. This was a surprising finding, as the authors had hypothesized that burned out/less efficacious teachers would be more likely to seek help than their higher functioning colleagues. To explain their findings, the authors posited that there may be a feedback loop between teacher burnout and student discipline problems. In this phenomenon, the teacher may experience more emotional

exhaustion and depersonalization in response to intensive discipline problems, therefore becoming more withdrawn, less engaged with their students, and much less invested in seeking help.

History and Evolution of the Referral Process

As the present research explores teacher referral behavior, a review of the history and process of special education referral is warranted. In 1975, Public Law 94-142, the Education for All Handicapped Children Act (EAHCA), mandated education for children with disabilities who had previously been denied public school services. Prior to the EAHCA, individuals with disabilities were often prohibited from enrolling in public schools, were considered to be uneducable, and were frequently institutionalized (Office of Special Education and Rehabilitative Services, 2010). The EAHCA and its amendments and reauthorizations in the form of the Individuals with Disabilities Education Act (IDEA, 1990, 1997) and the Individuals with Disabilities Education Improvement Act (IDEIA, 2004) provided a wealth of rights and services to both students with disabilities and their parents. These laws have enabled millions of children with disabilities to receive a free and appropriate public education.

In order to receive special education services, students must be identified, assessed, and found to be eligible for services under predetermined eligibility requirements. Safran and Safran (1996) noted that the earliest versions of the identification process for referral to special education evolved from two primary sources: Teacher Assistance Teams (TAT) and prereferral programs. The TAT was conceptualized as a teacher-driven collaborative problem solving process whereby teachers and other educational support personnel would support teachers by creating immediate interventions for struggling students (Chalfant, Pysh, & Moultrie, 1979). In contrast with the TAT, pre-referral intervention programs were focused on data-driven

behavioral consultation. The goal of the pre-referral intervention teams was to reduce the number of “inappropriate” special education referrals, with “inappropriate” meaning that the student was not necessarily suspected of having a disability but rather was difficult to teach. The pre-referral intervention programs were established as a step in the special education referral process. The difference between the systems was that TAT was seen as “owned” and directed by teachers, whereas the pre-referral intervention programs stressed outside consultation and data-driven decision making (Safran & Safran, 1996). Although both systems had similar goals (e.g., to help support students and teachers), the pre-referral program was designed to be data-driven and consultative, and implemented as a pre-referral step in the special education eligibility process. TAT, on the other hand, was designed as a less-formalized yet no less empowering process to help teachers to support their students (Safran & Safran, 1996).

Algozzine, Christenson, and Ysseldyke (1983) sounded an alarm in regard to the rise in the numbers of student being referred for special education evaluations and subsequent placement in the 1980s. The authors cautioned that this “massive system of identification” was resulting in decreased tolerance on the part of teachers for students with “difference” and also argued that the referral-to-placement process was financially motivated by the federal funding that was provided to schools for special education services, based on the number of students who qualify for services. During this same period of time, there was disagreement among researchers as to how students should be referred for special education services and by whom, as well as disagreement as to how many students were being tested and placed into special education (Algozzine et al., 1983; Braaten, Kauffman, Braaten, Polsgrove, & Nelson, 1988; Fugate, Clarizio, & Phillips, 1983). These discussions prompted discussions about ecological views of the contexts in which the student was operating, training teachers to use pre-referral interventions

rather than going straight to testing, as well as stereotypes about specific “kinds” of students being evaluated (e.g., students with intellectual impairments or learning disabilities; Algozzine, Christenson, & Ysseldyke, 1982). In addition, arguments over the Regular Education Initiative (Will, 1986), a movement intended to educate larger numbers of students with disabilities in the general education classroom setting, caused confusion and discord among researchers in the field of special education in terms of identification and service models for students with special needs (Algozzine, Maheady, Sacca, O'Shea, & O'Shea, 1990; Braaten et al., 1988; Kauffman, Braaten, Nelson, Polsgrove, & Braaten, 1990).

Results of pre-referral intervention teams, also referred to as student support teams or child study teams (Klingner & Harry, 2006), although widely used in schools, have shown mixed results in terms of actual gains in student and systemic outcomes (i.e., improvement in student achievement and reductions in referrals to special education; Burns & Symington, 2002). Other research suggests that changes in pre-referral practices have not changed the high number of students being evaluated for special education (Ysseldyke, Vanderwood, & Shriner, 1997).

Response to intervention. By the early 2000s, a shift in philosophy dramatically changed how children could be simultaneously identified as needing help and given immediate interventions. Although teacher referral had previously been found to be the main source of identification for supports, researchers found that such practice could be prone to teacher bias (Lloyd, Kauffman, Landrum, & Roe, 1991); could under-identify students with certain types of problems (e.g., internalizing behavior difficulties; von der Embse, Pendergrast, Kilgus, & Eklund, 2015); was time consuming in terms of the timeline between the student being referred and actually receiving intervention (VanDerHeyden & Jimerson, 2005); and differed by teachers' beliefs in their abilities to work with struggling students (Eklund & Dowdy, 2014). As a result,

schools and researchers were challenged to identify strategies to begin to identify students early and to provide supports for addressing these concerns.

