

PERCEIVED STRESS AMONG PUBLIC SCHOOL MUSIC EDUCATORS: STRESS
OVER TIME, DEMOGRAPHIC DIFFERENCES, COMMON SELF-IDENTIFIED
FACTORS OF STRESS, AND RELATIONSHIPS BETWEEN DEMOGRAPHIC
DIFFERENCES AND EMERGENT STRESS THEMES

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by
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ABSTRACT

Teaching frequently has been identified as a stressful occupation, warranting numerous studies of teacher burnout, attrition, and stress. Levels of professional burnout and attrition among educators have been shown to correlate with general levels of stress across all aspects of life. As rates of such issues continue to function as a source of concern within the profession, efforts to help educators manage stress and maintain balance are of critical importance. Additionally, music educators tend to face unique occupational stressors when compared with teachers in other content areas.

Using Cohen and Williamson's (1988) 10-item Perceived Stress Scale (PSS), combined with open-ended questions based on the PSS, this mixed method study was designed to track music educators' perceived stress across a three month period, identify

significant differences in perceived stress as a function of selected demographic factors, and explore emergent themes of increased and eased stress. Additionally, relationships between emergent stress themes and significant differences in overall perceived stress based on demographic factors were examined. Participants ($N = 770$) consisted of current K-12 public school music educators in the United States who were employed on at least a half-time basis. A series of three anonymous online surveys, administered at one-month intervals across three consecutive months during a fall academic term, served as the data collection instruments.

Results showed that overall PSS scores decreased significantly across three months of data collection. Significant differences in PSS scores were found relative to participant age, parenthood status, grade/school levels taught, and years of teaching experience. Additionally, differences in PSS scores closely approached significance based on participant gender. Emergent themes of increased and eased stress were identified within 4,620 participant responses to open-ended questions. Each response was coded using a two-part, researcher-developed qualitative codebook developed during the data interpretation process. Comparisons were made between significantly different demographic factors and emergent stress themes, and results were compared to related research studies. Suggestions for future research are included. Implications for current K-12 public school music teachers, preservice music teachers, administrators, cooperating mentor teachers, and music teacher trainers and training programs are discussed.

APPROVAL PAGE

The faculty below, appointed by the Dean of the Conservatory of Music and Dance have examined a dissertation titled "Perceived Stress among Public School Music Educators: Stress over Time, Demographic Differences, Common Self-Identified Factors of Stress, and Relationships between Demographic Differences and Emergent Stress Themes," presented by Justin A. Doss, candidate for the Doctor of Philosophy, and certify that in their opinion it is worthy of acceptance.

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CHAPTER 1

INTRODUCTION

Music education can be an extremely rewarding and enjoyable profession.

However, it is not shielded from the well-documented challenges and stressors inherent in teaching. Research focused on the elements of increased and eased stress among K-12 public school music educators is of critical importance, both to individual teachers and to the profession as a whole. The following statements, provided by participants in this study, offer insight into some of the most common self-identified factors of stress among active music teachers:

As I teach longer, I don't feel as bad for taking the sick days in order to get better. When I was a younger teacher I would try and 'tough' it through the days when I should have been resting (which is probably why I have so many issues). I have FML for my health issues, which helps me feel more relaxed that I won't be punished for missing school.

Our administration is new and not handling our high school well. The school is out of control, students do not receive consequences, and I have never been treated so badly in my 11 years of teaching. On top of this, add all the 'professional development' sessions I am required to attend, and I am not able to do my real job of teaching children. I don't know how much longer I can continue to teach and keep my health.

I'm so busy with school work that I'm not taking time for myself.

Nearing of concert!!!! This is a horrible feeling. Trying to make sure all of your i's are dotted and t's crossed is hard, especially on top of other classes that are taught. Then the joy of having students called out of my class when I can only rehearse during this time also doesn't help. Music is the only class where what you do is presented to people in the community. A math class doesn't do a production of math problems for an audience...

I have always enjoyed teaching but the requirements by my administration and

township are overwhelming and unrealistic. I am resentful for being told that I need to spend more time doing what I do. 12 - 14 hour days are the norm. I feel terrible for the young teachers who want to get out of teaching because of the demands and who truly love what they do but are fearful of the low salaries that loom in their futures.

Teacher stress, as well as burnout and attrition, have been present within research literature for decades, yet the problems associated with each still seem to persist. As education professionals and policymakers in the United States continually seek better ways to educate the next generation of young people, increased efforts to understand teacher stress and its relation to teacher effectiveness and retention are paramount. This study was designed to seek a better understanding of teacher stress, specifically among public school music teachers.

Previous studies on teacher burnout, attrition, and stress have generally focused on stressors relative to the school or work environment. Historically, burnout and attrition have received more attention in the literature than stress, with the latter often noted as a related or contributing factor of the others (Hancock, 2008; Kertz-Welzel, 2009; Madsen & Hancock, 2002). Within studies of teacher stress, as well as within studies of factors contributing to burnout and attrition, frequently cited themes include a lack of administrative support, demanding workload, and salary concerns (Gardner, 2006; Hamann et al., 1987; Hasty, 2007; Hughes, Matt, & O'Reilly, 2015; Nimmo, 1986).

To study stress with any population, one must decide the means by which stress will be measured. Stress measurement generally involves the use of at least one of two primary methods: (a) the measurement of biological markers, including cortisol levels, blood pressure, and so forth (e.g., Barksdale, Woods-Giscombé, & Logan, 2011; van

Holland, Frings-Dresen, & Sluiter, 2012); or (b) individual reports of self-perceived stress (e.g., Cohen & Williamson, 1998). Within self-reported methods, researchers must further elect to use an objective measure, a subjective measure, or a hybrid of the two. Additionally, researchers must decide whether to use an existing data collection method, modify an existing data collection tool, create a new measure or tool, or combine portions of multiple stress measures.

In this study, the researcher selected the method of individual reports of self-perceived stress for stress measurement. An existing quantitative measurement scale was paired with two subjective open-ended questions developed by the researcher. Both the measurement scale and the open-ended questions were included within three online surveys, administered across consecutive one-month intervals during a fall academic term. Demographic questions were also included in the first survey. The survey tools served as the dependent measures during the three months of data collection.

The researcher selected Cohen and Williamson's (1988) 10-item Perceived Stress Scale (PSS), a well-established measure of general stress, as the primary quantitative data collection tool. Participants received an overall stress score for each iteration of the survey on a 40-point scale. In addition, the researcher added two qualitative open-ended follow-up questions based on the PSS. Follow-up questions were worded to encourage participant reflection on sources of increased and eased stress during the previous month. The questions did not specifically mention context (e.g., school stress or personal stress), leaving participants free to respond based on stress factors they had recently faced in any facet of life.

This study contains unique aspects not found in previous research with K-12 public school music teachers. To the author's knowledge, the PSS has not been used with a sample taken from this specific population in the United States. Additionally, a repeated measures administration of the PSS over the course of three consecutive months, while suggested by the authors of the scale (Cohen, Kamarck, and Mermelstein, 1983), has rarely occurred in research on teacher stress. Further, the qualitative follow-up questions to the PSS represent the researcher's effort to develop a more complete and thorough understanding of stress among music teachers.

Results of this study may be of value to both preservice and in-service teachers. An awareness of current trends in self-perceived stress and stress factors among school music educators may help teachers anticipate their comfort level with certain teaching positions, as well as help guide long-term career and family planning decisions. Results may also be useful to school administrators, teacher-training programs, cooperating mentor teachers, and university supervisors in the advising and mentoring of preservice and in-service teachers. This study adds to the extant literature concerning self-perceived stress and teacher stress, as well as burnout, attrition, and stress among music educators.

Statement of Purpose and Research Questions

The general purposes of this mixed method study were: (a) to measure self-perceived stress among K-12 public school music teachers across a three-month period during a fall academic term, (b) to examine average levels of self-perceived stress relative to selected demographic factors, (c) to identify emergent themes of increased and eased stress, and

(d) to examine the relationships of emergent themes among significantly different demographic subgroups. Research questions were:

1. Will public school music educators' responses on a stress indicator survey vary as a function of time across a three-month period?
2. Do average levels of perceived stress vary among selected demographic subgroups?
3. What common self-identified themes of increased and eased stress emerge among public school music educators when reflecting upon stress across three consecutive one-month intervals?
4. What relationships exist between emergent stress themes and significant differences in overall perceived stress based on selected demographic factors?

CHAPTER 2

REVIEW OF LITERATURE

Overview of Stress

Stress has long been a topic of study across a multitude of fields, including its relation to general health and addictions (Al-Absi, 2007), social and environmental factors and their effects on stress (Glass & Singer, 1972), psychology and psychological effects of stress on individuals (Lazarus, 1966), stress in the workplace (Cooper, Dewe, & O'Driscoll, 2001), and measuring stress in the field of gerontology (Stokes & Gordon, 1988), among numerous others. Stress has been studied in various forms, including short-term, long-term, chronic, posttraumatic, environmental, occupational, and self-perceived. Though stress is often anecdotally linked to matters of health (Al-Absi, 2007), empirical study of a possible link between the two is somewhat sparse (Amirkhan, 2012). Still, the body of literature concerning stress in humans continues to grow steadily across disciplines.

Defining and Measuring Stress

Definition of Stress

In attempting to develop or select a tool for measuring stress, one must either create or accept a working definition of the term *stress*. This is no small issue as “stress is a phenomenon that still lacks an exact definition from many disciplines” (Kozlov & Kozlova, 2014, p. 224). Littman, White, Satia, Bowen, and Kristal (2006) referred to stress as a “complex phenomenon” (p. 398). Fink (2009) suggested, “Stress has a

different meaning for different people under different conditions” (p. 5). Cohen, Kessler, and Gordon (1997) noted that “the way in which the term ‘stress’ has been used in this voluminous literature [on environmental and psychosocial influences on health] has not been consistent” and that “there is confusion about the meaning and measurement of stress” (p. 3). Sowa (1992) referred to stress as a “common metaphor for the modern turmoil of everyday life”, further reiterating that “stress remains difficult to define” (p. 179). The current study assumed the approach to defining stress provided by Cohen et al. (1983), specifically that stress is a somewhat unique concept to all people. Each person should be allowed the liberty to define “the degree to which situations in one’s life are appraised as stressful” (p. 394).

Measurement of Stress

Another factor to consider when studying stress among humans is whether to measure biological factors related to stress, reported levels of self-perceived stress, or both. This choice is somewhat confounded by the debate over whether these two methods are directly related and yield consistently similar results (Maduka, Neboh, & Ufelle, 2015; van Eck, Berkhof, Nicolson, & Sulon, 1996). Biological markers often measured in the context of stress research include cortisol levels in saliva, blood, urine, and/or hair (Kozlov & Kozlova, 2014; Maduka et al., 2015; van Eck et al., 1996; van Holland et al., 2012), as well as blood pressure (Barksdale et al., 2011). If a self-perceived stress measurement tool is selected, one must further decide whether to utilize an objective measure, a subjective measure, or a hybrid combination of the two (Amirkhan, 2012; Cohen et al., 1983). Objective measures require participants to reflect

and respond based on specific environmental or life events (e.g., death of a family member), while subjective measures focus on global aspects of stress. Within studies of self-reported stress, a multi-item questionnaire is perhaps the most common method of data collection (Faresjö, Jullander, Götmalm, & Theodorsson, 2014).

Stress and perceived stress measurement scales. Some stress measurement scales were designed for a specific purpose or for use within a targeted demographic. For instance, the West Haven Homecoming Stress Scale is used with soldiers returning from battle who may be experiencing posttraumatic stress disorder (Johnson et al., 1997), the African-American Woman's Stress Scale was designed as part of an ongoing effort to understand and measure stress experienced by Black women in the United States (Watts-Jones, 1990), the Demands of Immigration Scale was developed to measure stress among first-generation female Korean immigrants in California (Ding et al., 2011), and the Stokes/Gordon Stress Scale measures stress in adults 65 and older (Stokes & Gordon, 1988). Other stress measurement scales were designed to be more general in scope, not specific to one targeted group or demographic. Such scales tend to focus less on objective aspects of life and more on an individual's overall subjective experiences within a given timeframe. Scales intended for use with the general population include a scale of perceived occupational stress (Smith, 2000), the Global Assessment of Recent Stress (GARS) Scale (Linn, 1986), the Occupational Stress Inventory-Revised (OSI-R; Osipow, 1998), the Perceived Stress Reactivity Scale (PSRS; Schlotz, Yim, Zoccola, Jansen, & Schulz, 2011), and the Perceived Stress Scale (PSS; Cohen et al., 1983).

Perceived Stress Scale (10-item). Cohen and Williamson (1988) recommended

the 10-item version of the PSS in favor of the 4- and 14-item versions as a measure of general self-perceived stress. All three versions of the PSS were designed to be purely subjective measures of stress, not focused on specific life circumstances or stressors (Cohen et al., 1983; Cohen & Williamson, 1988). While objective measures of stress generally have been shown to have higher test-retest reliability than subjective measures, subjective scales have been shown to have better overall internal consistency and validity (Amirkhan, 2012). The PSS was designed to be read and understood by participants with at least a junior high school education. Each item within the PSS was worded to minimize content-specific bias (Cohen & Williamson, 1988), and the scale has been referred to as an assessment of general or global stress (Cohen et al., 1983; Murphy, Denis, Ward, & Tartar, 2010).

Since their development, the three forms of the PSS have been used and validated worldwide. Altogether, the various PSS measures have been translated into more than 20 languages (Cohen & Williamson, 1988; Lee, Chung, Suh, & Jung, 2015; Örkcü & Demir, 2009; Ramírez & Hernández, 2007). Positive correlations have been found among results of multiple forms of the PSS and probability samples from the general population in both England and the United States. Warttig, Forshaw, South, and White (2013), in addition to confirming both internal consistency and reliability in the 4-item PSS, found a significant relationship between PSS results and results obtained from a normative dataset selected for use in their study. Cohen and Janicki-Deverts (2012) found significant correlations of stress readings when comparing results from the PSS-10 to results from both the Harris Poll and eNation surveys across a 26-year span in the United

States. This supported the findings of Cohen and Williamson (1988), who compared the 14-item PSS to Harris Poll data from 1983. Of particular relevance to the present study, the PSS-10 was derived from the aforementioned 1988 study as four items from the 14-item PSS were found to have lower factor loadings than the other 10 items. With the four items removed, the 10-item version appeared to “be at least as good a measure of perceived stress as the longer 14-item version of the scale” (Cohen & Williamson, 1998, p. 45). As it has become one of the most commonly used measures of perceived stress (Taylor, 2015), the PSS is present within a diverse body of literature, including research on stress in undergraduate students (Orem, Petrac, & Bedwell, 2008; Smith, Rosenberg, & Haight, 2014), police constables (Walvekar, Ambekar, & Devaranavadagi, 2015), cancer patients (Golden-Kreutz, Browne, Frierson, & Andersen, 2004), and teachers (Jepson & Forrest, 2006; Pruessner, Hellhammer, & Kirschbaum, 1999).

Teacher Burnout, Attrition, and Stress

Teacher Burnout

Brief historical overview. The concept of burnout first gained academic attention more than 30 years ago, particularly among professionals in the human services industries (Aguayo, Vargas, de la Fuente, & Lozano, 2011; Maslach & Jackson, 1981). As explained by Maslach, Schaufeli, and Leiter (2001), early research on burnout was exploratory in nature, lacking a widely accepted definition of what *burnout* actually entailed. However, based on “three core dimensions of the burnout experience” (p. 402), a multidimensional theory of burnout was ultimately developed. The three dimensions include emotional exhaustion, depersonalization, and personal accomplishment (Maslach

& Jackson, 1981). The Maslach Burnout Inventory (MBI), regarded today as one of the strongest and most widely used scales in research on burnout, was created as a measure of each of the three core dimensions (Maslach et al., 2001).

Burnout in education. Though the concept of burnout is not unique to education, “the term has come to be used in conjunction with teachers far more often than any other occupational group” (Farber, 2000, p. 675). In fact, five years after the original MBI was published, an updated version tailored specifically to educators (i.e., the Maslach Burnout Inventory-Educators Survey, or MBI-ES) was released (Maslach, Jackson, & Schwab, 1986). In the MBI-ES, the word *student* replaced the word *recipient* throughout the measure, making it more applicable and relevant to teachers (Wheeler, Vassar, Worley, & Barnes, 2011). A third version of the MBI was released in 1996, the MBI-General Survey (MBI-GS). The three versions were initially designed for use in the United States; however, as the use of the MBI gained interest worldwide, various translations and adaptations emerged (Maslach et al., 2001). The three versions collectively have been used in burnout research perhaps more than any other instrument over the past three decades. As a result, a substantial body of literature addressing burnout has developed in the human services industries, including numerous studies of teacher burnout.

Teacher burnout as a global concern. Teacher burnout has been studied globally, including in Africa (George, Louw, & Badenhorst, 2008), Asia (Park & Lee, 2012), Australia (Goddard & Goddard, 2006), Europe (Covell, McNeil, & Howe, 2009), North America (McCarthy, Lambert, O’Donnell, & Melendres, 2009), and South

America (Gil-Monte, Carlotto, & Câmara, 2011). Cross-cultural differences among teachers relative to burnout have also been explored (Pedrabissi, Rolland, & Santinello, 1993; Sarros & Sarros, 1990; Schwarzer, Schmitz, & Tang, 2000). Some recent studies of teacher burnout have focused on predicting, minimizing, preventing, and treating the condition (Farber, 2000; Goddard, O'Brien, & Goddard, 2006; Roeser et al., 2013; Zołnierczyk-Zreda, 2005). Other studies were designed to help develop a better understanding of burnout relative to personality traits (Avtgis & Rancer, 2008; Kokkinos, 2007), student behavior (Friedman, 1995; Hastings & Bham, 2003), perceived self-efficacy (Brouwers & Tomic, 2000; Schwarzer & Hallum, 2008), and school culture or work environment (Friedman, 1991; Goddard et al., 2006).

The underlying principle within much of the research on burnout is the placement of “the *individual stress experience* [emphasis added] within a larger organizational context of people’s relation to their work” (Maslach et al., 2001, p. 397). Additionally, symptoms and feelings of burnout have been identified as predictors of attrition, a similar concern among teachers (Jones & Youngs, 2012).

Teacher Attrition

Brief historical overview and definition. Attrition among teachers has been a topic of interest in research literature for decades (e.g., see Planz & Gibson, 1970; Van Atta, 1964), and has been studied in a variety of contexts. Attrition is somewhat of an umbrella term, referring to teachers who move from one teaching position to another in the same school, teachers who move to another school, teachers who leave the profession entirely, or retiring teachers (Billingsley, 2004; Borman & Dowling, 2008; Macdonald,

1999). Teacher attrition is related to school turnover, and the two terms are at times are used interchangeably (see Xaba, 2003, for example). It should be noted that in many of the references cited within the current study, attrition is used to indicate teachers who leave the profession and turnover is used to indicate the need for schools to replace teachers who have left, regardless of reason.

Teacher attrition as a global concern. Teacher attrition is not a concern unique to the United States. A shortage of qualified teachers, due to both attrition and the resulting turnover, has been a concern of countries worldwide. For example, Changying (2007) found that during the early stages of the economic blossom of the modern Chinese economy (data used for the study were from 1979-1985), a high percentage of Chinese teachers left the profession to start companies and pursue other economic endeavors. In another example, Xaba (2003) noted that teacher turnover and attrition has become a critical concern in Africa as a result of the HIV/AIDS epidemic in sub-Saharan countries. Finally, in their review of Australian educational literature, Mason and Matas (2015) indicated that research on teacher attrition, though spanning several decades, may still be in its infancy.

Factors and causes of teacher attrition. One of the most commonly cited factors or causes of teacher attrition, at least in the West, is teacher salary, also referred to as income or compensation. Ondrich, Pas, and Yinger (2008) found that higher salaries relative to comparable districts, as well as to nonteaching salaries, yielded lower levels of risk for attrition among teachers in New York. Hahs-Vaughn and Scherff (2008) found similar results in their study of beginning English language arts teachers. Teacher salary

was the only factor that yielded a significant relationship to teachers leaving the profession, and no other factors studied were shown to decrease the risk of attrition. In a five-year study, Harrell, Leavell, van Tassel, and McKee (2004) also identified income as the most significant factor related to teacher attrition. Similarly, Hasty (2007) concluded that financial compensation was one of the most prominent factors in predicting teacher attrition among K-12 educators in Nebraska. A meta-analysis of Borman and Dowling (2008) further supported these findings, suggesting that teacher salary is an extremely important factor in predicting and preventing teacher attrition.

A lack of administrative support, school climate, student concerns (e.g., student behavior and student body composition), workload, resources, and interpersonal relationships in the workplace have also been identified as significant indicators of attrition risk. In a study of Australian teachers, Howes and Goodman-Delahunty (2015) found high workload and unsupportive administration to be critical concerns among teachers regardless of years of experience. Hughes et al. (2015) similarly found that the ability to receive administrative support was a critical desire of teachers in hard-to-staff schools (i.e., schools in correctional or residential facilities with a high percentage of students with emotional and/or behavioral concerns). Teachers who received less positive praise from administrators were more likely to leave the profession. Borman and Dowling (2008) suggested “attributes of teachers' schools, including organizational characteristics, student body composition, and resources (instructional spending and teacher salaries), are also key [attrition] moderators” (p. 367).

Factors in the prevention of teacher attrition. Concepts and programs such as

mentoring, counseling, new teacher induction programs, professional support systems, and administrative feedback have been shown to have a positive correlation with reductions in teacher attrition. In a review of literature, Macdonald (1999), suggested that increased efforts at creating and maintaining collegial relationships among staff members, teacher support and recognition, and counseling were all possible mitigating factors of attrition. Bettini, Cheyney, Wang, and Leko (2015) similarly recommended that social support, both within individual departments and school-wide, and feedback from administrators may help to reduce attrition, particularly among novice teachers. Simon and Johnson (2015) found similar results in their review of literature concerning teacher turnover in high-poverty schools. They noted that much is already known about how working conditions (e.g., administrative support and feedback) affect attrition, and suggested that these types of factors are much more easily changed than variables such as demographic characteristics of students.

Difficulties of predicting teacher attrition. Within the large body of existing research on teacher attrition, researchers have identified certain factors which have little to no relationship with, or predictive power regarding, teacher attrition. For example, Greiner (2003) found no significant relationship between attrition and certification scores, reading scores, a field-based education program, an emergency permit teacher education program, gender, or undergraduate academic performance among teachers in Texas. Similarly, Greiner and Smith (2009) determined that factors such as reading proficiency scores, undergraduate academic performance, gender, and ethnicity showed no definite relationship to teacher attrition, again among teachers in Texas. However, as

reported by Guarino, Santibañez, and Daley (2006), such results do not hold true in all cases. Specifically, differences in attrition rates based on teacher gender and ethnicity were uncovered within some of the sources referenced in their review of literature. This suggests that certain variables may be more or less predictive of attrition based on geographic region or school type.

Attrition among subgroups of teachers. Attrition has also been studied within specific subgroups of teachers. For example, Hancock and Scherff (2010) used data from the 2003-2004 School and Staffing Survey to determine significant predictors of attrition among secondary English language arts teachers. Henry, Fortner, and Bastian (2012) studied attrition relative to experience among novice secondary science and mathematics teachers, while Swanson (2012) explored the relationship between attrition and foreign language teacher efficacy.

Attrition among special education teachers. Since the passage of the No Child Left Behind Act, research on attrition among special education teachers has received particularly heightened attention. Bettini et al., (2015) incorporated *job characteristics theory*, frequently referenced in organizational psychology. In essence, this theory describes the ways in which the characteristics of a job affect how employees perceive the importance of the work they do, whether meaningful or otherwise. Social support, autonomy, feedback, task significance, and task interdependence were all found to be key indicators of attrition among special education teachers. In a review of literature, Vittek (2015) found job satisfaction, administrative support, induction programs, and mentoring to be among the most frequently identified themes within research on the experiences of

special education teachers.

Attrition among early-career teachers. Early-career teachers are typically defined in the literature as having taught five or fewer years, often meaning the youngest members of a school faculty. Early-career teachers frequently include those on probationary status, novice teachers, and teachers in a survival or discovery phase of the teacher *life cycle* (Huberman, 1989; Steffy, Wolfe, Pasch, & Enz, 2000). Such teachers are of particular concern to researchers and policymakers as they tend to be more stressed than other professionals (Huberman, 1989; Wagner, 2009; Wilhelm, Dewhurst-Savellis, & Parker, 2000). These teachers frequently are “confused and even overwhelmed....[as they struggle] to achieve competence in the classroom” (Steffy et al., 2000, p. 30).

In examining the varying lengths of student teaching experiences among preservice special education teachers, Connelly and Graham (2009) found a significant difference in the probability of attrition after one year in the field. Special education teachers who had at least 10 weeks of student teaching experience were more than twice as likely to remain in the profession after one year of actual teaching as those who had less than 10 weeks of student teaching experience. Further, no other variable considered within the study was shown to have a significant effect on predicting attrition when adjusting for the length of student teaching experience. Edgar and Pair (2005) found similar results when comparing the lengths of university teacher training programs. Specifically, they suggested that special education teachers who complete a five-year training program may experience significantly lower attrition rates than teachers who complete a traditional four-year program. Kelly (2004) supports this notion in terms of

overall teacher training, suggesting that an increase in number of teaching methods courses completed, acquisition of state certification, and membership in a professional organization all may lead to lower attrition rates.