Modeled on common practices in the public health and medical fields, Response to Intervention (RTI) is a set of procedures designed for early identification and intervention for students with academic and behavioral problems (Jimerson, Burns, & VanDerHeyden, 2007). Students who are identified through a formal screening process are provided evidence-based interventions, which are closely monitored through formal assessments of progress (Deno, 2016). If the child is not progressing with the first set of recommended interventions, then interventions may become more intensive and/or frequent. The goal is that each student will receive the proper level of intervention to overcome their difficulties and that interventions may be continued and/or reduced if the student is making progress (Schulte, 2016; Silberglitt, Parker, & Muyskens, 2016). In addition, those children who are the most “resistant” to interventions (i.e., those who are not progressing despite intensive interventions) will be the ones who are given the most help, with a special education referral becoming a part of a continuum of service, rather than a means to an end. The idea is that students will be identified as needing intervention and will be supported quickly and efficiently, rather than waiting for a special education referral (which can take weeks, months, or years) and not receiving any specialized assistance in the interim (Schulte, 2016). RTI has given teachers the opportunity and responsibility to implement interventions in their own classrooms (Balles, 2008) and allows schools to creatively allocate resources and staff to meet students’ specific needs. The components of RTI are now considered best practice and are implemented as an evidenced-based prevention practice in all 50 states (Fuchs & Vaughn, 2012; Jimerson, Burns, & VanDerHeyden, 2015; Zirkel & Thomas, 2010). As of 2004, RTI can also be used as a part of the identification of learning disabilities per IDEA

guidelines (Jimerson, Burns, & VanDerHeyden, 2015). RTI continues to evolve and has recently merged with larger school improvement efforts, such as Positive Behavior Intervention and Supports (PBIS; Dunlap Sailor, Horner, & Sugai, 2009). RTI has more recently been referred to as Multi-Tiered System of Support (MTSS; Higgins-Averill & Rinaldi, 2011; Jimerson, Burns, & VanDerHeyden, 2015), encompassing both academic and behavioral student concerns.

Screening is an essential component of RTI and is designed to ameliorate some of the problems associated with the subjective-nature of teacher-based referrals, namely, the potential of teacher bias in referring children (Gerber & Semmel, 1984), as well as under-referral of behavior problems (Lloyd et al., 1991). Universal screening has been found to be a more accurate method for identifying academic and behavioral problems than solely relying on teacher referral (VanDerHeyden, Witt, & Barnett, 2005) and can be used within a RTI model as a first step in identifying students' needs for interventions in both academic and behavioral areas (Eklund & Dowdy, 2014). Clemens, Keller-Margulis, Scholten, and Yoon (2016) describe screening assessments as “the strategies, tools, and processes used to identify individuals in need of supplemental supports” (p. 187). Typically, screenings are given school-wide three times per year, with reading and early literacy skills being the most commonly assessed, followed by math and early numeracy knowledge (Clemens et al., 2016). Screeners are also utilized to identify social and behavioral difficulties (Kamphaus & Reynolds, 2007; Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007; von der Embse, Pendergast, Kilgus, & Eklund, 2015). In reflecting on the progression of the RTI process, Fuchs and Vaughn (2012) suggested that screening is one of its most crucial components and that early identification and intervention have increased dramatically since its implementation in the early 2000s.

The Current Study

The referral process for at-risk students has been studied through a number of perspectives, including school, pupil, and teacher characteristics. The current study focuses on the impact of the teacher characteristics of self-reported burnout and self-efficacy on the identification of learning and behavioral concerns among children. Early research has noted that “not all teachers are equally troubled by a given behavior” (Meijer & Foster, 1988). Therefore, it is important to identify characteristics of teachers who are more effective at working with struggling students. Meijer and Foster (1988) suggested that self-efficacy could be an important variable because it focuses on how well a person believes he or she can handle a difficult situation. Teacher burnout has also been examined as a significant variable in how teachers perceive behavior problems, their likeliness to refer a student with a behavior problem, as well as their ability to implement an in-class intervention (Balles, 2008). In the current study, teacher burnout and self-efficacy will be examined in terms of how they impact teacher referral of students to the school’s student support team and through use of universal screening measures to identify students at-risk for academic and behavioral problems. Data will be collected at two elementary schools in the southwestern United States and will ask teachers to complete two brief surveys, one measuring teacher burnout and one measuring teacher self-efficacy. Each teacher will also complete a behavior screening measure for each child in their classroom, assessing each student’s current functioning in the social, academic, and emotional realms. School-level data will be collected regarding the number of academic and/or behavior referrals to the student support team made by each teacher.

CHAPTER 3

METHOD

Participants

Participants were recruited from a convenience sample of K-6 elementary teachers from two schools in an urban area in the southwestern United States. This study was part of a larger research project investigating universal screening to identify students with social, academic, and emotional concerns.

Measures

Maslach Burnout Inventory-Educator Survey (MBI-ES). The MBI-ES (Maslach, Jackson, & Schwab, 1986) is a 22-item measure designed to assess an overall burnout total score, as well as three components of educator burnout: emotional exhaustion, depersonalization, and personal accomplishment. It was selected for use in the current study due to the large empirical base supporting its use with teachers, as well as for its ease of use and relatively brief administration time. The MBI-ES asks teachers to respond to each statement using a 7-point Likert-type scale (0=*Never* to 6=*Every day*). Nine items examine emotional exhaustion, including statements such as, “I feel emotionally drained from my work.” Five items address depersonalization, including, “I worry that this job is hardening me emotionally.” Finally, eight items assess personal accomplishment, such as “I have accomplished many worthwhile things in this job.” Scores are aggregated for each of the three areas. For the subscales of emotional exhaustion and depersonalization, higher scores indicate higher levels of burnout. For personal accomplishment, lower scores indicate higher levels of burnout. For purposes of the current study, the personal accomplishment subscale was reverse coded in order to obtain an accurate total burnout score.

The MBI-ES demonstrates adequate reliability and validity (Egyed & Short, 2006; Jackson et al., 1986; Maslach et al., 1996). For example, Cronbach's coefficient alpha, a measure of internal consistency, is reported as .90 for emotional exhaustion, .79 for depersonalization, and .71 for personal accomplishment (Maslach et al., 1996). Test-retest reliability coefficients were .60 for emotional exhaustion, .54 for depersonalization, and .57 for personal accomplishment (Jackson et al., 1986). Convergent validity was demonstrated with reports of observations by co-workers and spouses. Workers who were rated as "emotionally drained" and "physically fatigued" by their co-workers scored higher on depersonalization ($r = .57, p < 0.001$) and emotional exhaustion ($r = .42, p < .01$). Workers who scored higher on emotional exhaustion were rated by their spouses as coming home upset or angry ($r = .34, p < .001$); being tense or anxious ($r = .25, p < .001$); and complaining about work problems ($r = .29, p < .001$) (Maslach et al., 1991).

Teachers' Sense of Efficacy Scale-Short Form (TSES-SF). The TSES-SF (Tschannen-Moran et al., 2001) is a 12-item measure designed to assess three aspects of teacher self-efficacy within four questions in each of the following areas: (1) efficacy for instructional strategies, (2) efficacy for classroom management, and (3) efficacy for student engagement. Scores can be aggregated to be reported as one total score, as well as provided as subscale scores. Higher scores are indicative of higher perceptions of self-efficacy. Teachers are asked to respond to 12 items using a 9-point Likert scale of 1=*None at all*, 3=*Very little*, 5=*Some degree*, 7=*Quite a bit*, and 9=*A great deal*. The TSES-SF demonstrates adequate reliability and validity across studies (Berman et al., 1977; Boomgard, 2013; Tschannen-Moran et al., 2001). Reliability for the total score and the subscales was demonstrated with estimated Cronbach's coefficients between .80 to .90 (Tschannen-Moran et al., 2001). Concurrent validity was

demonstrated with subscales of the Teacher Efficacy Scales (TES; Gibson & Dembo, 1984). The TSES-SF demonstrated adequate construct validity with the original two RAND items (Berman et al., 1977) as well as with the personal teaching efficacy and general teaching efficacy constructs of the TES (Tschannen et al., 2001).

Social, Academic, and Emotional Behavior Risk Screener. The Social, Academic, and Emotional Behavior Risk Screener, Teacher Rating Scale (SAEBRS-TRS) is a 19-item universal screening measure designed to assess a variety of student needs, including potential academic struggles as well as both externalizing and internalizing behavior/emotional problems (von der Embse et al., 2015). Originally designed as the Social and Academic Behavior Risk Screener (Kilgus, Chafouleas, & Riley-Tillman, 2013), the authors discovered that, like other behavior-based screening tools, the original instrument overlooked the critical area of measuring risk for internalizing behavior problems, such as depression and anxiety. Thus, the SAEBRS-TRS was developed to include this area. The SAEBRS-TRS measures potential risk for three factors, Social Behavior (SB, six items); Academic Behavior (AB, six items); and Emotional Behavior (EB, 7 items). The SAEBRS also produces a total behavior (TB) score, summative of all 19 items. SB items address a student's ability to maintain age-appropriate relationships with peers and adults, including the student's potential for externalizing behaviors such as temper outbursts, as well as the student's adaptive behaviors, such as cooperating with others. AB Items measure risk for potential academic problems, such as difficulties with paying attention, as well as adaptive behaviors related to school, e.g. producing acceptable work. EB items relate to internalizing problems, such as withdrawal, as well as adaptive behaviors related to social-emotional competence, such as having a positive attitude. Teachers respond to each item using a 4-point Likert scale (0=*Never*, 1=*Sometimes*, 2=*Often*, and 3=*Almost Always*), indicating the

frequency with which the student demonstrated the behaviors within the last month. Internal consistency of the SEABRS-TRS has been demonstrated in previous studies ($\alpha = .86 - .94$), and has also demonstrated adequate inter-rater reliability ($r = .31 - .51$; Kilgus, Sims, von der Embse, & Riley-Tillman, 2015; Kilgus, Sims, von der Embse, & Taylor, 2016). Concurrent validity has been demonstrated with a variety of outcomes, including suspension rates, curriculum-based measures of reading, state standardized test scores, and multiple behavior rating scales (Kilgus et al., 2013; Kilgus, Eklund, von der Embse, Taylor, & Sims, 2016; Kilgus et al., 2016).