DeAngelis and Presley (2011), in studying over 30 years of population data from the Teacher Service Record in Illinois, proposed that new teacher attrition is more a problem of individual school environments than of the type of school. They recommended providing targeted assistance to schools with high turnover rates. Kelly and Northrop (2015) found that early-career teachers who graduated from a highly selective college or university were 85% more likely to leave the teaching profession within the first three years than teachers who graduated from less prestigious schools. They posited that highly selective graduates may struggle most with job and career satisfaction, though they conceded that the phenomenon remains mostly unexplained. When considering early-career teachers as a whole, the authors suggested that counseling, training in coping strategies, and positive professional development may all lead to a reduction in attrition. Clandinin et al. (2015), when interviewing second- and third-year teachers in Alberta, Canada, suggested that attrition is a process that occurs over time involving the whole person, not just a struggle for separation of personal and professional life. Their recommendations for identifying and preventing attrition among early-career teachers included better teacher preparation and early-career support.

Future research on teacher attrition. From a broader perspective, Schaefer, Long, and Clandinin (2012) recommended that researchers and policy-makers shift focus from merely retaining teachers (i.e., preventing attrition) toward sustaining teachers.

They noted that a great deal of research has focused on individuals learning to fulfill a new role, that of teacher rather than learner. Looking to the future, they posited that attrition among early-career teachers may better be considered “an identity-making process that involves a complex negotiation between individual and contextual factors” (p. 106). Further, they suggested that this process begins before a teacher enters the classroom and should extend throughout the course of a career.

Identifying the various causes of teacher attrition has long been a focus in educational research. Whether caused by personal factors, environmental concerns, socioeconomic details, or other concerns, it is clear there is no simple answer to solving the problems of teacher attrition and turnover (Perda, 2013). Newer studies have sought to answer questions of how to predict, identify, and prevent attrition. While it is clear that significant advances have occurred, much work remains to be done.

Teacher Stress

Brief overview of teacher stress. An inevitable part of the human experience, stress may be classified as being either positive or negative (Franks, 1994; Wiley, 2000). It has been well documented that teaching can be a particularly stressful profession in the negative sense (Goddard et al., 2006; Guglielmi & Tatrow, 1998; Richards, 2012; Stoeber & Rennert, 2008). Levels of burnout and attrition among teachers have been shown to correlate with chronic stress (Denhere, Ngobeli, & Kutame, 2010; Flook, Goldberg, Pinger, Bonus, & Davidson, 2013; Steinhardt, Jaggars, Faulk, & Gloria, 2011). Stress levels in educators have been linked to character traits (Stoeber & Rennert, 2008), personality factors (Dean, 2010), workload and school climate (Collie, Shapka, & Perry,

2012), locus of control (Crothers et al., 2011), and teacher performance (Blase, 1986).

Additionally, teachers who strive for high levels of achievement, have a type-A personality, and have a weak occupational commitment (i.e., a low level of dedication and loyalty to the profession) tend to have higher levels of stress than other educators (Jepson & Forrest, 2006; Travers & Cooper 1996).

Teacher stress as a global concern. The study of stress among educators is not a topic unique to the United States. For example, Kourmousi, Darviri, Varvogli, and Alexopoulos (2015) utilized translated versions of both the Teacher Stress Inventory (TSI) and the 14-item version of the PSS with educators in Greece. Both measures were successfully validated, encouraging their future use in stress assessment among Greek teachers. In another example, Zurlo, Pes, and Cooper (2007) administered the Teacher Stress Questionnaire to schoolteachers in southern Italy. They compared their findings to those of an earlier study conducted with British educators (Travers & Cooper, 1996), highlighting specific regional differences between the two samples. Peltzer, Shisana, Zuma, Van Wyk, and Zungu-Dirwayi (2009) created a modified stress index for studying stress among public school teachers in South Africa. Using items adapted from existing stress measurement scales, the authors surveyed over 21,000 public school teachers to explore common trends relative to job stress, job satisfaction, and illness related to stress within that specific population. Yiu-chung, Kwok-bun, and Lai (2006) took a mixed method approach to their empirical study of teacher stress and coping strategies among secondary and junior college teachers in Singapore. They determined that work overload, a lack of support from administrators, and the requirement to perform unnecessary tasks

(i.e., unnecessary as perceived by the teachers) were among the most significant sources of stress among the 316 participants in their study.

Clearly, the study of stress among educators is of worldwide concern. Kyriacou (2001) suggested that “research on teacher stress has established itself as a major area of international research interest” (p. 27), while Borg and Riding (1991) noted both the seriousness and “cross-cultural nature of the phenomenon” (p. 263) of teacher stress. Denhere et al. (2010) encouraged future research from a quantitative perspective in an effort to approach generalizability; however, they cautioned that teacher stress seems to differ based on individual characteristics and regional location.

Stress measurement scales in education. Numerous data collection methods have been employed in the literature concerning stress among teachers. Previously validated scales, newly created measures, and hybrid combinations of complete measures have been used in various parts of the world with a wide variety of educators. Though cortisol measurements have been explored within the population of school educators (Pruessner et al., 1999), it has been far more common for researchers to use self-reported or self-perceived stress measurement scales than biological measures.

Standardized measures of teacher stress. Single standardized measures of stress and burnout have been used, including the TSI (Fimian, 1984), the MBI (Shukla & Trivedi, 2008), the Symptom Checklist 90-R (Flook et al., 2013), and the PSS (Jepson & Forrest, 2006; O’Bryan, 2008; Pruessner et al., 1999; Raveeswaran, Raveendran, & Ananthasayanan, 2011). Studies containing such general measures of stress or overall wellbeing typically were designed for use with teachers regardless of subject taught. The

benefit to such designs is that large samples may be more easily obtained due to less-specific inclusion criteria than in studies targeting a specific subgroup of teachers. A potential limitation to such a design is that stressors unique to teachers of specific disciplines or grade levels may be obscured.

Novel measures of teacher stress. Some researchers have developed their own means (e.g., original surveys) by which to collect data, often due to unique characteristics of the participants. For example, Aubrey (2014) developed a three-part data collection method for use with teachers of English as a Foreign Language in the United Arab Emirates. The method included an online survey, semi-structured interviews, and an additional questionnaire. Kinnunen and Leskinen (1989) devised a series of two questionnaires, one designed to measure mood variables during the week and the other to measure the same variables over the weekend. A repeated measures design allowed for 12 separate administrations of data collection concerning six unique stress indicators developed for the study. Weinstein (2013) developed a 40-item measure for assessing teacher work stress among English Language Learner (ELL) educators. The TSI and MBI were used in the development of this new tool to assess its discriminant and predictive validity. Current ELL educators and an ELL researcher were also consulted during the development and editing of the final measurement tool.

Hybrid measures of teacher stress. Other researchers have combined multiple standardized questionnaires, either in part or in full, drawing not only from scales within the social sciences, but from other disciplines as well. Leung, Chiang, Chui, Mak, and Wong (2011) utilized four validated scales measuring depression anxiety stress, overall

lifestyle health, dysfunctional attitude, and occupational stress. Though none of the four scales were designed specifically for use with educators, each was deemed germane to specific aspects of teaching. In a slightly different approach, Austin, Shah, and Muncer (2005) combined four established questionnaires into a single instrument aimed at measuring work-related stress, overall distress, morbidity, and coping strategies. Work-related stress was measured using the Total Teacher Concern Inventory, previously validated for use within the field of education. The other three portions of the data collection tool were all designed for use in within a more general population. Similarly, Mulholland, McKinlay, and Sproule (2013) combined two general measurement scales of health and psychological distress with a scale specifically designed for use with teachers (i.e., the Stressors in Teaching Scale). In a more unique approach to developing their measure of stress, Pettegrew and Wolf (1982) enlisted the help of teachers in a continuing education program in the selection and rewording of items from existing measures for eventual use in their study.

Measures of teacher stress in this study. The present study was designed to bridge the gap among the various aforementioned study designs. Data were collected using a single standardized measure of global stress (i.e., the PSS), demographic questions, and two researcher-developed, open-ended questions based on the PSS. Only music teachers were included, limiting the generalizability of results to all educators. However, recruiting occurred on a national scale and was restricted only by grade level (i.e., K-12) and employment status (i.e., currently employed on at least a half-time basis as a public school music educator).

Music Teacher Burnout, Attrition, and Stress

Music Teacher Burnout

Research on burnout among music teachers has been present for decades. In an early study, Hamann, Daugherty, and Mills (1987) surveyed 101 public school music teachers using the original version of the MBI, as well as the Demographic Data Sheet (DDS) questionnaire. The DDS, which had been used in related studies, is a measure of demographic and job-related factor data. Results of the study yielded a list of predicting factors of music teacher burnout. Among these were overall work load, a lack of time to complete work, desire to change career, unclear goals from administration, lack of recognition, and a lack of cooperation with non-music teachers.

In an attempt to determine whether burnout was more prevalent among music teachers, Figueras (2014) administered the MBI-ES to high school music, English, mathematics, science, and social studies teachers. Results indicated that overall levels of burnout seemed to be similar between music and non-music teachers, though certain subsections of the MBI-ES showed music teachers had higher levels of emotional exhaustion than mathematics and social studies teachers. Figueras recommended that future research focus more on teacher stress than on burnout at the local level as individual stressors seem to vary by school or district.

In discussing what she called the *burnout syndrome*, Kertz-Welzel (2009) suggested that female music teachers tend to react to stress differently than male teachers. As a result, burnout affects each gender in different ways. She posited that by reconsidering individual and collective philosophies of music education, especially

within the typical “male dominated, output-oriented, and focused on achievement” (p. 144) school environment, new and more effective means for preventing and treating music teacher burnout may be developed.

Music Teacher Attrition

As previously noted, teacher attrition is somewhat of an umbrella term, encompassing any type of movement away from a specific and individual teaching situation. Similar to the literature on general teacher attrition, studies of music teacher attrition have primarily focused on attrition in which music teachers leave the profession entirely. However, a form of attrition where teachers remain in the profession, albeit in a different setting, has not been ignored (see Robinson, 2010, for example).

Using data collected from the Schools and Staffing Survey, as well as the Teacher Follow-up Survey, Gardner (2006, 2010) attempted to identify trends of music teacher attrition on a national scale. He discovered that music teachers are much more likely than non-music teachers to hold part-time or itinerant teaching positions, teach in secondary grades, and receive less support for working with students with IEPs. They are also less likely than other teachers to work in urban or primarily non-White schools. Elementary music teachers and female music teachers tend to report higher levels of job satisfaction. Additionally, “perceived administrative support and recognition had the most prominent influence on both music teacher satisfaction and retention” (2006, p. v). Music teachers who left the profession tended to do so as a result of dissatisfaction with workplace conditions or a feeling that a new teaching assignment would be a better fit for them. Teachers also left due to retirement, salary, or to raise their own children. Of particular

interest was teachers of secondary performance ensembles. “The unique nature of these positions often requires music teachers to deal with issues not generally encountered by other teachers, such as planning concerts, requesting transportation for offsite events, or budgeting expenses for sheet music or instrument maintenance” (2010, p. 118), factors which may play an important role in music teacher attrition.

Hancock (2008, 2009) utilized data from the same measures as Gardner (2006, 2010), though from different years. From the 1999-2000 Schools and Staffing Survey, Hancock found that significant predictors of attrition “included young age (less than 30 years; 30-39 years), teaching in a secondary or private school, extracurricular hours, school-wide concerns, limited support from administrators and parents, lower salary, and dissatisfaction with salary” (2008, p. 130). Additionally, women and minority teachers were found to be at higher risk of attrition than men and non-minority teachers.

Referencing results of four administrations of the National Center for Education Statistic’s Teacher Follow-up Survey between 1988 and 2001, Hancock uncovered that “rates of music teacher attrition, migration, and retention across the four TFSs were similar to those of non-music teachers” (2009, p. 102). Of music teachers who left the profession, 28% were attending college, a rate higher than those who retired or left to work outside of education. The programs of graduate study were not included in these data, but this particular type of music teacher attrition may be interpreted positively (i.e., music teachers left the classroom to gain additional teacher certification or teaching expertise with the intent to return to teaching) or negatively (i.e., music teachers left the classroom to pursue certification in other fields). “Compared with non-music teachers,

former music teachers were far more likely to be attending college” (p. 103).

Additionally, music teachers were more likely to return to K-12 teaching than their non-music teacher colleagues.

Each of these studies tend to support the earlier findings of Madsen and Hancock (2002). They found that music teachers who left the profession tended to do so in the early years of their careers. Further, women teachers were more likely than men to leave within the first six years in the classroom. Administrative support was found to be a primary concern of music teachers. Interestingly, the authors suggested that all music teacher attrition may not be negative or detrimental. Reasons for attrition may be professional or personal, and some attrition due to personal concerns may be positive for certain individuals.

Music Teacher Stress

Sandene (1995) noted that the stressors faced by music teachers vary not only from one individual to another, but also among teachers based on content specialty (e.g., instrumental, vocal, general) and by grade level (e.g., elementary, middle school, high school). As studies of burnout, attrition, and stress have evolved, some researchers have focused on specific subgroups of music teachers (see Nimmo, 1986, for example). However, it has been far more common in the literature for researchers to study trends concerning stress among music teachers on a more global scale.

In an early article written for practitioners in the field, Radocy and Heller (1982) suggested that stress may be either pleasant or unpleasant, and the cognizant music educator should be able to tell the difference. Common sources of stress were noted and

discussed, including classroom management, student discipline, professional stagnation or boredom, unnecessary procedures or paperwork (i.e., unnecessary as perceived by the teachers), and students dropping out of the music program, among others. Coping methods were also suggested, reinforcing the idea that not all stress is negative or unmanageable. Later research would support many of these notions.

In their study of 120 public school band directors in the Midwest, Heston, Dedrick, Raschke, and Whitehead (1996) found that the most commonly identified sources of job satisfaction included “(1) working with students, (2) receiving support from colleagues, parents, and administration, (3) being involved with music, and (4) seeing music programs grow and prosper” (p. 323). In the same study, the most commonly identified sources of job dissatisfaction included “(1) lack of support from parents, administration, and community, (2) workload, (3) lack of student commitment, and (4) busywork or nonteaching duties” (p. 323).

A mixed-method study of 107 teachers in Iowa found classroom management to be a particularly notable cause of music teacher stress, specifically for male teachers and teachers in urban settings (Gordon, 2002). Additionally, “the amount of workload and insufficient time to plan and prepare seem to exacerbate the problem [of negative student discipline issues]” (p. 160).

Shaw (2014) utilized a multiple case study approach, focusing on the experiences of four high school competitive marching band directors. Participants spoke about the stress they faced relative to creating and maintaining a healthy work-life balance. All four participants noted enthusiasm for their jobs, though they cautioned that their

experiences many not match many of their colleagues. Specifically, instances of divorce, leaving the profession, and health concerns were mentioned by the participants as byproducts of increased time spent at work and unhealthy work-life balance.

Gap in the Literature and Rationale for Research

Though the topic of stress among music teachers is not new, burnout and attrition seem to have received more attention among policymakers and researchers, with stress often mentioned as a related or contributing factor (Hancock, 2008; Kertz-Welzel, 2009; Madsen & Hancock, 2002). Van Holland et al. (2012) recommended the use of survey questionnaires over cortisol measurements in the collection of self-reported stress level data. As a result, the author determined that the use of an established perceived stress measurement tool would best fit this current study. As one of the most commonly used measures of perceived stress (Taylor, 2015), the 10-item PSS was selected. To this point, the author believes that the PSS has not been used to measure perceived stress exclusively with K-12 public school music educators. Additionally, the open-ended follow-up questions based on the PSS have not been included in previous research. The nature of these two questions, which encouraged participants to focus separately on areas which increase stress and areas which ease stress, is consistent with recent usages and interpretations of the PSS (Golden-Kreutz et al., 2004; Taylor, 2015).

The creators of the PSS suggested that “monthly administrations of the scale could be summed or averaged, providing a more reliable...measure of chronic stress, as well as a predictor that represents a longer term than the one-month period covered by the scale” (Cohen et al., 1983, p. 394). Though the current study did not necessarily seek to

measure chronic stress, a repeated measures approach was utilized. The primary aims of the study were to monitor changes in perceived stress among music educators across a three-month period, compare perceived stress scores within selected demographic subgroups, identify emergent themes of increased and eased stress among participant responses to two open-ended questions, and explore the relationships between emergent stress themes and significant differences in overall perceived stress based on selected demographic factors.

Research Questions

1. Will public school music educators' responses on a stress indicator survey vary as a function of time across a three-month period?
2. Do average levels of perceived stress vary among selected demographic subgroups?
3. What common self-identified themes of increased and eased stress emerge among public school music educators when reflecting upon stress across three consecutive one-month intervals?
4. What relationships exist between emergent stress themes and significant differences in overall perceived stress based on selected demographic factors?

CHAPTER 3

METHOD

Participants

Approximately 15,500 K-12 public school music educators in the United States received email invitations to participate in the first of three online surveys for the present study (see Figures A1-A5 for all email invitations and reminders sent to participants). A link to access the initial survey was also posted to various social media outlets. The surveys were administered at one-month intervals across three consecutive months during a fall academic term. Only participants who fully completed all three surveys were included in the final data analyses and interpretation. A survey was deemed fully completed if all questions were answered and an email address was provided for distribution of subsequent surveys.

In an effort to reach a wide-range of potential participants, the researcher paid a nominal fee to the National Association for Music Education (NAfME) for assistance with email distribution of the initial invitation to participate. NAfME forwarded approximately 15,000 emails on behalf of the researcher to music teachers registered as members of the organization in 17 randomly selected states. The researcher posted an online invitation to participate on his personal Facebook page, as well as on the discussion board of the private group “Band Directors”. Additionally, the researcher acquired nearly 500 email addresses through public school websites in two states not targeted by the NAfME distribution. Further, the researcher sent emails to all NAfME

presidents from states and regions listed on the NAfME public website. Included within each email was a request to distribute invitations to the initial survey on the researcher's behalf. The researcher received email replies from the offices of twenty state presidents, though it is unclear how many invitation emails were ultimately distributed by such offices after these initial contacts were made.

Of the 770 participants who fully completed all three surveys, ages ranged from 22 to 70 years, ($M = 39.49$, $SD = 11.72$). Women accounted for 66.9% ($n = 515$) of all responses, men for 32.9% ($n = 253$), and 0.3% ($n = 2$) did not identify gender. Concerning grade/school level(s) taught, 45.6% ($n = 351$) indicated teaching at least part-time in an elementary school, 52.3% ($n = 403$) indicated teaching at least part-time in a middle school/junior high school, and 44.4% ($n = 342$) indicated teaching at least part-time in a high school. Cumulative totals exceed 100% as participants were allowed to select more than one grade/school level as appropriate for their teaching assignment. For the 504 participants who reported teaching in only one grade/school level, 28.3% ($n = 218$) taught only in an elementary school, 20.1% ($n = 155$) taught only in a middle school/junior high school, and 17.0% ($n = 131$) taught only in a high school. Regarding parenthood status, participants who reported having no living children of their own accounted for 46.8% ($n = 360$), while 53.2% ($n = 410$) reported having at least one living child (see Tables B1-B3 for additional participant demographic information). Though a small number of participants had a major change in job assignment ($n = 4$) or change in family structure (e.g., 11 participants had a child, four became married, and two finalized a divorce) within the three months of data collection, complete demographic data were

acquired only from the initial survey. Changes in job assignment or family structure were accounted for among participant responses to the open-ended questions of increased and eased stress.

Data Collection Instruments and Materials

Online Surveys

As the measurement of biomarkers (e.g., cortisol levels) was beyond the scope of the present study, subjective self-reported stress (i.e., perceived stress) served as the primary dependent variable. Van Holland et al. (2012) suggested that questionnaires are preferred to cortisol measurements for obtaining self-reported stress level data. For this reason, the present study utilized a series of three online survey questionnaires across a three-month period (i.e., Survey One, Survey Two, and Survey Three) as the dependent measure (see Figures C1-C3 for each of the three surveys).

The three online surveys were created within the Google Forms online server. Survey One contained consent information, a participant-created unique identification code, demographic questions (i.e., age, race/ethnicity, gender, marital status, employment status, grade levels and content taught, total years teaching experience, parenthood status, and age of children), Cohen and Williamson's (1988) 10-question Perceived Stress Scale (PSS), two open-ended response questions based on the PSS, and an open-ended question requesting email contact information for the distribution of Survey Two. The demographic questions within Survey One varied slightly for participants based on parenthood status. Specifically, if a participant indicated having at least one living child, she or he was also asked to indicate the number of her or his children within

predetermined age brackets. Participants who indicated they had no living children did not receive this follow-up item.

Survey Two included an online consent page, a prompt to reenter the participant's unique identification code, confirmation of current employment status (i.e., "Since completing the initial survey, has your job assignment changed (school and/or level/content taught)? If yes, please select 'Other' and explain."), a question concerning recent significant life changes (i.e., "Since completing the initial survey, have you experienced any significant life change(s)? If yes, please select 'Other' and explain."), the 10-question PSS, two open-ended follow-up questions to the PSS, and an open-ended question requesting email contact information for distribution of the third and final survey. Survey Three was nearly identical to Survey Two, with minor differences present in the wording of the consent page and the email address entry question. Survey Three also included an additional invitation to participate in future related studies (see Figures C2 and C3 for specific differences between Survey Two and Survey Three).

Perceived Stress Scale. The 10-item PSS used in this study consisted of ten 5-point Likert scale questions, each of which began, "In the last month, how often have you..." Six of the questions were worded negatively (e.g., "...been upset because of something that happened unexpectedly?"), while four of the questions were worded positively (e.g., "...felt confident about your ability to handle your personal problems?"). Possible responses for all questions ranged from *never* to *very often*.

Each of the six negatively worded questions were scored on a scale from 0 to 4 points, with a response of *never* earning 0 points and a response of *very often* earning 4

points. The four positively worded questions were reverse-scored (i.e., 4 points for a response of *never* and 0 points for a response of *very often*.) Each completed survey yielded an overall “perceived stress score” between 0 and 40, with 0 indicating the lowest possible level of perceived stress and 40 indicating the highest possible level.

Open-ended response questions based on the PSS. A unique aspect of the current study was the inclusion of two open-ended follow-up questions to the 10-item PSS. The first of these was designed to encourage participants to reflect on fundamental aspects of the negatively worded items (i.e., “In the last month, what has increased your stress?”), while the second question was based on the fundamental aspects of the positively worded items (i.e., “In the last month, what has eased your stress?”). There were no character or word limits on responses to the two open-ended questions. The researcher intentionally used non-specific wording for both open-ended questions in an effort to encourage participants to respond within the context of their daily lives, rather than limited only to their teaching assignment or school setting.

Procedure

The initial invitation email (see Figure A1) contained an introductory paragraph inviting recipients to participate in the three-part online study. Also included was a hyperlink to access Survey One. Once clicked, the hyperlink directed participants within their default web browser to the introduction and consent page of Survey One. Participants then clicked a button marked “Continue” to affirm their consent and begin the survey. The second page of Survey One contained the following demographic items: participant age, race/ethnicity, gender, and marital status. Additionally, each participant

created a unique identification code consisting of the first letter of the participant's last name, mm/dd of birthday, and last two digits of his or her school phone number (e.g., "D081528"). This code, recreated and reentered in Survey Two and Survey Three, was the method used to track subsequent responses from individual participants.

Participants who fully completed Survey One were contacted via email approximately one month after doing so with an invitation to access Survey Two (see Figure A2). As with the initial contact, the second email contained a hyperlink to the Survey Two consent page. The invitation email for Survey Two was sent only to email addresses entered by participants on the last question of complete Survey One responses. For participants who did not respond to the second email within one week by completing Survey Two, a reminder email (see Figure A3) was sent by the researcher inviting the participants to continue with the study. Approximately two months after completion of Survey One, the researcher sent an email invitation (see Figure A4) to access Survey Three. Only participants who had fully completed Survey One and Survey Two were invited to participate in Survey Three. As with Survey Two, if participants had not completed Survey Three within one week of the initial contact, a final invitation email (see Figure A5) was sent by the researcher inviting participants to complete the study.

Upon initial receipt of participant responses to each survey, all digital materials and responses were automatically entered into a password-protected online spreadsheet within the Google Forms server. In addition to responses entered by participants, a timestamp indicating time of survey submission was automatically generated for each response. Only the researcher and principal advisor had access to the response

spreadsheets. No recording of participant location (e.g., IP address) was reported or tracked at any time.

During the active data collection periods for each of the three surveys, the researcher transferred participant responses from the Google Forms server to an external Microsoft Excel file. This file was password-protected in cloud storage provided by the University of Missouri-Kansas City. The most up-to-date responses were transferred approximately three times per day, after which they were deleted from the Google Forms online server.

Participant email addresses, entered as part of each of the three surveys, were transferred to separate Microsoft Excel files from the response spreadsheets. The files containing participant email addresses were stored in the same cloud storage location as the survey response spreadsheets. However, in a further effort to ensure anonymity, participant email addresses were sorted differently than survey responses (i.e., survey responses were sorted by submission timestamp and email addresses were sorted alphabetically). The participant email address file created from Survey One responses was used to send the invitations for Survey Two. Each participant who met the inclusion criterion for the study (i.e., currently employed as a music teacher in a K-12 public school setting on at least a half-time basis) and fully completed Survey One received the link to access Survey Two. As results were compiled from Survey Two, participant email addresses were again separated from responses, and the email list compiled from Survey Two responses was used to send an access link to Survey Three. Email addresses acquired from responses to the final question of Survey Three (i.e., participants who

entered an email address indicating interest in participation in future related studies) were separated from responses and stored in the previously described secure cloud storage.