School Referral Records. Data from the school counselor or school psychologist at each school were gathered to analyze the following information for each teacher: the total number of referrals made to the school's student support team.

Procedures

Schools were recruited to participate in the current study due to their interest in behavior screening. Once district and administrator consent was received, a short presentation was given to introduce the goals of the study and to obtain teacher consent. Each teacher was given a modest stipend to complete all study measures. Surveys were administered to a total of 56 teachers and 56 surveys were returned, for a return rate of 100%. Self-contained special education classroom teachers completed the surveys but their data were not used within the current study. Each teacher was given a packet that included three measures: The MBI-ES, the TSES-SF, and the SAEBRS. The order of the forms was mixed for each teacher to control for order effects. The teachers were directed to complete the forms in the order they were presented. Both schools completed the measures during the spring of the same academic year.

Data Analysis

Fifty-four teachers completed a burnout inventory, an efficacy scale, and a universal behavior screening measure for each of their students. Measures of burnout were computed by summing the corresponding items for emotional exhaustion, depersonalization, and personal accomplishment, for three scores. A total burnout score was also obtained. Measures of self-efficacy were computed by summing the corresponding items for Efficacy in Instructional Strategies, Efficacy in Student Engagement, and Efficacy in Classroom Management. A total self-efficacy score was also computed. At-risk status for students was computed by summing the corresponding items for Social Behavior, Academic Behavior, Emotional Behavior, and Total Behavior. Finally, the total number of students that each teacher referred to the school's student support team was collected at each school. Table 1 presents a summary of information gathered.

Table 1

Characteristics of study participants (n = 54)

		N	%
Gender	Female	47	87%
	Male	7	13%
Grade Level	K - 2nd	23	43%
	3rd - 5th	31	57%

Research question one was explored by conducting a Pearson product-moment correlation to determine if a relationship exists between self-efficacy and burnout. Research questions 2 (a and b) and 3 (a and b) were examined by conducting a Pearson product-moment correlation to determine if there was a relationship among how teachers rated themselves in terms of self-efficacy and burnout and whether their self-ratings had any relationship with the number of students they identify as demonstrating emotional and behavioral risk, as well as the number of students they referred to the student support team.

CHAPTER 4

RESULTS

A convenience sample of 54 elementary (grades K-6) teachers were surveyed to examine the relationship between teachers' levels of burnout and self-efficacy, the referral of students to the school support team, and the identification of students with emotional and behavioral risk (EBR). Each teacher completed a 22-item Maslach Burnout Inventory-Educators Survey (MBI) and a 12-item Teacher Sense of Self-Efficacy-Short Form (TSES). Each teacher also completed a behavioral screening measure for each student in their class (the Social, Academic, and Emotional Behavior Risk Screener [SAEBRS]) to identify students with EBR. School records were obtained to determine the number of students each teacher referred to the school's student support team for academic, behavioral, and/or other student concerns. A summary of the data is presented in Table 2. Pearson product-moment correlations were conducted to determine if there was a relationship among teacher self-efficacy and teacher burnout. Additional correlations were conducted to determine if there was a relationship among teacher self-efficacy, teacher burnout, identification of students with EBR, and the number of students referred to the school's student support team. Research questions, associated hypotheses, and study results are presented below.

Table 2

Descriptive statistics for teacher variables (n = 54)

	<i>M</i>	Range	SD
Number of Students/Class Size	24.85	19-34	3.05
Total Teacher Burnout	38.30	4-75	15.85
Emotional Exhaustion	23.89	4-48	10.67
Depersonalization	5.44	0-18	5.59
Personal Accomplishment *	8.96	0-29	8.96
Total Teacher Self-Efficacy	84.56	50-101	10.38
Student Engagement	26.41	16-33	4.41
Instructional Strategies	28.83	17-35	3.99
Classroom Management	29.31	17-36	4.19

Total Number of Students Identified “At-Risk”	5.17	0-16	3.67
Total Number of Students Referred	1.32	0-6	1.56

Note. *Reverse coded variable.

Research Question 1

Does level of self-reported efficacy predict the level of self-reported burnout?

Hypothesis 1: Teachers reporting higher levels of self-efficacy will report lower levels of burnout. A Pearson product-moment correlation was conducted to determine the relationship between total scores for teacher burnout and teacher self-efficacy. Results suggest that Hypothesis 1 was supported. When examining overall teacher burnout, as indicated by “total teacher burnout,” and overall teacher self-efficacy, indicated by “total self-efficacy,” a statistically significant negative correlation was found between teacher burnout and teacher self-efficacy ($r = -.48, p = .000$), with higher levels of teacher burnout associated with lower levels of teacher self-efficacy (see Table 3).

Table 3

Pearson product-moment correlation among total teacher burnout and total teacher self-efficacy (n = 54)

		Total Teacher Burnout	Total Self-Efficacy
Total Teacher Burnout	Pearson Correlation	1	-.48**
	Sig. (2-tailed)		.000
Total Self-Efficacy	Pearson Correlation	-.48**	1
	Sig. (2-tailed)	.000	

Note. ** $p < .01$ level (2-tailed).

Further correlational analyses suggest that statistically significant relationships exist when examining the subdomains of teacher self-efficacy and burnout (see Table 4). For

Note. MBI-EE = Maslach Burnout Inventory-Emotional Exhaustion; MBI-DP = Maslach Burnout Inventory-Depersonalization; MBI-PA = Maslach Burnout Inventory-Personal Accomplishment; TSES-SE = Teacher Sense of Self Efficacy-Student Engagement; TSES-IS = Teacher Sense of Self Efficacy-Instructional Strategies; TSES-CM = Teacher Sense of Self Efficacy-Classroom Management. ** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Research Question 2a

Do teachers' self-reported levels of self-efficacy impact their identification of students with EBR? *Hypothesis 2a:* Teachers with higher levels of self-efficacy will identify more students with EBR. Results suggest that Hypothesis 2a was not supported as there was no significant relationship among teachers with higher levels of self-efficacy and the total number of students with EBR. However, when evaluating the subscale scores of the SAEBRS, there was a significant negative correlation among total teacher self-efficacy and the number of students identified as at-risk for emotional concerns ($r = -.29, p = .031$; see Table 5). In addition, significant correlations were found between subscales of the teacher self-efficacy scale and the SAEBRS emotional risk subscale as teachers rating themselves higher in student engagement ($r = -.33, p = .016$) and instructional strategies ($r = -.35, p = .010$), also identified fewer students at at-risk for emotional concerns. This suggests that teachers endorsing higher levels of self-efficacy were likely to identify fewer students as at-risk for emotional difficulties.

Table 5

Pearson product-moment correlation among teacher self-efficacy and students identified as at-risk (n = 54)

	SB- SAEBRS	AB- SAEBRS	EB- SAEBRS	SAEBRS Total	TSES-SE	TSES-IS	TSES-CM	TSES Total
SB-SAEBRS	1	.62**	.46**	.77**	-.16	-.08	-.25	-.20
AB-SAEBRS		1	.56**	.83**	-.15	-.06	-.04	-.10
EB-SAEBRS			1	.74**	-.33*	-.35*	-.05	-.29*
SAEBRS Total				1	-.15	-.08	-.14	-.15

TSES-SE	1	.63**	.50**	.87**
TSES-IS		1	.42**	.82**
TSES-CM			1	.78**
TSES Total				1

Note. SB-SAEBRS = At-Risk-Social Behavior; AB-SAEBRS = At-Risk-Academic Behavior; EB-SAEBRS = At-Risk-Emotional Behavior. TSES-SE = Teacher Sense of Self Efficacy-Student Engagement; TSES-IS = Teacher Sense of Self Efficacy-Instructional Strategies; TSES-CM = Teacher Sense of Self Efficacy-Classroom Management; TSES-Total = Total Self-Efficacy. ** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Research Question 2b.

Do teachers' self-reported levels of self-efficacy impact have a relationship with the number of students they refer to the student support team? *Hypothesis 2b:* Teacher with higher levels of self-efficacy will make more student referrals to the school support team. Results demonstrated that the hypothesis was not supported, as teachers with higher levels of self-efficacy made fewer referrals to the student support team. There was a significant negative correlation among total teacher self-efficacy and the number of students referred ($r = -.30, p = .026$; see Table 6), whereby teachers with higher levels of self-efficacy referred fewer students. Additionally, there was also a significant correlation among the student engagement subscale of the TSES and total student referrals ($r = -.28, p = .042$), whereby teachers who rated themselves higher in student engagement made fewer student referrals. There was also a near significant relationship between instructional strategies and student referrals ($r = -.26, p = .057$), demonstrating that teachers endorsing higher ratings of their own instructional strategies referred fewer students. Overall, study results suggest that teachers with higher self-efficacy refer fewer students to the student support team.

Table 6

Pearson product-moment correlation among teacher self-efficacy and referrals (n=54)

	Referrals	TSES-SE	TSES-IS	TSES-CM	TSES Total
Referrals	1	-.28*	-.26	-.21	-.30*
TSES-SE		1	.63**	.50**	.87**
TSES-IS			1	.42**	.82**
TSES-CM				1	.78**
TSES Total					1

Note. * Correlation is significant at the .05 level (2-tailed). ** Correlation is significant at the .01 level (2-tailed).

Research Question 3a

Do teachers' self-reported levels of burnout relate to the identification of students with EBR concerns? *Hypothesis 3a:* Teachers with higher burnout will identify fewer students with EBR concerns. There was no evidence that teachers with higher levels of burnout identified fewer students with EBR concerns, thus Hypothesis 3a was rejected. Results indicate no significant correlation among total teacher burnout and total students identified at risk. There was also no significant correlation among total teacher burnout and any of the SAEBRS subscales. Among the MBI subscales, there was a significant correlation between depersonalization and the total number of students identified ($r = .41, p = .002$) as well as a correlation between depersonalization and the number of students identified as at-risk for emotional concerns ($r = .34, p = .013$), whereby teachers with higher levels of depersonalization demonstrated an increase in the number of students they identified as at-risk for emotional concerns (see Table 7).