Coding of Open-Ended Responses

In an attempt to develop an understanding of the trends present within participant responses to the two open-ended questions, the researcher employed certain qualitative methods and procedures throughout the process of data coding and interpretation. The development of a two-part codebook (see Tables 1 and 2) and the coding process for the 4,620 responses to the two open-ended questions contained eight phases.

The first phase of the coding process involved responses to the first open-ended question from Survey Three (increased stress). There was no specific reason for starting with Survey Three other than it contained the most recently collected responses. Of the 770 total responses, 100 were randomly selected for initial consideration. The researcher read each response in its entirety, taking no written notes during the initial reading. Following the reading, the researcher created a preliminary list of emergent themes based on the researcher's recollection of the most frequently cited topics within these first 100 responses. The researcher then randomly selected an additional 150 responses to read. During that time, the initial list of emergent themes was updated and revised as new themes were discovered. The developing codebook was then used as a guide during a second reading and initial coding of the first 250 responses. The codebook was revised slightly during this process, omitting redundant themes and combining similar themes into broader categories. At that point, the remaining 520 responses were read and coded, again using the codebook as a guide in identifying trends and emergent themes. As

additional themes were discovered, they were either added to the codebook as new codes or combined with existing codes, resulting in the creation of a richer description of each theme. After all 770 responses had been read and given an initial coding, the researcher again revised the codebook, combining and omitting wording to add clarity to each code and theme description.

The second phase of the coding process involved reading and interpreting responses to the first open-ended question (increased stress) from Survey Two. The codebook developed in the first phase of the process was used to code the first 250 responses from Survey Two, with additional emergent themes added to the codebook as necessary. The remaining responses were then read and coded with no additional modifications to the codebook. After coding was completed for responses to Survey Two, the codebook was further edited to remove redundant wording or add clarifying descriptors to each theme.

The third phase of the coding process concerned responses to the same open-ended question (increased stress) as in phases one and two, using responses obtained from Survey One. All 770 responses were read and coded with minimal revisions to the codebook (e.g., addition or removal of individual words or topics to theme descriptions). Upon completion, the researcher decided to combine two different pairs of themes, thereby removing two individual themes from the codebook (i.e., a separate theme of grading was added to the description for the paperwork theme, and a separate theme of self-image was added to the description of the health theme). This produced two somewhat robust themes in favor of four specific themes. At that time, each

representation of the two omitted themes from previous surveys was re-coded to match the revised codebook.

During the fourth phase of data coding, the updated codebook was used to reconsider and revise the coding of all 770 responses to Survey Three. No further modifications were made to the codebook during that time as no new themes emerged. Approximately 30% of the responses for Survey Three, phase one, needed to be re-coded during phase four based on codebook revisions. In all, there were 38 revisions to the increased stress portion of the codebook from the start of phase one to the completion phase four.

Phases five, six, seven, and eight of the data coding process closely mirrored phases one through four. These later phases involved responses to the second open-ended question (eased stress) from each survey. Again, the researcher began and completed the reading and coding process with Survey Three responses. By the time phase eight was completed, the eased stress portion of the codebook had been revised 29 times. Though some themes ultimately appeared in both portions of the codebook (i.e., as both sources and easements of stress), numerous other themes were unique to only one of the two open-ended questions. In all, the two-part codebook was revised a total of 67 times during the data interpretation process.

As the field of qualitative research is home to numerous schools of thought concerning specific methods of data collection and data interpretation (see Cho & Trent, 2006; Fielding, 2010, for examples), as well as “good quality work” (Seale, 1999, p. 465), the qualitative techniques employed in the current mixed method study design were

selected in an effort to find a middle ground among the various opinions present in recent years. No single qualitative method was utilized exclusively. Rather, a hybrid of some of the most commonly referenced techniques in qualitative literature were incorporated during the research process. Schwandt's (2001) dictionary served as a reference guide throughout the qualitative portions of this project.

During the development of the codebook and coding of individual responses, the method of constant comparison served as an overarching principal. A small portion of responses were used to help the researcher initially recognize emergent themes. These themes were then applied to larger groups of responses, while comparing them to previously read and coded information. This logic transferred beyond the context of responses to a single survey in that themes discovered within Survey Three responses were compared to both Survey One and Survey Two responses. After the codebook was revised and completed, the researcher used it to reconsider and recode themes within the original set of responses selected at the start of the data interpretation process (i.e., responses from Survey Three). Further, themes discovered within responses to both the increased stress and eased stress open-ended questions were compared to each other and to the quantitative results obtained from the PSS.

Lincoln and Guba (1985) described a set of criteria for determining the appropriateness and noteworthiness of qualitative inquiry procedures. Trustworthiness, a key element of these concepts, may be secured through four components: credibility, transferability, dependability, and confirmability. Within the current study, the researcher attempted to satisfy three of these four.

Transferability was achieved through the constant comparison of responses, both within and across the three surveys. Additionally, as the participants were recruited from across the United States, emergent trends may be considered transferable outside the context of the participants' location, school setting, or background. Dependability was achieved through a logical, traceable, and documented approach to codebook creation, data coding, and overall study design. Confirmability was achieved through the method of constant comparison, numerous revisions of the codebook based on a critical investigation of emergent themes, and the comparisons made between PSS scores and emergent themes within participant responses. Confirmability was also achieved through the use of auditing. As noted by Seale (1999), "Auditing is an exercise in reflexivity, which involves the provision of a methodologically self-critical account of how the research was done" (p. 468). Credibility was not possible due the anonymity of participants and separation of identifying information (i.e., email addresses) from responses. However, the repeated measures design of the study provided a similar means of noting consistency among participant responses across time. These three foundational components of trustworthiness (i.e., transferability, dependability, and confirmability) were deemed by the researcher to be more in line with the methodological approach and mixed method nature of the present study than Guba and Lincoln's (1989) later recommendations of authenticity criteria, designed for use primarily in constructivist qualitative study designs (Schwandt, 2001).

Triangulation of qualitative data was achieved through a repeated measures study design, multiple sources of data collection, and a comparison of findings to extant

literature on stress measurement, teacher burnout, teacher attrition, and teacher stress (see Review of Literature and Discussion sections for examples). The repeated measures study design allowed the researcher to track individual participant stressors and stress levels over the course of three months. Though fluctuations within responses were expected due to unforeseen factors (e.g., participant health concerns or unexpected death of participants' friends or relatives), the large sample size helped to mitigate the effects of such events in data analysis, interpretation, and coding. Multiple sources of data collection were employed within the survey, further strengthening the triangulation of data and findings. Specifically, participants provided quantitative data through responses to the PSS items and qualitative data through responses to the open-ended questions.

Table 1

Codebook for Open-Ended Question Number One (Increased Stress)

Broad category	Theme	Description
Nothing	None/Nothing	...responses which indicated no increase in stress, an overall absence or lack of stress, or blank responses
Professional, not school-related	Professional training	...graduate school or other professional training not directly related to certification
	Other, not music-related	...issues concerning an additional job/employment outside of school, not music-related
	Other, music-related	...issues concerning an additional music-related job/employment outside of school
Professional, school-related	Workload	...overall workload, 'long days', planning, organizing, regular daily schedule, beginning/end of term, general work issues, community concerns affecting school, time specific to school, parent-teacher conferences, overall school environment
	Administration	...administration, principal, school board, district supervisors, district policymakers
	Parents	...parents of students
	Colleagues	...colleagues, co-workers, other non-administrative staff members in the building
	Students	...student behavior, student motivation, general mention of students
	Technology	...technology used in the classroom, technology training, technology failures/difficulties
	Enrollment	...student scheduling problems, class size, student enrollment, registration, student demographic changes/shifts, recruitment for music program
	Paperwork	...amount of paperwork, grading/assessment, school-related deadlines, volume of email
Rehearsals and performances		...concerts, performances, school trips (taking or planning), auditions, festivals, rehearsal time, student attendance, disruptions to rehearsals, preparing for performances, general mention of a musical ensemble or long-term event (e.g., marching band, musical)

(continued)

Broad category	Theme	Description
Personal	Changes	...new job/school (or consideration of), added responsibilities/duties/expectations, notable long-term changes to regular daily schedule or courses taught, changes in curriculum or school procedures, new mandates/initiatives, extra events (e.g., homecoming), position cut or reduced, date changes, transition from one event to another, start or end of a significant event
	Mentorship	...mentoring a student teacher or practicum experience
	Communication	...general mention of communication – may be combined with other responses (e.g., administration, parents, students)
	Certification and evaluation	...certification requirements and procedures directly related to teaching position, professional evaluation procedures or components
	Professional service	...committees, boards, panels, meetings, administrative duties, negotiations (involvement or concerns with), extracurricular school service (e.g., hosting an event, coaching, club sponsor)
	Resources	...staffing, budget, fundraising, equipment, rehearsal space
	Balance of time	...balance between work and home or personal life, time management, time away from family or school, concerns with personal life, lack of sleep/ rest/down time, fatigue, not enough time, too much to do
	Financial	...budget, finances, salary concerns
	Health	...overall health, specific health concerns, self-image, lack of self-motivation
Family	Home and automotive	...home/dwelling issues, transportation issues (e.g., moving, home repairs, automotive problems, cleaning, maintenance)
	Other	...concern with world or community events, politics, season, weather, personal travel/ commute, holidays, issues with friends
	Family and home	...general mention of family or home
	Children	...children of participants not related to health

(continued)

Broad category	Theme	Description
	Partner	...partner, spouse, significant other, relationship, engagement, wedding
	Death or illness	...death/illness/injury of family member, added care for family member
	Pregnancy	...new pregnancy, complications with pregnancy, anticipation of upcoming birth/adoption
	Birth	...birth of child or children
	Miscarriage	...miscarriage or loss of child
	Pets	...gain or loss of pet(s)

Table 2

Codebook for Open-Ended Question Number Two (Eased Stress)

Broad category	Theme	Description
Nothing	None/Nothing	...responses which indicated no easing of stress, an overall absence or lack of stress, blank responses, "not much" (with no further explanation), prefer not to answer
Professional, school-related	Workload	...overall workload, planning, organizing, regular daily schedule, comfort with job responsibilities, overall job satisfaction, comfort with school routines, getting school work accomplished, having a productive work day
	Administration	...administration, principal, school board, district supervisors, district policymakers
	Parents	...parents of students
	Colleagues	...colleagues, co-workers, other non-administrative staff members in the building, student teacher
	Students	...student behavior, student motivation, student success, general mention of students
	Technology	...technology used in the classroom, technology training, technology benefits, successful use of technology
	Delegation	...delegation of professional responsibilities, saying "no" to extra work, 'letting go' of responsibilities
	Rehearsals and performances	...successes with or completion of rehearsals, performances, school trips
	Changes	...reduction of school responsibilities/duties/expectations/hours, notable changes to daily schedule or courses taught, changes in school procedures/curriculum, fewer rehearsals/performances, extra time away from school, choosing to leave school work at school, day off (planned/ scheduled), ending of an activity (with no mention of success)
Day off (personal/sick)		...taking a day or more off from work (personal or sick days)
Anticipation		...anticipation of days off, retirement, events

(continued)

Broad category	Theme	Description
Personal	Resources	...staffing, budget, fundraising, equipment, rehearsal space
	Professional evaluation	...evaluations, observations, positive administrative feedback
	Professional development	...attending a professional conference, positive professional development experiences, acquisition of new teaching techniques or strategies, improvement as a teacher
	Rest	...increase in sleep/rest, reduction of fatigue
	Financial	...budget, finances, salary
	General non-school accomplishment	...getting things accomplished/done, crossing items off a list, conflict resolution, intentional change of priorities/schedule/routine, 'letting things go', planning, organizing (not related to school)
	Music	...listening to or making music, practicing, performing, conducting (not related to school)
	Relaxation and mindfulness	...prayer, meditation, yoga, breathing exercises, relaxing, decompressing, massage, faith, increase in down time/free time/personal time
	Leisure and hobbies (non-musical)	...reading, watching sports/television/movies, playing video games, puzzles, knitting
	Food	...eating, cooking (not specifically related to diet/health food)
	Alcohol	...consumption of alcohol
	Tobacco	...use of tobacco, drugs, non-prescribed medication
	Socializing and communication	...friends, social media, important (non-specific) relationships, talking (may be combined with whom), communication
	Health	...overall health, self-image, self-motivation, exercise, prescription medication, walking, positive mental attitude/approach, laughing, eating healthy food, diet, therapy, playing sports, hiking

(continued)

Broad category	Theme	Description
Family	Home and automotive	...home/dwelling issues, transportation issues (e.g., moving, home repairs, automotive problems, cleaning, maintenance)
	Other	...concern with world or community events, politics, season, weather, personal travel/commute, holidays, vacation, unplanned days off
	Family and home	...general mention of family or home, time with family (e.g., spouse, parents, children, extended, partner, significant other, new relationship, engagement), time spent at home
	Pregnancy	...new pregnancy, anticipation of upcoming birth/adoption
	Birth	...birth of child or children
	Pets	...time spent with pet(s), enjoyment of

CHAPTER 4

RESULTS

Response Rates

A total of 1,540 responses were collected for Survey One. Of those, 1,387 were fully completed, 127 were nearly completed (i.e., missing only an email address for distribution of the second survey), 13 were incomplete (i.e., consent was obtained to begin the survey, but no other data were entered by the participant), and 13 were excluded due to the participants' current employment status, which served as the main inclusion criterion for the study. Specifically, participants were excluded if they were not employed as a music teacher in a K-12 public school setting on at least a half-time basis at the time Survey One was completed.

Email invitations to participate in Survey Two were sent to the 1,387 participants who fully completed Survey One. Of those, 15 were undeliverable due to incorrect email addresses acquired from responses to Survey One. A total of 1,001 responses were collected for Survey Two. Of those, 988 were fully completed and paired with responses from Survey One through the matching of participants' unique identification codes. Eleven responses could not be paired due to inconsistencies in the codes. One survey was incomplete, and one response was excluded as the participant indicated she had left teaching during the time between completing Survey One and Survey Two.

Email invitations to participate in Survey Three were sent to 953 of the participants who fully completed Survey Two. Thirty-five participants were not sent an

invitation as less than one month had passed since their completion of Survey Two. Of the 953 invitations sent, 7 were undeliverable due to incorrect email addresses acquired from responses to Survey Two. A total of 778 responses were collected for Survey Three. Of those, 770 were fully completed and matches with responses to Survey One and Survey Two, seven could not be matched with responses to earlier surveys, and one response was excluded as the participant indicated she had left teaching during the time between completing Survey Two and Survey Three.

Data Analysis and Interpretation

Research Question One: Will public school music educators' responses on a stress indicator survey vary as a function of time across a three-month period?

Full completion of all three surveys resulted in three PSS scores per participant, each ranging from a minimum possible score of zero to a maximum possible score of 40. A PSS score of 40 would indicate the maximum possible level of perceived stress, while a score of zero would indicate a complete absence of perceived stress. As a PSS score of zero has a clearly defined meaning, PSS scores were treated as ratio data. Additionally, the treatment of these Likert scale data as ratio in favor of ordinal is supported by the use and validation of the PSS over multiple decades of previous research literature (e.g., Cohen & Janicki-Deverts, 2012; Cohen & Williamson, 1988; Warttig et al., 2013).

A one-way repeated measures analysis of variance (ANOVA) was calculated for all participant PSS scores across the three months of data collection. Time served as the independent variable and participant PSS scores served as the dependent variable. A significant effect was found $F(2,1538) = 16.84, p < .001, \eta^2 = .02$. A series of Tukey

HSD post hoc tests revealed that PSS scores decreased significantly from Survey One ($m = 18.66$, $sd = 7.48$) to Survey Two ($m = 17.96$, $sd = 7.10$), $p < .01$. Though PSS scores were lowest for Survey Three ($m = 17.61$, $sd = 7.33$), no significant decrease was found from Survey Two to Survey Three.

Within responses to the open-ended question of increased stress, some participants offered insight into why PSS scores may have been higher at the beginning of the term than in later months. Numerous responses included mention of increased responsibilities or paperwork at the beginning of the academic year, as well as the importance and challenge of establishing routines:

Starting beginning band (recruitment, parent night, paperwork, rental contracts)

Usual beginning of the year routines, getting instruments to children, paperwork and the added state evaluations and observations. It too passes and the routines get into place.

Beginning of school and getting organized after a very short window of preparation

Start of the school year activities (recruitment, making sure students have instruments, adjusting to new class schedule)

Other responses were more general in nature regarding the beginning of the school year:

The beginning of school! Particularly negotiating my schedule between 4 school buildings and communicating with all the new/incoming families. Simply a lot to accomplish and many people awaiting instructions/help.

Beginning of the school year. There is way too much to do and not enough time to do it. Every year I try to start earlier and get ahead, but I do not want to spend all of my time outside of work doing things for school.

The beginning of the school year is the worst with all the new initiatives and implementation. Things seem to get a bit better once we get into October.

Student concerns were also present among responses of increased stress:

The beginning of any school year is difficult. I have a performance in November and when I meet with the kids once every eight days it is difficult [for them] to learn the words to the songs.

It's the beginning of the school year, starting beginning students causes me a lot of stress because I have one chance to get it right.

Starting a new job and dealing with difficult 8th grade students who are very upset that their old director left.

All of these responses were collected within responses to Survey One and Survey Two, administered in mid-September and mid-October, respectively. No similar mention of early-term stress was found among responses to Survey Three (see Discussion for additional participant responses).

Research Question Two: Do average levels of perceived stress vary among selected demographic subgroups?

For each of the following analyses, the mean of the three PSS scores for each participant across the three months of data collection was used. In certain cases, some participants' data were excluded from the statistical procedures based on specific demographic considerations. All instances of exclusion are detailed within the following subsections.

Age. Participant ages, which ranged from 22 to 70 years, ($M = 39.49$, $SD = 11.72$), were grouped into four 10-year brackets (i.e., 20-29, 30-39, 40-49, 50+). Initially, five brackets were considered, with 50-59 and 60+ in place of the single 50+ bracket. The researcher decided to combine 50-59 and 60+ due to a small representation of participants in the 60+ age bracket ($n = 36$).

A one-way ANOVA comparing mean PSS scores by age bracket produced a significant result $F(3, 766) = 10.41, p < .001, \eta^2 = .04$. A series of Tukey's HSD post hoc tests revealed that mean PSS scores were significantly lower for participants aged 50 and above ($m = 15.74, sd = 7.15$) than all other age groups, $p < .001$ (see Table 3). No significant differences were found in mean PSS scores between any other pairs of age groups. On average, perceived stress was lower for music teachers aged 50 and older than for music teachers in their 20s, 30s, or 40s.

Table 3

PSS Score by Participant Age

Age in years	<i>n</i>	<i>m</i>	<i>sd</i>
20-29	196	18.76	5.99
30-39	233	18.92	6.20
40-49	155	18.75	7.00
50+	186	15.74	7.15

Gender. In comparing mean PSS scores relative to gender, two participant responses were excluded. Within these two responses, one participant left the gender field from Survey One blank and the other entered a response indicating no clear gender distinction. Therefore, the remaining 768 responses were used in the calculations. An independent-samples *t*-test comparing mean PSS scores found a difference between the two means which closely approached significance $t(766) = 1.94, p = .053$. The mean scores of the female music teachers ($n = 515$) were higher ($m = 18.41, sd = 6.44$) than

those of the male music teachers ($n = 253$, $m = 17.41$, $sd = 7.12$). However, the effect size was rather small, $d = .14$. On average, perceived stress appeared to be slightly lower for men than for women during the three months of data collection.

Marital status. In Survey One, participants selected one of eight possible options to describe their current marital status. Due to a small representation of participants indicating certain options (i.e., divorced, separated, widow/widower, cohabitating, engaged, and other), all responses were grouped into one of two broad categories: single and relationship. Participants who self-identified as single, divorced, separated, or widow/widower were assigned to the single category. Participants who self-identified as married, cohabitating, engaged, or other were assigned to the relationship category. The two responses of *other* were included in the relationship category as both participants additionally indicated they were in a committed relationship not clearly defined by one of the original eight options.

An independent-samples t -test was calculated comparing mean PSS scores of participants in the single category to those in the relationship category. No significant difference was found $t(768) = 1.38$, $p > .05$. The mean scores of the single group ($n = 192$, $m = 18.65$, $sd = 6.93$) were not significantly different from those of the relationship group ($n = 578$, $m = 17.89$, $sd = 6.58$).

Parenthood status. An independent-samples t -test was calculated comparing mean PSS scores of participants with no living children to those with one or more living children. A significant difference was found between the means of the two groups $t(768) = 3.86$, $p < .001$. The mean scores of the no child group ($n = 360$, $m = 19.06$, $sd = 6.30$)

were significantly higher than those of the one or more living children group ($n = 410$, $m = 17.21$, $sd = 6.88$). However, the effect size was small, $d = .28$. Perceived stress was found to be lower for participants who were parents to at least one living child than for participants with no living children.

Grade/school levels taught. Of the 770 participants, 504 indicated teaching in only one school level (i.e., elementary school, middle school/junior high school, or high school), while 266 taught in two or more school levels. A one-way ANOVA comparing mean PSS scores of participants by school level for the 504 participants who selected only one option was calculated. A significant difference was found among the groups $F(2, 501) = 5.94$, $p < .005$, $\eta^2 = .02$. Tukey's HSD was used to determine the nature of the differences between school levels. Music teachers who taught only in the elementary school level ($n = 218$) reported significantly less stress ($m = 16.65$, $sd = 6.19$) than those who taught middle school/junior high school only ($n = 155$, $m = 18.24$, $sd = 6.64$), $p = .05$, and those who taught high school only ($n = 131$, $m = 18.96$, $sd = 6.60$), $p < .005$. There was not a significant difference in mean PSS scores between middle school/junior high school only and high school only music teachers.

An additional one-way ANOVA was calculated comparing mean PSS scores by total number of school level options selected (i.e., one, two, or all three school levels selected within responses to the demographic questions of Survey One). For this calculation, all 770 participants were included. No significant difference was found $F(2, 767) = 2.00$, $p > .05$. Music teachers' mean PSS scores did not differ significantly based on the number of school levels taught. Participants who taught in only one school level

($n = 218$) had a mean PSS score of 17.74 ($sd = 6.50$). Participants who taught in two school levels ($n = 155$) had a mean PSS score of 18.85 ($sd = 7.02$). Participants who taught in all three school levels ($n = 131$) had a mean PSS score of 18.32 ($sd = 6.78$).

Content area taught. Mean PSS scores of music teachers based on number of content areas taught were compared using a one-way ANOVA. For this analysis, the content area independent variable was measured in four levels: one area taught, two areas taught, three areas taught, and four or more areas taught (see Table B2 for a complete list of all content areas recorded within Survey One responses). No significant difference was found $F(3, 766) = 2.08, p > .05$. Mean PSS scores did not differ significantly based on number of content areas taught. Participants who taught only one content area ($n = 233$) had a mean PSS score of 17.22 ($sd = 6.50$). Participants who taught two content areas ($n = 171$) had a mean PSS score of 18.38 ($sd = 6.43$). Participants who taught three content areas ($n = 113$) had a mean PSS score of 18.06 ($sd = 7.32$). Participants who taught four or more content areas ($n = 253$) had a mean PSS score of 18.67 ($sd = 6.64$).

Years of teaching experience. Participant responses were grouped by years of teaching experience in 5-year brackets for analysis (i.e., 0-5 years, 6-10, 11-15, 16-20, 21-25, 26-30, 31+ years). A one-way ANOVA comparing mean PSS scores by years of teaching experience was calculated. A significant difference was found among years of experience $F(6, 763) = 5.26, p < .001, \eta^2 = .04$. Tukey's HSD was used to determine the nature of the differences among the participants. Music teachers with 31 or more years of teaching experience ($n = 68$) had significantly lower mean PSS scores ($m = 14.03, sd = 6.41$) than all experience brackets through 25 years (see Table 4), $p < .005$. No

significant differences in means were found between any other combinations of experience brackets, $p > .05$.

Table 4

PSS Score by Years of Teaching Experience

Years teaching	<i>n</i>	<i>m</i>	<i>sd</i>
0-5	186	18.84	5.88
6-10	152	18.60	5.90
11-15	135	18.54	6.87
16-20	90	18.02	7.07
21-25	81	18.65	7.34
26-30	58	17.22	7.70
31+	68	14.03	6.41

Note. Years of teaching experience includes total number of years teaching K-12 public school music on at least a half-time basis, including the current academic year.

Research Question Three: What common self-identified themes of increased and eased stress emerge among public school music educators when reflecting upon overall stress across three consecutive one-month intervals?

Using the method of constant comparison during the development of the qualitative codebook, the researcher identified emergent themes among all participant responses to the two open-ended survey questions. Thirty-two themes of increased stress were discovered within responses to question one (see Table 1). Coincidentally, similar methods of interpretation led to the discovery of 32 themes of eased stress within responses to question two (see Table 2). Though some overlap was discovered between

the lists of emergent themes of increased and eased stress (e.g., the colleagues theme was listed as both an increaser and easement of stress), many of the themes were unique to only one of the two questions. In all cases, each theme contained certain aspects which differentiated it from the others. However, in some instances multiple themes were closely related.