Table 7

Pearson product-moment correlation among teacher burnout and students identified at-risk (n = 54)

	SB- SAEBRS	AB- SAEBRS	EB- SAEBRS	SAEBRS Total	MBI-EE	MBI-DP	MBI-PA	MBI Total
SB-SAEBRS	1	.62**	.46**	.77**	.13	.24	.06	.17
AB-SAEBRS		1	.56**	.83**	.10	.22	-.04	.11
EB-SAEBRS			1	.74**	.20	.34*	-.00	.22
SAEBRS Total				1	.21	.41**	-.02	.24
MBI-EE					1	.63**	.21	.91**
MBI-DP						1	.22	.76**
MBI-PA							1	.55**
MBI Total								1

Note. ** Correlation is significant at the .01 level (2-tailed). * Correlation is significant at the .05 level (2-tailed).

Research Question 3b

Do teachers' self-reported levels of burnout impact the number of students they refer to the school support team? *Hypothesis 3b:* Teachers with higher burnout will refer fewer students to the school support team. Results demonstrate that there was no relationship between total teacher burnout and number of student referrals, therefore hypothesis 3b is rejected. However, the personal accomplishment subdomain was significantly correlated with number of student referrals, whereby teachers with higher levels of reduced personal accomplishment referred more students to the school support team ($r = .44, p = .001$; see Table 8).

Table 8

Pearson product-moment correlation among teacher burnout and referrals (n = 54)

	Referrals	MBI-EE	MBI-DP	MBI-PA	MBI Total
Referrals	1	.08	-.07	.44**	.19
MBI-EE		1	.63**	.21	.91**
MBI-DP			1	.22	.76**
MBI-PA				1	.55**
MBI Total					1

Note. ** Correlation is significant at the .01 level (2-tailed).

CHAPTER 5

DISCUSSION

Interpretation of Results

The current study sought to determine if there is a relationship among teacher burnout and teachers' sense of self-efficacy. Additionally, this study sought to determine whether teacher burnout and teachers' sense of self-efficacy were related to the number of students identified as at-risk for emotional and behavioral risk (EBR) either through a formal screening measure or through referral to the school's student support team.

Research Question 1: Does level of self-reported efficacy predict the level of self-reported burnout? A moderate negative correlation was found between total teacher burnout and total self-efficacy, whereby a teacher reporting increased levels of burnout was associated with lower levels of teacher self-efficacy. Additionally, many of the subdomains of the self-efficacy measure (i.e., student engagement, instructional strategies, classroom management) were negatively correlated with the teacher burnout subdomains (i.e., emotional exhaustion, depersonalization, and personal accomplishment) at a significant or near significant level. As predicted, and as found in previous studies, there is an inverse relationship between self-efficacy and burnout, whereby teachers with higher levels of self-efficacy experience lower levels of burnout (Chwalisz et al., 1992; Egyed & Short, 2006; Friedman, 2003; Skaalvik & Skaalvik, 2007). Almost every subdomain of teacher self-efficacy was negatively correlated with each subdomain of teacher burnout, suggesting that teacher self-efficacy is a strong predictor of and potential protective factor for teacher burnout.

Research Question 2a: Do teachers' self-reported levels of self-efficacy impact their identification of students at risk for social, academic, and/or emotional concerns? The

correlations between teacher self-efficacy and the identification of students with EBR were mixed. No overall relationship was found between total teacher self-efficacy and the number of students identified with EBR. However, there was evidence that a teacher's sense of efficacy was associated with the number of students they identified as at-risk in the emotional subdomain of the SAEBRS, whereby teachers with higher total self-efficacy identified fewer students as at-risk for emotional concerns. When evaluating the subdomains of self-efficacy, teachers who scored themselves higher in student engagement and instructional strategies also identified fewer students in the emotional risk subdomain. The classroom management subdomain was not related to identification of at-risk students. Overall, these results suggest that teachers higher in self-efficacy identified fewer students as at-risk for emotional concerns. Items on the SAEBRS measure related to emotional risk include student aspects of sadness, withdrawal, positive attitude, and rebounding from setbacks. Previous research has found that teachers with higher self-efficacy have better relationships with their students (Evers et al., 2002); engage in shared problem solving (Woolfolk et al., 2010); and believe that they can make an impact with their students (Gibson & Dembo, 1984). These positive attributes may have an impact on students' emotional functioning at school.

Research Question 2b: Do teachers' self-reported levels of self-efficacy impact the number of students they refer to the student support team? There was a significant negative correlation between total self-efficacy and number of student referrals, whereby teachers who reported higher self-efficacy referred fewer students to the student support team. Additionally, the student engagement subdomain was correlated with number of referrals, whereby teachers endorsing higher levels of student engagement referred fewer students. Finally, there was near significant correlation with the instructional strategies subdomain suggesting that teachers

endorsing higher levels of instructional strategies may refer more students. Overall, these results are consistent with prior research indicating teachers with higher self-efficacy refer fewer students to the student support team (Meijer & Foster, 1988; Soodak & Podell, 1993).

Additionally, Egyed and Short (2006) found no significant relationship among teacher self-efficacy and likelihood to refer students for support. It is possible that the tendency of teachers with higher self-efficacy to refer fewer students is related to an increased willingness of teacher with higher self-efficacy to persist with struggling students (Gibson & Dembo, 1984); to try different strategies (Allinder, 1994); or their tendency to solve problems on their own before seeking assistance (Hughes et al., 1993).