Themes of increased stress.

Emergent themes were grouped together under five broad categories within the first portion of the codebook (i.e., the portion used for identifying themes of increased stress). These five broad categories included: (a) nothing; (b) professional, not school-related; (c) professional, school-related; (d) personal; and (e) family. The four most frequently mentioned themes of increased stress across all participant responses fell under the single broad category of professional, school-related. These four themes, including actual representative responses of each included:

1. *Rehearsals and performances.*

Preparing for concerts with less class time this year

The looming concerts, and the pressure to be ready

Solos and ensembles, region honor group auditions, concert preparations, parade preparations, etc.

2. *School-related changes.*

Starting of my before school choir

More responsibilities as a District leader for my instrument

More events thrown on the band with less than one week notice

3. Overall workload.

Having so many things overlap... I was finishing marching band and starting jazz band, pit orchestra, and chamber orchestra, as well as having to rehearse my concert band after school because of scheduling issues.

I'm teaching at three buildings on a daily basis. It's challenging to maintain success[ful] programs at two secondary schools and an elementary.

I constantly have more work to do that I never have enough preparation time to complete.

4. Students.

Student behavior: difficulty keeping students focused and on task; uncooperative and difficult repeated behaviors

Keeping students interested and motivated so they don't quit

Students not practicing during long breaks

Eight of the top 10 most frequently mentioned themes across all survey responses were from the professional, school-related category. The two themes within the top 10 responses from any other category for increased stress were balance of time and other personal issues, both under the broad category of personal. The balance of time theme was most often mentioned in terms of managing school and home responsibilities. One participant wrote of having “too many deadlines that are complicated with personal life responsibilities,” while another suggested school activities were “leaving me less time to spend with my baby and husband.” The other personal issues theme included any items noted by participants that were neither directly related to school nor categorized by any other theme. For example, numerous participants mentioned the “holidays,” “holiday season,” or “holiday travel” as sources of stress, while others wrote of such concerns as “world events,” “political issues,” and “the weather.” Based on the survey results, it

seems the majority of increased stress factors for music teachers in this study relate to school and teaching.

Considering the changes in frequency of individual theme representation within all participant responses to the question of increased stress across the three months of data collection, 19 themes consistently decreased in overall prevalence from the first month to the third, seven neither consistently decreased nor increased, and six consistently increased in overall prevalence. However, one of the six which consistently increased in frequency was the none/nothing theme, perhaps indicating that overall stress may have been decreasing for participants who mentioned this particular theme. Notable themes of increased stress which consistently decreased in overall prevalence over time included school-related changes, workload, administration, paperwork, parents, balance of time, children, and partner. Notable themes which consistently increased in overall prevalence included rehearsals and performances, other music-related professional responsibilities, and family and home (see Table 7 for a list of changes in frequency of all 32 themes of increased stress across the three months of data collection).

Themes of eased stress.

Emergent themes were grouped together under four broad categories within the second portion of the codebook (i.e., the portion used for identifying themes of eased stress). These four broad categories included: (a) nothing; (b) professional, school-related; (c) personal; and (d) family. The four most frequently mentioned themes of eased stress across all participant responses fell outside the realm of the professional, school-related category. The four themes, including actual representative responses of

each included:

1. ***Family and home.***

Spending time with my family

My understanding husband is very helpful.

Spending time at home

2. ***Health.***

Working out and making good food choices

Going to the gym

I choose not to allow myself to get upset.

3. ***Relaxation and mindfulness.***

I'm an active participant in a Body of Faith, as well, which I feel helps my stress.

Being able to come home and sit quietly to unwind after school

Responses including words such as: prayer, faith, yoga, quiet time, and relaxing

4. ***Socializing and communication.***

Making time for socializing with friends

Actively seeking conversation and friends and activity that take me out of the band- or school-world

I also have less stress when people communicate things well in advance instead of at the last minute.

Concerning the easement of stress, survey responses indicated that the majority of notable factors for music teachers relate to themes outside the context of school and teaching. Seven of the top 10 most frequently mentioned themes of eased stress across

all survey responses were outside of the professional, school-related category. The three themes from the top 10 within this broad category were (a) school-related changes, (b) colleagues, and (c) workload. The school-related changes theme included responses that noted a reduction or change of school responsibilities, time spent away from school, or the ending of a substantial commitment (e.g., school musical or marching band).

Responses included comments such as “spending time away from school,” “weekends,” “end of the school musical,” and “the end of marching season.” Responses coded within the colleagues theme contained mention of “supportive” and “understanding” coworkers, “collaboration” with other music teachers, and “encouragement from veteran teachers,” while the workload theme centered around the ideas of “having enough plan time,” “being prepared for lessons,” and “getting things done” at school when not directly supervising students.

There was more variability over time in the frequency of individual theme representation among responses to question two (eased stress) than within the responses to question one (increased stress). Fourteen themes consistently decreased in overall prevalence from the first month to the third, 15 neither consistently decreased nor increased, and three consistently increased in overall prevalence. Notable themes of eased stress which consistently decreased in overall prevalence included school-related changes, colleagues, workload, students, administration, health, and socializing and communication. The only three themes which consistently increased in overall prevalence were rehearsals and performances, anticipation, and other personal issues (see Table 8 for a list of changes in frequency of all 32 themes of eased stress across the three

months of data collection).

See Table 5 for a list of all 32 themes of increased stress in order of frequency across the three months of data collection. See Table 6 for a list of all 32 themes of eased stress in order of frequency across the three months of data collection. See Table 7 for a list of themes of increased stress in order of frequency by broad category within each of the three sets of survey responses. See Table 8 for a list of themes of eased stress in order of frequency by broad category within each of the three sets of survey responses.

Table 5

Frequency of All 32 Themes for Open-Ended Question Number One (Increased Stress) in Order of Inclusion across Three Months of Data Collection

Theme	<u>Total Combined</u>	
	f	%
Rehearsals and performances	935	40.5
Changes (school-related)	630	27.3
Workload	480	20.8
Students	405	17.5
Balance of time	356	15.4
Administration	330	14.3
Paperwork	323	14.0
Resources	261	11.3
Colleagues	238	10.3
Other (personal)	236	10.2
Professional service	209	9.0
Health	195	8.4
Certification and evaluation	181	7.8
Parents	170	7.4
Enrollment	166	7.2
Death or illness (of family member)	125	5.4
Financial	118	5.1
Home and automotive	113	4.9
Children	110	4.8
Family and home	93	4.0
Communication	88	3.8
Partner	79	3.4
Professional training	68	2.9
Other, music-related (professional)	66	2.9
Technology	62	2.7

(continued)

Theme	<i>f</i>	Total Combined
		%
Other, not music-related (professional)	33	1.4
Pregnancy	32	1.4
None/nothing	30	1.3
Pets	14	0.6
Birth	11	0.5
Mentorship	8	0.3
Miscarriage	1	0.0

Table 6

Frequency of All 32 Themes for Open-Ended Question Number Two (Eased Stress) in Order of Inclusion across Three Months of Data Collection

Theme	<u>Total Combined</u>	
	f	%
Family and home	850	36.8
Health	569	24.6
Relaxation and mindfulness	477	20.6
Socializing and communication	398	17.2
Changes (school-related)	324	14.0
Leisure and hobbies (non-musical)	309	13.4
General non-school accomplishment	263	11.4
Colleagues	254	11.0
Workload	233	10.1
Other (personal)	221	9.6
Music	214	9.3
Students	212	9.2
Rest	203	8.8
Alcohol	128	5.5
Rehearsals and performances	119	5.2
Food	103	4.5
Administration	98	4.2
Pets	86	3.7
None/nothing	63	2.7
Anticipation	55	2.4
Home and automotive	43	1.9
Parents	42	1.8
Day off (personal/sick)	33	1.4
Delegation	29	1.3
Professional evaluation	19	0.8

(continued)

Theme	<i>f</i>	Total Combined
		%
Professional development	15	0.6
Resources	14	0.6
Financial	14	0.6
Tobacco	12	0.5
Technology	6	0.3
Birth	4	0.2
Pregnancy	2	0.1

Table 7

Frequency of Themes for Open-Ended Question Number One (Increased Stress) by Broad Category within Each of Three Surveys

Broad Category and Theme	Survey One		Survey Two		Survey Three	
	f	%	f	%	f	%
Professional, not school-related						
Professional training**	22	2.9	20	2.6	26	3.4
Other, music-related***	13	1.7	17	2.2	36	4.7
Other, not music-related*	15	2.0	11	1.4	7	0.9
Professional, school-related						
Rehearsals and performances***	182	23.7	310	40.3	443	57.5
Changes*	274	35.6	207	26.9	149	19.4
Workload*	213	27.7	152	19.7	115	14.9
Students**	141	18.3	144	18.7	120	15.6
Administration*	145	18.8	123	16.0	62	8.1
Paperwork*	131	17.0	113	14.7	79	10.3
Resources*	115	14.9	75	9.7	71	9.2
Colleagues**	73	9.5	93	12.1	72	9.4
Professional service*	87	11.3	73	9.5	49	6.4
Certification and evaluation*	76	9.9	61	7.9	44	5.7
Parents*	87	11.3	45	5.8	38	4.9
Enrollment*	94	12.2	42	5.5	30	3.9

Broad Category and Theme	Survey One		Survey Two		Survey Three	
	f	%	f	%	f	%
Communication*	41	5.3	29	3.8	18	2.3
Technology*	36	4.7	15	2.0	11	1.4
Mentorship**	4	0.5	0	0.0	4	0.5
Personal						
Balance of time*	130	16.9	121	15.7	105	13.6
Other***	42	5.5	69	9.0	125	16.2
Health**	58	7.5	71	9.2	66	8.6
Financial**	45	5.8	33	4.3	40	5.2
Home and automotive*	43	5.6	38	4.9	32	4.2
Family						
Death or illness**	36	4.7	45	5.8	44	5.7
Children*	45	5.8	43	5.6	22	2.9
Family and home***	22	2.9	33	4.3	38	4.9
Partner*	31	4.0	29	3.8	19	2.5
Pregnancy*	12	1.6	11	1.4	9	1.2
Pets*	5	0.7	5	0.7	4	0.5
Birth*	7	0.9	2	0.3	2	0.3
Miscarriage***	0	0.0	0	0.0	1	0.1
Nothing						
None/Nothing***	6	0.8	9	1.2	15	2.0

Note. * = Overall decrease ** = No consistent change *** = Overall increase

Table 8

Frequency of Themes for Open-Ended Question Number Two (Eased Stress) by Broad Category within Each of Three Surveys

Broad Category and Theme	Survey One		Survey Two		Survey Three	
	f	%	f	%	f	%
Professional, school-related						
Changes*	119	15.5	114	14.8	91	11.8
Colleagues*	95	12.3	88	11.4	71	9.2
Workload*	103	13.4	78	10.1	52	6.8
Students*	88	11.4	71	9.2	53	6.9
Rehearsals and performances***	27	3.5	41	5.3	51	6.6
Administration*	48	6.2	31	4.0	19	2.5
Anticipation***	13	1.7	17	2.2	25	3.3
Parents**	23	3.0	9	1.2	10	1.3
Day off (personal/sick)**	8	1.0	14	1.8	11	1.4
Delegation**	16	2.1	2	0.3	11	1.4
Professional evaluation*	7	0.9	7	0.9	5	0.7
Professional development*	9	1.2	4	0.5	2	0.3
Resources**	5	0.7	8	1.0	1	0.1
Technology*	4	0.5	2	0.3	0	0.0
Personal						
Health*	212	27.5	184	23.9	173	22.5

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(continued)

Broad Category and Theme	Survey One		Survey Two		Survey Three		
	f	%	f	%	f	%	
Relaxation and mindfulness**	182	23.6	144	18.7	151	19.6	
Communication*	145	18.8	128	16.6	125	16.2	
Leisure and hobbies (non-musical)**	104	13.5	100	13.0	105	13.6	
General non-school accomplishment**	87	11.3	81	10.5	95	12.3	
Other***	52	6.8	61	7.9	108	14.0	
Music**	85	11.0	61	7.9	68	8.8	
Rest**	56	7.3	78	10.1	69	9.0	
Alcohol**	45	5.8	34	4.4	49	6.4	
Food**	37	4.8	31	4.0	35	4.6	
72	Home and automotive**	11	1.4	21	2.7	11	1.4
Financial**	6	0.8	3	0.4	5	0.7	
Tobacco*	6	0.8	4	0.5	2	0.3	
Family							
Family and home**	288	37.4	272	35.3	290	37.7	
Pets*	31	4.0	29	3.8	26	3.4	
Birth*	2	0.3	1	0.1	1	0.1	
Pregnancy*	2	0.3	0	0.0	0	0.0	
Nothing							
None/Nothing**	23	3.0	18	2.3	22	2.9	

Note. * = Overall decrease ** = No consistent change *** = Overall increase

Research Question Four: What relationships exist between emergent stress themes and significant differences in overall perceived stress based on selected demographic factors?

In answering research question four, results from research questions two and three were considered collectively. Data analysis for research question two involved a quantitative comparison of mean PSS scores among selected demographic subgroups. Significant differences were found relative to the variables of participant age, parenthood status, grade/school levels taught, and years of teaching experience. Data interpretation for research question three involved the identification and qualitative coding of emergent themes within responses to two open-ended questions of increased and eased stress. Frequency counts were taken of each theme across the three months of data collection.

PSS scores did not cross the predetermined threshold for significance (i.e., $p = .05$) based on the gender demographic ($p = .053$ for these scores). However, the researcher decided to explore the similarities and differences among response themes from female and male participants in answering research question four. This decision was made due to the attention given to gender in previous research on teacher attrition, burnout, and stress, as well as the p value.

Each of the significantly different demographic factors found within research question two were analyzed independently, and all were found to fit within dichotomous nominal classifications. In an effort to understand the relationships between significantly different demographic factors based on mean PSS scores and emergent qualitative themes of stress, frequency counts of coded responses to research question three were

compared between each pair of significantly different dichotomous demographic classifications. Additionally, responses for each group were compared to collective responses from all participants across the three months of data collection.

Age.

Increased stress. The four most frequently cited themes among all responses relative to increased stress were identical for participants 50 years or older, for participants under age 50, and for collective responses across all surveys. Eight of the top 10 most frequently cited themes for both age groups were the same, though variations in order of prevalence existed when themes were ranked by overall percentage of representation within each demographic subgroup. The three themes of increased stress with the largest differences in frequency of representation among all responses between the two age groups were: (a) rehearsals and performances, (b) balance of time, and (c) paperwork.

Participants under age 50 mentioned the rehearsals and performances theme and balance of time theme more frequently than the oldest participants as increasers of stress. As one 22-year-old first-year vocal music teacher wrote in response to Survey One, “putting on a concert by myself for the very first time” was a source of increased stress (i.e., the rehearsals and performances theme). A 22-year-old first-year band teacher mentioned “not having enough time for myself” and “not having my own life” as factors of increased stress (i.e., the balance of time theme). Participants aged 50 years or older mentioned the paperwork theme more frequently than the younger participants. One 59-year-old middle school teacher noted the “amount of paperwork and data collection

required at school has increased my stress,” while a 53-year-old elementary teacher suggested she was “not able to keep up with all the paperwork for all my teaching assignments” (see Table 9 and Figure 1 for the most frequently cited themes of increased stress relative to age among responses to open-ended question one).

Eased stress. The most frequently cited theme relative to eased stress (i.e., the family and home theme) was identical for participants 50 years or older, participants under age 50, and overall. Eight of the top 10 most frequently cited themes for the two age groups were the same, though variations in order of prevalence existed when themes were ranked by overall percentage of representation within each demographic subgroup. The three themes of eased stress with the largest differences in frequency of representation among all responses between the two age groups were: (a) family and home, (b) relaxation and mindfulness, and (c) alcohol.

Participants under age 50 mentioned the family and home theme somewhat more frequently than older participants as an easement of stress. One representative response of this theme came from a 23-year-old high school teacher:

While I planned to stay for a full football game to watch my kids [students] play, I realized I had barely seen my husband all week, so it was best that I went home and spent time with him. As much as I love and want to support my kids [students], my family has to come first.

Participants under age 50 mentioned the alcohol theme more than four times more frequently than participants 50 years or older, using words such as “beer,” “wine,” “drinking,” “alcohol,” and “adult beverages.” Older participants mentioned the

relaxation and mindfulness theme more frequently than younger participants. Among responses from participants aged 50 and older, mention of “my faith,” “my faith in God,” and “church” were common. Also within the relaxation and mindfulness theme, a 55-year-old middle school teacher wrote that he prefers to “take advantage of my down time and get lots of rest” (see Table 10 and Figure 2 for the most frequently cited themes of eased stress relative to age among responses to open-ended question two).

Gender

Increased stress. The five most frequently cited themes relative to increased stress were identical for both men and women participants, as well as for collective responses across all surveys. The top 10 most frequently cited themes for both women and men were the same, though the sixth through tenth responses varied in order of prevalence when ranked by overall percentage of representation. The three themes of increased stress with the largest differences in frequency of representation among all responses between women and men were: (a) rehearsals and performances, (b) paperwork, and (c) parents.

Women mentioned the rehearsals and performances theme more frequently than men as a source of increased stress. Responses were often rather general in nature (e.g., “concerts,” “upcoming performances,” and performance “preparations”). However, when writing about students missing rehearsals, participants seemed to be a bit more specific and direct. For example, one female participant mentioned her frustrations with “teachers holding students from my class,” while another wrote about how “sports sectionals were pulling students out of my rehearsals.” Women also mentioned the

paperwork theme more frequently than men, often discussing “grades,” “assessments,” and “deadlines.”

Men mentioned the parents theme more frequently than women. One 22-year-old male stated his frustration with “parents that don’t know what they’re talking about.” A vocal music teacher mentioned that “parents [had been] coming to see me about issues with their children (not pertaining to chorus) and wanting to pull them out of chorus as punishment.” A related complaint was submitted by a male elementary music teacher who reported increased stress due to a “constant flood of parent emails and phone calls about communication that already went home” (see Table 11 and Figure 3 for the most frequently cited themes of increased stress relative to gender among responses to open-ended question one).

Eased stress. The three most frequently cited themes relative to eased stress were identical for both men and women participants, as well as for collective responses across all surveys. Of the top 10 most frequently cited themes for both women and men, eight were the same, though variations in order of prevalence existed when themes were ranked by overall percentage of representation. The three themes of eased stress with the largest differences in frequency of representation among all responses between women and men were: (a) socializing and communication, (b) colleagues, and (c) health.

Women mentioned both the socializing and communication theme and colleagues theme at roughly twice the rate of men as easements of stress. Women also mentioned health more frequently than men, though the margin of difference was much smaller than between the other two themes. For the socializing and communication theme, both

women and men included phrases such as “talking with friends and family,” “spending time with friends,” and “communicating with colleagues” as some of the most important factors relative to this theme. Interestingly, women most often mentioned their communication and interaction with colleagues using words such as “support,” “socializing,” and “understanding,” while men tended to use words such as “bitching,” “dealing with problems,” and “bend[ing] the ear” of administrators. There were no distinct or notable differences relative to the health theme between responses from women and men participants (see Table 12 and Figure 4 for the most frequently cited themes of eased stress relative to gender among responses to open-ended question two).

Parenthood Status

Increased stress. The two most frequently cited themes relative to increased stress were identical for participants who were parents to at least one child, for participants who were non-parents, and for collective responses across all surveys. Eight of the top 10 most frequently cited themes for both demographic subgroups were the same, though variations in order of prevalence existed when themes were ranked by overall percentage of representation. The three themes of increased stress with the largest differences in frequency of representation among all responses between parents and non-parents were: (a) children, (b) rehearsals and performances, and (c) students.

Not surprisingly, participants who were parents to at least one child mentioned the children theme more frequently than non-parents as an increaser of stress. Non-parent participants mentioned the rehearsals and performances theme more frequently than parents, though no clear indication was found among participant responses to

explain this disparity. Responses from non-parents also included the students theme more frequently than responses from parents. Non-parents mentioned “tough students,” “students not communicating with their parents,” and overall “student behavior,” while parents more frequently wrote of negative student-to-student interactions, “unprepared” students, and students who exhibit a “lack of motivation” or “commitment” (see Table 13 and Figure 5 for the most frequently cited themes of increased stress relative to parenthood status among responses to open-ended question one).

Eased stress. The two most frequently cited themes relative to eased stress were identical for both parent and non-parent participants, as well as for collective responses across all surveys. Nine of the top 10 most frequently cited themes for the parent and non-parent subgroups were the same, though variations in order of prevalence existed when themes were ranked by overall percentage of representation. The three themes of eased stress with the largest differences in frequency of representation among all responses between parent and non-parent participants were: (a) socializing and communication, (b) non-musical leisure and hobbies, and (c) meditation and mindfulness.

Parent participants mentioned the socializing and communication theme and the non-musical leisure and hobbies theme less frequently than non-parent participants as easements of stress. The disparity in prevalence of both of these themes between the parent and non-parent participants was primarily due to the parents’ involvement in the lives of their children. For example, parent participants frequently mentioned “spending time with” their children, “playing” with their children, and attending or participating in

activities (e.g., sports practices, camping trips, and church groups) with their children. Non-parent participants were more likely to note time spent with friends or time spent on other leisure activities (e.g., playing video games, reading, and watching television) than parents were. The meditation and mindfulness theme was mentioned more frequently by the parent participants than the non-parents. Participants from both demographic subgroups listed “meditation,” “yoga,” “church,” and “prayer” as easements of stress. However, the non-parent participants noted “alone time” and “time for myself” much more frequently than parents (see Table 14 and Figure 6 for the most frequently cited themes of eased relative to parenthood status among responses to open-ended question two).

Grade/School Levels Taught

Increased stress. The seven most frequently cited themes relative to increased stress were identical for participants who taught only in the elementary grades, for participants who taught only in the middle school/junior high school or high school grades, and collectively across all survey responses. Eight of the top 10 most frequently cited themes for both demographic subgroups were the same, though minor variations in order of prevalence existed when themes were ranked by overall percentage of representation. The three themes of increased stress with the largest differences in frequency of representation among all responses between the two subgroups were: (a) rehearsals and performances, (b) certification and evaluation, and (c) parents.

Participants who taught only in the elementary grades mentioned certification and evaluation more frequently than participants who taught only in a middle or secondary

placement as increasers of stress. Participant responses offered no clear insight into why this was the case. Middle level and secondary only teachers mentioned both the rehearsals and performances theme and parents theme more frequently than elementary only teachers. The middle level and secondary only teachers frequently noted increased stress due to “upcoming performances,” “holiday concerts,” “marching band competitions,” a lack of quality rehearsal time due to inconsistent student attendance, “unsupportive parents,” or troubles with booster organizations (see Table 15 and Figure 7 for the most frequently cited themes of increased stress relative to grade/school levels taught among responses to open-ended question one).

Eased stress. The four most frequently cited themes relative to eased stress were identical for participants who taught elementary only, participants who taught in the middle or secondary level only, and overall. Eight of the top 10 most frequently cited themes for the two demographic subgroups were the same, though variations in order of prevalence existed when themes were ranked by overall percentage of representation. The three themes of eased stress with the largest differences in frequency of representation among all responses between the two subgroups were: (a) students, (b) family and home, and (c) school-related changes.

Participants who taught only in an elementary setting mentioned each of these three themes less frequently than those who taught exclusively in either a middle or secondary setting as easements of stress. Middle and secondary level only teachers frequently wrote about time spent with “great” or “amazing” students, students who were “great fun to work with,” and students who were “prepared.” Due to the large number of

responses from middle level and secondary teachers concerning after school rehearsals, weekend commitments, and evening performances as increasers of stress, it seems reasonable that these teachers would report time spent away from school (i.e., the family and home theme) and positive school-related changes more frequently than the elementary only teachers as easements of stress (see Table 16 and Figure 8 for the most frequently cited themes of eased stress relative to grade/school levels taught among responses to open-ended question two).

Years of Teaching Experience

Increased stress. As participants with 31 or more years of teaching experience were found to have significantly less stress than those with up to 25 years of experience, these two groups were considered as a dichotomous pair for the years of teaching experience demographic variable. PSS scores for participants with 26-30 years of teaching experience were neither significantly different from scores within any age bracket from 0-25 years nor from scores of participants with 31 or more years of experience. For the present analysis and interpretation, only responses from participants with 0-25 years and 31 or more years of teaching experience were considered. Future research may help to explain the similarities and differences in stress of music teachers with 26-30 years of teaching experience from all others.

The three most frequently cited themes relative to increased stress were identical for participants with 31 or more years of teaching experience, participants with 25 or fewer years of teaching experience, and collectively across all survey responses. Seven of the top 10 most frequently cited themes for both demographic subgroups were the

same, though variations in order of prevalence existed when themes were ranked by overall percentage of representation. The three themes of increased stress with the largest differences in frequency of representation among all responses between the two subgroups were: (a) balance of time, (b) colleagues, and (c) rehearsals and performances.

Participants with 25 or fewer years of teaching experience mentioned the balance of time and colleagues themes more than twice as frequently as the most veteran teachers as increasers of stress. Within responses representative of the balance of time theme, the less veteran teachers wrote of a “lack of time,” their struggles to “balance work demands with personal life,” and having “too much to do.” In terms of colleagues, these participants referenced “difficult coworkers,” “negative [or] cynical coworkers,” “conflicts with coworkers,” instances where they felt “other teachers [would] waste my time with their chatting when I’m working with students,” and “colleagues who complain a lot...and who do not like children.” Participants with 25 or fewer years of teaching experience also mentioned the rehearsals and performances theme more frequently than the most veteran teachers, though the difference between the two subgroups was less pronounced for this theme than between the balance of time and colleagues themes. Interestingly, though not among the three largest differences in theme representation, participants with 31 or more years of teaching experience mentioned paperwork and certification/evaluation as increasers of stress more frequently than their younger colleagues (see Table 17 and Figure 9 for the most frequently cited themes of increased stress relative to years of teaching experience among responses to open-ended question one).

Eased stress. The most frequently cited theme relative to eased stress (i.e., family and home) was identical for participants with 31 or more years of teaching experience, participants with 25 or fewer years of teaching experience, and overall. Eight of the top 10 most frequently cited themes for the two subgroups were the same, though variations in order of prevalence existed when themes were ranked by overall percentage of representation. The three themes of eased stress with the largest differences in frequency of representation among all responses between the two subgroups were: (a) relaxation and mindfulness, (b) family and home, and (c) health.

Participants with 25 or fewer years of teaching experience mentioned family and home more frequently than the most veteran teachers as easements of stress. As these teachers tended to be younger than the most experienced teachers, they were more likely to report having children living at home. This may help explain why the family and home theme was reported more frequently by the less experienced teachers than those with 31 or more years of teaching experience, though specific responses do not explicitly support this assertion. Participants with 31 or more years of teaching experience mentioned both the relaxation and mindfulness theme and health theme more frequently than the teachers with 25 or fewer years of experience. Though individual responses from both subgroups were similar overall for these two themes, one notable difference within the health theme was the overwhelming prevalence of “walking” or “taking walks” among the most experienced participants (see Table 18 and Figure 10 for the most frequently cited themes of eased stress relative to years of teaching experience among responses to open-ended question two).

Table 9

Most Frequently Cited Themes for Teachers Relative to Age within Responses to Open-Ended Question Number One (Increased Stress) – Cumulative Totals

Age group	Theme	f	% of total
50 years+ (n = 186)			
	Rehearsals and performances	193	34.6
	Changes	135	24.2
	Workload	116	20.8
	Students	101	18.1
	Paperwork	98	17.6
	Administration	81	14.5
	Resources	74	13.3
	Certification and evaluation	62	11.1
	Professional service	60	10.8
	Other (personal)	60	10.8
49 and younger (n = 584)			
	Rehearsals and performances	742	42.4
	Changes	495	28.3
	Workload	364	20.8
	Students	304	17.4
	Balance of time	299	17.1
	Administration	249	14.2
	Paperwork	225	12.8
	Colleagues	188	10.7
	Resources	187	10.7
	Other (personal)	176	10.1

Note. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 1 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 1.

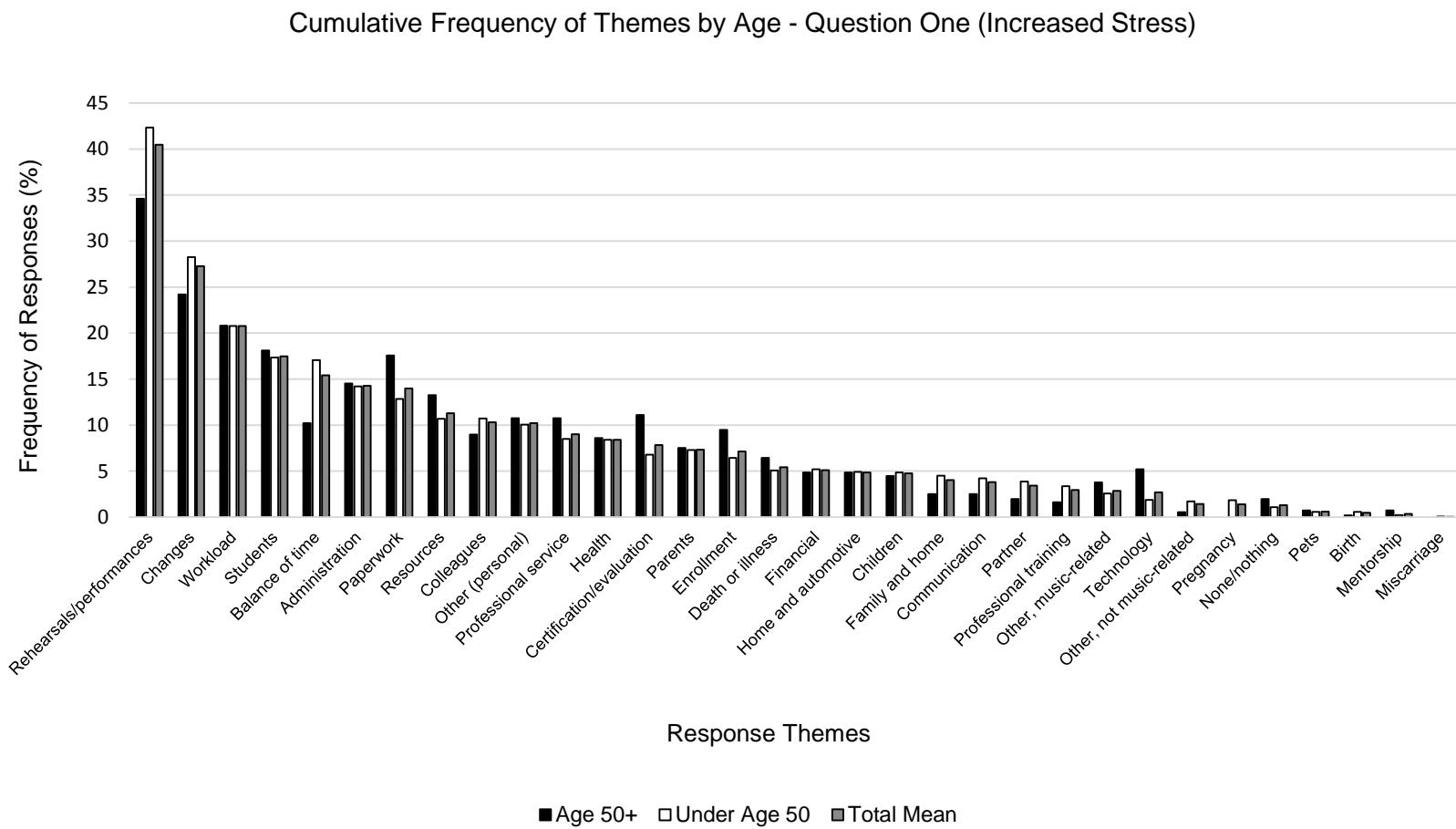


Figure 1. Frequency of coded themes within responses to open-ended question one (increased stress) by age demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 10

Most Frequently Cited Themes for Teachers Relative to Age within Responses to Open-Ended Question Number Two (Eased Stress) – Cumulative Totals

Age group	Theme	f	% of total
50 years+ (n = 186)			
	Family and home	169	30.3
	Relaxation and mindfulness	146	26.2
	Health	145	26.0
	Socializing and communication	79	14.2
	General non-school accomplishment	69	12.4
	Workload	66	11.8
	Changes	60	10.8
	Music	56	10.0
	Leisure and hobbies (non-musical)	56	10.0
	Colleagues	51	9.1
49 and younger (n = 584)			
	Family and home	681	38.9
	Health	424	24.2
	Relaxation and mindfulness	331	18.9
	Socializing and communication	319	18.2
	Changes	264	15.1
	Leisure and hobbies (non-musical)	253	14.4
	Colleagues	203	11.6
	General non-school accomplishment	194	11.1
	Other (personal)	182	10.4
	Students	169	9.7

Note. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 2 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 2.

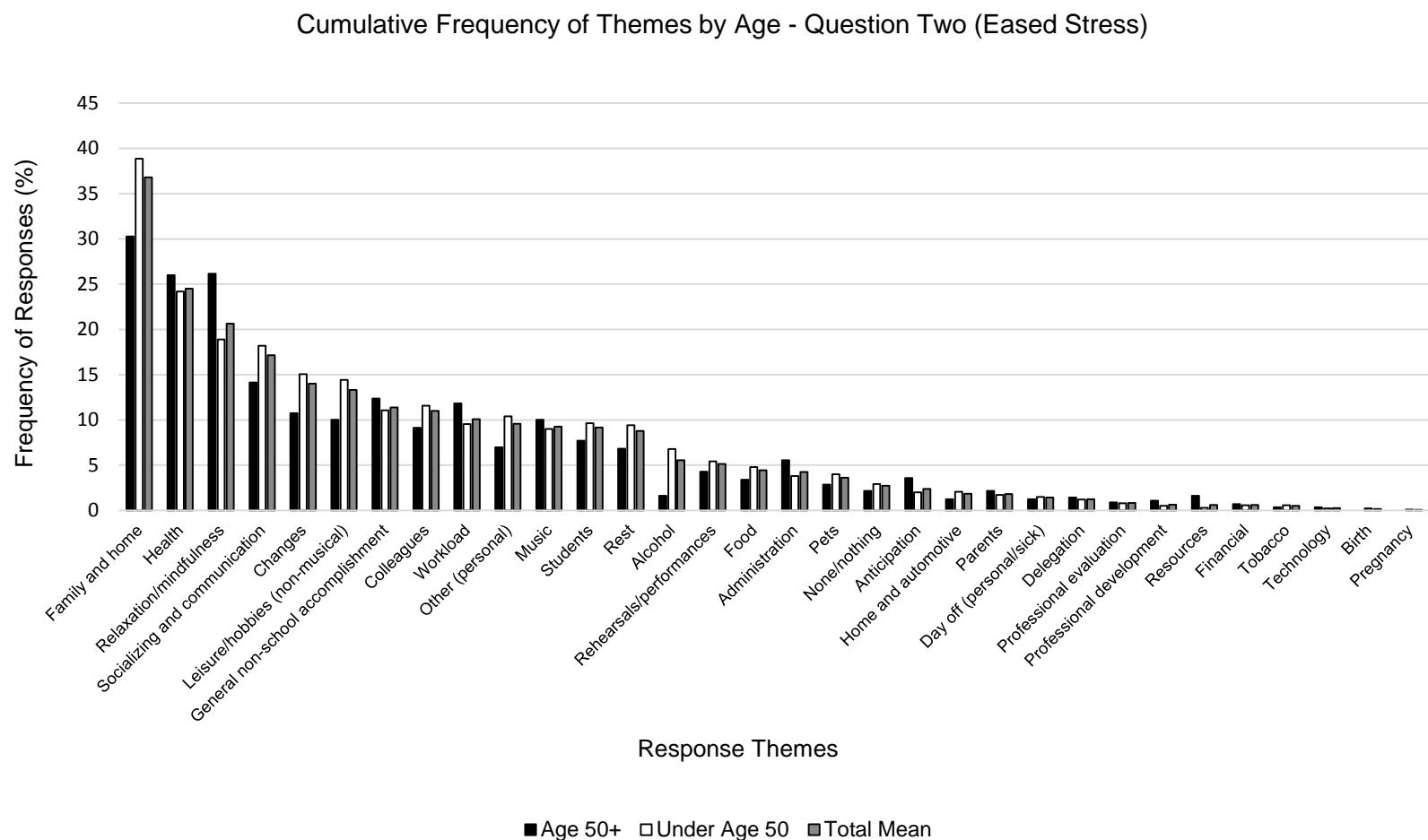


Figure 2. Frequency of coded themes within responses to open-ended question two (eased stress) by age demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 11

Most Frequently Cited Themes for Teachers Relative to Gender within Responses to Open-Ended Question Number One (Increased Stress) – Cumulative Totals

Gender	Theme	f	% of total
Women (n = 515)			
	Rehearsals and performances	649	42.0
	Changes	431	27.9
	Workload	335	21.7
	Students	267	17.3
	Balance of time	242	15.7
	Paperwork	237	15.3
	Administration	221	14.3
	Resources	185	12.0
	Colleagues	157	10.2
	Other (personal)	156	10.1
Men (n = 253)			
	Rehearsals and performances	286	37.7
	Changes	199	26.2
	Workload	144	19.0
	Students	138	18.2
	Balance of time	114	15.0
	Administration	109	14.4
	Paperwork	85	11.2
	Colleagues	81	10.7
	Other (personal)	80	10.6
	Resources	75	9.9

Note. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 1 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 3.

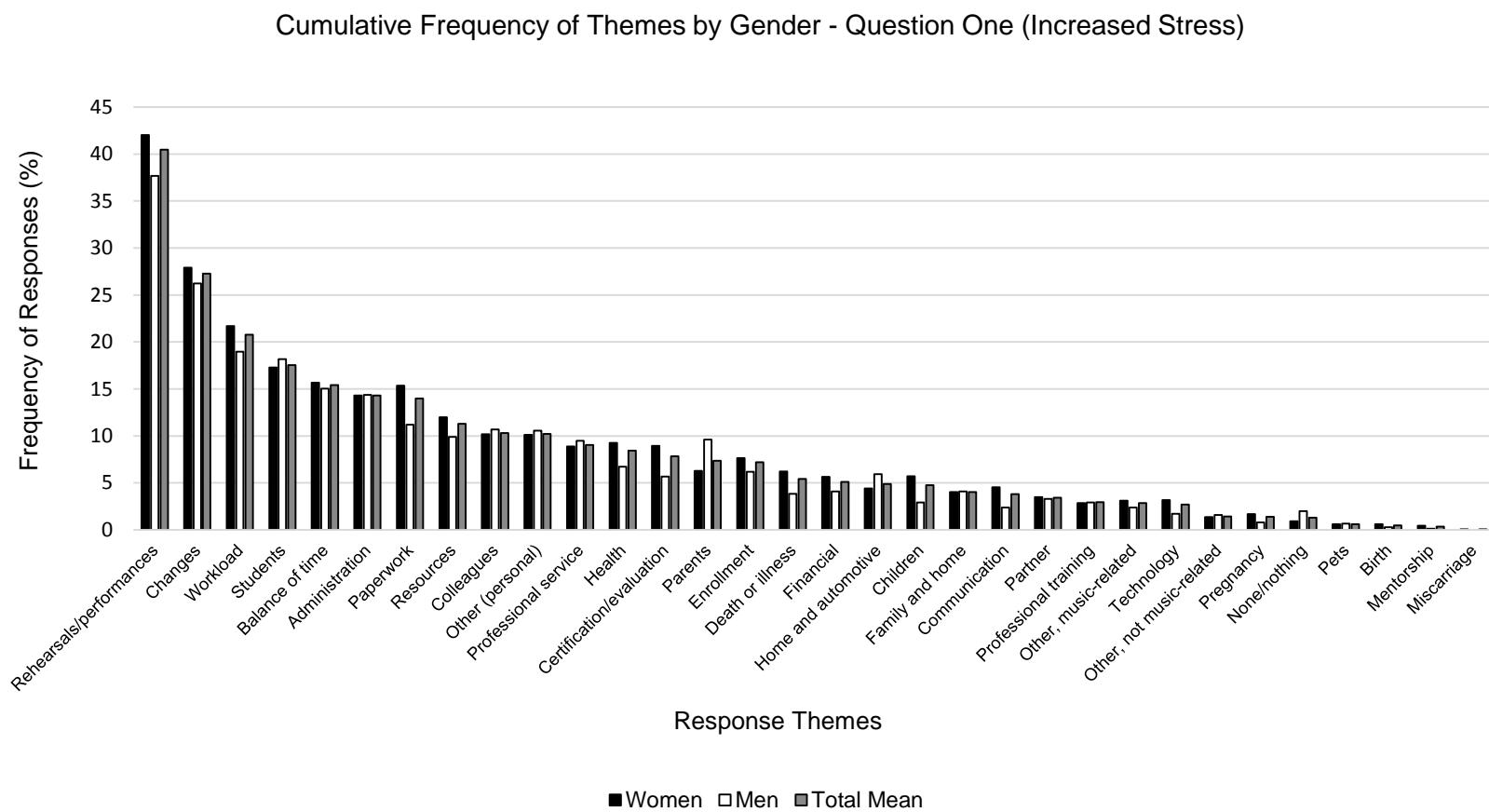


Figure 3. Frequency of coded themes within responses to open-ended question one (increased stress) by gender demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 12

Most Frequently Cited Themes Teachers Relative to Gender within Responses to Open-Ended Question Number Two (Eased Stress) – Cumulative Totals

Gender	Theme	f	% of total
Women (n = 515)			
	Family and home	578	37.4
	Health	407	26.3
	Relaxation and mindfulness	329	21.3
	Socializing and communication	315	20.4
	Changes	209	13.5
	Leisure and hobbies (non-musical)	209	13.5
	Colleagues	206	13.3
	General non-school accomplishment	170	11.0
	Workload	166	10.7
	Other (personal)	153	9.9
Men (n = 253)			
	Family and home	271	35.7
	Health	160	21.1
	Relaxation and mindfulness	147	19.4
	Changes	115	15.2
	Leisure and hobbies (non-musical)	100	13.2
	General non-school accomplishment	92	12.1
	Socializing and communication	83	10.9
	Music	78	10.3
	Students	71	9.4
	Other (personal)	68	9.0

Note. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 2 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 4.

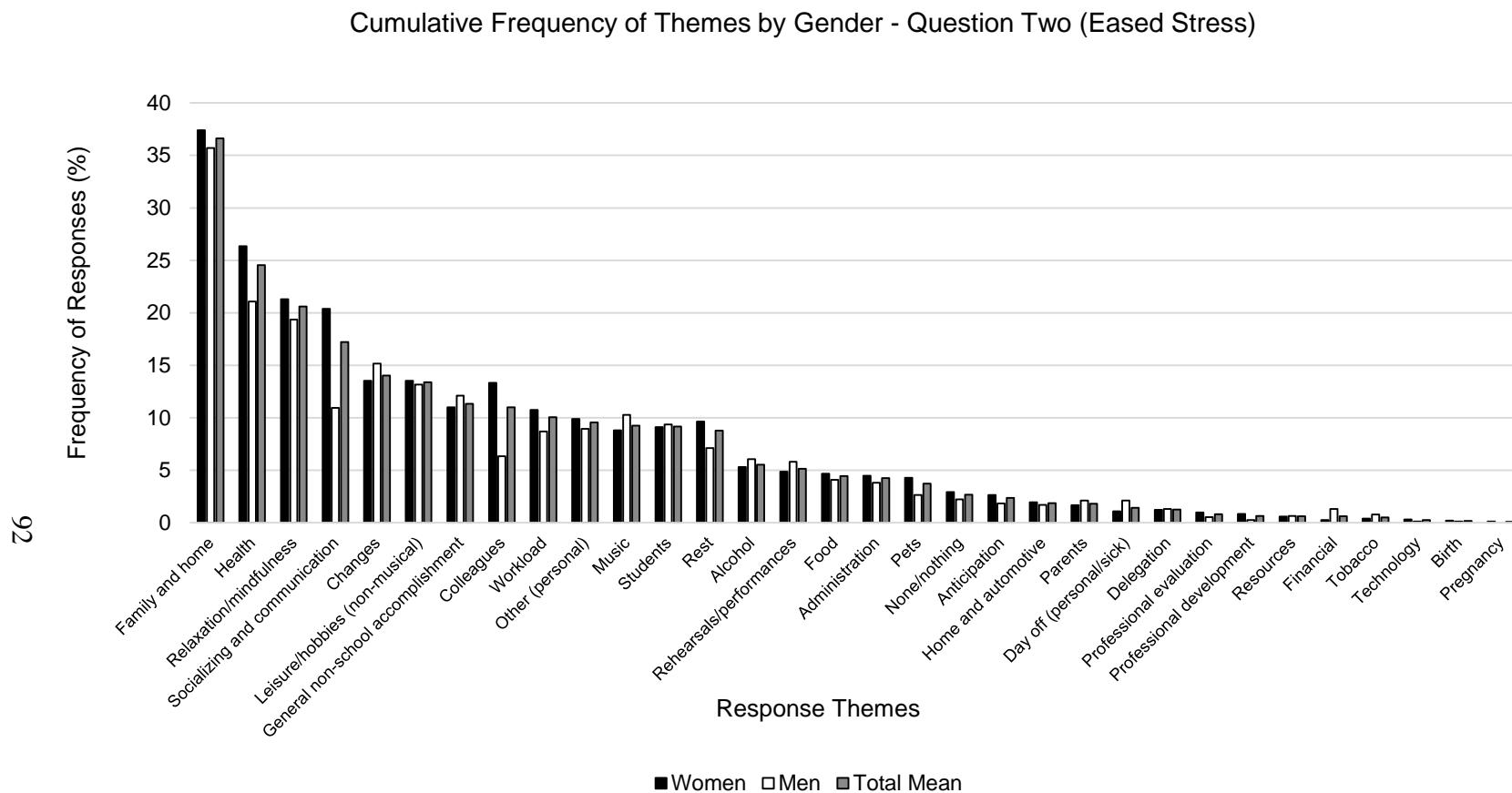


Figure 4. Frequency of coded themes within responses to open-ended question two (eased stress) by gender demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 13

Most Frequently Cited Themes for Teachers Relative to Parenthood Status within Responses to Open-Ended Question Number One (Increased Stress) – Cumulative Totals

Parenthood status	Theme	f	% of total
Parent (n = 410)			
	Rehearsals and performances	454	36.9
	Changes	320	26.0
	Workload	269	21.9
	Balance of time	215	17.5
	Students	182	14.8
	Paperwork	176	14.3
	Administration	172	14.0
	Resources	140	11.4
	Other (personal)	136	11.1
	Professional service	124	10.1
Non-parent (n = 360)			
	Rehearsals and performances	481	44.5
	Changes	310	28.7
	Students	223	20.7
	Workload	211	19.5
	Administration	158	14.6
	Paperwork	147	13.6
	Balance of time	141	13.1
	Colleagues	121	11.2
	Resources	121	11.2
	Health	110	10.2

Note. The *Parent* category includes participants who were parents of at least one living child. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 1 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 5.

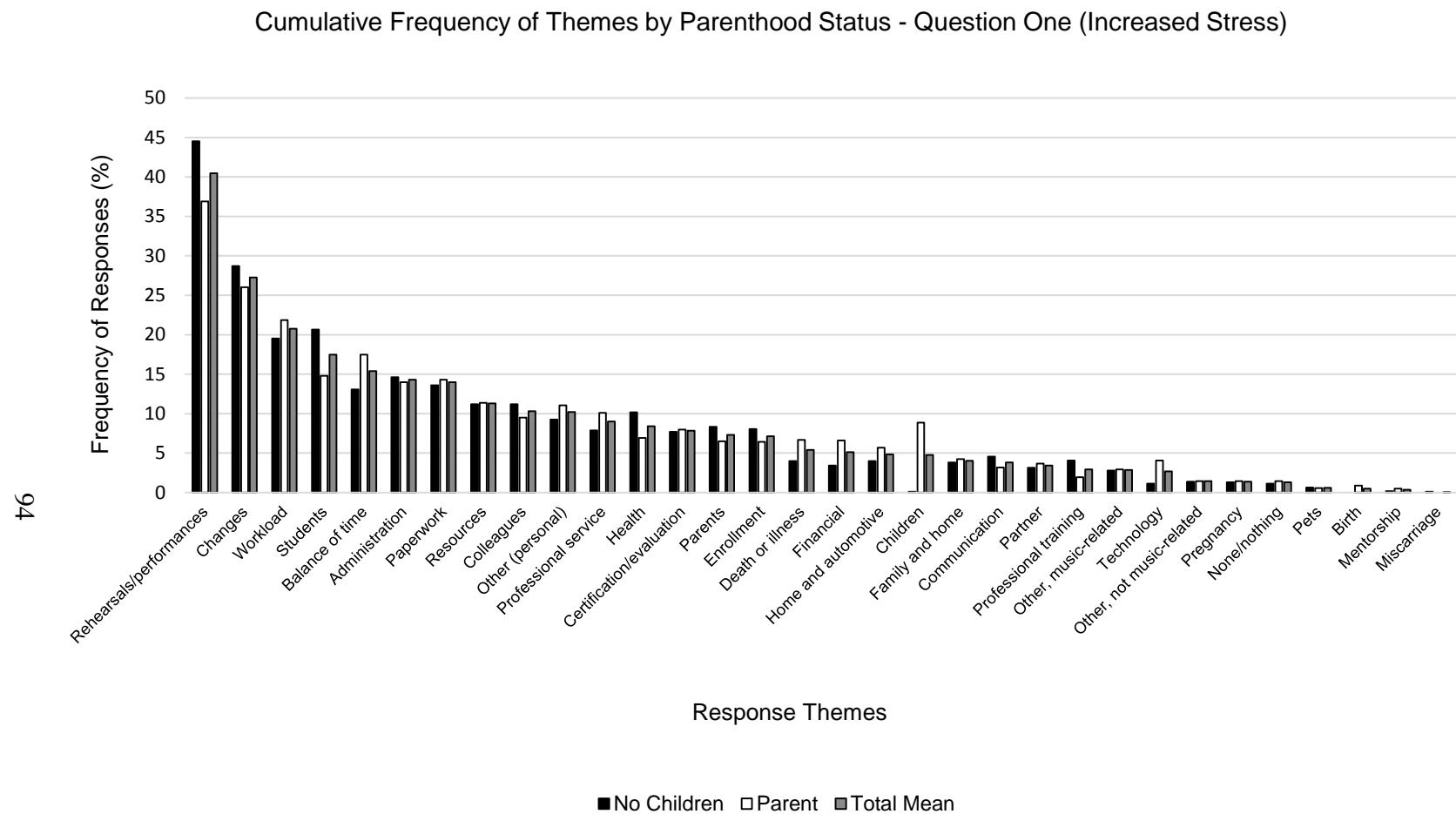


Figure 5. Frequency of coded themes within responses to open-ended question one (increased stress) by parenthood demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 14

Most Frequently Cited Themes for Teachers Relative to Parenthood Status within Responses to Open-Ended Question Number Two (Eased Stress) – Cumulative Totals

Parenthood status	Theme	f	% of total
Parent (n = 410)			
	Family and home	479	38.9
	Health	295	24.0
	Relaxation and mindfulness	288	23.4
	Changes	162	13.2
	Socializing and communication	158	12.9
	General non-school accomplishment	150	12.2
	Workload	134	10.9
	Leisure and hobbies (non-musical)	125	10.2
	Other (personal)	111	9.0
	Colleagues	110	8.9
Non-parent (n = 360)			
	Family and home	371	34.4
	Health	274	25.4
	Socializing and communication	240	22.2
	Relaxation and mindfulness	189	17.5
	Leisure and hobbies (non-musical)	184	17.0
	Changes	162	15.0
	Colleagues	144	13.3
	Students	117	10.8
	General non-school accomplishment	113	10.5
	Other (personal)	110	10.2

Note. The *Parent* category includes participants who were parents of at least one living child. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 2 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 6.