Research Question 3a: Do teachers' self-reported levels of burnout impact their identification of students at risk for social, academic, and/or emotional concerns? No overall correlation was found among total teacher burnout and the number of students identified as at-risk. However, there was a correlation among the burnout subdomain of depersonalization and the identification of at-risk students, indicating teachers who rated themselves higher in depersonalization identified more students demonstrating overall risk levels, as well as those that fell within the emotional risk subdomain. These results may be explained by previous research which has suggested that the teachers high in depersonalization, characterized by detachment and negative attitudes toward students, may either refer fewer students because they no longer care about their students' outcomes or may refer more students in order to have problematic students helped by someone else or removed from their class altogether (Egyed & Short, 2006).

Research Question 3b: Do teachers' self-reported levels of burnout impact the number of students they refer to the school support team? Total teacher burnout and number of students referred to the student support team was not found to be significantly correlated.

When examining the subscales of the teacher burnout scale, results suggested that personal accomplishment was the only subdomain correlated with teacher referrals, whereby teachers who rated themselves higher in reduced personal accomplishment referred more students to the school support team. As personal accomplishment is characterized by negative beliefs about accomplishments and the capacity to succeed (Shoji et al. 2016), perhaps the teachers with lower personal accomplishment felt that they were unable to help their struggling students and therefore referred them for help, in an effort to find help that they did not believe they could provide.

Implications for Practice

The current study adds to the research by affirming the relationship between self-efficacy and burnout. As found in previous studies (Chwalisz et al., 1992; Egyed & Short, 2006; Friedman, 2003; Skaalvik & Skaalvik, 2007), teachers with higher levels of self-efficacy reported lower levels of burnout. Almost every aspect of teacher self-efficacy was negatively correlated with each aspect of teacher burnout. In one way, this is good news because it allows researchers to focus on ways to effectively train (and therefore retain) teachers. Reinke and colleagues (2013) noted that teachers' self-efficacy has been positively related to several factors, including instructional practices, classroom management, and student achievement. Thus, the authors posited that obtaining information about teachers' self-efficacy ratings may be a useful way to identify teachers in need of additional training or coaching.

This study is one of the first to examine teacher burnout and self-efficacy in relation to a universal screening measure to identify potential EBR concerns. The most notable pattern of relationships was between the emotional risk subscale of the SAEBRS and the teacher self-efficacy and burnout measures. For example, there was a significant relationship between

teacher self-efficacy, the student engagement subdomain, and the emotional subscale of the SAEBRS. Additionally, total teacher burnout and the burnout subdomain of depersonalization were also significantly correlated with the emotional risk subscale. Additionally, depersonalization was found to be related to identification of total at-risk students

These relationships are notable and confirm the current interest in identifying what type of concern a student might be experiencing. Notably, the emotional behavior (EB) subdomain of the SAEBRS (von der Embse et al., 2015) was added to the original Social and Academic Behavior Risk Screener (SABRS; Kilgus et al., 2013) as the researchers realized the importance of identifying students who were at-risk for less overt behavioral concerns. As previous research had established that teachers are more likely to refer a student for externalizing concerns over internalizing behaviors (Lloyd et al, 1991; von der Embse et al., 2015), the emotional behavior subscale items were designed to “correspond to actions that limit a student’s ability to regulate internal states, adapt to change, and respond to challenging events. These include maladaptive behaviors representative of internalizing problems (e.g., withdrawal) and adaptive behaviors representative of social-emotional competencies (e.g., positive attitude)” (von der Embse et al., 2015, p. 2). Questions on the SABERS included items targeting internalizing concerns such as anxiety and depression, as well as adaptive items such as social-emotional competence, resilience, and emotional wellness. It is possible that the teachers with higher self-efficacy may have known their students better (Ashton & Webb, 1986; Evers et al., 2002) and could have viewed their students’ emotional characteristics not so much as at-risk factors but rather as challenges that they could help the student overcome, for example, by supporting their students’ social-emotional development. Liljequist and Renk (2007) found that teachers with higher self-efficacy may be more sensitive to student’s internalizing difficulties and may feel more

responsible to help them. Conversely, teachers with higher depersonalization, which is characterized by negative or cynical attitudes towards the person to be helped (Maslach & Jackson, 1981), may feel less connected or more detached from their students and therefore less likely to know their students at a more personal level (Evers et al., 2002; Pas et al., 2010).

An additional consideration not explored through a formal research question in this study, but apparent from descriptive results, were the number of student referrals made by teachers versus the actual number of student identified at risk by the screening measure. Teachers referred, on average, 1.32 students from their classroom to the student support team, whereas when using the SAEBRS, teachers identified an average of 5.17 students per classroom. This suggests that teachers refer fewer students to the student support team than the number of students they endorse as demonstrating EBR on a formalized rating scale. Research has posited that universal screening measures may be a more comprehensive and systemic way to identify at-risk students and immediately begin interventions, rather than waiting to implement interventions until after the student is referred (VanDerHeyden & Jimerson, 2005; VanDerHeyden et al., 2005). Ideally, students identified as at-risk by the screener can receive effective interventions that may make referral to the student support team no longer necessary (Severson et al., 2007). In this way, the teacher screening measure casts a wider net to identify and address more student needs than through a simple referral approach, particularly for students with behavioral or emotional difficulties (Eklund & Dowdy, 2014).