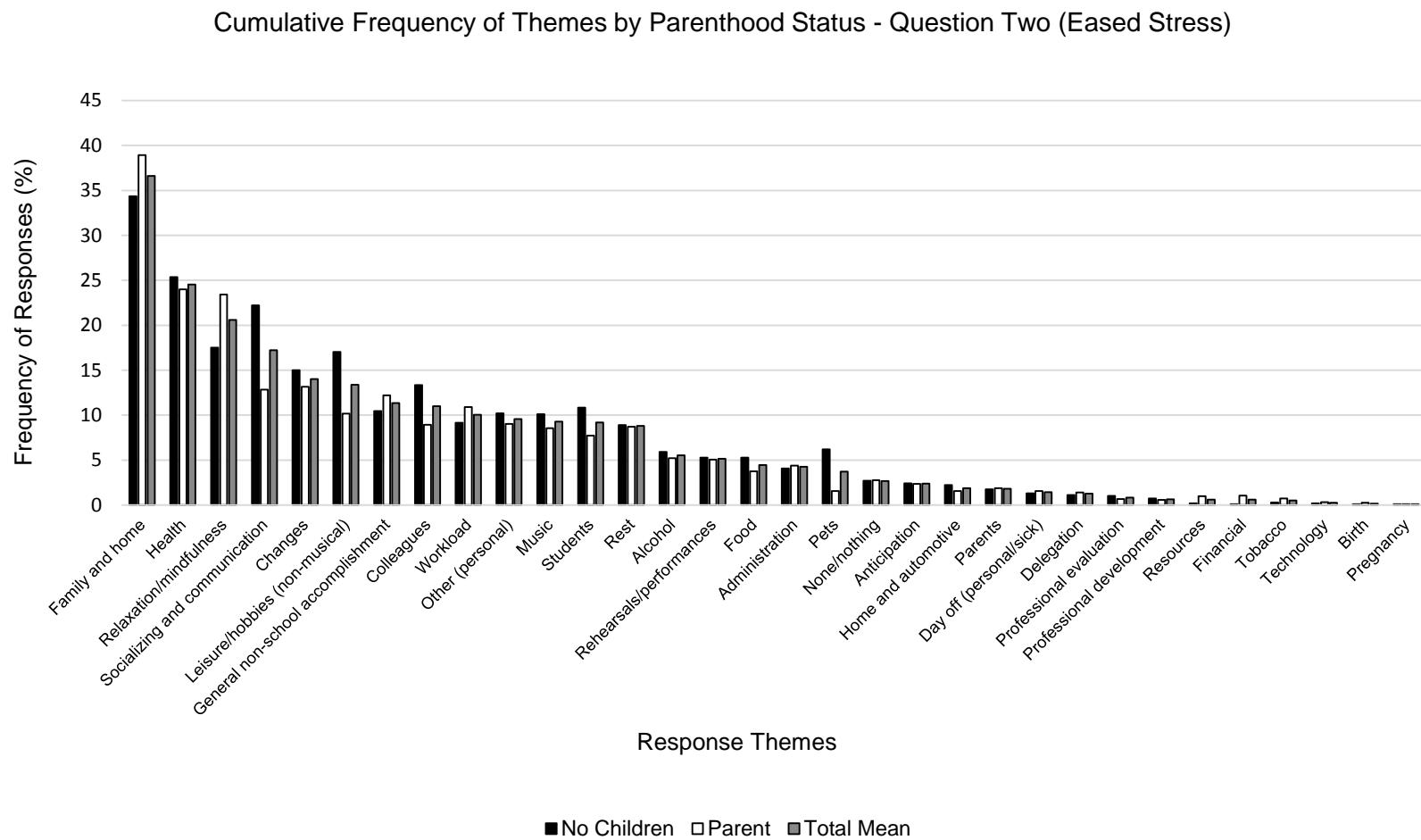


Figure 6. Frequency of coded themes within responses to open-ended question two (eased stress) by parenthood demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 15

Most Frequently Cited Themes for Teachers Relative to Grade/School Levels Taught within Responses to Open-Ended Question Number One (Increased Stress) – Cumulative Totals

Level taught	Theme	f	% of total
Elementary only (n = 218)			
	Rehearsals and performances	229	35.0
	Changes	162	24.8
	Workload	123	18.8
	Students	101	15.4
	Balance of time	100	15.3
	Administration	95	14.5
	Paperwork	92	14.1
	Other (personal)	81	12.4
	Certification and evaluation	70	10.7
	Colleagues	69	10.6
MS/JH or HS only (n = 286)			
	Rehearsals and performances	341	39.7
	Changes	228	26.6
	Workload	191	22.3
	Students	156	18.2
	Balance of time	134	15.6
	Administration	124	14.5
	Paperwork	121	14.1
	Resources	98	11.4
	Colleagues	84	9.8
	Professional service	80	9.3

Note. The *MS/JH or HS only* category refers to participants who taught exclusively in either of these two levels. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 1 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 7.

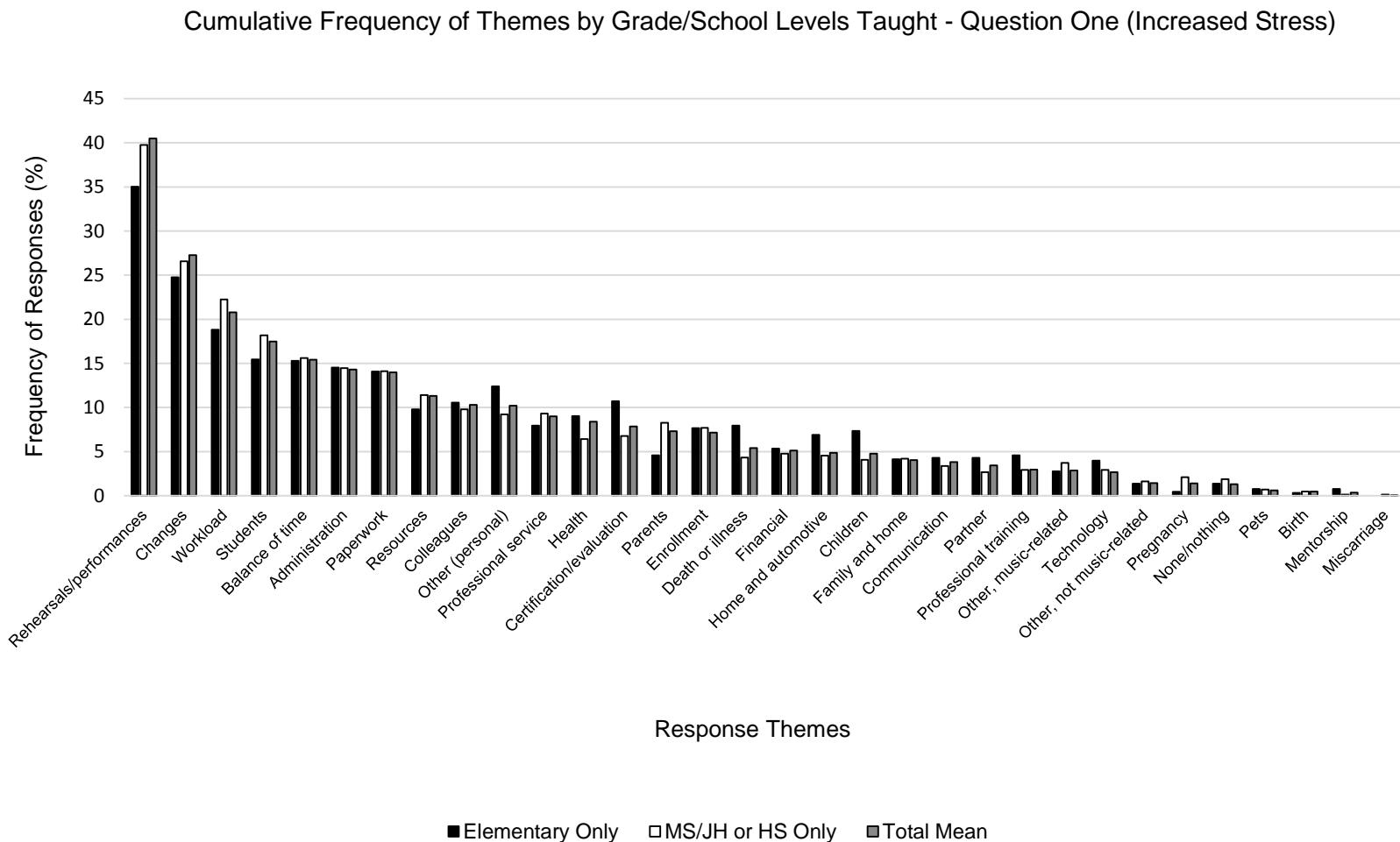


Figure 7. Frequency of coded themes within responses to open-ended question one (increased stress) by grade/school levels taught demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 16

Most Frequently Cited Themes for Teachers Relative to Grade/School Levels Taught within Responses to Open-Ended Question Number Two (Eased Stress) – Cumulative Totals

Level taught	Theme	f	% of total
Elementary only (n = 218)			
	Family and home	217	33.2
	Health	177	27.1
	Relaxation and mindfulness	158	24.2
	Socializing and communication	133	20.3
	Leisure and hobbies (non-musical)	95	14.5
	General non-school accomplishment	89	13.6
	Colleagues	86	13.2
	Workload	79	12.1
	Changes	62	9.5
	Rest	54	8.3
MS/JH or HS only (n = 286)			
	Family and home	331	38.6
	Health	211	24.6
	Relaxation and mindfulness	163	19.0
	Socializing and communication	136	15.9
	Changes	126	14.7
	General non-school accomplishment	105	12.2
	Students	104	12.1
	Leisure and hobbies (non-musical)	97	11.3
	Workload	96	11.2
	Other (personal)	89	10.4

Note. The *MS/JH or HS only* category refers to participants who taught exclusively in either of these two levels. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 2 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 8.

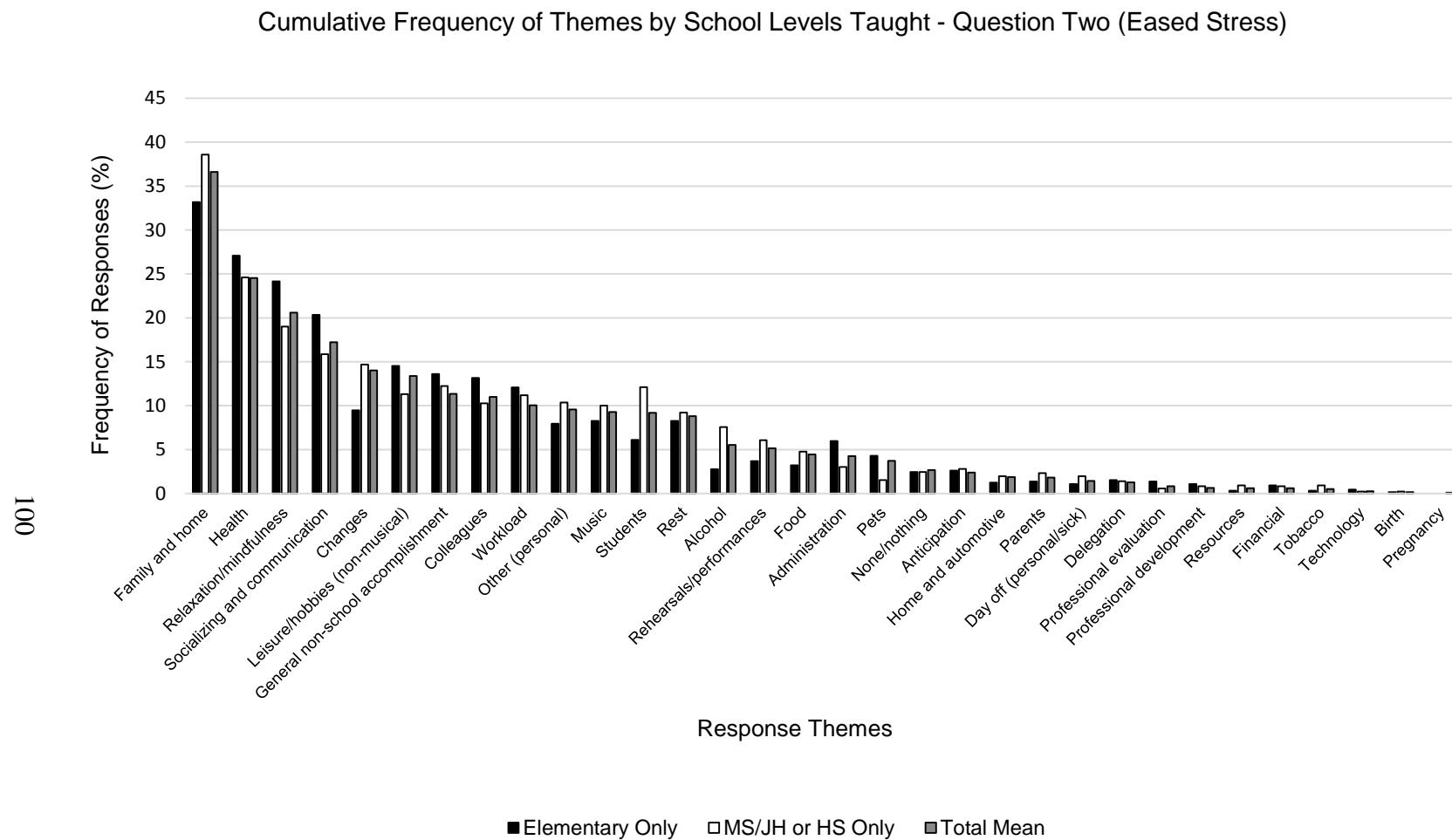


Figure 8. Frequency of coded themes within responses to open-ended question two (eased stress) by grade/school levels taught demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 17

Most Frequently Cited Themes for Teachers Relative to Years of Teaching Experience within Responses to Open-Ended Question Number One (Increased Stress) – Cumulative Totals

Years of experience	Theme	f	% of total
31 years or more (n = 68)			
	Rehearsals and performances	74	36.3
	Changes	52	25.5
	Workload	47	23.0
	Paperwork	39	19.1
	Administration	36	17.7
	Students	31	15.2
	Resources	29	14.2
	Professional service	27	13.2
	Certification and evaluation	25	12.3
	Parents	19	9.3
25 years or fewer (n = 644)			
	Rehearsals and performances	808	41.9
	Changes	532	27.5
	Workload	400	20.7
	Students	374	19.4
	Balance of time	317	16.4
	Administration	271	14.0
	Paperwork	268	13.9
	Resources	217	11.2
	Colleagues	211	10.9
	Other (personal)	203	10.5

Note. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 1 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 9.

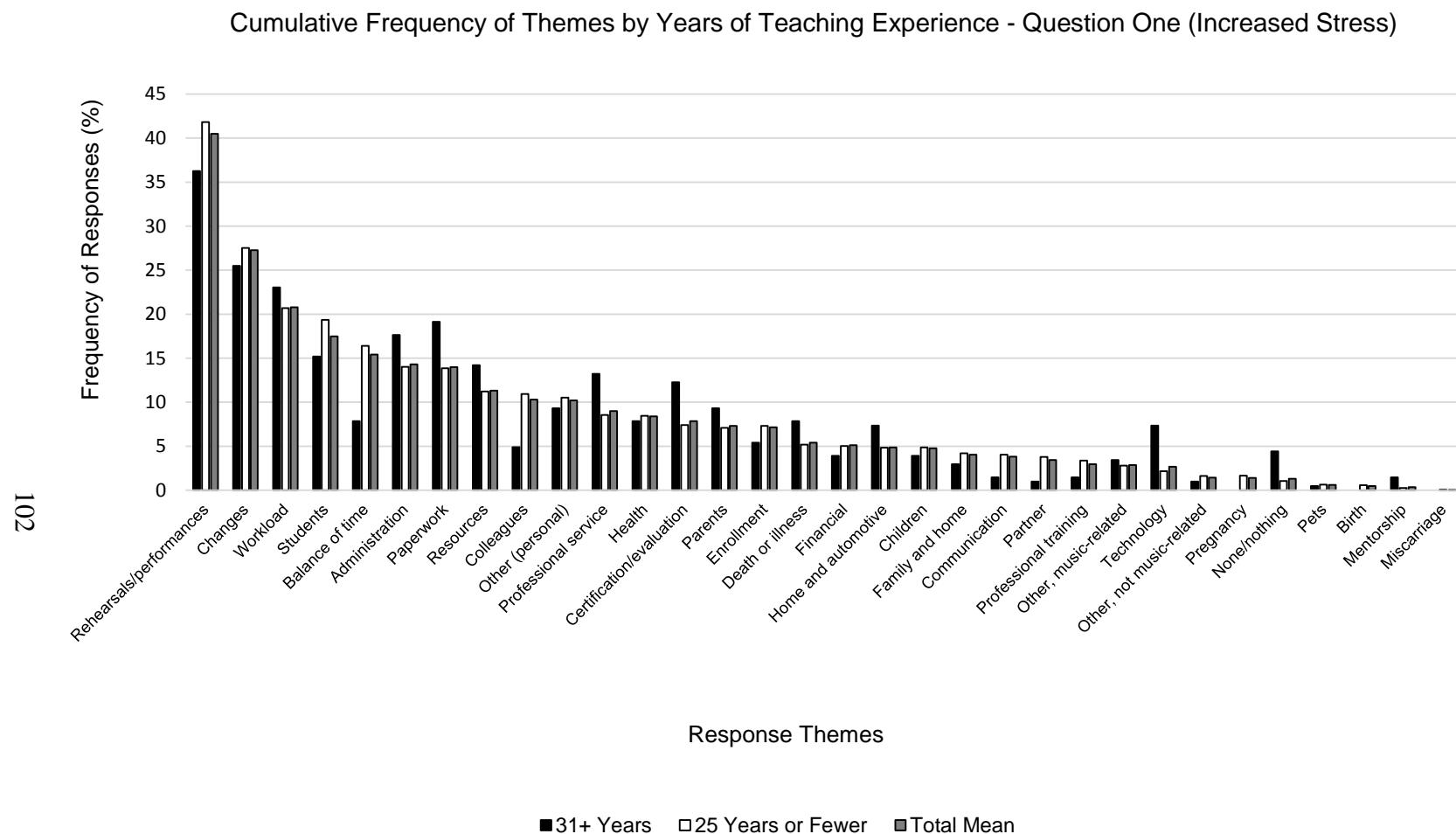


Figure 9. Frequency of coded themes within responses to open-ended question one (increased stress) by years of teaching experience demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

Table 18

Most Frequently Cited Themes for Teachers Relative to Years of Teaching Experience within Responses to Open-Ended Question Number Two (Eased Stress) – Cumulative Totals

Years of experience	Theme	f	% of total
31 years or more (n = 68)			
	Family and home	61	29.9
	Relaxation and mindfulness	61	29.9
	Health	60	29.4
	Socializing and communication	31	15.2
	Changes	26	12.8
	Leisure and hobbies (non-musical)	26	12.8
	General non-school accomplishment	25	12.3
	Workload	22	10.8
	Music	19	9.3
	Rest	18	8.9
25 years or fewer (n = 644)			
	Family and home	740	38.3
	Health	462	23.9
	Relaxation and mindfulness	378	19.6
	Socializing and communication	340	17.6
	Changes	285	14.8
	Leisure and hobbies (non-musical)	272	14.1
	Colleagues	230	11.9
	General non-school accomplishment	213	11.0
	Other (personal)	192	9.9
	Workload	190	9.8

Note. Frequency counts above were taken from cumulative total responses across all three surveys. Percent of total refers to the overall prevalence of each theme within cumulative responses from the identified demographic subgroup, not from all participant responses. Refer to the codebook in Table 2 for a full description of each theme. For a visual representation of frequencies for all 32 themes, see Figure 10.

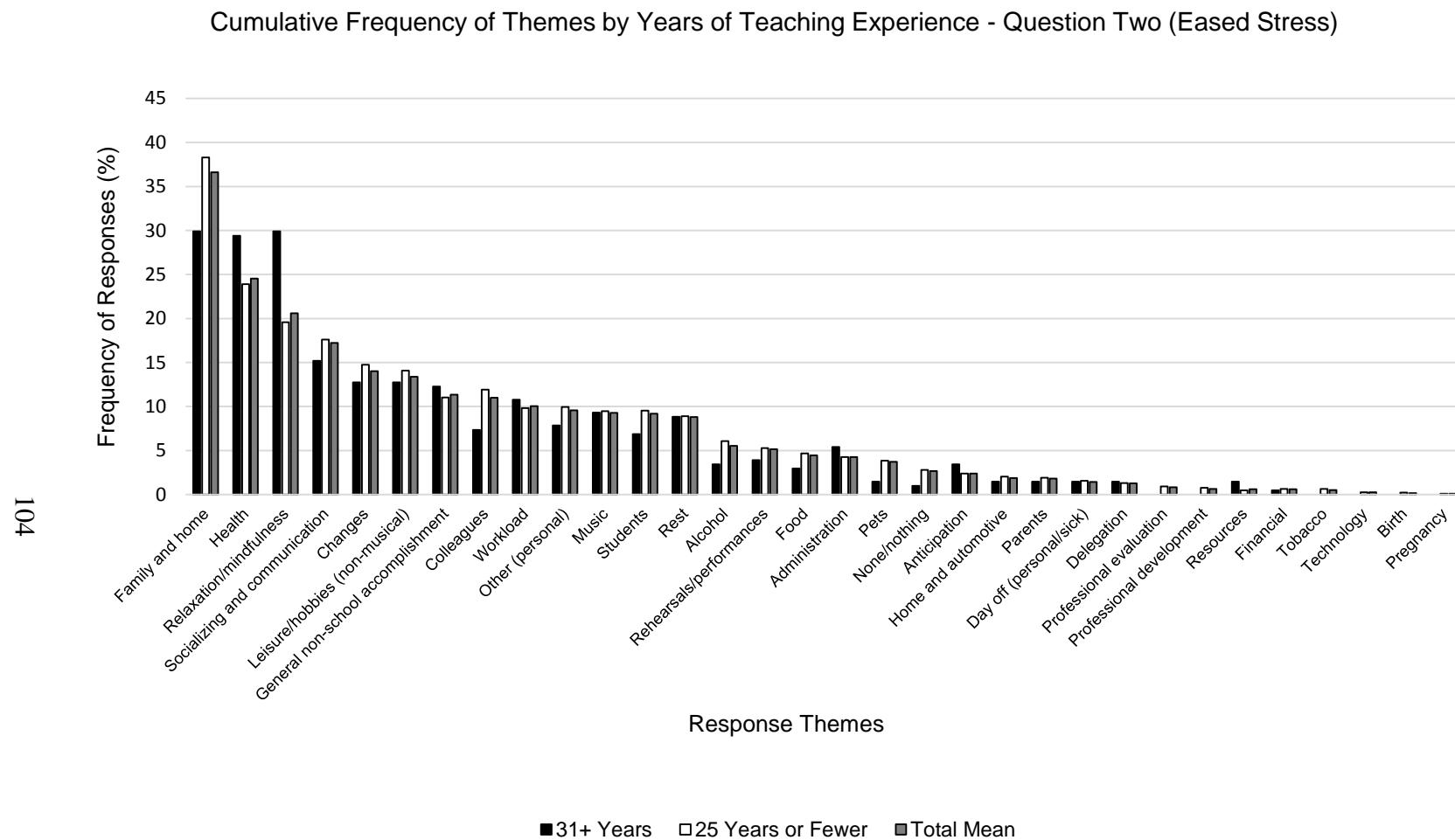


Figure 10. Frequency of coded themes within responses to open-ended question two (eased stress) by years of teaching experience demographic. Frequencies in this figure are reported as percentages and represent cumulative means across all three surveys. *Total Mean* is the mean frequency reported as a percentage of all responses from all participants.

CHAPTER 5

DISCUSSION

Introduction

The present study examined self-reported levels of stress among K-12 public school music teachers across a three-month period, both as a collective whole and relative to selected demographic subgroups. Also examined were emergent themes relative to participant self-identified increasers and easements of stress. Finally, the study considered the similarities and differences of stress themes relative to general levels of self-perceived stress within significantly different demographic subgroups. Notable findings and limitations of this study are discussed, recommendations for future research are suggested, and implications for various stakeholders are presented.

Self-Perceived Stress among K-12 Public School Music Teachers

Changes in Stress over Time (Research Question One)

Results from this study indicated that overall stress levels among music teachers tended to decrease over the first months of the fall academic term during which data were collected. The largest drop in stress levels occurred from the first month to the second, with an additional, smaller drop from the second month to the third. Survey One data collection occurred during the first two weeks of October. Each stress-related question within the online survey was worded to encourage participants to reflect on the previous month. Therefore, in the context of Survey One, responses concerning stress levels, increasers of stress, and easements of stress were based on events which occurred

primarily during the month of September. While it was not possible to determine the exact starting date of the academic term for each participant, it is likely that most had already begun the term by this time (i.e., early- to mid-September). However, many participants still would have been in the first few days or weeks of classes. Results suggest that the beginning of the fall academic term coincided with increased levels of stress among K-12 public school music teachers when compared to later months in the same term. This is consistent with the claim of Travers and Cooper (1996) who stated that “the teaching workload is very much dependent upon the time of year...It is important, therefore to see what effects this may have on the teachers” (p. 43). As noted by participants in the current study among responses to the increased stress question (see Results section for additional participant responses):

My stress has been pretty minimal in the past month. The beginning of the year is always stressful, but September is much less so than August.

The beginning of the school year and the many changes that come with it [were increasers of stress].

Beginning of the school year work has eased. I am getting used to my very busy school schedule.

Beginning of the school year is always stressful. The demand of the day and outside of classroom responsibilities

Discrepancies between what we are told to do by different administrators. Parents wanting ‘special’ things done for their student. Too much is expected in the first weeks of school.

Emergent Themes of Increased and Eased Stress (Research Question Three)

A qualitative investigation of responses to open-ended questions concerning increasers and easements of stress led to the creation of a two-part codebook of emergent

themes. Thirty-two themes were found relative to each question. Response themes were grouped into five broad categories for factors of increased stress and four broad categories for factors of eased stress (see Tables 1 and 2 for complete descriptions of each theme sorted by broad category). Frequencies and percentages were calculated for the prevalence of all themes within each individual set of survey responses, as well as collectively across results from all three surveys.

Increased stress response themes.

Rehearsals and performances. Among all responses to question one (increased stress), rehearsals and performances emerged as the most commonly cited theme. Interestingly, the frequency of this theme within participant responses increased in prevalence across each administration of the survey. This may be due to the fact that performance-based music classes and ensembles (e.g., band, choir, and orchestra) typically will have few if any public performances within the first weeks of the academic term. One notable exception would be high school marching band. The performance demands of this particular ensemble usually are based on the school football schedule, with the first performances often taking place much earlier in the term than those of other school music ensembles. Among all responses to Survey One, *marching band* was listed 52 times as an increaser of stress. Within these responses, participants noted:

The high volume of events at the beginning of the year for marching band

Too many marching band performances

Marching Band competitions, football games, multiple additional performances

The rehearsals and performances theme would seem to be unique to music teaching when considering only musical events. It is unclear from this study whether coaches or teachers of other performance-based courses would identify similar stressors relative to their professional positions. Also unclear is what the most frequently cited themes of increased stress would be among teachers of disciplines other than music. No theme similar to rehearsals and performances was found within the research referenced for this study concerning general teacher burnout, attrition, or stress. For music teachers in the present study, representative samples of responses within the rehearsals and performances theme included:

*Two public performances for different groups and age ranges four days apart.
Students missing my rehearsals/classes due to field trips, tests and illness*

Preparing students for auditions

Musical and choir trip

As we get closer to performances, stress increases.

Fall concert, upcoming auditions for students

School-related changes. The second most commonly cited theme of increased among participants across all surveys was school-related changes. Though similar to the theme of workload, the notable distinction of the changes theme from all others was found within the participants' mention of words such as "new," "changing," "different," "additional," "added," and so forth. Responses within this theme most frequently included changes relative to teaching load, school procedures, added responsibilities at school, and district or state mandates. As the three months of data collection occurred during the early part of a fall academic term, it stands to reason that participants might

still be in the process of implementing and navigating notable changes from previous years. It is unknown whether such changes would continue to cause similar amounts of stress over the course of an entire academic year. Representative responses of the school-related changes theme include:

My high school (this is the first year) has gone to rotating block schedule. I see my ensembles every other day. Have gone from 55 daily classes to 180 mins. one week and 270 mins the next

Too many music positions have been cut and the rest of us have to cover the classes and ensembles that are left.

New schedule, extra class load, unexpected classes

Unexpected increase in responsibilities at work

Additional work duties piling up, transition between marching season and concert season.

Workload. The third most commonly cited theme of increased stress was workload. Responses coded within this theme did not include specific mention of notable changes or extracurricular musical events (e.g., concerts and rehearsals), but rather of the participants' current workload in general, standard commitments outside the context of the school day (e.g., parent-teacher conferences and faculty meetings), and the overall school environment. The high prevalence of responses mentioning workload as a source of stress supports the findings of numerous other studies (see Hamann et al., 1987; Heston et al., 1996; Sandene, 1995; Scheib, 2006, for examples). Specific responses within the workload theme included:

Large workload

Long school days

Not being able to complete all the things I want to for my music teaching job

Not enough time at school to get tasks completed

Setting up seating charts and preparing materials for the 18 classes I meet with each week

Other emergent themes supporting findings from previous research.

In addition to the themes of rehearsals and performances, school-related changes, and workload, several other frequently cited themes from participants in this study align with results of previous research on music teacher and general teacher stress. Included among these are:

(a) students, including student discipline and classroom management issues (Gordon, 2002; Radocy & Heller, 1982); (b) balance of time (Blase, 1986; Shaw, 2014); (c) administration (Gardner, 2006; Gardner, 2010; Hamann et al., 1987); and (d) paperwork (Farber, 1984). It is concerning to note the consistent prevalence of such themes within related research over time, in some cases spanning three decades or more. It appears sufficient remedies or solutions to these issues have either not been found or have not been shown to exhibit long-term and widespread effectiveness among public school music teachers.

Emergent themes which do not seem to support findings from previous research. Participants within this study mentioned certain themes less frequently than expected based on related research literature. Though the researcher attempted to account for differences in semantics across all referenced studies, it is possible that occasional variations in the wording of themes in previous research were misinterpreted when comparing them with results of this study. Among the themes reported at a lower prevalence than expected based on previous research were: professional service,

including administrative duties and fundraising (Sandene, 1995); resources (e.g., departmental staffing) and enrollment (e.g., student scheduling problems; Scheib, 2003); and salary or financial concerns (Harrell et al., 2004; Hasty, 2007; Nimmo, 1986; Sandene, 1995). As salary has frequently been mentioned as a primary source of teacher stress across multiple decades of research, the relative scarcity of its mention within participant responses to the current study was surprising. It is possible that the nature of the questions presented (i.e., questions designed to encourage reflection across one month intervals) negatively influenced the presence of this theme. Rather than a short-term issue, salary may be more of a broad, long-term concern for the participants in this study. Salary may also be something to which teachers give careful attention only at certain points throughout the year. It would be interesting to track the prevalence of this theme across a complete academic year, as well as through reflections on stress not limited to one-month intervals.

Eased stress response themes

Family and home. Spending time with family and/or spending time at home were the most commonly mentioned easements of stress across all survey responses to open-ended question two (eased stress). Within the data coding process, the concept of family was considered to include significant personal relationships with a spouse, parents, children, extended family, partner, significant other, and so forth. This theme was closely related to the balance of time theme within responses to open-ended question one (increased stress), though responses in the context of question two focused on the positive aspects of balance between work and family or work and home. The frequent

inclusion of the family and home theme within this study supports the results of previous research (see Heston et al., 1996; Shaw, 2014, for examples). Responses within this theme included:

Supportive family, great marriage

My family time at home

Being with my grandson

My husband/family

Doing fun things at home with my family

Health. The second most commonly cited theme across all survey responses regarding the easement of stress was that of health. Responses within this theme included any mention of topics such as overall health, exercise, diet, prescription medication, positive mental attitude, or therapy. The prevalence of this theme within the present study supports the findings of previous research. For example, among several recommendations made by Radocy and Heller (1982), they suggested music teachers consider taking time during the day to enjoy a vigorous walk as a means for reducing stress. Similarly, Austin et al. (2005) found exercise to be an effective coping mechanism for handling stress among teachers. Kaspereen (2012) found that relaxation therapy could help reduce stress among high school teachers and staff members. Each of the following participant responses were representative of those coded within the health theme in the present study:

Exercise and taking walks

Trying to eat right and get a good nights sleep

Trying to accept the fact that I can only do what I can do

Knowing that I work hard and have worked to the best of my ability

Therapy with a licensed therapist

Relaxation and mindfulness. The third most commonly cited theme of eased stress was relaxation and mindfulness. This theme encompassed a variety of topics including prayer, spirituality, meditation, yoga, and intentional increases in down time, among others. The frequent mention of relaxation and mindfulness as important means for coping with stress among teachers in this study supports the findings of recent literature in the field. For example, Frank, Reibel, and Broderick (2015) suggested that training programs in mindfulness-based stress reduction may help teachers partially mitigate the effects of stress. Hartwick and Kang (2013) found a large number of teachers who used various spiritual practices to manage work-related stressors. In the present study, typical responses within the relaxation and mindfulness theme resembled the following:

Meditation and prayer. I meditate and pray nearly every day.

Wearing comfy clothes and slippers

Long, hot baths

Unwinding in evenings

I also pray and ask for guidance. I firmly believe that when God brings people into the mix it is because He has taken me through a similar experience, and what I have learned is helpful to them. We all have people we go to for assistance. (Consider this survey, it is a form of asking people what their experiences have taught them while working in a stressful job).

Other emergent themes supporting findings from previous research. Two additional frequently noted themes by participants in this study support the findings of

previous research: (a) socializing and communication, and (b) colleagues. Socializing and communication have been mentioned in the literature in the context of preventing teacher burnout and attrition, often in terms of maintaining healthy relationships outside of school (Clandinin et al., 2015). However, as noted by numerous participants in the present study, socializing and communication among colleagues within the school building may also be important in the reduction of teacher stress and the prevention of attrition. Closely related to this finding was the prevalence of the colleagues theme. Collegial support has been shown to reduce stress, especially in early-career teachers, thereby serving to aid in the prevention of attrition (Buchanan et al., 2013; Clandinin et al., 2015; Greiner & Smith, 2009).

Emergent themes which do not seem to support findings from previous research. Due to the relatively small percentage of participants who noted certain themes within this study, not all of the results support the findings of previous research. For example, McLain (2005) found that parental support may help to prevent music teacher burnout. Students, both in terms of behavior and support of the teacher, have also been shown to mitigate the stresses of music teaching (Harrell et al., 2004; Heston et al., 1996). Professional development or skills training may help teachers effectively manage stress, potentially leading to less burnout and attrition in general (Buchanan et al., 2013; Wiley, 2000). None of these topics was present among the top 10 most frequently occurring themes within responses to the present study.

Perhaps the most noteworthy lack of representation of themes concerning the easement of stress within this study was the low prevalence of the administration theme

(i.e., administrative support, assistance, or communication). Positive interactions with administration have been shown to boost morale, increase retention, reduce stress, and help prevent teacher attrition and burnout (Gardner, 2006; Madsen & Hancock, 2002; McLain, 2005; Sandene, 1995). Administrative support clearly is an important component of teacher stress reduction, yet results of this study show that the administration theme was not listed among the top 15 factors which served to ease music teacher stress. Comparisons of these results with similar future studies of non-music teachers would serve to highlight similarities or differences in trends relative to administrator influence on teacher stress.

Stress Level Comparisons by Selected Demographic Factors (Research Question Two) and Similarities and Differences of Stress Themes Relative to Significantly Different Demographic Subgroups (Research Question Four)

Overview.

Of the seven demographic variables considered as part of research question two, four were shown to vary significantly based on Perceived Stress Scale scores: age, parenthood status, grade/school levels taught, and years of teaching experience. A notable, though nonsignificant difference was also found within a fifth variable, participant gender. While significant variations in PSS scores help identify general differences in overall stress among demographic subgroups of music teachers, considering these variations in tandem with the similarities and differences among responses to the open-ended questions of stress provides a much deeper, more comprehensive answer to the research questions. Many of the findings uncovered within

these mixed-method comparisons support the findings of other related studies.

Age. The significant difference found in mean PSS scores between the oldest participants (i.e., participants aged 50 years and older) and participants under age 50 supports earlier research on music teacher attrition and burnout. For example, Hancock (2008) found that younger teachers (i.e., teachers under age 40) were at higher risk of attrition than older teachers. Among suburban teachers, Farber (1984) similarly suggested that participants aged 21-44 years reported more frequent and intense feelings of burnout than those aged 45 to 65.

Considering the risks of burnout and attrition tend to be highest for young teachers, it would stand to reason that the oldest group of teachers in the current study reported experiencing less stress on average than the younger teachers. Those who experienced high levels of stress early in their career may have previously left the profession due to burnout or attrition. As a result, these potential participants (i.e., older music teachers with high PSS scores) would not have met the inclusion criterion for this study.

Among the largest differences in frequency of themes mentioned for increased stress between participants aged 50 years and older and those under age 50, younger teachers noted both the rehearsals and performances theme and the balance of time theme more frequently than older teachers. At the time data were collected, some of the younger participants may have been seeking to gain tenure and in the early stages of developing a professional identity. For these teachers, it is possible that a fear of poor public performances, a fear of not gaining tenure, or inappropriate expectations of student

performance abilities lead to overall increases in stress. In terms of the balancing time theme, younger teachers overall are more likely to have young children at home than older teachers, may be in the early stages of making long-term relationship decisions, or may be working through the challenges of purchasing and settling into a first home.

Each of these major life events seem to be closely linked to time management and balance. Paperwork seemed to be more of a stressor for older teachers than for younger teachers. Responses from older participants suggest that they may feel more burdened by excess paperwork, standardized testing, and new assessment procedures than their younger colleagues.

The largest difference in response frequency concerning the easement of stress based on participant age was the theme of family and home. The second largest difference in frequency across all responses was the relaxation and mindfulness theme. Older teachers mentioned both of these themes more frequently than younger teachers. It cannot be determined whether young participants value time spent with family any more or less than older participants. However, the large difference in response frequency of this theme between the two age groups would suggest that the oldest teachers find time spent with loved ones and time spent at home to have a more significant mitigating effect on stress than younger teachers. Relaxation and mindfulness may be more important to older participants for a number of reasons. The older teachers in this study were more likely to have adult children, in many cases no longer living in their house. The freedom of an “empty nest” may be liberating to those who raised children for much of the early portions of their careers. Older participants may also have a better understanding of what

personally helps them relax and find balance than younger participants. It is interesting to note that alcohol, while not among the top 10 themes within all responses, had the third largest disparity in overall frequency between the two age groups. Alcohol consumption was listed as an easement of stress much more frequently for younger teachers than for their older colleagues.

Gender. A consensus does not seem to exist within the literature of teacher attrition, burnout, and stress whether large differences in overall stress should be expected based on gender. Borg, Riding, and Falzon (1991) found that while mean stress levels were similar between women and men, both job satisfaction and career commitment were significantly different. Kertz-Welzel (2009) suggested that men and women teachers are affected differently by burnout, based in part on overall school environment. Hancock (2008) concluded that women music teachers were at a higher risk of attrition than men. Similarly, Gardner (2006) noted that certain predictors of music teacher attrition functioned differently and on a different magnitude based on gender. The differences reported in the current study do not seem to support Gordon (2002) who reported that men faced significantly more stress than women regarding classroom management and discipline in the music classroom.

Within the present study, neither the minor differences found in PSS scores based on participant gender, nor the similarities in stress themes mentioned by participants offer much clarity on the issue. Considering the largest differences in prevalence of increased stress themes among responses based on gender, women reported both the rehearsals and performances theme and the paperwork theme more frequently than men. However, the

differences in representation for both themes was less than five percent. Additionally, few if any individual responses overtly help explain such differences between men and women relative to the two themes. It may be concluded, then, that even the most notable differences in factors of increased stress for the music teachers in this study were minimal based on gender.

The largest differences in prevalence of eased stress themes relative to gender were more pronounced than those of increased stress. When considering the rank of themes based on order of prevalence within responses by gender, women reported each of the top three themes more frequently than men. Socializing and communication was the theme with the largest difference in overall representation based on gender. This was followed in descending order by the themes of colleagues and health. Within the socializing and communication theme, individual responses from female participants tended to include words such as “talking,” “communication,” “chatting,” “spending time,” and “friends” more often than responses from male participants. Also more common from women than from men were responses that paired the socializing and communication theme with the colleagues theme. When considering individual responses, it is not clear why women mentioned the health theme more often than men as a factor relative to eased stress. Overall, female music teachers seem to find socializing, communication, and supportive colleagues to be more effective mitigating factors of stress than do male music teachers.

Parenthood status. Music teachers who were parents to at least one child reported significantly less stress overall than those who did not have children. The

largest difference in theme representation between responses from parent and non-parent participants regarding increased stress was the children theme. It seems logical that parents would list this theme much more frequently than non-parents. However, it is interesting to note that while the difference in prevalence of this theme between the two groups was larger than any other difference, stress caused by children was not one of the top 10 themes noted by parent participants. The second largest disparity in overall theme representation was that of rehearsals and performances, present more frequently among non-parent responses than parent responses. There is no clear indication across the three sets of response data why this was the case. The third most substantial difference in increased stress theme representation based on parenthood status was the students theme. Parent participants listed this theme much less frequently than non-parents. It may be possible that music teachers who are parents tend to be less affected by student issues due to their personal experiences in raising a child.

The largest difference in theme representation among responses to eased stress based on parenthood status was socializing and communication, followed by non-musical leisure and hobbies. Non-parent participants mentioned both themes more frequently than those who were parents. An investigation of individual responses revealed that the parent participants often mentioned time spent with their own children as an easement of stress within the family and home theme. As a result, this may partially account for the disparities found between the prevalence of the socializing and communication theme, as well as the prevalence of the non-musical leisure and hobbies theme.

Grade/school levels taught. Considering participants who reported teaching in

only one grade/school level, music teachers who taught exclusively in the elementary grades reported less stress overall than those who taught only in the middle or secondary levels. This supports the findings of Hancock (2008), who found that secondary music teachers were at higher risk of attrition than elementary music teachers. These results also provide support for the themes uncovered within Robinson's (2010) qualitative investigation of teachers who left positions as middle and secondary level band directors to become general music teachers, frequently at the elementary level.

No significant difference in overall stress was found based on the number of grade/school levels taught (i.e., one, two, or all three K-12 school level options listed in the demographic items of Survey One). As Gardner (2010) suggested, music teachers are much more likely than other teachers to work in multiple buildings or grade levels. Responding to items such as the two open-ended questions within this study may have been particularly challenging for teachers with multiple administrators, classes, students, classrooms, colleagues, and so forth. In terms of PSS scores, it is possible that some of the teachers who work in more than one school building may find the travel periods in their daily schedule to be more cathartic than stressful.

The largest disparity between elementary only music teachers and middle or secondary level only music teachers relative to increased stress was found within the rehearsals and performances theme. Upper level teachers mentioned this theme more frequently than elementary level teachers across all survey responses. Though it is unclear based on the survey results whether teachers of older students tend to have more performances than teachers of younger students, responses suggest that performances in

the upper grade levels may be of a more public or high stakes nature than elementary school performances. This may be an area for additional investigation. The second largest disparity in theme prevalence among all responses considered for this analysis was within the certification and evaluation theme, noted more often among the elementary only teachers than the middle or upper level only teachers. The researcher could find no clear explanation for this difference among responses to the open-ended survey questions. The third largest disparity in themes of increased stress, the parents theme, was mentioned more frequently by middle and upper level only teachers than elementary only teachers. Possible explanations for this result may be similar in nature to those suggested for the rehearsals and performances theme. Additionally, parents of older children may tend to have more of a financial investment in their child's music education than parents of children in the elementary level. For example, students in upper level performance-based instrumental music classes often play on more expensive instruments than students in beginning band or orchestra classes. Parents may also tend to place more emphasis on performance skills in the upper levels as college auditions and scholarships become more relevant to their children. Further, a larger percentage of parents may be more involved in school activities in the upper levels than in the elementary levels as their children are likely more active in after school or weekend functions. School trips, festivals, competitions, auditions, musicals, and so forth typically require a great deal of parental involvement to ensure success.

Concerning factors of eased stress, music teachers who worked only with middle or upper level students mentioned the themes of students, family and home, and school-

related changes more frequently than those who worked only with elementary level students. Individual responses within the students theme by teachers in the middle and upper levels referenced the overall joys of working with advanced student musicians, personal connections and relationships made with students, and celebrations of student achievements. Spending time with family or spending time at home was noted primarily in the context of weekends or evenings without after-school rehearsals or other school-related responsibilities. School-related changes encompassed a wide variety of responses within both demographic subgroups, though responses which specifically mentioned the ending of marching band season or school musical rehearsals and performances were notably prevalent among secondary teachers. This is not overly surprising considering data collection occurred during the fall term (i.e., during the typical marching band and musical “seasons”).

Years of teaching experience. Participants who had taught 31 or more years reported significantly lower stress overall than those with 25 or fewer years of teaching experience. Though this demographic variable is similar to participant age, years of experience and age are not always directly correlated. This point has been noted in related literature concerning teachers who enter the profession, leave for various reasons, then return to the profession after an extend absence (see Harrell et al., 2004; Madsen & Hancock, 2002, for examples). Within the present study, numerous participants were outliers in terms of age versus years of teaching experience (e.g., the 70-year-old instrumental music teacher with 29 years of experience, the 51-year-old elementary teacher with three years of experience, and the 45-year-old first-year teacher).

Among responses to increased stress, the two largest differences in prevalence of themes mentioned between the most veteran teachers and those with fewer years of experience were the themes of balance of time and colleagues. Teachers with 25 or fewer years of teaching experience mentioned both of these themes much more frequently than those with 31 or more years of experience. These differences may be explained simply by the overall lower levels of general stress (i.e., PSS scores) among veteran teachers. Another possible explanation stems from the fact that some of the most experienced teachers in this study were near retirement, as indicated within numerous responses to open-ended question two. As a result, these most veteran teachers may have been choosing to ignore negative issues with colleagues for the remainder of their academic service (i.e., the teachers near retirement were trying to finish the school year without allowing others to interfere with their eager anticipation of retirement).

Additionally, as was uncovered within the age demographic, teachers with 31 or more years of experience were more likely than less experienced teachers to have adult children and find more enjoyment (i.e., easement of stress) in spending time with family. Contrary to the noted differences between the balance of time and colleagues themes, teachers with 31 or more years of experience mentioned paperwork and technology more frequently than less experienced teachers as increasers of stress. Responses suggest that music teachers who have been in established routines for three decades or more find new mandates, standardized testing procedures, and technology initiatives to be a nuisance, thereby increasing their overall stress.

Regarding differences in frequencies of eased stress themes, teachers with 25 or

fewer years of experience reported the relaxation and mindfulness theme much less often than teachers with 31 or more years of teaching experience. Specific responses do not offer a great deal of insight into why this was the case. The health theme was also mentioned less frequently among the less experienced teachers. Participants with the most experience tended to mention issues such as successful surgeries, maintaining an overall positive mental attitude or approach to life and teaching, and health in general more frequently than participants with fewer years of experience. Interestingly, the most veteran teachers listed the family and home theme less frequently than the less experienced teachers. Individual responses suggest that teachers with 31 or more years of experience may have been less concerned with time spent at home or with family in the short term as impending retirements or similar career changes would potentially have a much more significant long-term positive impact relative to this theme. Within responses to open-ended question two, specifically concerning eased stress relative to retirement, participants noted:

The knowledge I can retire on any day

Keeping in mind that retirement is near

Knowing that I am retired [as a music teacher and now working part-time] and can walk out the door anytime I want to

The knowledge that I can leave the educational world at any time either through resignation or retirement

The fact that I will probably retire after this school year. I had planned on teaching longer but not under these conditions.

Knowing that I will retire at the end of this year and won't have to deal with the conditions after that

Limitations and Future Research

As with all research projects, the present study contains potential and specific limitations. One potential limitation uncovered during the qualitative coding process resulted from the wording of the two open-ended questions. Due to the overall imbalance of responses mentioning school-related themes compared to all other broad categories, it may be possible that some participants were unsure whether to provide comments based on general life stressors instead of, or in addition to, stressors specific to their professional employment. However, it may also be possible that an overwhelming majority of stressors for K-12 public school music teachers directly relate to the school environment and teaching in general. Future research similar to the present study may be strengthened by clearer wording of survey questions or instructions.