Limitations

There were several limitations to the current research. First, data were not collected on teachers' years of teaching experience or education levels. As previous studies have demonstrated, years of teaching experience and/or levels of education can be significant factors

in levels of burnout and self-efficacy (Glickman & Tamashiro, 1982; Klassen & Chiu, 2011; Pas et al., 2012; Schwarzer & Hallum, 2008). Future research would benefit from these additional considerations. However, such data were not available in the current study.

Second, there are some concerns regarding the assumption of normality not being met because of the small sample size. In addition, a total burnout score was summed for the current study and this is not a method typically used in studies using the Maslach Burnout Inventory due to the authors' belief that at the time of the design of the MBI, more research was needed regarding interactions among the three subdomains (Leiter, 1993). A total score has been derived in some studies, however (e.g., Burke & Greenglass, 1993; Burke, Greenglass, & Shwarzer, 1996; Ransford, 2007) and was used in the current study in order to make comparisons among total self-efficacy and total students identified as at-risk.

Third, the student type of referral to the school student support team was not included in this study. This is important as there may have been differences in analysis if academic versus social-emotional/behavioral referrals were made. However, due to the small sample size, this was not feasible. Fourth, the current study did not account for the number of students already in special education in each teacher's class. It is possible that the number of special education students in each teacher's class could have impacted their burnout and self-efficacy levels. Ostensibly these students would have higher levels of need which could also impact the teachers' ratings of students with EBR. Additionally, if the student is already in special education, they are less likely to be referred to the student support team because their needs would likely be addressed by their Individualized Education Plan team.

Finally, these data were collected at one point in time (i.e., during the spring semester). Results could have differed between fall and spring semesters, whereby teachers in the fall

semester may report differing levels of self-efficacy and burnout than in the spring (Pas et al., 2012; Stein & Wang, 1988). Ideally, data on self-efficacy and burnout could have been collected in both the fall and spring semesters to address this potential limitation.

Future Directions

Clearly there is a relationship between self-efficacy, burnout, and identifying at-risk students; however, mixed results suggest that future research should be conducted to explore the relative impact of teacher self-efficacy and burnout on various student and teacher level variables. Research suggests that focusing future teacher professional development efforts on enhancing teacher self-efficacy and how to address student behavior concerns could improve overall outcomes for teacher retention (Kokkinos, Panayiotou, & Davazoglou, 2005). Additionally, integrating a focus on teacher self-efficacy has been found to improve teacher receptiveness to consultation as teachers with higher self-efficacy were not only more open to consultative feedback and found intervention suggestions more acceptable than teachers with lower self-efficacy (DeForest & Hughes, 1992; Hagen, Gutkin, Wilson, & Oats, 1998). Future studies may focus on using measures of self-efficacy to identify and personalize supports for teachers experiencing lower self-efficacy and/or high burnout. Once teachers' needs are identified, both administrative support and consultation can be leveraged to improve teacher self-efficacy, and thus improve their effectiveness regarding student outcomes as well as their likelihood to remain in the profession. Administrative support has been found to be a critical component of teachers feeling supported (Brissie, Hoover-Dempsey, & Bassler, 1988; Jackson, Schwab, & Schuler, 1986; Tsouloupas, Carson, Matthews, Grawitch, & Barber, 2010), thus, adding aspects of self-efficacy training to the administrators' repertoire to guide and encourage their teachers could be a powerful tool.

School psychologists are also in a unique position to support teachers via consultation for both academic and behavioral interventions (DeForest & Hughes, 1992). Future studies could focus on how teacher consultation can lower teachers' emotional exhaustion, increase their sense of self-efficacy, and thus improve their overall effectiveness in the classroom (Pas et al., 2012; Reinke et al., 2013) as these were important variables in the current study. Several studies have suggested that teacher self-efficacy can be effectively enhanced in teacher trainings (Brouwers & Tomic, 2000; Pas et al., 2012; Makinen & Savolainen, 2016; Wechsler, Caspary, Humphrey, & Matsko, 2010) and these techniques could possibly be modified for use by administrators and school psychologists in order to directly enhance teacher self-efficacy and more generally improve student outcomes.

Further research should also be conducted to specifically examine the interaction of teacher self-efficacy and the identification of internalizing behavior difficulties to determine if more efficacious teachers are better able to discern true internalizing difficulties from more general problems that can be supported in the classroom (e.g., by teaching social-emotional competence and resiliency skills). For example, Woolfolk-Hoy and colleagues (2009) suggest that teacher sense of efficacy and the development of relationships with students is a potential key to shaping the social-emotional climate of the classroom. Thus, another important aspect of growth in self-efficacy is the teacher's ability to reach and support all students, particularly those who may have more subtle behavioral difficulties.

Ultimately, it is imperative that students who need interventions receive help as early as possible. Teachers are in a critical position to recognize the needs of their students. This research and that of others highlights the importance of the teacher in referring students in need but also underscores the importance of additional measures (e.g., use of screeners) to avoid false-

positives and to ensure that we are not missing students in need. Results from the current study and others suggest that increasing self-efficacy in teachers may result in decreased burnout, more engaged and effective teaching, and improved outcomes for all students.

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