Another potential limitation concerns the duration of the data collection process. Though data were collected over the course of three consecutive months, this was not a sufficient amount of time to track stress levels and themes of stress across a full academic term. To improve future study designs, it may be beneficial to extend data collection to five or more months, thereby targeting a minimum of one academic semester. The potential downfalls of doing so would be participant fatigue and attrition. Evidence supporting these concerns exists within the attrition experienced in this study. Exactly 50% of participants who initially started Survey One ultimately went on to fully complete Survey Three.

From a qualitative perspective, a specific limitation of the present study exists regarding the impersonal nature of data collection. Though participants were encouraged

to respond anonymously to open-ended questions over time, targeting a small number of individuals for in-depth follow-up interviews would likely produce richer responses. Such interactions might lead to a more comprehensive understanding of causes and easements of stress. However, findings from a small number of interviews would be less generalizable to the population due to the small sample size.

Future research is also needed to compare stress over time and emergent themes of stress among music teachers with teachers from other disciplines. By far the most frequently cited theme of increased stress within the current study was rehearsals and performances. It would seem such events would not be of similar concern to teachers outside of music. It would be interesting to uncover the primary factors of increased and eased stress among teachers in other areas, drawing comparisons to the results of this study.

Finally, future studies comparing stress among teachers from different music content areas would add to a collective understanding of music teacher stress and its similarities and differences across all types of positions within the profession. Within the present study, the researcher found it difficult to make such comparisons due to the patchwork nature of many participants' job assignments. Exclusive of elementary general music teachers, participants in this study who taught exclusively in one content area (e.g., orchestra only, band only, or vocal music only) were in the minority, and numerous others who taught in one of these three primary areas also had additional teaching responsibilities (e.g., teaching courses in music theory, music history, or music technology).

Implications

Results of the present study may be of value to various stakeholders, including current K-12 public school music teachers, preservice teachers, teacher trainers/training programs, cooperating mentor teachers, and school administrators. Current music teachers may wish to compare their own levels, causes, and easements of stress to those reported by their colleagues in this study. The findings may assist current educators who are considering a career move, either within or out of the profession. For example, it may comfort middle-aged or mid-career teachers to know that their oldest and most veteran colleagues tended to report the lowest levels of overall stress among all music teachers in this study. Similarly, early-career teachers may benefit from the knowledge that the heightened levels of stress reported in the literature for their demographic subgroup tend to wane as age and years of teaching experience increase. Also of potential interest and benefit to all in-service music teachers is the list of common themes regarding the sources and easements of stress relative to demographic factors collected within this study. Teachers may find edification in the comparison of their own self-identified themes of stress relative to peers of similar demographic classifications.

Preservice music teachers may find the present study useful in selecting future short- and long-term career paths. Understanding the extant trends relative to stress among various subgroups of music teachers may help young educators identify teaching positions in which they may be more or less likely to find success. For instance, preservice teachers who struggle with performance anxiety or generally heightened levels of overall stress may find more success teaching in an elementary general music setting

than leading a competitive high school performing ensemble. Similar to early-career teachers, teacher candidates preparing to enter the field may benefit from knowing that the first years of teaching tend to correlate with higher levels of stress than the final years of a teaching career. Further, the relative prevalence of certain stress themes mentioned in this study by early-career teachers compared with mid- and late-career teachers may be of value. Specifically, financial concerns, balance of time, and parenthood were all noted much more frequently as increasers of stress by early-career teachers than by the more experienced teachers.

Cooperating mentor teachers and music teacher trainers/training programs may find the results of this study useful when providing guidance for preservice educators, specifically when making recommendations based on individual demographics and desired teaching level or content area. Such individuals and programs should consider whether they are adequately preparing preservice teachers to manage the time demands of the profession, frequently noted by young and early-career teachers in this study within the balance of time theme. Honest discussions of the differences in stress and stress management based on gender may also serve to prepare young educators for the realities of life as a music teacher. Additionally, results of this study might cause teacher trainers and training programs to devote more time to the topic of parenthood and how starting a family may affect a young teacher's professional life. As Edelman (2016) found in his exploration of cooperating music teachers' perceptions, stress management was the second highest-rated among 40 preselected teacher traits concerning the prediction of a successful student teaching experience.

School administrators may benefit from the realization that the first month or two of the fall term tend to correlate with higher levels of stress among music teachers than later months. Particularly in the secondary levels, public performances sometimes occur within the first days of the term, meaning a quick transition for music teachers from the start of the school year to concert and performance preparations. School leaders may also consider making efforts to create and maintain open lines of communication with staff members as a perceived lack of administrative support and communication seems to be a frequent cause of stress, specifically among music teachers. Finally, administrators likely would benefit from the understanding that concerts, performances, and changes to the school schedule that affect rehearsal time seem to be a significant source of stress among music teachers.

Results of this study should not be used as a checklist for attempting to predetermine which music teachers will be more or less apt to suffer from burnout or attrition. As previously noted, stress is an experience unique to each person, and the ways it will affect an individual cannot always be predicted. However, by understanding the general underlying factors of increased and eased stress across time and among various demographic subgroups, effective methods of individualized support and stress management may be created and implemented for public school music teachers.

APPENDIX A

Email Invitations and Reminders Sent to Participants

Invitation to Participate in a Brief Online Research Study

Dear Music Educator-

You are being asked to take part in a research study exploring the perceived stress of public school music teachers. You are being asked to participate in this study if you are currently employed at least half-time in a K-12 public school setting with a primary job assignment as a music teacher. The survey should take approximately 10 minutes to complete, and your responses will remain anonymous unless you elect to include specific identifying information within your responses. This is a 3-part study consisting of the current survey and two shorter follow-up surveys administered at one month intervals. Your participation in this study is voluntary, and you may withdraw at any time without penalty. Thank you for your assistance in this research project!

To begin the survey, please click: <http://goo.gl/forms/ovMbVRHtAA>

Justin Doss
jad4c0@mail.umkc.edu

Figure A1. Initial invitation email and social media posting to participate in this study. The format (e.g., font and size) of the text may have varied depending on the digital medium utilized.

Perceived Stress Study - Your Continued Participation is Requested

Dear Music Educator-

Thank you for your responses to the first survey as part of this research study exploring the perceived stress of public school music teachers. You are being asked to continue this study by completing the second survey linked below. The survey should take approximately 5 minutes to complete, and your responses will remain anonymous unless you elect to include specific identifying information within your responses. As a reminder, this is a 3-part study. Your participation is voluntary, and you may withdraw at any time without penalty. Thank you for your assistance in this research project!

To begin the survey, please click: <http://goo.gl/forms/qndhsj5l7F>

Justin Doss
jad4c0@mail.umkc.edu

Figure A2. Email invitation to access Survey Two. The format (e.g., font and size) of the text may have varied depending on the digital medium utilized.

Perceived Stress Study - Your Continued Participation is Requested

Dear Music Educator-

Thank you for your responses to the first survey as part of this research study exploring the perceived stress of public school music teachers. You are being asked to continue this study by completing the second survey linked below. The survey should take approximately 5 minutes to complete, and your responses will remain anonymous unless you elect to include specific identifying information within your responses.

This is a second and final request for your continued participation. As a reminder, this is a 3-part study. Your participation is voluntary, and you may withdraw at any time without penalty. Thank you for your assistance in this research project!

To begin the survey, please click: <http://goo.gl/forms/qndhsj5l7F>

Justin Doss
jad4c0@mail.umkc.edu

** If you have already completed this second survey, your unique identification codes from survey #1 and survey #2 did not match, and unfortunately your responses could not be paired. You may either ignore this e-mail or attempt to contact the researcher at the e-mail address above to try and re-create the code used in survey #1. Thank you!

Figure A3. Reminder email to access Survey Two. The format (e.g., font and size) of the text may have varied depending on the digital medium utilized.

Perceived Stress Study - Your Continued (Final) Participation is Requested

Dear Music Educator-

Thank you for your responses to the first two surveys as part of this research study exploring the perceived stress of public school music teachers. You are being asked to continue this study by completing the third (and final) survey linked below. The survey should take approximately 5 minutes to complete, and your responses will remain anonymous unless you elect to include specific identifying information within your responses. Your participation is voluntary, and you may withdraw at any time without penalty. Thank you for your assistance in this research project!

To begin the survey, please click: <http://goo.gl/forms/Z48UcQNdrD>

Justin Doss
jad4c0@mail.umkc.edu

Figure A4. Email invitation to access Survey Three. The format (e.g., font and size) of the text may have varied depending on the digital medium utilized.

Perceived Stress Study - Your Continued (Final) Participation is Requested

Dear Music Educator-

Thank you for your responses to the first two surveys as part of this research study exploring the perceived stress of public school music teachers. You are being asked to continue this study by completing the third (and final) survey linked below. The survey should take approximately 5 minutes to complete, and your responses will remain anonymous unless you elect to include specific identifying information within your responses.

This is a second and final request for your continued participation. Your participation is voluntary, and you may withdraw at any time without penalty. Thank you for your assistance in this research project!

To begin the survey, please click: <http://goo.gl/forms/Z48UcQNdrD>

Justin Doss
jad4c0@mail.umkc.edu

** If you have already completed this third survey, please disregard this reminder e-mail. Thank you again for your assistance!

Figure A5. Reminder email to access Survey Three. The format (e.g., font and size) of the text may have varied depending on the digital medium utilized.

APPENDIX B

Additional Participant Demographic Information

Table B1

Additional Participant Personal Demographic Characteristics – Parenthood Status

Category	n	% of total
Total number of children		
0	360	46.8
1	97	12.6
2	192	24.9
3	78	10.1
4	33	4.3
5	6	0.8
6+	4	0.5
Participants with at least one child aged		
0-5	123	16.0
6-11	120	15.6
12-17	119	15.5
18+	191	24.8

Table B2

Additional Participant Professional Demographic Characteristics – Content Taught

Characteristic	n	% of total
Band		
Elementary	114	14.8
Middle school/jr. high	236	30.6
High school concert	199	25.8
High school marching	184	23.9
High school jazz	140	18.2
High school pep	150	19.5
Any <i>band</i> selected	373	48.4
Orchestra		
Elementary	49	6.4
Middle school/jr. high	66	8.6
High school	52	6.8
High school pit orchestra	52	6.8
Any <i>orchestra</i> selected	156	20.3
Vocal		
Middle school/jr. high	145	18.8
High school	109	14.2
Any <i>vocal</i> selected	206	26.8
General/appreciation		
Elementary	278	36.1
Middle school/jr. high	131	17.0
High school	69	9.0
Any <i>general/appreciation</i> selected	419	54.5
Other		
Percussion specialist	36	4.7
Music theory	83	10.8
Music history	36	4.7
Music technology	29	3.8
Other	163	21.2
Any <i>other</i> selected	269	34.9

Note. Content such as elementary vocal, middle school jazz band, high school jazz combo, mariachi, and guitar were not included as options in Survey One. These and any other ensembles entered were counted under the category of *Other*.

Table B3

Additional Participant Personal Demographic Characteristics – Race/Ethnicity

Category	n	% of total
Race/ethnicity		
White/Caucasian	731	94.9
Other/Prefer not to answer	10	1.3
Hispanic/Latino	9	1.2
Asian	7	0.9
Black/African American	7	0.9
Two or more entered	4	0.5
American Indian	2	0.3
Marital status		
Married	532	69.1
Single	154	20.0
Divorced	34	4.4
Cohabitating	25	3.2
Engaged	19	2.5
Widow/Widower	3	0.4
Other/Prefer not to answer	2	0.3
Separated	1	0.1

Note. Race classifications are based on the 2010 United States Census (U.S. Census Bureau, 2010). However, certain classifications have been truncated or omitted for the purposes of this table (e.g., *American Indian or Alaska Native* is listed as *American Indian* as no participants indicated *Alaska Native* within their responses. Also, the category containing *Native Hawaiian* is not listed above as no participant listed it exclusively.) Additionally, as numerous participants entered *Caucasian*, the term was added to the *White* classification for this table.

APPENDIX C

Online Surveys

Perceived Stress in Music Teachers

You are being asked to take part in a research study because you may currently be a K-12 public school music teacher in the United States. The researchers in this study are Justin Doss, a current IPhD student at the University of Missouri-Kansas City (jad4c@mail.umkc.edu), and Joseph Parisi, faculty at the University of Missouri-Kansas City (parisijo@umkc.edu). The purpose of this study is to explore the perceived stress of public school music teachers.

You are being asked to participate in this study if you are currently employed at least half-time in a K-12 public school setting with a primary job assignment as a music teacher. The survey should take approximately 10 minutes to complete, and your responses will remain anonymous unless you elect to include specific identifying information within your responses. All responses will be password-protected within the Google Forms server, and will be accessible only by the researchers and trained UMKC graduate student research assistants. Your e-mail address will not be included in the research report.

Please note that this is a 3-part study consisting of the current survey and two shorter follow-up surveys administered at one month intervals.

You will neither directly benefit from, nor receive compensation for this research. The risks associated with this survey are minimal, and are no more severe than what a person would expect to encounter in normal daily life.

Your participation in this study is voluntary, and you may withdraw at any time without penalty.

Thank you for your assistance in this research project!

* Required

Demographic Information

1. Age *

Current age in years (Ex. 40)

.....
2. Race/Ethnicity *

.....
3. Gender *

Mark only one oval.

Female

Male

Other:

4. Marital Status *

Mark only one oval.

- Single
- Married
- Divorced
- Separated
- Widow/Widower
- Cohabiting
- Engaged
- Other: _____

Unique Identification Code for Follow-Up Surveys

Please create a unique identification code below by entering the following:

**5. First letter of last name, mm/dd of
birthday, and last 2 digits of your school
phone number ***

Ex. D081528

Current Employment Status

6. Are you currently employed at least half-time in a public school setting (K-12), with a primary job assignment as a music teacher? *

Mark only one oval.

- Yes
- No *Stop filling out this form.*

Teaching Assignment

7. Current K-12 grade level(s) taught *

(check all that apply - music classes only)

Check all that apply.

- Elementary
- Middle school/Junior high
- High school
- Other: _____

8. Current K-12 music content taught *

(check all that apply)
Check all that apply.

- Elementary school band
- Middle school band
- High school concert band
- High school marching band
- High school jazz band
- High school pep band
- Percussion specialist
- Elementary school orchestra
- Middle school orchestra
- High school orchestra
- High school pit orchestra
- Elementary school general music
- Middle school general music/music appreciation
- Middle school vocal music
- High school vocal music
- High school general music/music appreciation
- Music theory
- Music history
- Music technology
- Other:

9. Total number of years taught (K-12 public school music, half-time or more), including this year. *

(Ex. 12)

Parenthood Status

10. How many living children do you have?

Mark only one oval.

- 0 *Skip to question 15.*
- 1
- 2
- 3
- 4
- 5
- 6 or more

Age of Children

11. How many of your children are between the ages of 0 and 5 years?

Mark only one oval.

- 0
- 1
- 2
- 3
- 4
- 5
- 6 or more

12. How many of your children are between the ages of 6 and 11 years?

Mark only one oval.

- 0
- 1
- 2
- 3
- 4
- 5
- 6 or more

13. How many of your children are between the ages of 12 and 17 years?

Mark only one oval.

- 0
- 1
- 2
- 3
- 4
- 5
- 6 or more

14. How many of your children are aged 18 years or older?

Mark only one oval.

- 0
- 1
- 2
- 3
- 4
- 5
- 6 or more

Perceived Stress Scale - 10 Item

The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, please indicate your response by checking the circle representing HOW OFTEN you felt or thought a certain way.

15. 1. In the last month, how often have you been upset because of something that happened unexpectedly? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0	1	2	3	4	
Never	<input type="radio"/> Very often				

16. 2. In the last month, how often have you felt that you were unable to control the important things in your life? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0	1	2	3	4	
Never	<input type="radio"/> Very often				

17. 3. In the last month, how often have you felt nervous and "stressed"? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

18. 4. In the last month, how often have you felt confident about your ability to handle your personal problems? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

19. 5. In the last month, how often have you felt that things were going your way? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

20. 6. In the last month, how often have you found that you could not cope with all the things that you had to do? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

21. 7. In the last month, how often have you been able to control irritations in your life? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

22. 8. In the last month, how often have you felt that you were on top of things? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

23. 9. In the last month, how often have you been angered because of things that were outside of your control? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

24. 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

Follow-Up Questions

25. In the last month, what has increased your stress? *

26. In the last month, what has eased your stress? *

Follow-Up Surveys

****Please note that your e-mail address will NOT be associated with or reported with your answers. It will be transferred to a separate document used to confirm completion of this first survey, allowing for the second survey to be sent in approximately one month.**

27. E-mail Address for Surveys #2 and 3

Please enter your preferred e-mail address below to receive the two short follow-up surveys. Each of the follow-up surveys should take less than 10 minutes to complete. A link to access the second survey will be e-mailed to you in approximately one month. A link to access the third survey will be e-mailed to you in approximately two months.

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Figure C1. Initial online survey. With the exception of question numbers on the PSS (Cohen & Williamson, 1998), the Arabic numerals 1-27 indicate survey item numbers and were not visible to participants.

Perceived Stress in Music Teachers

You are being asked to continue your participation in a research study because you may currently be a K-12 public school music teacher in the United States who participated in the first part of this study. The researchers in this study are Justin Doss, a current IPhD student at the University of Missouri-Kansas City (jad4c0@mail.umkc.edu), and Joseph Parisi, faculty at the University of Missouri-Kansas City (parisj0@umkc.edu). The purpose of this study is to explore the perceived stress of public school music teachers.

You are being asked to participate in this study if you are currently employed at least half-time in a K-12 public school setting with a primary job assignment as a music teacher. The survey should take approximately 5 minutes to complete, and your responses will remain anonymous unless you elect to include specific identifying information within your responses. All responses will be password-protected within the Google Forms server, and will be accessible only by the researchers and trained UMKC graduate student research assistants.

Please note that this is a 3-part study. This is the second of three surveys.

You will neither directly benefit from, nor receive compensation for this research. The risks associated with this survey are minimal, and are no more severe than what a person would expect to encounter in normal daily life.

Your participation in this study is voluntary, and you may withdraw at any time without penalty.

Thank you for your assistance in this research project!

* Required

Unique Identification Code for Follow-Up Surveys

Please enter your unique identification code below by entering the following:

1. **First letter of last name, mm/dd of birthday, and last 2 digits of your school phone number ***

(Ex. D081528) - This code will be used to align responses from the current survey to responses from the first survey.

Current Employment Status

2. **Since completing the initial survey, has your job assignment changed (school and/or level/content taught)? ***

(If yes, please select "Other" and explain.)
Mark only one oval.

No

Other: _____

3. Since completing the initial survey, have you experienced any significant life change(s)?

(If yes, please select "Other" and explain.)
Mark only one oval.

No

Other: _____

Perceived Stress Scale - 10 Item

The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, please indicate your response by checking the circle representing HOW OFTEN you felt or thought a certain way.

4. 1. In the last month, how often have you been upset because of something that happened unexpectedly? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

5. 2. In the last month, how often have you felt that you were unable to control the important things in your life? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

6. 3. In the last month, how often have you felt nervous and "stressed"? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

7. 4. In the last month, how often have you felt confident about your ability to handle your personal problems? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

8. 5. In the last month, how often have you felt that things were going your way? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

9. 6. In the last month, how often have you found that you could not cope with all the things that you had to do? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

10. 7. In the last month, how often have you been able to control irritations in your life? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

11. 8. In the last month, how often have you felt that you were on top of things? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

12. 9. In the last month, how often have you been angered because of things that were outside of your control? *

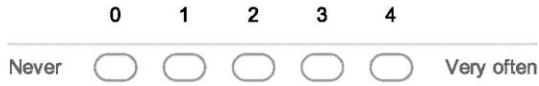
0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

- 13. 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? ***

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.



Follow-Up Questions

- 14. In the last month, what has increased your stress? ***

- 15. In the last month, what has eased your stress? ***

Final Follow-Up Survey

****Please note that your e-mail address will NOT be associated with or reported with your answers. It will be transferred to a separate document used to confirm completion of this second survey, allowing for the third and final survey to be sent in approximately one month.**

- 16. E-mail Address for Survey #3**

Below, please enter the e-mail address where you received the link to participate in this survey. A link to the third survey will be emailed to you in approximately one month. It should take 5 minutes or less to complete.

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Figure C2. Second online survey. With the exception of question numbers on the PSS (Cohen & Williamson, 1998), the Arabic numerals 1-16 indicate survey item numbers and were not visible to participants.

Perceived Stress in Music Teachers

You are being asked to continue your participation in a research study because you may currently be a K-12 public school music teacher in the United States who participated in the first two parts of this study. The researchers in this study are Justin Doss, a current IPhD student at the University of Missouri-Kansas City (jad4c0@mail.umkc.edu), and Joseph Parisi, faculty at the University of Missouri-Kansas City (parisijo@umkc.edu). The purpose of this study is to explore the perceived stress of public school music teachers.

You are being asked to participate in this study if you are currently employed at least half-time in a K-12 public school setting with a primary job assignment as a music teacher. The survey should take approximately 5 minutes to complete, and your responses will remain anonymous unless you elect to include specific identifying information within your responses. All responses will be password-protected within the Google Forms server, and will be accessible only by the researchers and trained UMKC graduate student research assistants.

Please note that this is a 3-part study. This is the third (and final) of three surveys.

You will neither directly benefit from, nor receive compensation for this research. The risks associated with this survey are minimal, and are no more severe than what a person would expect to encounter in normal daily life.

Your participation in this study is voluntary, and you may withdraw at any time without penalty.

Thank you for your assistance in this research project!

* Required

Unique Identification Code for Follow-Up Surveys

Please enter your unique identification code below by entering the following:

1. **First letter of last name, mm/dd of birthday, and last 2 digits of your school phone number ***

(Ex. D081528) - This code will be used to align responses from the current survey to responses from the first two surveys.

Current Employment Status

2. **During the past month, has your job assignment changed (school and/or level/content taught)? ***

(If yes, please select "Other" and explain.)
Mark only one oval.

No

Other: _____

3. During the past month, have you experienced any significant life change(s)?

(If yes, please select "Other" and explain.)
Mark only one oval.

No

Other: _____

Perceived Stress Scale - 10 Item

The questions in this scale ask you about your feelings and thoughts during THE LAST MONTH. In each case, please indicate your response by checking the circle representing HOW OFTEN you felt or thought a certain way.

4. 1. In the last month, how often have you been upset because of something that happened unexpectedly? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never

Very often

5. 2. In the last month, how often have you felt that you were unable to control the important things in your life? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never

Very often

6. 3. In the last month, how often have you felt nervous and "stressed"? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never

Very often

7. 4. In the last month, how often have you felt confident about your ability to handle your personal problems? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never

Very often

8. 5. In the last month, how often have you felt that things were going your way? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

9. 6. In the last month, how often have you found that you could not cope with all the things that you had to do? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

10. 7. In the last month, how often have you been able to control irritations in your life? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

11. 8. In the last month, how often have you felt that you were on top of things? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

12. 9. In the last month, how often have you been angered because of things that were outside of your control? *

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0 1 2 3 4

Never Very often

- 13. 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them? ***

0=never | 1=almost never | 2=sometimes | 3=fairly often | 4=very often
Mark only one oval.

0	1	2	3	4	
Never	<input type="radio"/> Very often				

Follow-Up Questions

- 14. In the last month, what has increased your stress? ***

- 15. In the last month, what has eased your stress? ***

Skip to question 16.

E-Mail Address and Future Studies

****Please note that your e-mail address will NOT be associated with or reported with your answers. It will be transferred to a separate document used to confirm completion of this third and final survey.**

- 16. E-mail address for the current study**

Below, please enter the e-mail address where you received the link to participate in this survey. (This will only be used to avoid sending reminder e-mails to participants who have already completed the survey.)

17. E-mail address for future related studies

If you are interested in participating in future research studies related to this topic, please enter your preferred e-mail address below. If you are not interested, simply submit this survey and leave the final field blank.

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Figure C3. Third online survey. With the exception of question numbers on the PSS (Cohen & Williamson, 1998), the Arabic numerals 1-17 indicate survey item numbers and were not visible to participants.

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VITA

Justin Allan Doss was born on August 15, 1981 in Kansas City, Missouri. He attended public school in suburban Kansas City, graduating from Lee's Summit North High School in 2000. As a result of his experiences in the Missouri All-State Band, he realized that music education would be his future career path. After high school, he attended Truman State University in Kirksville, Missouri, graduating summa cum laude with a Bachelor of Arts in 2004. Continuing directly into graduate school at Truman State, he completed a Master of Arts in (Music) Education in 2006.

Doss taught public school for seven years in the Park Hill School District, Kansas City, Missouri. He taught beginning band through high school band, as well as Advanced Placement music theory. In the fall of 2013, he left his teaching position to begin working full-time on the Interdisciplinary Doctor of Philosophy program in Music Education and Curriculum and Instruction at the University of Missouri-Kansas City Conservatory of Music and Dance. During this time, Doss enjoyed teaching and assisting with a variety of courses in instrumental music education, vocal music education, music therapy, and music research as part of his graduate teaching fellowship. He served as associate director of the Roeland Park New Horizons Band and various chamber ensembles at UMKC. He was also fortunate to supervise numerous student teachers from two universities. Additionally, Doss co-created and developed a community outreach program (IMPACT), designed to assist and inform future music education students from local high schools. He has presented research at the UMKC Community of Scholars, the Missouri Music Educators Association Conference, the

Southwest Division of the American Choral Directors Association Conference, and has been published in *The Instrumentalist*.